



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Ely District Office

HC33 Box 33500 (702 N. Industrial Way)

Ely, Nevada 89301-9408

http://www.blm.gov/nv/st/en/fo/ely_field_office.html

In Reply Refer To:

2860 (NVL0000)

N-84551-84563, N-85487

DECISION

Microwave and Mobile Radio Project

NV Energy

6226 West Sahara Avenue

Las Vegas, Nevada 89146-3060

:
:
:
:
:

Decision Record

Communication Site Lease

DOI-BLM-NV-L0000-2009-0024 EA

I have reviewed the application, the Environmental Assessment, and have made a Finding of No Significant Impact (FONSI) for NV Energy’s proposal for the Microwave and Mobile Radio Projects, Casefiles N-84551-84563, and N-85487. Based on that review and the record as a whole, I approve the *federal action* with the following stipulations derived from mitigation measures in the EA and FONSI.

Stipulations:

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using newly authorized and existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas.
- As much as possible, habitat-altering projects or portions of projects will be scheduled outside the migratory bird breeding and nesting season, which is generally from April 15 through July 15, although it can vary, depending on species and environmental conditions at each site.
- If work must be done during the migratory bird breeding and nesting season, a qualified biologist must survey the area for nests prior to commencement of construction activities. Surveys shall search for nests of burrowing, ground nesting, and vegetation nesting species. If active nests (containing eggs or young) are found, an appropriately sized buffer area must be marked and avoided until the young birds fledge.

- During the first year, monthly monitoring will occur during the migratory season along the Lower Spruce site power line to ascertain the collision impact, if any, to migrating raptors. Mortality counts will be submitted to the BLM and Nevada Department of Wildlife. Future modifications may be required if impact proves more substantial than anticipated.
- All cacti and yucca that might be impacted by this Proposed Action must be salvaged and transplanted out of harm's way but still within the ROW. Transplanted cacti shall be planted in a way that provides for a natural landscape, not in a continuous row. Areas of the project that will be bladed for temporary disturbance will salvage the first 6 inches of topsoil to capture the existing seed bank. This topsoil will be maintained intact in its own stockpile (i.e., not mixed with other soil) and redistributed as the final topsoil covering during restoration of the temporary use areas.
- Disturbed area will be stabilized with appropriate treatments (i.e., water trucks) both during and immediately following project facility construction.
- The proponent shall be responsible for controlling all undesirable invasive plant species, including listed noxious weeds and other invasive plant identified as undesirable by federal, state, and/or local authorities. Control standards and measures must conform to applicable state and federal regulations.
- If required the proponent shall use weed-free seed for reclamation and other certified weed-free organic products (e.g., straw bales, organic mulch) used for erosion control, stabilization, or revegetation.
- The proponent is responsible for ensuring that all project related vehicles and equipment arriving at the site (including but not limited to dozers support vehicles, pickups, including those of any contractor or subcontractor) do not transport noxious weeds onto the project site. The proponent shall ensure that all such vehicles and equipment that will be traveling off constructed and maintained roads or parking areas within the project area have been power washed, including the undercarriage, since their last off-road use and prior to off-road use on the project site. When beginning off-road use on the project, such vehicles and equipment shall not harbor soil, mud, or plant parts from another project. If a noxious weed infestation is known or later discovered on the project site, project-related vehicles and equipment that have traveled through the infestation shall be power washed, including the undercarriage, prior to leaving the site, at an established, identified wash area. Wash water and sediment shall be contained in an adjacent settling basin.
- Should undesirable invasive plants become established on disturbed project areas prior to reclamation reshaping, appropriate measures will be taken to ensure that the invasive plants are eradicated prior to reclamation earthwork. Should undesirable plants become established on reshaped areas prior to reclamation seeding; appropriate measures will be taken to ensure that invasive plants are eradicated prior to seeding the site.
- In addition to presenting a desert tortoise awareness program to all personnel who will be onsite, the authorized biologist will also present gila monster education and awareness training based on the NDOW's Gila Monster Status, Identification and Reporting Protocol. The program will contain information concerning the biology and distribution of the gila monster, their legal status and occurrence in the project area. The name of every individual trained will be recorded on a sign-in sheet.
- Annual monitoring of all project structures shall be conducted during the spring to ensure that observations of raven or raptor predation or nesting on project structures are reported to the BLM immediately.

- A gate will be installed along the Pahranaagat Site access road to limit unauthorized motorized travel through desert bighorn sheep habitat. Access would be for authorized uses only.

RATIONALE:

- 1) The Proposed Action is in conformance with the Ely District ROD and approved RMP/FEIS (BLM 2008)
- 2) The proposed action is in conformance with the Wells District ROD and approved RMP/FEIS (BLM 1985)
- 3) The proposed Action is in conformance with the Las Vegas District ROD and approved RMP/FEIS (BLM 1998)
- 4) The Proposed Action is consistent with all other federal, state, local, and tribal policies and plans to the maximum extent possible.

PUBLIC INVOLVEMENT:

A preliminary environmental assessment was made available to interested individuals, agencies and groups and posted on the Ely District website www.nv.blm.gov/ely for a 30 day public review and comment period on April 14, 2010. Written comments were received from four entities/agencies. A copy of these comments can be obtained from the Ely BLM District Office at 702 No. Industrial Way or call Brenda Linnell at (775) 289-1808. The final Environmental Assessment for NV Energy's Microwave and Mobile Radio Project is available on the BLM's web site at www.nv.blm.gov/ely, or contact the Ely BLM District Office.

APPEALS:

This decision may be appealed to the Interior Board of Land Appeals (Board), U. S. Department of the Interior (DOI) Office of Hearings and Appeals, in accordance with the regulations contained in 43 CFR, Part 4. The appellant has the burden of showing that the decision appealed from is in error. If an appeal is taken, a notice of appeal must be filed at the Bureau of Land Management at the above address within 30 days of either of receipt of the decision if served a copy of the document, or otherwise within 30 days of the date of the decision. If sent by United States Postal Service, the notice of appeal must be sent to the following address:

Bureau of Land Management
Ely District Office
HC 33 Box 33500
Ely, NV 89301.

The appeal may include a statement of reasons at the time the notice of appeal is filed, or the statement of reasons may be filed within 30 days of filing this appeal. At the same time the original documents are filed with this office, copies of the notice of appeal, statement of reasons, and all supporting documentation also must be sent to each party named in this decision and to the U. S. DOI Solicitor at the following address:

Regional Solicitor, Pacific Southwest Region
U.S. Department of the Interior
2800 Cottage Way, Room E-2753
Sacramento, CA 95825-1890

If a statement of reasons is filed separately from the notice of appeal, it also must be sent to the following location within 30 days after the notice of appeal was filed:

Interior Board of Land Appeals
Office of Hearings and Appeals
4015 Wilson Boulevard
Arlington, VA 22203

This Decision will remain in effect during the appeal unless a petition for stay is filed. If the appellant wishes to file a petition pursuant to regulations at 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that the appeal is being reviewed by the Board, the petition for a stay must accompany the notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. If the appellant requests a stay, the appellant has the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

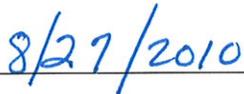
Except as otherwise provided by law or by other pertinent regulation, a Petition for a Stay of a Decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success on the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

Approved by:



Rosie Thomas
Ely District Office
District Manager


Date

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

Draft Finding of No Significant Impact
DOI-BLM-NV-L 020-2009-0024-EA
July 2010

NV Energy Microwave and Mobile Radio Project

Location:
Clark, Lincoln, White Pine, and Elko Counties, Nevada

Applicant/Address:
NV Energy
6226 West Sahara Avenue
Las Vegas, Nevada 89146-3060

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Phone: (775) 289-1800
Fax: (775) 289-1910



**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ELY DISTRICT OFFICE**

INTRODUCTION

The Bureau of Land Management (BLM) prepared an Environmental Assessment (DOI-BLM-NV-L020-2009-0024-EA) which analyzes the effects of NV Energy's (NVE's) proposal to construct microwave and mobile radio network across eastern Nevada. To meet the purpose of and need for the proposed project and resolve the issues identified, the BLM has determined that only the Proposed Action and No-Action alternatives are necessary for detailed analysis in the EA. The EA is tiered to, and incorporates by reference the Ely District ROD and Approved RMP, (BLM 2008), the Wells ROD and approved RMP (BLM 1985) and the Las Vegas ROD and approved RMP (BLM 1998).

I have reviewed the Environmental Assessment (EA), for the NV Energy Microwave and Mobile Radio Project (DOI-BLM-NV-L020-2009-0024-EA), dated August 2010. After consideration of the environmental effects as described in the EA, I have determined that the Proposed Action with the project design features, including mitigation measures identified in the EA and outlined below will not significantly affect the quality of the human environment and that an Environmental Impact Statement (EIS) is not required.

Mitigations from EA:

Resource Measures

All relevant BMPs and mitigation measures listed in the Ely RMP (BLM 2009) are incorporated by reference. The measures below were developed to mitigate impacts resulting from the Proposed Action that were not addressed as part of construction or operation design. These measures would reduce all impacts to acceptable levels. A third party construction monitor will be employed to ensure compliance with all BMPs, mitigation, and conservation measures identified in the EA.

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using newly authorized and existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas.
- As much as possible, habitat-altering projects or portions of projects will be scheduled outside the migratory bird breeding and nesting season, which is generally from April 15 through July 15, although it can vary, depending on species and environmental conditions at each site.
- If work must be done during the migratory bird breeding and nesting season, a qualified biologist must survey the area for nests prior to commencement of construction activities. Surveys shall search for nests of burrowing, ground nesting, and vegetation nesting species. If active nests (containing eggs or young) are found, an appropriately sized buffer area must be marked and avoided until the young birds fledge.
- During the first year, monthly monitoring will occur during the migratory season along the Lower Spruce site power line to ascertain the collision impact, if any, to migrating raptors. Mortality counts will be submitted to the BLM and Nevada Department of Wildlife. Future modifications may be required if impact proves more substantial than anticipated.

The following mitigation measures will be implemented to reduce adverse impacts to natural vegetation, including sensitive plants and cactus and yucca:

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas.
- All cacti and yucca that might be impacted by this Proposed Action must be salvaged and transplanted out of harm's way but still within the ROW. Transplanted cacti shall be planted in a way that provides for a natural landscape, not in a continuous row. Areas of the project that will be bladed for temporary disturbance will salvage the first 6 inches of topsoil to capture the existing seed bank. This topsoil will be maintained intact in its own stockpile (i.e., not mixed with other soil) and redistributed as the final topsoil covering during restoration of the temporary use areas.
- Disturbed area will be stabilized with appropriate treatments (i.e., water trucks) both during and immediately following project facility construction.

•

The following mitigation measures will be implemented to reduce impacts from noxious and invasive weeds:

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas. The proponent shall be responsible for controlling all undesirable invasive plant species, including listed noxious weeds and other invasive plant identified as undesirable by federal, state, and/or local authorities. Control standards and measures must conform to applicable state and federal regulations.
- If required the proponent shall use weed-free seed for reclamation and other certified weed-free organic products (e.g., straw bales, organic mulch) used for erosion control, stabilization, or revegetation.
- The proponent is responsible for ensuring that all project related vehicles and equipment arriving at the site (including but not limited to dozers support vehicles, pickups, including those of any contractor or subcontractor) do not transport noxious weeds onto the project site. The proponent shall ensure that all such vehicles and equipment that will be traveling off constructed and maintained roads or parking areas within the project area have been power washed, including the undercarriage, since their last off-road use and prior to off-road use on the project site. When beginning off-road use on the project, such vehicles and equipment shall not harbor soil, mud, or plant parts from another project. If a noxious weed infestation is known or later discovered on the project site, project-related vehicles and equipment that have traveled through the infestation shall be power washed, including the undercarriage, prior to leaving the site, at an established, identified wash area. Wash water and sediment shall be contained in an adjacent settling basin.

- Should undesirable invasive plants become established on disturbed project areas prior to reclamation reshaping, appropriate measures will be taken to ensure that the invasive plants are eradicated prior to reclamation earthwork. Should undesirable plants become established on reshaped areas prior to reclamation seeding; appropriate measures will be taken to ensure that invasive plants are eradicated prior to seeding the site.

The following mitigation measures will be implemented to reduce impacts to wildlife:

- In addition to presenting a desert tortoise awareness program to all personnel who will be onsite, the authorized biologist will also present gila monster education and awareness training based on the NDOW's Gila Monster Status, Identification and Reporting Protocol. The program will contain information concerning the biology and distribution of the gila monster, their legal status and occurrence in the project area. The name of every individual trained will be recorded on a sign-in sheet.
- Annual monitoring of all project structures shall be conducted during the spring to ensure that observations of raven or raptor predation or nesting on project structures are reported to the BLM immediately.
- A gate will be installed along the Pahranaagat Site access road to limit unauthorized motorized travel through desert bighorn sheep habitat. Access would be for authorized uses only.
- The following mitigation measures will be implemented to reduce impacts to wildlife:

The following Terms and Conditions will be implemented from the Biological Opinion for the Silverhawk North and Gunsight Microwave Tower Projects, Clark County, Nevada, to reduce impacts to tortoise:

RPM 1: BLM, or other jurisdictional Federal agency as appropriate, shall ensure implementation of measures to minimize injury and mortality of desert tortoise as a direct or indirect result of project activities including capture and handling of desert tortoises.

Terms and Conditions:

- 1.a. Prior to initiation of construction, the authorized biologist shall present a desert tortoise awareness program to all personnel who will be onsite, including but not limited to contractors, contractors' employees, supervisors, inspectors, and subcontractors. This program will be presented in English and Spanish, if appropriate. The program will contain information concerning the biology and distribution of the desert tortoise and other sensitive species, their legal status and occurrence in the project area; the definition of "take" and associated penalties; the terms and conditions of this biological opinion; the means by which employees can help facilitate this process; and reporting procedures to be implemented in case of desert tortoise encounters or non-compliance with this biological opinion. The name of every individual trained will be recorded on a sign-in sheet.
- 1.b. The boundaries of all areas to be disturbed shall be flagged before beginning any activities, and all disturbances will be confined to the flagged areas. All project personnel will be instructed that their activities must be confined within the flagged areas. Disturbance beyond the construction zone is prohibited.
- 1.c. Temporary tortoise-proof fencing shall be installed around all exterior rights-of-way boundaries to ensure impacts are minimized to the maximum extent possible. Temporary fencing will consist of 1-

inch horizontal by 2-inch vertical mesh. The mesh (hardware, cloth or plastic) will extend 18 inches aboveground. Temporary tortoise-proof fencing should not be buried.

- 1.d. If fence construction occurs when tortoises are most active (March 1 through October 30), an authorized tortoise biologist shall be onsite during construction of the tortoise-proof fence to ensure that no tortoises are harmed. If the fence is constructed during the tortoises' less-active season, a biologist shall thoroughly examine the proposed fence line and burrows for the presence of tortoises no more than three days before construction commences.
- 1.e. Following fence construction and prior to the commencement of project activities, all desert tortoises shall be removed from the site onto adjacent BLM land. An authorized biologist shall oversee the survey for, and removal of, tortoises using techniques providing 100-percent coverage of all areas. Two complete passes of 100-percent coverage will be accomplished. All desert tortoise burrows, and other species burrows which may be used by tortoises, will be examined to determine occupancy of each burrow by desert tortoises. Tortoise burrows shall be cleared of tortoises, and collapsed. Any desert tortoises found in the fenced area will be removed under the supervision of an authorized tortoise biologist in accordance with Service protocol (Desert Tortoise Council 1994, revised 1999).
- 1.f. After an area has been fenced and cleared of tortoises, any desert tortoise found in imminent danger shall be moved out of harm's way and onto adjacent BLM land. If an authorized biologist is not available, an employee that has completed desert tortoise training may move the tortoise.
- 1.g. The fencing shall be inspected at least on a daily basis during construction. Monitoring and maintenance shall include regular removal of trash and restoration of zero ground clearance between the ground and the bottom of the fence.
- 1.h. Potential authorized desert tortoise biologists shall complete the attached Appendix A and submit it to the Service for review and approval. Allow a minimum of 30 days for Service review and response.
- 1.i. Vehicles shall not exceed 25 miles per hour on access roads. Speed limit signs will be installed. Caution signs indicating the possible presence of desert tortoises will be posted at the beginning of the access road and at the project site. Authorized biologists will monitor speed limit compliance during construction.
- 1.j. All fuel, transmission or brake fluid leaks, or other hazardous waste leaks, spills, or releases shall be reported immediately to the designated environmental supervisor. The environmental supervisor shall be responsible for spill material removal and disposal to an approved offsite landfill, and if necessary, will notify the appropriate Federal agency. Servicing of construction equipment will take place in designated areas.
- 1.k. Open trenches or holes that pose a potential to entrap or injure tortoises will be capped and/or escape ramps installed. Stockpiled pipes/conduits that could attract tortoises will be capped or checked before use.

RPM 2: BLM, or other jurisdictional Federal agency as appropriate, shall ensure implementation of measures to minimize predation on tortoises by ravens or other desert tortoise predators attracted to the project area.

Terms and Conditions:

- 2.a. A litter-control program will be implemented to reduce the attractiveness of the area to opportunistic predators such as desert kit fox, coyotes, and common ravens. Trash and food items will be disposed properly in predator-proof containers with re-sealing lids. Trash containers will be emptied and construction waste will be removed daily from the project area and disposed of in an approved landfill.
- 2.b. BLM shall ensure that any observations of raven predation or nesting on project structures are reported to BLM and the Service.

RPM 3: BLM, or other jurisdictional Federal agency as appropriate, shall ensure implementation of measures to minimize loss and long-term degradation and fragmentation of desert tortoise habitat, such as soil compaction, erosion, crushed vegetation, or introduction of non-native invasive plants or weeds as a result of project activities.

Terms and Conditions:

- 3.a. The proposed project would disturb a maximum of 0.33 acres of critical tortoise habitat on public lands. Prior to surface-disturbing activities associated with the proposed project, the proponent will pay remuneration fees to:

Clark County Desert Conservation Program
Dept. of Air Quality and Environmental Management
Clark County Government Center
500 S. Grand Central Parkway, first floor (front counter)
Las Vegas, Nevada 89106
(702) 455-3536

The project proponent shall complete the attached fee payment form (Appendix B) and submit with payment. For disturbance of critical habitat on BLM lands, the fee will be assessed at the rate of \$3,096 per acre of disturbance (4 X \$774). This rate was determined by the formula described in the Compensation for the Desert Tortoise (Hastey et al.1991). The rate of 4 was determined by the quality of habitat, i.e., critical habitat (factor of 3), plus 1 for the term of effect greater than 10 years, for a total of 4.

These fees will be indexed for inflation based on the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U). Information on the CPI-U can be found on the internet at: <http://stats.bls.gov/news.release/cpi.nws.htm>. The total fees due will be \$1,022.00, calculated as (0.33 X \$3,016.00).

- 3.b. The potential for the introduction of noxious weeds shall be avoided by restoring temporally-disturbed areas with an appropriate seed mix of native plants for the desired plant community. Stipulations in BLM Las Vegas Field Office Noxious Weed Plan (BLM 2006) shall be followed.

RPM 4: BLM, or other jurisdictional Federal agency as appropriate, shall ensure implementation of measures to ensure compliance with the Reasonable and Prudent Measures, Terms and Conditions, reporting requirements, and reinitiation requirements contained in this biological opinion.

Terms and Conditions:

- 4.a. The authorized desert tortoise biologist shall record each observation of handled desert tortoises. Data will be collected, including: location, date, time of observation, whether the tortoise was handled, the general health of the tortoise, whether it voided its bladder, the location the tortoise moved from and the location it moved to, and any unique physical characteristics. The authorized desert tortoise biologist shall also include the names of all approved monitors for the project, and the activities and level of involvement during the project.
- 4.b BLM shall submit a post-project report to the Nevada Fish and Wildlife Office within 90 days of completion of project activities. The report will include all the number and circumstances of each desert tortoise handled and any occurrences of non-compliance with this biological opinion.

I have also considered the Council on Environmental Quality’s (CEQ) criteria for significance (40 CFR 1508.27), both with regard to the context and the intensity of impacts described in the EA:

Context:

The proposed tower sites are located within sparsely inhabited areas in eastern Nevada. The primary economic activity is cattle ranching and mining. Although little human activity occurs within the tower site project areas, the surrounding lands experience a moderate amount of recreational activity. Some developments, such as existing radio towers, power distribution lines, and roads occur adjacent to the proposed tower sites.

Intensity:

- 1) Impacts that may be both beneficial and adverse:

All known adverse impacts have been mitigated to the extent practical by designing the Proposed Action to avoid them as much as possible and by including the mitigation measures listed above. Adverse impacts include visual contrasts with the existing landscape, short-term increases in traffic volume, slightly decreased recreational value, potential avian mortality, wildlife habitat fragmentation and reduction in wildlife habitat quality.

The primary beneficial impact of the Proposed Action would be an expansion of the mobile radio coverage for the multiple address system radio and the Nevada Shared Radio System, increasing network reliability and employee safety.

- 2) The degree to which the Proposed Action affects public health or safety:

The vast majority of potential impacts to health and safety would occur during the construction phase of the project. Public access to each of the construction sites would be limited to prevent construction related accidents. Plans for fire management, transportation of large equipment, etc, will be included in the final Plan of Development (POD), and will address potential public hazard situations.

- 3) Unique characteristics of the geographic area such as proximity to historical or cultural resources, parks lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:

Impacts to historic and cultural resources, parks lands, prime farmlands, wetlands, wild and scenic rivers and ecologically critical areas were all considered when designing the Proposed Action. Surveys for cultural resources were conducted to allow avoidance or mitigation of important cultural

and historical resources. Wetlands were avoided. Visual studies were conducted to assess the impacts to currently undeveloped proposed tower sites.

The degree to which the effects on the quality of the human environment are likely to be highly controversial: The methods used to implement the Proposed Action are well understood and accepted and are not considered highly controversial. Additionally, the environmental effects of microwave and mobile radio towers are well understood. Potentially controversial issues have been identified through presentations and discussions with stakeholders and the project proponent and BLM have addressed those issues through development of mitigation measures in the EA.

- 4) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks:

The degree of impacts that will occur from the microwave and mobile radio project is well understood. Similar actions have been implemented in the past throughout Nevada and the Great Basin.

- 5) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:

The Proposed Action has been designed to avoid setting precedents that could influence the design and implementation of future projects. The project entails a combination of 14 new and expanded communications sites in eastern Nevada; nine of the sites would add new facilities adjacent to existing telecommunications sites, and five of the sites would be new sites with no existing telecommunications infrastructure. In addition, any future similar projects would be subject to the same environmental analysis standards.

- 6) Whether the action is related to other actions with individually insignificant, but cumulatively significant impacts:

A cumulative impact analysis was conducted in the EA. No cumulatively significant impacts were identified.

- 7) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources:

Based on the data and conclusions contained in the Class III intensive inventory reports, one of the two sites (26EK011465) can and will be avoided in accordance with 36 CFR 800.9(a) and BLM Manual 8143.21 (BLM 1990).

The other NRHP-eligible site (26EK011462) identified within the proposed project area cannot be avoided under the Proposed Action, resulting in an “adverse effect.” This site will require mitigation in the form of data recovery. All data recovery would be subject to a plan approved by BLM and the Nevada State Historic Preservation Office, developed and implemented at the proponent’s expense. Construction activities would not take place at this location until a “notice to proceed” is issued, contingent on completion of all fieldwork; provisions guaranteeing an acceptable report and curation of all collected specimens are in place.

- 8) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973:

Disturbance to desert tortoises from both construction activities and from human presence during and after construction at the Gunsight Pass and Silverhawk North sites would potentially occur.

While there is potential for direct mortality both during and after construction, a Biological Opinion has been issued by the U.S. Fish and Wildlife Service for those two sites that include various measures to reduce the risk of adverse affects to desert tortoise. Additionally, post-construction vehicle traffic is anticipated to be minimal, thereby decreasing the potential for desert tortoises to be killed as they enter roadways. No other listed species would be potentially impacted by the remaining sites of the Proposed Action because none are known to occur.

9) Whether the action threatens a violation of Federal, State, local or tribal law or requirements imposed for the protection of the environment:

All environmental laws were considered while designing the Proposed Action to prevent possible violations.

FINDING OF NO SIGNIFICANT IMPACT

I have determined that, with incorporation of the mitigation measures listed above, the Proposed Action will not significantly affect the quality of the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

 8/27/2010

Rosie Thomas
Ely District Office
District Manager

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

Final Environmental Assessment
DOI-BLM-NV-L 020-2009-0024-EA
September 2010

NV Energy Microwave and Mobile Radio Project

Location:

Clark, Lincoln, White Pine, and Elko Counties, Nevada

Applicant/Address:

**NV Energy
6226 West Sahara Avenue
Las Vegas, Nevada 89146-3060**

U.S. Department of the Interior
Bureau of Land Management
Ely District Office
Phone: (775) 289-1800
Fax: (775) 289-1910



This page intentionally left blank.

CONTENTS

Acronyms and Abbreviations v

1. INTRODUCTION 1

 1.1 BACKGROUND 1

 1.2 PURPOSE 1

 1.3 NEED 2

 1.4 PRELIMINARY ISSUES 2

2. PROPOSED ACTION AND ALTERNATIVES 5

 2.1 PROPOSED ACTION 5

 Silverhawk North 7

 Gunsight Pass 8

 Mount Wilson 10

 Comet Peak 10

 White River 12

 Pahranagat 12

 Butte Valley 13

 Cherry Creek 15

 Connors Pass 15

 Copper/Kimberly 16

 Squaw Peak 16

 Willard Creek 16

 Bald Mountain 17

 Lower Spruce 17

 2.2 NO-ACTION ALTERNATIVE 19

 2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS 19

 2.4 CONFORMANCE WITH BLM LAND USE PLAN 20

 2.5 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS 21

3. AFFECTED ENVIRONMENT 23

 3.1 INTRODUCTION 23

 3.2 RESOURCES/CONCERNS ANALYZED 25

 Air Quality 25

 Areas of Critical Environmental Concern 26

 Cultural Resources 26

 Wildlife 27

 Clark County 27

 Lincoln County 28

 White Pine County 28

 Elko County 29

 Migratory Birds 29

 Clark County 30

 Lincoln County 30

 White Pine County 30

Elko County	30
Special-Status Species	31
Threatened and Endangered Species	31
Sensitive Species.....	32
Vegetation.....	32
Noxious Weeds/Invasive Non-Native Species	32
Geology and Soils.....	33
Clark County.....	34
Lincoln County	34
White Pine County.....	35
Elko County	35
Visual Resources	36
Visual Character	37
Key Observation Points and Contrast Rating	37
KOP – Silverhawk North	37
KOP – Gunsight Pass	38
KOP – White River	38
KOP – Pahrangat.....	38
KOP – Willard Creek.....	38
KOP – Butte Valley	39
KOP – Lower Spruce	39
4. ENVIRONMENTAL CONSEQUENCES.....	41
4.1 AIR QUALITY	41
Proposed Action	41
No-Action Alternative	41
4.2 AREAS OF CRITICAL ENVIRONMENTAL CONCERN.....	41
Proposed Action	41
No-Action Alternative	42
4.3 CULTURAL RESOURCES.....	42
Proposed Action	42
No-Action Alternative	42
4.4 WILDLIFE	42
Proposed Action	42
No-Action Alternative	43
4.5 MIGRATORY BIRDS	43
Proposed Action	43
No-Action Alternative	44
4.6 SPECIAL-STATUS SPECIES	44
Proposed Action	44
Federally Listed Species	44
Sensitive Species.....	45
No-Action Alternative	45
4.7 VEGETATION.....	45
Proposed Action	45
No-Action Alternative	46
4.8 NOXIOUS WEEDS/INVASIVE NON-NATIVE SPECIES	46

Proposed Action	46
No-Action Alternative	47
4.9 GEOLOGY AND SOILS	47
Proposed Action	47
No-Action Alternative	47
4.10 VISUAL RESOURCES	47
Proposed Action	47
KOP 1 – Silverhawk North	48
KOP 2 – Gunsight Pass	48
KOP 3 – White River Narrows	50
KOP 4 – Pahrangat	50
KOP 5 – Willard Creek	50
KOP 6 – Butte Valley	52
KOP 7 – Lower Spruce	52
No-Action Alternative	55
5. CUMULATIVE IMPACTS	57
5.1 AREAS OF CRITICAL ENVIRONMENTAL CONCERN	58
5.2 WILDLIFE	58
5.3 MIGRATORY BIRDS	59
5.4 SPECIAL-STATUS SPECIES	59
5.5 NOXIOUS WEEDS/INVASIVE NON-NATIVE SPECIES	59
5.6 GEOLOGY AND SOILS	59
5.7 VISUAL RESOURCES	59
6. MITIGATION MEASURES	61
7. CONSULTATION AND COORDINATION	63
7.1 INTRODUCTION	63
7.2 PERSONS, GROUPS, AND AGENCIES CONSULTED	63
7.3 SUMMARY OF PUBLIC PARTICIPATION	63
7.4 LIST OF PREPARERS/REVIEWERS	63
8. LITERATURE CITED	65

Appendices

- A. General Site Locations
- B. Site Maps and Plans
- C. Noxious and Invasive Weeds Risk Assessments
- D. BLM Contrast Rating Worksheets

Figures

1.1-1. Location map.	3
2.1-1. Typical conceptual communications site plan.	7
2.1-2. Clark County project sites.....	9
2.1-3. Lincoln County project sites.	11
2.1-4. White Pine County project sites.....	14
2.1-5. Elko County project sites.	18
4.10-1. Clark County Visual Resource Management classes.....	49
4.10-2. Lincoln County Visual Resource Management classes.	51
4.10-3. White Pine County Visual Resource Management classes.....	53
4.10-4. Elko County Visual Resource Management classes.	54

Tables

2.1-1. Site-Specific Ground Disturbance Descriptions	6
3.1-1. Resource/Concern Evaluation.....	23
3.2-1. Special-Status Species with the Potential to Occur in any of the 14 Project Sites	31
3.2-2. Vegetation Communities	32
3.2-3. Noxious and Invasive Weed Species within the Project Sites	33
3.2-4. VRM Class Objectives.....	36
5.0-1. Past, Present, and Reasonably Foreseeable Future Actions Considered for Cumulative Impact Analyses.....	57

ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
AADT	Average Annual Daily Traffic
ACEC	Area of Critical Environmental Concern
ANTC	Arizona Nevada Tower Corporation
bgs	below ground surface
BMPs	best management practices
BLM	Bureau of Land Management
CO	carbon monoxide
CCDAQEM	Clark County Department of Air Quality and Environmental Monitoring
CFR	Code of Federal Regulations
ESA	Endangered Species Act
EA	Environmental Assessment
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
KOP	Key Observation Point
LADWP	Los Angeles Department of Water and Power
MW	megawatt
MBTA	Migratory Bird Treaty Act
mph	mile(s) per hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NDOT	Nevada Department of Transportation
NNHP	Nevada Natural Heritage Program
NSRS	Nevada Shared Radio System
NERC	North American Electric Reliability Cooperation
NVE	NV Energy
OSHA	Occupational Safety and Health Administration
O ₃	ozone
PM 2.5	particulate matter with diameter of 2.5 microns or less
PM 10	particulate matter with diameter of 10 microns or less
ppb	parts per billion
PLUAC	Public Land User Advisory Committee

ROD	Record of Decision
RMP/FEIS	Resource Management Plan/Final Environmental Impact Statement
ROW	right-of-way
SWReGAP	Southwest Regional GAP
SR	State Route
SWCA	SWCA Environmental Consultants
USC	United States Code
EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
U.S.	U.S. Highway
VRM	Visual Resource Management
ZOI	Zone of Influence

Chapter 1

INTRODUCTION

This Environmental Assessment (EA) has been prepared to analyze NV Energy's (NVE's) proposal to construct microwave and mobile radio network across eastern Nevada. The EA is a site-specific analysis of potential impacts that could result 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 (NEPA), and making a determination whether any "significant" impacts could result from the analyzed actions. "Significance" is determined by the consideration of context and intensity of the impacts. If there is a Finding of No Significant Impact (FONSI), the context and intensity criteria are listed, along with the rationale for that determination in the FONSI document.

This document is tiered to, and incorporates by reference, the *Ely District Proposed Resource Management Plan and Final Environmental Impact Statement* (RMP/FEIS) (BLM 2007), the Wells RMP/FEIS (BLM 1983), and the Las Vegas RMP/FEIS (BLM 1998a). Should a determination be made that implementation of the Proposed Action would not result in significant environmental impacts or significant environmental impacts beyond those already disclosed in the existing NEPA documents, a FONSI would be prepared to document that determination and a Record of Decision (ROD) issued that provides a rationale for approving the selected alternative.

1.1 BACKGROUND

NVE is a subsidiary of Sierra Pacific Resources, which operates throughout Nevada. NVE proposes to expand its existing microwave and radio communication network to support its current and future operational needs across the eastern areas of the state. The coverage area is currently over 54,500 square miles within the western, northern, and central portions of the state and southern areas of Nevada within portions of Clark and Nye counties. By interconnecting the existing microwave networks with new microwave links through eastern Nevada, NVE will be able to operate, manage, and distribute power more efficiently and improve travel safety with reliable and continuous communication coverage through these rural and remote areas. The project would entail a combination of 14 new and expanded communications sites in eastern Nevada; nine of the sites would add new facilities adjacent to existing telecommunications sites, and five of the sites would be new sites with no existing telecommunications infrastructure. Additionally, NVE is proposing two new sites on private land: Apex in Clark County and Peavy Hill in Elko County. Because these two sites are located on private lands, they are not being analyzed in this EA.

The Proposed Action is to issue Federal Land Policy and Management Act (FLPMA) rights-of-way (ROWs) for the 14 sites associated with the project, which would occur across lands managed by three BLM District Offices: Elko, Ely, and Southern Nevada (Figure 1.1-1). Because the majority of the proposed sites are located on lands managed by the Ely District Office, the Ely District Office has taken the lead in the preparation of this EA.

1.2 PURPOSE

The BLM's purpose in considering approval of the ROW applications is to provide legitimate use of the public lands to the proponent. Legitimate uses are those that are authorized under the Federal Land Policy

and Management Act of 1976 [43 United States Code (USC) 1761] or other Public Land Acts and meet the proponent's objective while preventing undue and unnecessary degradation.

The proponent's objective and justification for the project is to expand existing microwave and radio network systems to support the current and future operational needs across the eastern areas of the state. NVE must have continuous and reliable communication capabilities for employee safety and facility operation and maintenance. The North American Electric Reliability Cooperation (NERC) and the Western Electricity Coordinating Council have established 99.95% reliability requirements for networks that control operation of generation and transmission stations. The Proposed Action would increase the overall network reliability and employee safety. The Proposed Action would meet the need to deliver clean, safe, and reliable electrical service to their customers at reasonable and predictable prices. NVE uses the Nevada Shared Radio System (NSRS) to support their daily business operations. This system is shared by public safety and critical infrastructure providers in both public and private sectors and at all levels of government (e.g., Nevada Highway Patrol, 911, Nevada Department of Transportation [NDOT], etc.). Under the current system, radio coverage is limited and is often unavailable in rural areas because of the mountainous terrain and lack of communication facilities throughout eastern Nevada. The proposed microwave and mobile radio network would expand the mobile radio coverage for the multiple address system radio and the NSRS.

1.3 NEED

The BLM needs to consider approval of the application for the ROWs to respond to its mandate under the FLPMA to manage the public lands for multiple uses. Section 501(a)(5) of the FLPMA 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."

1.4 PRELIMINARY ISSUES

At an April 2008 interdisciplinary internal project-scoping meeting, the following preliminary concerns were identified for further analysis:

- Determine what effects the proposed towers in Clark County would have on desert tortoise and desert tortoise critical habitat.
- Determine what effect the proposed towers would have on cultural resources.
- Determine what effect the proposed towers would have on migratory birds, sage grouse, and other wildlife species.
- Determine what effect ancillary facilities, including new access roads and power distribution lines, would have on natural and cultural resources.
- Determine how the Proposed Action would affect the spread of Sahara mustard and other noxious and invasive species.
- Determine what the effect of new proposed sites would be on the visual resources within the landscape, particularly lands within the Pony Express Corridor in White Pine County.

Resource specialists from the BLM Ely, Elko, and Southern Nevada District Offices participated in additional follow-up interdisciplinary scoping meetings. No new issues were identified. In addition to the above issues, several supplemental authorities have provided guidance on other issues and resources necessary for analysis. These authorities are further described in Chapter 3, Affected Environment.

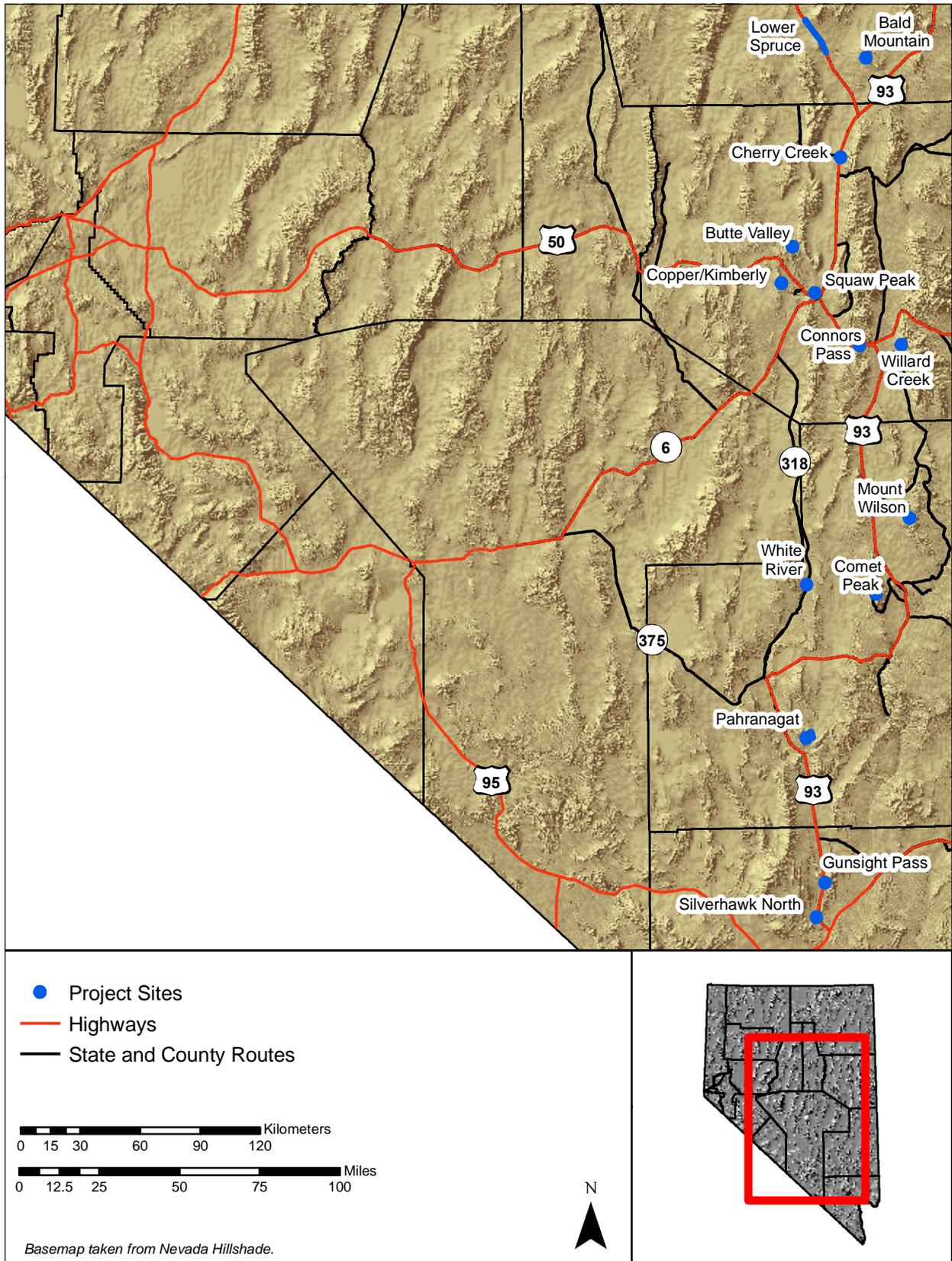


Figure 1.1-1. Location map.

This page intentionally left blank.

Chapter 2

PROPOSED ACTION AND ALTERNATIVES

The previous chapter presented the purpose of and need for the proposed project, as well as those elements that could be affected by implementation of the proposed project. To meet the purpose of and need for the proposed project and resolve the issues identified, the BLM has determined that only the Proposed Action and No-Action alternatives are necessary for detailed analysis. The potential environmental consequences from the Proposed Action and No-Action alternatives are analyzed in Chapter 4 for each of the necessary resources and identified issues.

The project location is shown on Figure 1.1-1. The project occurs within the Mt. Diablo Meridian, Nevada. Appendix A shows the Township, Range, and Sections of the project area.

2.1 PROPOSED ACTION

NVE is proposing to install a new microwave and radio communications network across eastern portions of the state to operate, control, and distribute power efficiently to demand centers across the state and increase safety for their employees. NVE has submitted applications to the BLM to acquire permanent and temporary land rights for the construction, operation, and maintenance of new communication sites and expand existing NVE communications sites for microwave and radio development.

- Elko District—one new telecommunications site and one adjacent to an existing telecommunications site
- Ely District—four new telecommunications sites and six sites adjacent to existing telecommunications sites
- Southern Nevada District—two new telecommunications sites

For each proposed site, new and expanded, the approximate area required would be up to 200 × 150 feet (0.69 acre), including an area of defensible space surrounding the site. Because the towers at some sites would need to support up to eight large dish antennas, with a total weight of more than 4,000 lb, co-locating equipment on existing infrastructure is not always a feasible option. Therefore, new facilities are generally required at existing sites (i.e., tower, microwave and radio antennae and supporting facilities). Additionally, eight of the sites would require new graded access roads and/or power distribution lines. Site-specific facilities and infrastructure are further described below and in Table 2.1-1.

The proposed microwave backbone route would connect NVE's existing Harry Allen Substation, located north of Las Vegas, to an existing network at a location northwest of Elko, Nevada. It would also connect to the existing Gondor Substation. Two microwave spur paths are also recommended to provide connections to mobile radio sites not directly located within the proposed backbone for additional coverage support.

Location map and site plans have been developed for each proposed microwave and mobile radio location (Appendix B). A typical site development plan is presented below in Figure 2.1-1. The following components are necessary to support communications requirements for each microwave and radio site.

- Self-supporting tower structures will range in height from 80 to 300 feet—some towers will need to support up to eight antennas, with a total weight of more than 4,000 lb.
- 14 × 20-foot communications shelter

- 35- to 50-kW generator
- Two 1,000-gallon propane tanks (three tanks would be included at the proposed solar-powered White River site)
- Tower foundations designed to support height-specific towers
- Seven-foot-tall chain-link fence, as required
- Parking and turnaround, as required, outside fenced area
- Up to a 50-foot fuel break surrounding fenced area of project site, as required (no fuel break would occur in tortoise habitat)
- Vehicle access
- Power distribution (with the exception of the White River)

Table 2.1-1. Site-Specific Ground Disturbance Descriptions

Name	BLM District Office	Tower Site New Disturbance (acre)		Access and Power Line New Disturbance (acre)		Final ROW Footprint (acre)
		Temporary	Permanent	Temporary	Permanent	
Silverhawk North	Southern Nevada	0.06	0.10	0.05	0.06	0.27
Gunsight Pass	Southern Nevada	0.06	0.10*	0.05	0.35 ¹	0.56
Mount Wilson	Ely	0.00	0.60	0.00	0.53	1.13
Comet Peak	Ely	0.00	0.60	0.00	0.00	0.60
White River	Ely	0.00	0.60	0.00	0.03	0.63
Pahranagat	Ely	0.00	0.60	24.46	31.82	56.88
Butte Valley	Ely	0.00	0.60	1.74	1.07	3.41
Cherry Creek	Ely	0.00	0.60	0.00	0.02	0.62
Connors Pass	Ely	0.00	0.70	0.00	0.00	0.70
Copper/Kimberly	Ely	0.00	0.70	0.00	0.00	0.70
Squaw Peak	Ely	0.00	0.70	0.00	0.00	0.70
Willard Creek	Ely	0.00	0.60	0.00	0.00	0.60
Bald Mountain	Elko	0.00	0.60	0.00	0.00	0.60
Lower Spruce	Elko	0.00	0.60	0.00	59.40	60.00
Total		0.12	7.70	26.30	93.28	127.40

* Occurs on existing disturbance.

Construction would begin with the installation of all civil improvements, including site laydown areas for materials deliveries and storage, access/maintenance roads, underground runs for electrical cabling, and tower and shelter foundations. Installation of electrical hardware (including cabling), towers, and prefabricated structures and support facilities would follow. Construction is anticipated to take up to 4 weeks for each proposed site; however, construction for the entire project is likely to continue through 2010.

Construction activities would require an estimated 10 to 20 workers, consisting of surveyors, construction inspectors, linemen, laborers, equipment operators, supervisors, and environmental monitors, if needed. Equipment used during construction would consist of standard machinery such as graders, bulldozers, backhoes, augers, cranes, delivery trucks, semi-trucks, and welding rigs. Not all personnel and/or equipment would be required for each site or would be present on one site all at the same time. NV

Energy would coordinate with Southern Nevada Water Authority and other adjacent ROW holders during the construction phase as necessary.

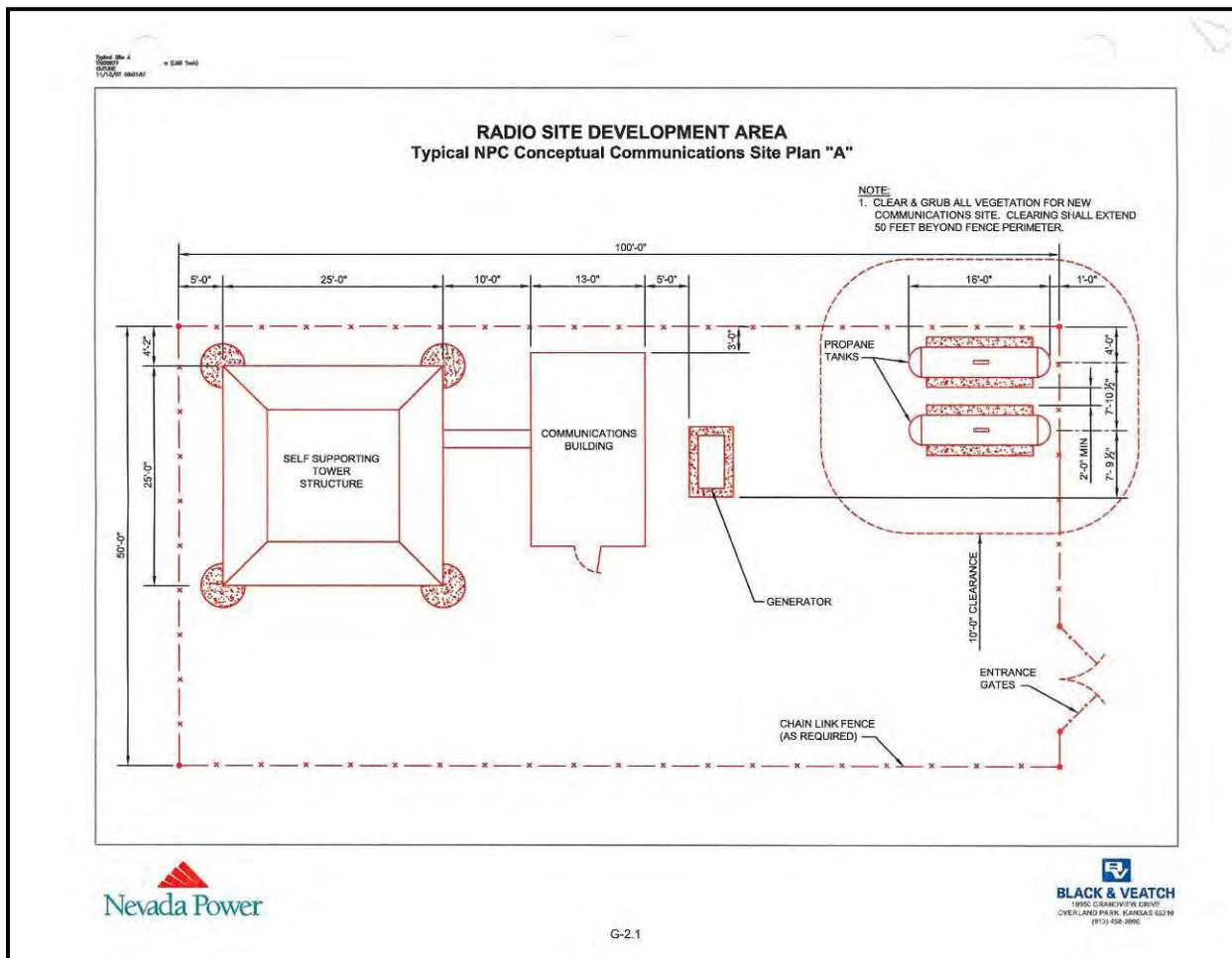


Figure 2.1-1. Typical conceptual communications site plan.

Silverhawk North

Project Description: The Silverhawk North site is a new proposed site in an undeveloped location (Figure 2.1-2). The proposed microwave site is located approximately 0.4 mile west of U.S. Highway (U.S.) 93 in Clark County, Nevada. The proposed site is adjacent to the northwest side of an approved ROW for an Arizona Nevada Tower Corporation (ANTC) cellular tower. The site elevation is approximately 2,836 feet above mean sea level (amsl) and is situated on relatively flat land. All the microwave and mobile radio facilities would occur within a 54 × 78-foot (0.10-acre) fenced compound encompassing a single 160-foot self-supporting lattice tower, a 14 × 16-foot communications shelter, two propane tanks, a generator, and utility service panels. The fence would consist of 7-foot-tall chain link and would feature a single access gate. The entire 0.10 acre within the fenced compound would be compacted and covered with concrete foundations and/or 6 inches of compacted gravel aggregate base. Permanent tortoise-proof fencing would be installed on the security fence surrounding the site. The 50 × 50-foot temporary construction area would be used for equipment and materials staging during the construction process. Following development, routine maintenance of the site would require no more

than one vehicle visit per month. Actions and potential surface disturbances are summarized in Table 2.1-1.

Access Road Construction: A 12-foot-wide \times 5-foot-long gravel access road would be constructed from an existing road to the proposed facilities. A 22-foot-wide permanent ROW would be required for construction and operation of the access road. The final driving surface of the road would be 12 feet wide, with 5-foot transitions on either side (total width of 22 feet). The total area of permanent disturbance from the access road would be 0.01 acre. Maintenance of the access road would occur no more than once per year.

Power Distribution: ANTC has been granted a ROW for a new 7.2-kV subterranean power distribution line in support of their Apex cellular tower. NVE, in cooperation with ANTC, would extend that subterranean distribution line to the proposed Silverhawk North site. The extended line would run underground approximately for 100 feet from the ANTC transformer to the NVE shelter. The new subterranean distribution line would be placed at a depth of approximately 4 feet below ground surface (bgs) and would require use of a 20-foot-wide corridor for the length of the run (0.05 acre). Excavated material would be stockpiled on the access road and the open trench backfilled at the end of each day. No more than one day would be necessary for installation of the distribution line.

Gunsight Pass

Project Description: The Gunsight Pass site is a new proposed site located on lands that have been previously disturbed as part of an abandoned dolomite quarry (see Figure 2.1-2). The proposed tower is located 1,500 feet east of U.S. 93 in Clark County, Nevada. The proposed site is northwest of the approved ROW for the ANTC Hidden Valley cellular tower. The sites are not directly adjacent but are offset enough to maintain 100 feet of separation between towers to prevent interference. The site elevation is 2,927 feet amsl. The ROW would consist of the following: a 54 \times 78-foot (0.10-acre) fenced compound encompassing a single 160-foot self-supporting lattice tower, 14 \times 16-foot communications shelter, two propane tanks, a generator, and utility service panels. The fence would consist of 7-foot-tall chain link and would feature a single access gate. Additionally, permanent tortoise-proof fencing would be fitted on the security fence. The entire 0.10 acre within the fenced compound would be compacted and covered with concrete foundations and/or 6 inches of compacted gravel aggregate base. A temporary construction area occupying 50 \times 50 feet (0.06 acre) would be located adjacent to and west of the fenced compound, also within existing disturbance. The temporary construction area would be used for equipment and materials staging during the construction process. Following development, routine maintenance of the site would require no more than one vehicle visit per month, and road maintenance would occur no more than once per year. Proposed activities and potential surface disturbance are summarized in Table 2.1-1.

Access Road Construction: A gravel surface access road would be extended 686 feet to the site, across previously disturbed land, from an existing road. The final driving surface of the road would be 12 feet wide, with 5-foot transitions on either side (total width of 22 feet). The total area of permanent disturbance from the access road to the site would be 0.35 acre.

Power Distribution: ANTC is permitted to interconnect a new 7.2-kV power distribution line with the existing transmission line to provide power to the approved Hidden Valley ANTC cellular tower. NVE would cooperate with ANTC to extend the subterranean distribution line to the Gunsight Pass site. The extended line would be placed at a depth of approximately 4 feet bgs and would require use of a 20-foot-wide corridor for the length of the run, approximately 100 feet from the ANTC transformer to the Nevada Power shelter (0.05 acre). Excavated material would be stockpiled on the access road and the open trench backfilled at the end of each day. No more than one day would be necessary for installation of the distribution line.

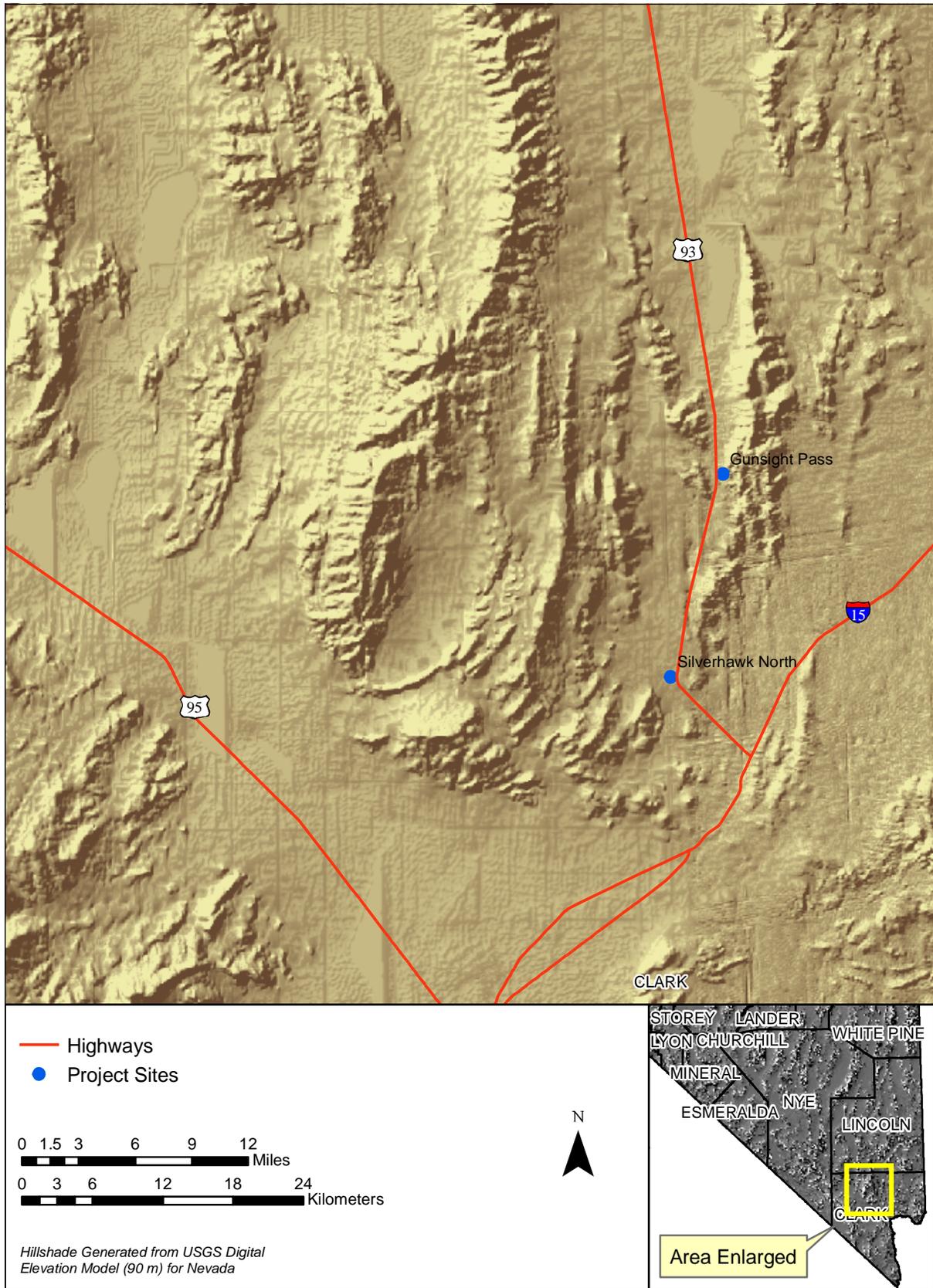


Figure 2.1-2. Clark County project sites.

Mount Wilson

Project Description: The Mount Wilson site is a new proposed site adjacent to existing communications facilities. The proposed tower site is located approximately 22 miles east of U.S. 93 in Lincoln County, Nevada (Figure 2.1-3). The site elevation is 9,301 feet, and the proposed site is situated on a flat area. All facilities would occur within a 54 × 78-foot fenced compound encompassing a single 200-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to and south of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction.

Access Road Construction: The ROW would also include a 0.2-mile new maintenance road re-route. The existing maintenance road is located on a steep slope. The 0.2-mile re-route would avoid the steep slope and reduce future road maintenance needs. The access road re-route would be dirt or gravel surface and approximately 0.2 mile long as a new switchback to existing access road. The final driving surface of the road would be 12 feet wide, with 5-foot transitions on either side (total width of 22 feet).

Power Distribution: Power distribution is available at the existing communications facility from the local provider. An underground conduit from the State of Nevada site to the new NVE shelter would be installed.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Comet Peak

Project Description: The Comet Peak site is a new proposed site adjacent to an existing communications facility. The proposed tower site is located approximately 8 miles west of U.S. 93 in Lincoln County, Nevada (see Figure 2.1-3). The site elevation is approximately 9,316 feet. All facilities would occur within a 54 × 78-foot fenced compound encompassing a single 80-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6 inches of compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction.

Access Road Construction: Existing roads would be used for access. No improvements to existing roads would be required for construction or maintenance of the proposed site.

Power Distribution: Power distribution is available at the existing communications facility from the local provider. An underground conduit from the existing transformer to the new NVE shelter would be installed.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

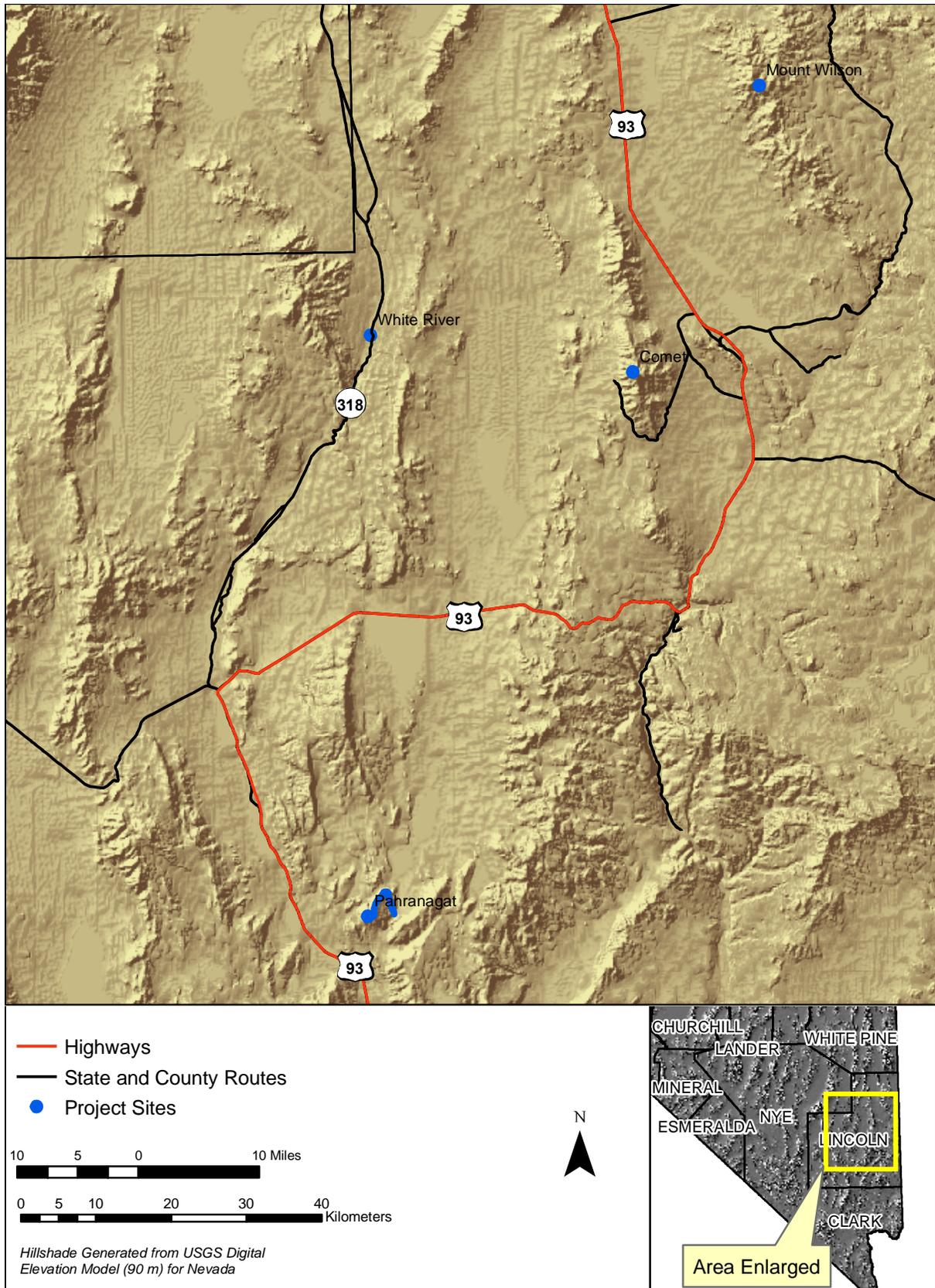


Figure 2.1-3. Lincoln County project sites.

White River

Project Description: The White River site is a new proposed site in an undisturbed location. The proposed tower site is a microwave spur mobile radio site located less than 1 mile to the west of State Route (SR) 318 in Lincoln County, Nevada (see Figure 2.1-3). The site elevation is approximately 4,868 feet, and the proposed site is situated on a small hill. All facilities would occur within a 116 × 54-foot fenced compound encompassing a single 200-foot self-supporting lattice tower, 14 × 20-foot communications shelter, three propane tanks, solar panels, a generator, and utility service panels. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break.

The temporary construction area would occur within this buffer and would not be reclaimed following construction. The ROW would also include 50-foot-long maintenance road.

Access Road Construction: In addition to the existing road, a new access road would be constructed by NVE. The road would have a dirt or gravel surface and would be approximately 50 feet long. The final driving surface of the road would be 12 feet wide, with 5-foot transitions on either side (total width of 22 feet).

Power Distribution: To provide power to the White River site, NVE would use on-site solar power and a generator to supply supplemental power as required. There would be 32 solar panels, totaling 2,500 watts at 48 VDC. The panels would be located within the 116 × 54-foot fenced area.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Pahranagat

Project Description: The Pahranagat site is a new proposed site in an undisturbed location. The site would be located 327 feet north of the proposed ANTC site. This proposed tower is a key microwave backbone site located approximately 5 miles north of U.S. 93 in Lincoln County, Nevada (see Figure 2.1-3). The site elevation is 5,796 feet. All facilities would occur within a 54 × 78-foot fenced compound encompassing a single 80-foot self-supporting lattice tower, 14 × 16-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be compacted and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to and north of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. The temporary construction area outside the fuel break would be reclaimed using a BLM-approved seed mix. The ROW would also include a 5.25-mile maintenance road and parallel utility corridor.

Access Road Construction: A new access road would be constructed by NDOT. The road would have a dirt surface and would be approximately 5.25 miles long. The final driving surface of the road would be 10 feet wide, with 20-foot transitions on either side to be used during construction as temporary work space (total diameter of 50 feet). Equipment that would be used during construction consists of a bulldozer, front-end loader, backhoe, hydraulic hammer, and dump truck to move material. In the event that a bulldozer is not able to push through rocky areas of the flagged route, a D18 Cat with a single ripper point may be used. Blasting would be used as a last resort in areas too rocky to push through with a bulldozer or D18 Cat. All blasting would be conducted in accordance with Occupational Safety and

Health Administration (OSHA) regulations (29 Code of Federal Regulations [CFR] 1926). No civil engineering would be completed prior to construction; the road would be cut using a bulldozer with an 8-foot blade pushing along the flagged route. To the maximum extent possible, drainages would be crossed at grade. Water bars and dips to control erosion would be installed as necessary. Construction is expected to take up to 3 months to complete. The temporary disturbance would be reclaimed by aerating compacted soils with the same heavy equipment used during construction and applying a BLM-approved seed mix.

Power Distribution: To provide power to the Pahrnagat site, Alamo Power Company would interconnect a new distribution line to the existing Alamo substation 24.9-kV distribution line, approximately 5.25 miles east of the proposed site. The new line would be 24.9-kV single phase, installed on new wood poles erected adjacent to the new access road to minimize disturbance. Holes for the poles would be excavated with a truck-mounted auger or by blasting in areas too rocky to drill. All blasting would be conducted in accordance with OSHA regulations. A 40-foot permanent ROW adjacent to the access road would be required for the distribution line. The distribution line would terminate at the fenced site and then run underground to the shelter.

Defensible Space: A fuel break of approximately 20 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Butte Valley

Project Description: The Butte Valley site is a new proposed site in an undisturbed location. The proposed tower is located approximately 26 miles northwest of Ely in White Pine County, Nevada (Figure 2.1-4). The site elevation is 6,695 feet. All facilities would occur within a 54 × 78-foot fenced compound encompassing a single 220-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels.

The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to and north of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this fuel break and would not be reclaimed. The ROW would also include a 0.40-mile new maintenance road and parallel 0.36-mile utility corridor.

Access Road Construction: A new access road would be constructed by NVE. The road would have a gravel surface and would be approximately 0.40 mile long, connecting to an existing gravel road. The final driving surface of the road would 12 feet wide, with 5-foot transitions on either side (total width of 22 feet).

Power Distribution: To provide power to the Butte Valley site, Mount Wheeler Power would interconnect a new distribution line to the existing three-phase 24.9-kV distribution line, running approximately 1,900 feet to the proposed site. The new line would be 24.9-kV single phase, installed on new wood poles erected adjacent to the new access road to minimize disturbance. A 40-foot permanent ROW would be required for the distribution line (1.74 acres). The line would terminate at the fenced site and then run underground to the shelter.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

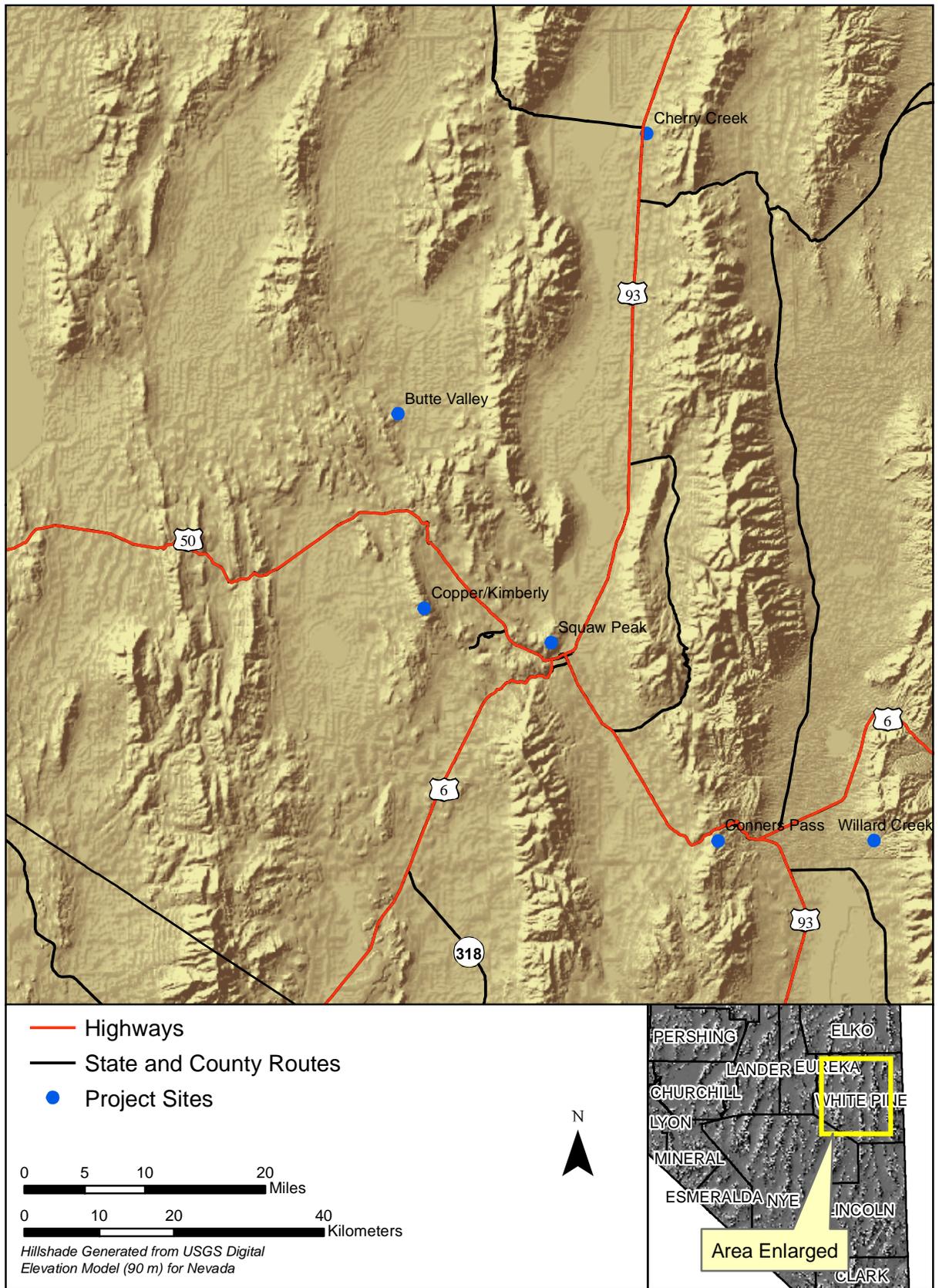


Figure 2.1-4. White Pine County project sites.

Cherry Creek

Project Description: The Cherry Creek site is a new proposed site 24 feet west of an existing State of Nevada communications facility. The proposed tower site is a microwave and mobile radio site located 0.9 mile east of U.S. 93 in White Pine County, Nevada (see Figure 2.1-4). The site elevation is approximately 6,196 feet, and the proposed site is situated on a flat area. All facilities would occur within a 54 × 78-foot fenced compound encompassing a single 160-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to and south of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction. The ROW would also include a 48-foot-long × 22-foot-wide extension of the existing maintenance road to the site.

Access Road Construction: The existing access road would be extended 48 feet to the site. The final driving surface of the road would be 12 feet wide, with 5-foot transitions on either side (total width of 22 feet).

Power Distribution: Power distribution is available at the existing site from the local provider. An underground conduit from the State of Nevada site to the new NVE shelter would be installed.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Connors Pass

Project Description: The Connors Pass site is a new proposed site adjacent to existing communications facilities. The proposed tower site is located approximately 22 miles south of Ely in White Pine County, Nevada (see Figure 2.1-4). The site elevation is 8,069 feet. All facilities would wrap around the existing Los Angeles Department of Water and Power (LADWP) site and consist of the following: a fenced compound, adjacent to the existing LADWP site, a single 160-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire 0.07 acre within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. An area within the 50-foot fuel break described below would be graded to achieve the necessary slope for the site. A temporary construction area measuring 50 × 50 feet would be located adjacent to and north of the LADWP site and new fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. The temporary construction area is currently a disturbed area adjacent to the existing LADWP site and would not be reclaimed.

Access Road Construction: Existing roads would be used for access. No improvements to existing roads would be required for construction or maintenance of the proposed site.

Power Distribution: Power distribution is available at the existing site from the local provider. A 115-foot underground conduit would be installed through existing disturbance and the fenced compound from the power pole to the new communications shelter.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Copper/Kimberly

Project Description: The Copper/Kimberly site is a new proposed site adjacent to existing communications facilities. The proposed tower site is located west of Ely, approximately 6 miles south of U.S. 50 in White Pine County, Nevada (see Figure 2.1-4). The site elevation is 9,077 feet. All facilities would occur within a 50 × 100-foot fenced compound encompassing a single 200-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to and south of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction.

Access Road Construction: Existing roads would be used for access. No improvements to existing roads would be required for construction or maintenance of the proposed site.

Power Distribution: Power distribution is available at the existing site from the local provider. A 115-foot underground conduit would be installed through the fuel break disturbance and the fenced compound from the power pole to the new communications shelter.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Squaw Peak

Project Description: The Squaw Peak site is a new proposed site adjacent to existing communications facilities. The proposed tower site is located just to the northwest of Ely in White Pine County, Nevada (see Figure 2.1-4). The site elevation is 7,870 feet. All facilities would occur within a 54 × 90-foot fenced compound encompassing a single 80-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. The area east of the fenced compound within the 50-foot fuel break described below would be graded to achieve the necessary slope for the site. A temporary construction area measuring 50 × 50 feet would be located adjacent to and northwest of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction.

Access Road Construction: Existing roads would be used for access. No improvements to existing roads would be required for construction or maintenance of the proposed site.

Power Distribution: Power distribution is available at the existing site from the local provider.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Willard Creek

Project Description: The Willard Creek site is a new proposed site in an undisturbed location. The proposed tower is located approximately 5 miles south and east of U.S. 50 in White Pine County, Nevada (see Figure 2.1-4). The site elevation is 6,600 feet. All facilities would occur within a 54 × 78-foot fenced

compound encompassing a single 160-foot self-supporting lattice tower, 14 × 20-foot communications shelter, two propane tanks, a generator, and utility service panels. The entire area within the fenced compound would be compacted and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to and north of the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction.

Access Road Construction: Existing roads would be used for access. No improvements to existing roads would be required for construction or maintenance of the proposed site.

Power Distribution: The proposed site is adjacent to an existing power distribution line, and power distribution is available from the local provider. An underground conduit from the existing distribution line to the new NVE shelter would be installed.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Bald Mountain

Project Description: The Bald Mountain site is a new proposed site located west of and adjacent to existing communications facilities. The proposed tower site is located approximately 10 miles east of U.S. 93 in Elko County, Nevada (Figure 2.1-5). The site elevation is 8,574 feet, and the proposed site is situated on a flat area. All facilities would occur within a 54 × 78-foot fenced area encompassing a communications shelter, generator, two propane tanks, and one 80-foot-tall self-supporting antenna tower. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to the fenced compound. The temporary construction area would be used for equipment and materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction.

Access Road Construction: In addition to existing roads, land within the defensible space surrounding the site would be used for vehicle access. No improvements to existing roads would be required for construction or maintenance of the proposed site.

Power Distribution: Power distribution is available at the existing site from the local provider. An underground conduit from the existing utility transformer to the new NVE shelter would be installed.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

Lower Spruce

Project Description: The Lower Spruce site is a new proposed site in an undisturbed location. The proposed tower is located less than 1 mile east of U.S. 93 in Elko County, Nevada (see Figure 2.1-5). The site elevation is 6,363 feet, and the proposed site is situated on a flat area. All facilities would occur within a 54 × 78-foot fenced area encompassing a 14 × 20-foot communications shelter, a generator, two propane tanks, and a 220-foot-tall self-supporting antenna tower. The entire area within the fenced compound would be graded, compacted, and covered with concrete foundations and/or 6-inch-thick compacted gravel aggregate base. A temporary construction area measuring 50 × 50 feet would be located adjacent to the fenced compound. The temporary construction area would be used for equipment and

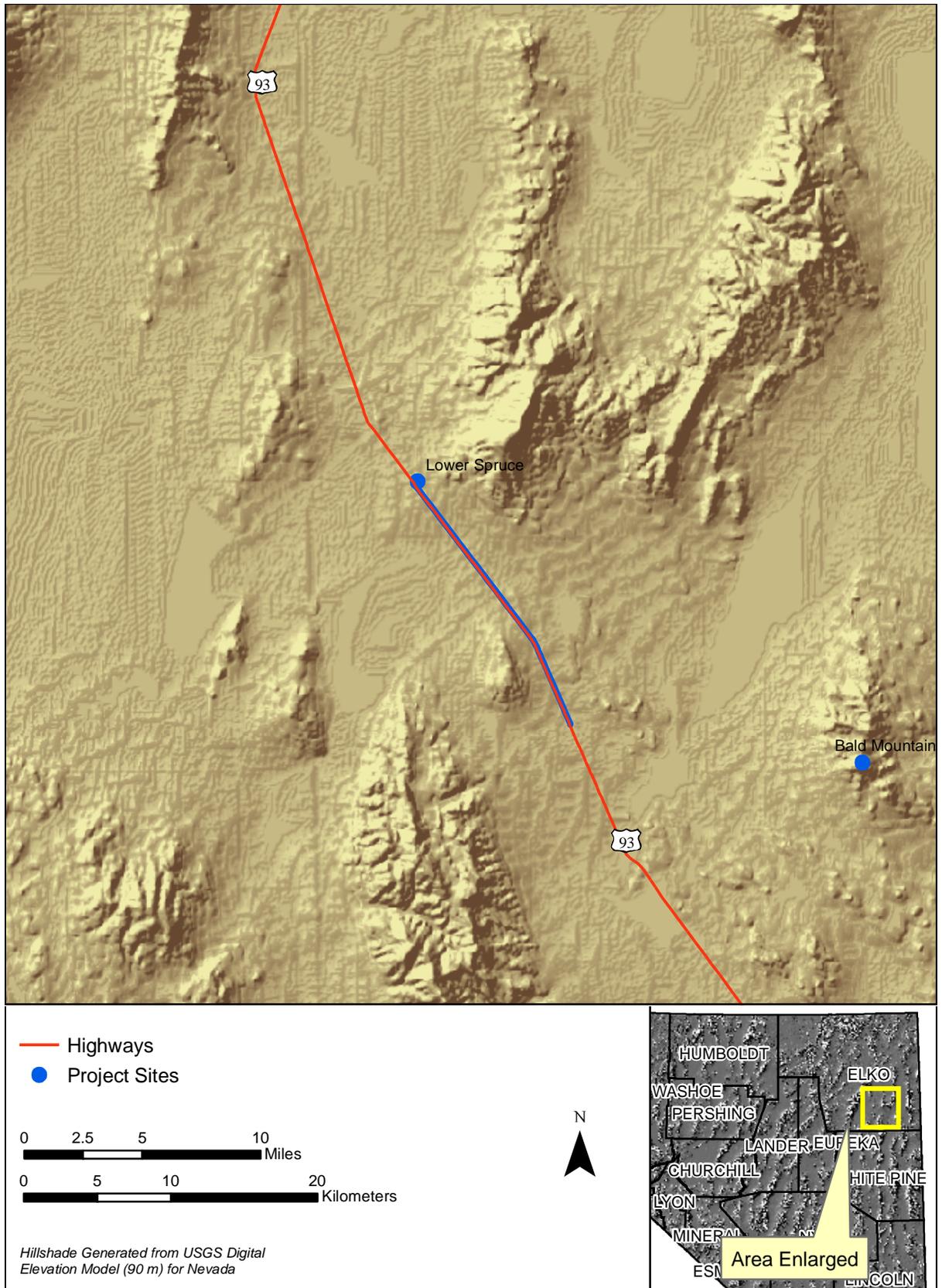


Figure 2.1-5. Elko County project sites.

materials staging during the construction process. Additionally, an area extending up to 50 feet around the perimeter of the compound would be graded and cleared of vegetation as a fuel break. The temporary construction area would occur within this buffer and would not be reclaimed following construction. The ROW would also include a 0.1-mile maintenance road and 12-mile utility corridor parallel to the U.S. 93 ROW.

Access Road Construction: The road would have a gravel surface and would be approximately 0.1 mile long. A 40-foot temporary ROW and 22-foot permanent ROW would be required for construction and operation of the access road. The final driving surface of the road would 12 feet wide, with 5-foot transitions on either side (total width of 22 feet). The temporary disturbance would be reclaimed using a BLM-approved seed mix. There is a *Federal Register* notice in effect temporarily restricting off-highway vehicle travel to existing roads and two tracks within the project area. BLM would need to allow the creation of a 0.1-mile road to access the tower site and of a two-track route under the new distribution line, within the ROW grant.

Power Distribution: The Lower Spruce site is located within the Wells Rural Electric service area. To provide power to the Lower Spruce site, a wheeling agreement between Wells Rural Electric, Mount Wheeler Power, and NVE would be required in order for Mount Wheeler Power to interconnect a new distribution line to the existing 24.9-kV distribution line, approximately 12 miles south of the proposed site. The new line would be 24.9-kV single phase, installed on new single wood poles erected adjacent to the U.S. 93 ROW. A 40-foot permanent ROW would be required for the distribution line. The line would terminate at the fenced site and then run underground to the shelter. Because of the highway ROW fence, a two-track service road running along the power line would be necessary within the 40-foot ROW.

Defensible Space: A fuel break of approximately 50 feet surrounding the fenced compound would be cleared and maintained to reduce the risk of wildfire damage to the communications facilities.

2.2 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, no new microwave and mobile radio facilities would be installed. There would continue to be a lack of communications connectivity throughout eastern Nevada.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

As part of their initial siting study, NVE considered 50 radio coverage plots and 330 microwave paths between Elko and Las Vegas before selecting the optimal sites to meet the project purpose and need. Specific sites and facilities that were considered but eliminated from detailed analysis consisted of the following.

Spruce Mountain: The existing Spruce Mountain site was eliminated from further analysis because it did not comply with NERC standards. The Spruce Mountain facilities are located at an elevation greater than 10,000 feet. High-elevation sites are vulnerable to frequent antenna and equipment damage from winter storms. Access to this high-elevation site during winter months for maintenance and repairs is also problematic. The Spruce Mountain facilities do not have electric utility power and rely on solar power. Solar power is not an optimal power source during part of the year because of weather conditions. Because of environmental concerns and costs, it would not be feasible to provide electric utility to the Spruce Mountain site. A reliable source of power is necessary to ensure full operation of this critical site.

Valley Mountain: Valley Mountain was an alternative to the proposed Lower Spruce site. NVE eliminated the Valley Mountain proposed site from further analysis because the site lacked adequate access and a cost-effective source of reliable power.

AT&T Facility: NVE eliminated the existing AT&T communications facility, located on private land, from further analysis because they could not come to an agreement with the private landowner. Instead, NVE selected the Willard Creek site because it provides necessary connectivity, has existing access and power distribution, and avoids privately owned land.

Lower Spruce distribution line: NVE considered two other distribution lines for the proposed Lower Spruce site that would interconnect with existing transmission lines in the Wells Rural Electric service area. SWCA Environmental Consultants (SWCA) archaeologists completed cultural surveys for a distribution line to the north, adjacent to U.S. 93. Archaeologists identified several sites eligible for listing under the National Historic Preservation Act (NHPA). NVE, under agreement with the BLM, eliminated the distribution line route to the north from further analysis because adverse impacts to the cultural sites could not be mitigated.

At the request of the BLM Elko District Office, NVE also evaluated a second line going east from the proposed site, around the south end of Valley Mountain. The proposed line went through an area that floods periodically. Periodic flooding reduces the reliability of the electrical systems. NVE, under agreement with the BLM, eliminated the route around Valley Mountain from further analysis.

2.4 CONFORMANCE WITH BLM LAND USE PLAN

The proposed project is consistent with the Goals and Objectives of the Ely District ROD for the Approved RMP/FEIS (Ely RMP/FEIS), which are to “manage public lands in a manner that meets public local, state and federal agency needs for use authorizations such as rights-of-way, permits, leases, and easements while avoiding or minimizing adverse impacts to other resource values and to respond to public, local, state and federal agency needs for land for community development, utility and other associated rights-of-way, communication sites and other allowed uses of BLM administered lands” (BLM 2008a:65–66).

The Proposed Action is specifically provided for in the following management decision:

- LR-35: “Authorize communication site locations that support community and economic development with an emphasis on co-location of sites” (BLM 2008a).

In addition, management decisions for other resources and concerns that would possibly be impacted by the project were reviewed, and it was determined that the Proposed Action is in conformance with the Ely RMP/FEIS.

- WL-4: Mitigate all discretionary permitted activities that result in the loss of aquatic and priority wildlife habitats by improving 2 acres of comparable habitat for every 1 acre of lost habitat as determined on a project-by-project basis.
- WL-6: Where appropriate, restrict permitted activities in big-game calving/fawning/kidding/lambing grounds and crucial summer range from April 15 through June 30.
- WL-13: Where appropriate, restrict permitted activities within occupied desert bighorn sheep habitat from March 1 through May 31 and from July 1 through August 31.

- SS-10: Mitigate all discretionary permitted activities that result in the loss of special-status species habitats on a ratio of 2 acres of comparable habitat for every 1 acre of lost habitat as determined on a project-by-project basis. This will not apply to desert tortoise habitat, as remuneration fees and other measures to minimize effects to the tortoise are required for disturbance in desert tortoise habitat.
- SS-42: Where appropriate, restrict permitted activities from November 1 through March 31 within greater sage-grouse winter range.
- LR-48: Coordinate with the U.S. Fish and Wildlife Service (USFWS) on utility line development and Avian Protection Plan guidelines.

The proposed project is in conformance with the ROD for the BLM Wells RMP/FEIS (BLM 1985) standard operating procedures, which state:

- “Once specific ROW applications are received, site-specific evaluations will be made” (BLM 1985:14).
- The BLM Elko District Office has also issued a no-disturbance restriction for sage-grouse winter habitat from November 1 to March 15.

The proposed project is in conformance with the following ROW management objectives identified in the ROD for the Las Vegas RMP/FEIS (BLM 1998b:19):

- RW-1: “Meet public demand and reduce impacts to sensitive resources by providing an orderly system of development for transportation, including legal access to private inholdings, communications, flood control, major utility transmission lines and related facilities.”
- RW-1-g: “Site type ROW exclusion areas are limited to all Areas of Critical Environmental Concern (ACECs), except within 0.5 miles on either side of Federal Aid Highways.”
- RW-1-h: “All public land within the planning area, except as stated in RW-1-c through RW-1-g, are available at the discretion of the agency for rights-of-way under the authority of the Federal Land Policy Management Act.”

2.5 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

The issuance of a ROW for the Proposed Action is consistent with the terms, conditions, and decisions of the *White Pine County Public Lands Policy Plan*, as adopted by the White Pine County Board of County Commissioners (White Pine County Public Land User Advisory Committee [PLUAC] 2007).

- Policy 2-1: “Support the concept of Multiple Use Management as an overriding philosophy for management of the public lands based on multiple use and sustainable yield concepts, and in a way that will conserve natural resources” (White Pine County PLUAC 2007:16).

The issuance of a ROW for the Proposed Action is consistent with the terms, conditions, and decisions of the *Elko County Public Lands Policy Plan*, as adopted by the Elko County Board of County Commissioners (Elko County PLUAC 2008).

- Policy 2-1: “Elko County supports the concept of Multiple Use Management as an overriding philosophy for management of the public lands based on multiple use and sustainable yield concepts, and in a way that will conserve natural resources” (Elko County PLUAC 2008:21).

The issuance of a ROW for the Proposed Action is consistent with the terms, conditions, and decisions of the *Master Plan for Lincoln County, Nevada*, as adopted by the Lincoln County Board of County Commissioners (Lincoln County Planning Commission 2007).

- “Public land uses are located throughout the county and in every major population center. These include airports, sewer and water treatment plants, schools, post offices, county and state facilities, etc. Some parcels may include land for future development or public use. These areas need to be expanded and properly located to meet future needs for growth” (Lincoln County Planning Commission 2007:42).

The issuance of a ROW for the Proposed Action is consistent with the terms, conditions, and decisions of the *Northeast County Planned Land Use* for rural Clark County, as adopted by the Clark County Board of County Commissioners (Clark County Department of Comprehensive Planning 2006). Lands in the project area are identified as open lands.

The issuance of ROWs for the Proposed Action is also consistent with all relevant federal, state, and local statutes, regulations, and plans. The known federal, state, and local agencies’ approvals, reviews, and permitting requirements that are anticipated to be needed for these new electrical facilities are described in detail in the *Microwave and Mobile Radio Plan of Development* (NVE 2008).

Chapter 3

AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area.

While many issues may arise during scoping, not all of the issues raised warrant detailed analysis. Issues raised through scoping are analyzed if

- Analysis of the issue is necessary in order to make a reasoned choice between alternatives;
- The issue is significant (an issue associated with a significant direct, indirect, or cumulative impact, or where necessary to determine the significance of impacts); or
- There is a disagreement about the best way to use a resource or resolve an unwanted resource condition or potentially significant effects of a Proposed Action or alternative.

Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed above to determine whether detailed analysis was required. Consideration of some of these items occurs in order to ensure compliance with laws, statutes, or Executive Orders that impose certain requirements on all federal actions. Other items are relevant to the management of public lands in general or to the BLM Ely District Office in particular.

In response to the preliminary issues identified, further surveys/studies were conducted and reports prepared. The following reports were completed and used in preparation of the analysis of this document:

- *Biological Assessment NPC Microwave and Mobile Radio Facility: Gunsight Pass and Silverhawk North Sites* (SWCA 2009a).
- *An Intense-Level Cultural Resource Inventory of the Nevada Power Company/Sierra Pacific Power Company Microwave and Mobile Radio Development Project in Elko, White Pine, Lincoln, and Clark Counties, Nevada* (SWCA 2009b).

Many times, a project would have some degree of effect on a resource or concern, but that effect does not approach any threshold of significance, nor does it increase cumulative impacts by a measurable increment. Such effects are described as negligible in the rationale for dismissal from analysis. Table 3.1-1 documents the evaluation and rationale for dismissal from analysis for each resource/concern.

Table 3.1-1. Resource/Concern Evaluation

Resource	Analysis Required		Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
	Yes	No	
Air Quality*	x		Two sites occur in a non-attainment zone for ozone and are further described in affected environment and analyzed in environmental consequences.
Water Quality Drinking/Ground*		x	The project area is not located near any water sources.
Water Resources		x	The project area is not located near any water sources.
Farmlands, Prime and Unique*		x	There are no Prime and Unique Farmlands in or in the immediate vicinity of the project area.

Table 3.1-1. Resource/Concern Evaluation (Continued)

Resource	Analysis Required		Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
	Yes	No	
Forest Health*		×	Forest health would not be affected by this project. The project does not meet Healthy Forest Restoration Act criteria.
Rangeland Standards and Guidelines*		×	Rangeland standards would not be affected by this project.
Wetlands/Riparian Zones*		×	There are no wetlands or riparian zones in or in the immediate vicinity of the project area.
Wildlife	×		Described in affected environment and analyzed in environmental consequences.
Migratory Birds*	×		Described in affected environment and analyzed in environmental consequences.
U.S. Fish and Wildlife Service Listed, Threatened, and Endangered Species, or Critical Habitat*	×		Described in affected environment and analyzed in environmental consequences.
Special-Status Animal Species	×		Described in affected environment and analyzed in environmental consequences.
Special-Status Plant Species	×		Described in affected environment and analyzed in environmental consequences.
Vegetation	×		Described in affected environment and analyzed in environmental consequences.
Wild Horses		×	The project would not result in impacts to Wild Horse and Burros.
Cultural Resources*	×		Described in affected environment and analyzed in environmental consequences.
ACECs Designated for Cultural Resources*		×	Not present.
Heritage Special Designations		×	The only heritage special designation potentially affected by the Proposed Action is the Pony Express Trail. No new visual contrasts would be introduced to the viewshed of the Pony Express Trail. Detailed analysis is not required.
Paleontological Resources		×	After evaluation of the geological and sedimentary context of the project area, it has been determined unlikely that paleontological resources exist, and no surveys or additional research is necessary. If any resources were discovered during implementation of this project, all work in the vicinity would cease and the BLM Archaeologist/Paleontologist would be contacted immediately.
Visual Resources	×		Described in affected environment and analyzed in environmental consequences.
Land Uses		×	The project has been designed to avoid impacts to existing ROWs, and further analysis is not required.
Transportation/Access		×	Public transportation and access would not be affected by this project.
Recreation Uses, Including Backcountry Byways, Caves, Rockhounding Areas		×	There are no recreation resources within or adjacent to the project area.
Grazing Uses/Forage		×	Impacts to grazing uses would be negligible, and detailed analysis is not required.
Forest/Woodland and Other Vegetative Products (Native Seeds, Yucca and Cactus Plants)		×	No forest/woodland products of concern are present in project area.

Table 3.1-1. Resource/Concern Evaluation (Continued)

Resource	Analysis Required		Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
	Yes	No	
Mineral Resources		✗	A NDOT mineral materials site is located south of the proposed Gunsight Pass site in Clark County, Township 15 South, Range 62 East, Section 27. There would be no interference with the NDOT site from the Proposed Action. Further site-specific evaluation did not indicate any impacts that would occur as a result of the Proposed Action. Detailed analysis is not required.
Soils/Watershed		✗	Site-specific evaluation did not indicate any impacts that would occur as a result of the Proposed Action. Detailed analysis is not required.
Floodplains*		✗	There are no floodplains within or in the immediate vicinity of the project area.
Fuels		✗	No fuels projects are planned for the project area.
Emergency Stabilization and Rehabilitation		✗	No emergency stabilization and rehabilitation projects occur within the project area.
Non-native Invasive and Noxious Species*	✗		Described in affected environment and analyzed in environmental consequences.
ACECs*	✗		Described in affected environment and analyzed in environmental consequences.
Wilderness/Wilderness Study Area*		✗	Not present.
Wild and Scenic Rivers		✗	Not present.
Human Health and Safety*		✗	Herbicides may be used for noxious weed control. With proper use of herbicides and implementation of safety measures, the effect on human health would be negligible, and detailed analysis is not required.
Native American Religious and other Concerns*		✗	The BLM Ely District Office Representative inquired about issues of concerns with the Proposed Action. No issues or concerns were identified by any of the tribal groups contacted.
Wastes, Hazardous or Solid*		✗	No hazardous or solid wastes have been observed or are known to occur in the project area. Detailed analysis is not required.
Public Safety		✗	The project could potentially result in increased public safety issues during the construction phase. With the implementation of safety measures, the effect on public safety would be negligible and detailed analysis is not required.
Environmental Justice*		✗	No minority or low-income groups would be disproportionately affected by health or environmental effects.
Socioeconomics		✗	Socioeconomics would not be affected by this project.

* Nevada Supplemental Authority.

3.2 RESOURCES/CONCERNS ANALYZED

Air Quality

Air quality is determined by the ambient concentrations of pollutants that are known to have detrimental effects. The U.S. Environmental Protection Agency (EPA) has classified National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide, particulate matter with diameter of 10 microns or less (PM 10), particulate matter with diameter of 2.5 microns or less (PM 2.5), ozone (O₃), sulfur dioxide, and lead. Areas with air quality that do not meet the standards are designated “non-attainment areas” by the EPA. The Nevada Division of Environmental Protection and the Clark County Department of Air Quality and Environmental Monitoring (CCDAQEM) monitor and enforce air quality regulations in the project area.

Areas where the ambient concentrations exceed the NAAQS are considered non-attainment, and as such, are regulated more strictly to reduce emissions in order to meet the NAAQS pollutant levels. Clark County is in attainment for all criteria pollutants except for CO, PM 10, and O₃. The EPA will issue new non-attainment designations in 2010, so Clark County does not have any State Implementation Plan or plan requirements under the revised NAAQS at this time (CCDAQEM 2008).

The proposed Gunsight Pass and Silverhawk North sites occur within the non-attainment area for 8-hour O₃ standard but occur outside the non-attainment area for CO and PM 10 (CCDAQEM 2008). These sites are on the far northern extent of the non-attainment area. The nearest monitoring station is located at Apex in Dry Lake Valley to the east. In 2008, the yearly average for O₃ at the Apex Monitoring Site was 40 parts per billion (ppb), within the standard of 85 ppb ground-level O₃ (CCDAQEM 2008). The remaining proposed sites within Lincoln, White Pine, and Elko counties are in attainment for all criteria pollutants.

Areas of Critical Environmental Concern

An ACEC is a designation given to BLM lands that meet special relevance and importance criteria set forth by the BLM. The area must have special relevance to natural, cultural, or historic resources and importance such that special management is required to protect the value of these resources. The size of the ACEC should be as large as is necessary to protect these resources (BLM 1988).

Two of the proposed microwave towers, Gunsight Pass and Silverhawk North, lie within the 150,670-acre Mormon Mesa Critical Habitat Unit (an area designated by the USFWS for the protection and management of desert tortoise and its habitat) and the 51,870-acre Coyote Springs ACEC (an area designated by the BLM for the protection and management of desert tortoise and its habitat). The Coyote Springs ACEC is connected to adjacent conservation lands. It is contiguous with the Mormon Mesa ACEC, Desert National Wildlife Refuge, and the Arrow Canyon Wilderness area (Clark County Department of Comprehensive Planning 2006). Site type ROWs may be granted within the Coyote Springs ACEC if they are within 0.5 mile of a federal highway (BLM 1998b). Site type ROWs are prohibited throughout the remaining ACEC acreage.

One of the proposed microwave tower sites, Comet Peak lies within the Highland Peak ACEC, designated for protection of habitat for populations of globally rare butterflies, including the Colorado hairstreak (*Hypaurotis crysalus intermedia*) and broadlined saepium hairstreak (*Satyrium saepium latilinea*). The ACEC was also designated to protect habitat for the basin waxflower (*Jamesia tetrapetala*), a BLM sensitive status species that is known to grow in association with Great Basin bristlecone pine. No basin waxflowers were observed at the project site during field surveys. A ROW may be granted within the Highland Peak ACEC if there is minimal conflict with resource values identified and impacts can be mitigated (BLM 2008a).

Cultural Resources

Section 106 of the NHPA, as amended in 2000, requires government agencies to take into account the effects of their actions on properties listed or eligible for listing in the National Register of Historic Places (NRHP).

The proposed microwave tower sites are located within three distinct cultural resource regions. The BLM Southern Nevada District and the southern portion of the Ely District are within the southern portion of the Great Basin cultural resource region. The northern portion of the Ely District is a transition zone from the western to eastern Great Basin. The Elko District is mostly western Great Basin, with some influence

from the east. Each area has prehistoric and historic concerns, artifact assemblages, site types, and environments unique to their areas. The cultural resources for each microwave tower site will be analyzed based on the cultural resource area in which they are located.

Following the archival records search, SWCA archaeologists conducted BLM Class III Intensive Pedestrian Inventories on 12 of the proposed microwave tower sites, including associated power distribution, access road, and the Lower Spruce power distribution line. The proposed microwave sites in the BLM Southern Nevada District Office area had been recently inventoried for cultural resources (personal communication, BLM Report 5-2548, Susanne Rowe, BLM 2008) and did not require Class III inventories.

During the pedestrian inventories of the Lower Spruce power distribution line in the Elko District, SWCA identified several cultural resource sites. The inventory resulted in the documentation of one previously recorded site (26EK005150; CRNV-11-3123), six newly identified sites (Sites 26EK011461, 26EK011462, 26EK011463, 26EK011464, 26EK011465, 26EK011466 [CRNV-11-15030, 11-15031, 11-15032, 11-15311, 11-15312, 11-15313]), one road identified on General Land Office maps (Site 26WP008437), nine isolated occurrences (EIF-7201 through EIF-7206 and EIF-7275 through EIF-7277), and six cultural manifestations (CM-01 through CM-06). Of the seven new sites, the BLM determined two to be eligible for the NRHP (26EK011462 and 26EK011465) and five to be ineligible (26EK011461, 26EK011463, 26EK011464, 26EK011466, and 26WP008437). The BLM determined that site 26EK011462 is eligible for the NRHP under Criterion D, while 26EK011465 is eligible under Criteria A, C, and D. The previously recorded site (26EK005150) has been determined eligible for the NRHP, but the segment recorded during this project is recommended non-contributing to the site's eligibility. The isolated occurrences and cultural manifestations are, by definition, ineligible for the NRHP. Three sites (26EK011461, 26EK011462 and 26EK011463) are located in the project area. The resulting reports are on file with the BLM (Elko District report BLM1-2661(P)).

Wildlife

This section identifies observed and expected general wildlife species within the 14 project site locations. Expected wildlife species information is included because of the small size of the project sites and because the short time required to complete the survey limits the possibility of observing wildlife species. SWCA biologists, in coordination with the BLM, completed wildlife surveys of the proposed project sites, access roads, and distribution line corridors during the summer of 2008. Observations of bird species are described in the Migratory Birds section.

Clark County

Two of the 14 project sites are located in Clark County and include Silverhawk North and Gunsight Pass. During surveys at Silverhawk North, SWCA biologists observed side-blotched lizard (*Uta stansburiana*), ash-throated flycatcher (*Myiarchus cinerascens*), and common raven (*Corvus corax*). At Gunsight Pass, biologists observed speckled rattlesnake (*Crotalus mitchelli pyrrhus*), western whiptail (*Aspidoscelis tigris*), and ash-throated flycatcher. SWCA biologists observed few wildlife species during field surveys of these sites, although there were often signs of reptiles and small mammals in the form of scat and tracks. When possible, biologists identified animal sign.

Other general wildlife species anticipated to occur in these project sites include mammal species common to the Mojave Desert, such as desert cottontail (*Sylvilagus auduboni*), black-tailed jackrabbits (*Lepus californicus*), kit fox (*Vulpes macrotis*), and coyote (*Canis latrans*). Some common reptile species that could occur in these project sites include common kingsnake (*Lampropeltis getula*), western fence lizard

(*Sceloporus occidentalis*), gophersnake (*Pituophis catenifer*), and Mojave rattlesnake (*Crotalus scutulatus*). Big-game species are generally not anticipated to occur in these project sites.

Lincoln County

Four of the 14 project sites are located in Lincoln County and include Mount Wilson, Comet Peak, White River, and Pahranaagat. Wildlife habitat associated with these sites consists of

- Pahranaagat—desert bighorn sheep occupied habitat;
- White River—pronghorn, deer migration habitat;
- Mount Wilson—elk crucial summer, deer crucial summer and migrant habitat;
- Comet Peak—desert bighorn sheep unoccupied, deer crucial summer habitat.

SWCA biologists observed few wildlife species during field surveys of these sites, although there was indirect evidence of reptiles and small mammals evidenced by scat and tracks. During surveys of the Mount Wilson project site, no wildlife species were observed; however, both mule deer (*Odocoileus hemionus*) and elk (*Cervus elaphus*) scat was found within the project site, indicating their use of the area. No wildlife were observed at the Comet Peak project site. At the White River project site, one species of reptile, the side-blotched lizard, was observed.

Wildlife species were more abundant at the Pahranaagat project site, where biologists observed desert cottontail and one piece of bighorn sheep (*Ovis canadensis*) scat. A variety of reptile species were observed at this project site, including desert iguana (*Dipsosaurus dorsalis*), desert spiny lizard (*Sceloporus magister*), common side-blotched lizard, collared lizard (*Crotaphytus bicinctores*), western whiptail, and the desert horned lizard (*Phrynosoma platyrhinos*). Additionally, wildlife water development Delamar #7 is located in desert bighorn crucial summer range to provide connectivity between the Delamar and Hiko Range populations of desert bighorn sheep.

Mammal species with the potential to occur in the area include black-tailed jackrabbit, coyote, western small-footed myotis (*Myotis ciliolabrum*), and American badger (*Taxidea taxus*). In addition, reptiles which have the potential to occur in the area include western fence lizard, side-blotched lizard, and the Great Basin rattlesnake (*Crotalus lutosus*).

White Pine County

Six of the 14 project sites are located within White Pine County: Butte Valley, Cherry Creek, Connors Pass, Copper/Kimberly, Squaw Peak, and Willard Creek. Wildlife habitat associated with these sites consists of

- Cherry Creek—pronghorn yearlong;
- Butte Valley—unoccupied Rocky Mountain bighorn sheep habitat, deer migration route, elk;
- Willard Creek—elk, deer, and pronghorn habitat;
- Connors Pass—Rocky Mountain bighorn sheep unoccupied habitat, deer crucial summer and migration, and elk habitat;
- Copper/Kimberly—Rocky Mountain bighorn sheep unoccupied habitat, deer migration route, and elk habitat.

SWCA biologists observed few wildlife species during field surveys of these sites, although there were often signs of reptiles and small mammals in the form of scat and tracks. When possible, biologists identified animal sign.

Wildlife observations at the Butte Valley project site were limited to scat from bobcats (*Lynx rufus*); mule deer, coyote, and black-tailed jack rabbit. Similarly, no wildlife species were observed at the Cherry Creek project site, but scat from pronghorn antelope (*Antilocapra americana*), coyote, and black-tailed jack rabbit was present. At both the Connors Pass and Squaw Peak project sites scat from mule deer, coyote, and black-tailed jack rabbit was observed. No wildlife or wildlife sign was observed during surveys at the Copper/Kimberly project site. At the Willard Creek project site, only black-tailed jackrabbits were observed.

Mammal species common to White Pine County and therefore having the potential to occur at these proposed sites include mule deer, bobcat, badger, least chipmunk (*Tamias minimus*), and coyote. Reptiles likely to occur in the area include Great Basin rattlesnake, western fence lizard, and gophersnake. Bird species that frequent the area include loggerhead shrike (*Lanius ludovicianus*), common nighthawk (*Chordeiles minor*), common raven (*Corvus corax*), and green-tailed towhee (*Pipilo chlorurus*). Raptors, including red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*), are potential residents or seasonal occupants.

Elko County

Two of the 14 project sites are located within Elko County: Bald Mountain and Lower Spruce. SWCA biologists observed few wildlife species during field surveys of these sites, although there were often signs of reptiles and small mammals in the form of scat and tracks. When possible, biologists identified animal sign. Only scat from black-tailed jackrabbits was observed at the Bald Mountain project site. Both mule deer and coyotes were observed at the Lower Spruce project site, and scat from black-tailed jack rabbits and white-tailed antelope squirrel (*Ammospermophilus leucurus*) was also observed.

Mammals known to occur in Elko County, Nevada, and, therefore, likely to occur within the two proposed sites include mule deer, elk, mountain lion (*Felis concolor*), bobcat, and coyote. Also, mule deer are likely to increase around the Lower Spruce site, as they migrate to crucial winter grounds along the flanks of Spruce Mountain. Elk inhabit Spruce Mountain, and although they are not known to be established on Valley Mountain, they have been observed crossing U.S. 93, which runs between these areas. Reptile species known to occur in the area include Great Basin rattlesnake, gophersnake, and western fence lizard.

Migratory Birds

The USFWS defines a migratory bird as any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. All migratory birds are protected under the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 USC 703 *et seq.*). The federal MBTA states that it is unlawful to “pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; possess, offer to or sell, barter, purchase, deliver, or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product, manufactured or not.” Depending on distribution, abundance, and breeding habits, the Secretary of the Interior may determine how much a migratory bird may be hunted or taken, if at all (USFWS 2007). To minimize unintentional take as defined by Executive Order 13186, the BLM has issued Washington Office Instructional Memo No. 2008-050, Migratory Bird Treaty Act–Interim Management Guidance, to provide interim guidance to meet the BLM responsibilities under the MBTA. This provides the BLM with a consistent approach for addressing migratory bird populations and habitats. Currently, there are 836 species that are protected under the federal MBTA (USFWS 2002). The Instructional Memo also lists Species of Conservation Concern by the USFWS as those migratory bird species on which the BLM will

focus. SWCA biologists observed 19 species protected by the MBTA during field surveys of all proposed sites. These observations are discussed in further detail below.

Clark County

Two of the 14 project sites are located in Clark County: Silverhawk North and Gunsight Pass. Migratory bird surveys were performed in June 2008 by SWCA. No species of conservation concern were observed.

Although no species of conservation concern were observed, there is the potential for a variety of these species to occur in these project sites. Some examples of anticipated species include cactus wren (*Campylorhynchus brunneicapillus*), peregrine falcon (*Falco peregrinus*), northern harrier (*Circus cyaneus*), and prairie falcon (*F. mexicanus*) (Peterson 1990).

Lincoln County

Four of the 14 project sites are located in Lincoln County and include Mount Wilson, Comet Peak, White River, and Pahranaagat. Migratory bird surveys were performed in June 2008 by SWCA. At the Mount Wilson, White River, and Comet Peak project sites, no species of conservation concern were observed. Two species of conservation concern were observed at the Pahranaagat project site, including cactus wren (*Campylorhynchus brunneicapillus*) and loggerhead shrike.

There is the potential for a variety of other species of conservation concern to occur in these project sites. Some examples of anticipated species include burrowing owl (*Athene cunicularia*), northern harrier, peregrine falcon, and pinyon jay (*Gymnorhinus cyanocephalus*) (Peterson 1990).

These project sites are located within a known historic raptor migratory corridor. This corridor is known to be used by several raptor species. Raptors likely to occur in the area include Cooper's hawk (*Accipiter cooperii*), red-tailed hawk, rough legged hawk (*Buteo lagopus*), prairie falcon, American kestrel (*Falco sparverius*), and great-horned owl (*Bubo virginianus*).

White Pine County

Six of the 14 project sites are located within White Pine County: Butte Valley, Cherry Creek, Connors Pass, Copper/Kimberly, Squaw Peak, and Willard Creek. Migratory bird surveys were performed in July 2008 by SWCA. No migratory bird species of conservation concern were observed at the Butte Valley, Cherry Creek, Connors Pass, Copper/Kimberly project sites. A spotted towhee (*Pipilo maculatus*) was observed at the Squaw Peak project site. A loggerhead shrike was observed at the Willard Creek project site.

There is the potential for a variety of other bird species of conservation concern to occur in these project sites. Some examples of anticipated species include pinyon jay, gray vireo (*Vireo vicinior*), Virginia's warbler (*Vermivora virginiae*), Lewis' woodpecker (*Melanerpes lewis*), red-naped sapsucker (*Sphyrapicus nuchalis*), sage sparrow (*Amphispiza belli*), loggerhead shrike, and Swainson's hawk (*Buteo swainsoni*) (Peterson 1990).

Elko County

Two of the 14 project sites are located within Elko County: Bald Mountain and Lower Spruce. Migratory bird surveys were performed in July 2008 by SWCA. No migratory bird species of conservation concern were observed during surveys of the Bald Mountain project site. One species of conservation concern was observed at the Lower Spruce site: Brewer's sparrow (*Spizella breweri*).

While only one migratory bird species were observed during surveys, there is the potential for a variety of other species of conservation concern to occur in these project sites. Some examples of anticipated species include prairie falcon, pinyon jay, gray vireo, black-throated warbler (*Dendroica caerulescens*), Virginia’s warbler, Lewis’ woodpecker, red-naped sapsucker, sage sparrow, vesper sparrow, burrowing owl, loggerhead shrike, and Swainson’s hawk (Peterson 1990).

Special-Status Species

This section identifies BLM special-status species that occur, or have the potential to occur, within the 14 project sites. The BLM 6840 Manual (2008b) describes special-status species as 1) species listed or proposed for listing under the Endangered Species Act (ESA); and 2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated BLM Sensitive by the State Director(s). All federal candidate, proposed, and delisted species in the 5 years following delisting will be conserved as BLM sensitive species. Data pertaining to special status species occurrence are maintained by the BLM, USFWS, Nevada Department of Wildlife, and Nevada Natural Heritage Program (NNHP).

Threatened and Endangered Species

A search of the NNHP database indicated that of the 26 federally protected species occurring in Clark, Lincoln, White Pine, and Elko counties, only Mojave desert tortoise (*Gopherus agassizii*) has the potential to occur in any project site (Table 3.2-1). Desert tortoises have the potential to occur in both Clark and Lincoln counties. At the Silverhawk North site, SWCA biologists did not observe tortoises or tortoise sign (e.g., burrows, scat) within the project site; however, they did observe two tortoise carcasses and two burrows within the Zone of Influence (ZOI). Similarly, at the Gunsight Pass site, no tortoises or tortoise sign was observed within the project area, but two tortoise burrows and one piece of tortoise scat were observed within the ZOI. The Silverhawk North and Gunsight Pass project sites are located within the Mormon Mesa Critical Habitat Unit and the Coyote Springs ACEC. The Gunsight Pass site is located within a previously disturbed area.

Table 3.2-1. Special-Status Species with the Potential to Occur in any of the 14 Project Sites

Common Name	Scientific Name	Status
Mojave desert tortoise	<i>Gopherus agassizii</i>	Federally Threatened
Desert bighorn sheep	<i>Ovis canadensis</i>	BLM Sensitive*
Pygmy rabbit	<i>Brachylagus idahoensis</i>	BLM Sensitive
Sage grouse	<i>Centrocercus urophasianus</i>	BLM Sensitive
Bald eagle	<i>Haliaeetus leucocephalus</i>	BLM Sensitive
Ferruginous hawk	<i>Buteo regalis</i>	BLM Sensitive
Golden eagle	<i>Aquila chrysaetos</i>	BLM Sensitive
Long-calyx eggvetch	<i>Astragalus oophorus</i> var. <i>lonchocalyx</i>	BLM Sensitive
Rosy twotone beardtongue	<i>Penstemon bicolor</i> ssp. <i>roseus</i>	BLM Sensitive

Source: BLM (2008a).

* Although desert bighorn sheep is listed as a BLM Sensitive species, it is discussed under the Wildlife Section with other big-game species (i.e., deer, elk, pronghorn).

Sensitive Species

There is the potential for two mammal species, four bird species, and two plant species to occur within the 14 project sites. These species and their listing status are summarized in Table 3.2-1.

Species-specific surveys were completed for desert tortoise; no other species-specific surveys were completed for the species listed in Table 3.2-1, although they were surveyed for concurrently during general wildlife and vegetation surveys. With the exception of the desert tortoise sign discussed under Threatened and Endangered Species, no other sensitive species or their sign was observed within the project sites.

The White Pine County sites occur within greater sage grouse (*Centrocercus urophasianus*) habitat. The Butte Valley site in White Pine County is also located within potential pygmy rabbit (*Brachylagus idahoensis*) habitat. Pygmy rabbit habitat is characterized by big sagebrush, with deep, friable soils for digging burrows.

The Lower Spruce site and distribution line are located within a known historic raptor migratory corridor. This corridor is known to be used by several raptor species, notably ferruginous hawks (*Buteo regalis*) and golden eagles (*Aquila chrysaetos*). Bald eagles (*Haliaeetus leucocephalus*) are known winter residents of the Bald Mountain/Spruce Mountain area. The Lower Spruce site in Elko County is located within crucial greater sage grouse wintering grounds. The BLM Elko District Office has issued a no-disturbance restriction for sage-grouse winter habitat from November 1 through March 15. Additionally, pygmy rabbits have been observed within 1 mile of the U.S. 93 ROW.

Vegetation

The vegetation community within the planned area of disturbance was assessed through the use of Southwest Regional GAP (SWReGAP) analysis, a large-scale vegetation mapping program in the southwestern United States (EPA 2005). Vegetation communities were further refined based on field observations of SWCA during noxious weed field surveys in July 2008. This analysis indicates that 12 different vegetation communities would be affected as a result of the Proposed Action. Table 3.2-2 lists, by project site, which vegetation communities would be affected.

All native cacti and yucca are protected and regulated by the State of Nevada under Nevada Revised Statutes 527.120. Two species of cacti were observed at the Gunsight Pass and Silverhawk North sites, and golden cholla (*Cylindropuntia echinocarpa*) was observed at both the Gunsight Pass and Silverhawk North sites. Beavertail prickly pear (*Opuntia basilaris*) was observed at the Gunsight Pass site. Mojave yucca (*Xylorhiza tortifolia*) was the only species of yucca observed at both the Gunsight Pass and Silverhawk North sites. No cactus or yucca species were observed at the remaining sites.

Noxious Weeds/Invasive Non-Native Species

Noxious and invasive plant species generally have a variety of negative effects on an area. Typically, these plants spread easily during and immediately following ground-disturbing activities (Mack 1981), where they create problems for wildlife, land managers, and recreationists. Noxious and invasive plants can reduce water levels, alter runoff patterns, and increase soil erosion, thus diminishing the quality and quantity of wildlife habitat. Some nitrogen-fixing noxious and invasive species improve soil fertility, creating suitable conditions for other noxious and invasive plant species to become established and outcompete native plants (Belnap and Phillips 2001). The growth and spread of noxious and invasive species can also alter an ecosystem by changing fire patterns and intensities (Brooks and Matchett 2003).

Table 3.2-2. Vegetation Communities

Project Site	Vegetation Communities within Project Sites
Silverhawk North	Sonora-Mojave Creosote Bush-White Bursage
Gunsight Pass	North American Warm Desert Playa Sonora-Mojave Creosote Bush-White Bursage
Mount Wilson	Inter-Mountain Basins Montane Sagebrush Steppe Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland
Comet Peak	Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland
White River	Inter-Mountain Basins Semi-Desert Shrub Steppe
Pahranagat	Great Basin Xeric Mixed Sagebrush Shrubland Inter-Mountain Basins Big Sagebrush Shrubland Inter-Mountain Basins Mixed Salt Desert Scrub Inter-Mountain Basins Semi-Desert Shrub Steppe Mojave Mid-Elevation Mixed Desert Scrub
Butte Valley	Great Basin Xeric Mixed Sagebrush Shrubland Inter-Mountain Basins Big Sagebrush Shrubland
Cherry Creek	Great Basin Xeric Mixed Sagebrush Shrubland
Connors Pass	Great Basin Pinyon-Juniper Woodland
Copper/Kimberly	Great Basin Xeric Mixed Sagebrush Shrubland Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland
Squaw Peak	Great Basin Pinyon-Juniper Woodland
Willard Creek	Great Basin Xeric Mixed Sagebrush Shrubland
Bald Mountain	Inter-Mountain Basins Montane Sagebrush Steppe
Lower Spruce	Great Basin Xeric Mixed Sagebrush Shrubland Inter-Mountain Basins Big Sagebrush Shrubland Inter-Mountain Basins Mixed Salt Desert Scrub

Sources: EPA (2005)

In June and July 2008, SWCA completed field surveys and documented noxious and invasive species present at each of the sites and along access roads to the sites. These data were used by SWCA to prepare noxious and invasive weeds risk assessments, according to BLM protocol, for each of the sites (Appendix C). The results of these surveys are summarized in Table 3.2-3.

Of the plant species listed above, only camelthorn (*Alhagi camelorum*) is designated a noxious weed in the state of Nevada. This species is designated as a Class A noxious weed, and treatment is required wherever it is located. Authority for treatment of noxious weeds is provided by Nevada Revised Statutes 555.130-201. The remaining species listed in Table 3.2-3 are invasive species. There are no legal requirements for their treatment, although best management practices (BMPs) should be employed to reduce spread and establishment of new infestations.

Geology and Soils

The proposed project sites lie within the Mojave Desert and the Great Basin Desert. The Mojave Desert is the smallest North American Desert and is situated between the Sonoran Desert to the south and the Great Basin Desert to the north, covering parts of eastern California, southern Nevada, southwestern Utah, and northwestern Arizona. The Great Basin Desert occupies a large area in the western United States and is located between the Rocky Mountains and the Sierra Nevada Cascade Mountains. The Great Basin Desert is flanked and interspersed by north-south-running mountain ranges that surround broad, flat and gently

sloping plains and valleys (basins) with elevations up to 4,000 feet amsl. Alluvial fans and drainages flow perpendicular from the margins of the mountains toward the valley bottoms.

Table 3.2-3. Noxious and Invasive Weed Species within the Project Sites

Project Site	Noxious or Invasive Species
Silverhawk North	Bristly fiddleneck (<i>Amsinckia tessellate</i>), red brome (<i>Bromus rubens</i>)
Gunsight Pass	Red brome
Mount Wilson	None observed
Comet Peak	None observed
White River	Red brome, cheatgrass (<i>Bromus tectorum</i>), Russian thistle (<i>Salsola tragus</i>)
Pahranagat	Red brome, cheatgrass, filaree (<i>Erodium cicutarium</i>)
Butte Valley	Red brome
Cherry Creek	Red brome, cheatgrass, saltlover (<i>Halogeton glomeratus</i>)
Connors Pass	Red brome, tall tumbled mustard (<i>Sisymbrium altissimum</i>)
Copper/Kimberly	Camelthorn (<i>Alhagi camelorum</i>), red brome
Squaw Peak	Russian thistle, tall tumbled mustard
Willard Creek	None observed
Bald Mountain	Camelthorn
Lower Spruce	Camelthorne, red brome, cheatgrass, saltlover, tall tumbled mustard

Source: Appendix C

The soils at the 14 proposed project sites are generally well drained and located where the depth to the water table is more than 80 inches. Soils vary from sandy, gravelly and clay loam to cemented, indurate and weathered bedrock. As each of the proposed site locations has its own unique topography, detailed descriptions for each site are presented below.

Clark County

The soils at the Silverhawk site are characterized by moderately sloping soils with Colorock-Tonopah associations. They are found at 1,300 to 3,000 feet amsl. They experience a mean annual precipitation of 4 to 8 inches and mean annual air temperature of 59°F to 70°F. The frost-free period lasts from 180 to 270 days.

The site at Gunsight Pass is characterized by moderately sloping Colorock-Tonopah soil associations. They are found at 1,300 to 3,000 feet amsl. They experience a mean annual precipitation of 4 to 8 inches and mean annual air temperature of 59°F to 70°F. The frost-free period lasts from 180 to 270 days.

Lincoln County

The soils at the Mount Wilson site are extremely stony loam Winu with 50% to 75% slopes. They are found at 7,600 to 9,200 feet amsl. They experience a mean annual precipitation of 14 to 20 inches and mean annual air temperature of 40°F to 43°F. The frost-free period lasts from 40 to 50 days.

The soils at the Comet Peak site are characterized by Monarch-Highup-Eganroc associations. They are found at 6,300 to 10,200 feet amsl. They experience a mean annual precipitation of 14 to 27 inches and mean annual air temperature of 39°F to 45°F. The frost-free period lasts from 50 to 90 days. Additional minor components of the soil at the Comet Peak site include Faleria, Badhap, Rock Outcrop, and Hardol.

The soil at the White River site is characterized by Ursine-Mezzer soil associations, with minor components, including Cliffdown and Veet. These soil associations are found at 4,700 to 5,300 feet amsl. They experience a mean annual precipitation of 8 to 10 inches and mean annual air temperature of 49°F to 53°F. The frost-free period lasts from 120 to 150 days.

The Pahrnagat site is characterized by Pintwater-Rochpah soil associations. They are found at 4,000 to 5,200 feet amsl. They experience a mean annual precipitation of 5 to 9 inches and mean annual air temperature of 50°F to 55°F. The frost-free period lasts from 120 to 160 days.

White Pine County

The soils of the Butte Valley site are a combination of Atlow association and Pioche-Segura-Cropper association. The Atlow association is found at 6,000 to 7,000 feet amsl. It experiences mean annual precipitation of 9 to 11 inches and mean annual air temperature of 47°F to 49°F. It has a frost-free period of 100 to 120 days. Atlow associations consist of mountains with a linear downslope shape and a convex across-slope shape. Ecologically, the soils are shallow clay loam but vary from very gravelly loam (0–2 inches) to very gravelly sandy clay loam (2–16 inches) to unweathered bedrock (16–20 inches).

The Cherry Creek site is characterized by moderately sloping soils with Automal-Wintermute associations. They are found at 6,000 to 6,500 feet amsl. They experience a mean annual precipitation of 6 to 11 inches and mean annual air temperature of 45°F to 48°F. The frost-free period lasts from 100 to 120 days.

The soil at the Connors Pass site is characterized by Pookaloo-Cavehill-Rock Outcrop and Pookaloo-Hyzen-Cavehill soil associations. They are found at 6,500 to 7,800 feet amsl. They experience a mean annual precipitation of 12 to 15 inches and mean annual air temperature of 43°F to 47°F. The frost-free period lasts from 65 to 120 days.

The Copper/Kimberly site is characterized by Grink-Onkeyo-Halacan soil associations. They are found at 7,200 to 8,500 feet amsl. They experience a mean annual precipitation of 15 to 19 inches and mean annual air temperature of 37°F to 45°F. The frost-free period lasts from 30 to 95 days.

The Squaw Peak site is characterized by Hyzen-Cavehill soil associations. They are found at 7,000 to 8,000 feet amsl. They experience a mean annual precipitation of 13 to 15 inches and mean annual air temperature of 43°F to 45°F. The frost-free period lasts from 65 to 95 days.

The Willard Creek site is characterized by soils that are a combination of Jericho-Chainlink associations and Huilepass associations. They are found at 5,600 to 7,200 feet amsl. They experience a mean annual precipitation of 8 to 14 inches and mean annual air temperature of 45°F to 50°F. The frost-free period lasts from 100 to 120 days.

Elko County

The soils at the Bald Mountain site are characterized by Wardbay-Adobe-Haunchee associations. They are found at 7,500 to 9,460 feet amsl. They experience a mean annual precipitation of 15 to 19 inches and mean annual air temperature of 41°F to 43°F. The frost-free period lasts from 40 to 90 days.

The Lower Spruce site is characterized by Eastwell-Hundraw-Okan soil associations. They are found at 6,200 to 6,800 feet amsl. They experience a mean annual precipitation of 7 to 9 inches and mean annual air temperature of 46°F to 49°F. The frost-free period lasts from 100 to 120 days.

Visual Resources

The BLM uses a Visual Resource Management (VRM) system to inventory and manage visual resources on public lands. The primary objective of VRM is to maintain the existing visual quality of BLM-administered public lands and to protect unique and fragile visual resources. The VRM system uses four classes to describe different degrees of modification allowed to the landscape. VRM classes are visual ratings that describe an area in terms of visual or scenic quality and viewer sensitivity to the landscape (the degree of public concern for an area's scenic quality). Once an area has been assigned a VRM class, the management objectives of that class can be used to analyze and determine visual impacts of proposed activities and to gauge the amount of disturbance an area can tolerate before it exceeds the visual management objectives of its VRM class (BLM 1980).

Three RMPs/FEISs apply to the project area: Ely, Elko, and Las Vegas. Of the 14 sites on BLM-managed lands included in the project, seven sites are proposed new locations requiring visual contrast ratings to be performed. The remaining sites occurred on private land were co-located on existing towers or directly adjacent to existing communications facilities, and no contrast ratings were required. The three RMPs/FEISs have assigned lands in the project areas as VRM Class III and IV (Table 3.2-4).

Table 3.2-4. VRM Class Objectives

Site	BLM District Office	VRM Class Objective
Silverhawk North	Southern Nevada	III
Gunsight Pass	Southern Nevada	III
Pahranagat	Ely	III/IV
White River	Ely	III
Butte Valley	Ely	III
Lower Spruce	Elko	IV
Willard Creek	Ely	III

The Class III management objective “is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape” (BLM 1986:Appendix 2).

The VRM Class IV management objective is “to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements” (BLM 1986:Appendix 2).

VRM class designations are based on the area's visual sensitivity and are the result of a combination of factors, including the degree of visitor interest in and public concern for the area's visual resources, the area's public visibility, the level of use by the public, and the type of visitor use the area receives (BLM 1992).

Visual Character

The dominant landscape characteristic within and surrounding the proposed new sites are the wide, generally undeveloped expanses of open, shrub-covered valleys framed by low rolling hills, broad, low-angle alluvial fans and well-defined, sometimes sharply rising and densely forested mountain blocks.

Key Observation Points and Contrast Rating

The method BLM uses to determine whether proposed projects conform to VRM class objectives is a contrast rating system that evaluates effects of proposed projects on visual resources. Contrast rating is done from critical viewpoints, known as Key Observation Points (KOPs), which are usually along commonly traveled routes, such as highways, access roads, or hiking trails. A KOP can either be a single point of view that an observer/evaluator uses to rate an area or panorama, or a linear view along a roadway, trail, or river corridor. Factors considered in selecting KOPs for the proposed project were as follows:

- Angle of observation or slope of the proposed project area
- Number of potential viewers of the project area
- Length of time that the project would be in view
- Relative size of the project
- Season of use
- Light conditions

The primary public views of the proposed projects would be from main highways and interstates, as well as traveled graded dirt roads (see Chapter 4). SWCA worked with the BLM to select KOPs to represent effects of the project as seen from public areas that permit a high degree of visibility to the project area. SWCA divided the views into three distance zones, based on the relative visibility from a KOP: foreground, middle ground, and background zones. The foreground consists of the area from which the Proposed Action can be viewed in detail. The middle ground occurs at a point where the texture and form of visible plants are no longer apparent, between 3 and 5 miles away. The background is the remaining area that can be seen from a KOP occurring beyond 5 miles. SWCA visual resource specialists evaluated the degree of visual contrasts at each KOP, based on the form, line, color, and texture changes between the existing landscapes and how the landscapes would look after implementation of the potential project. SWCA recorded the contrast ratings using BLM Contrast Rating Worksheets (Appendix D), which were then used to determine whether or not the level of disturbance associated with the Proposed Action would exceed the VRM objectives for the area (BLM 1986). SWCA evaluated one KOP for each new site to determine the potential impacts of the proposed project to visual resources within the project area.

KOP – Silverhawk North

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling north and south on U.S. 93. The Average Annual Daily Traffic (AADT) on U.S. 93 south of Alamo was 2,100 vehicles in 2007 (NDOT 2007). The KOP occurs within 1 mile of the Proposed Action. Foreground views are of the asphalt road surface and gravelly road shoulder, bordered by low-growing desert vegetation. The exposed soils provide color and texture contrasts with the shrubby creosote bush

and dry, brown grasses. Middle ground views are of the broad, gently sloping valley floor intersected by whitish tan dirt roads and low, irregular creosote bush. Background views are of the rugged distant mountain ranges on the horizon. The existing Apex communications facility is faintly visible to the south.

KOP – Gunsight Pass

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling north and south on U.S. 93. The AADT on U.S. 93 south of Alamo was 2,100 vehicles in 2007 (NDOT 2007). The KOP occurs within 0.5 mile of the Proposed Action. Foreground views are of the asphalt road surface and the sparsely vegetated and gravelly road shoulder, bordered by low-growing desert vegetation. The reflective disturbed soils of the project area are clearly visible, along with trash piles and large excavations. The exposed compacted soils provide color, and texture contrasts with the shrubby creosote bush and dry, brown grasses. Middle ground views are of the rocky and rugged topography of the Arrow Canyon range east of the project area, Background views are of the broad, open valley extending north and south of the project area and the rugged distant mountain ranges extending to the horizons.

KOP – White River

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling north and south on SR 318. The AADT on SR 318 was 1,100 vehicles in 2007 (NDOT 2007). The KOP occurs within 0.5 mile of the Proposed Action. Foreground views are of the wide band of asphalt road surface and gravelly road shoulder, bordered by low-growing desert vegetation and brighter green rabbitbrush. A barbed-wire fence parallels SR 318, and there is a visible change in the appearance of vegetation that follows this line. Outside the fence line, there is a dense cover of low-lying gray-green shrubs interspersed with brown grasses and medium-dark green juniper trees along the upper benches. Gray gravelly washes intersect the valley at an angle to SR 318. Middle ground views are of the broad, open White River valley, bordered by rounded benches and gently sloping alluvial fans. The rugged topography of the Seaman Range is west of the project area. Background views are of the rugged distant mountain ranges extending to the horizons.

KOP – Pahranaagat

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling north on U.S. 93. The AADT on U.S. 93 north of the Interstate 15 interchange was 1,700 vehicles in 2007 (NDOT 2007). The KOP occurs within 5 miles of the Proposed Action. There were no suitable KOPs within the foreground distance zone. Foreground views are of the asphalt road surface and gravelly road shoulder, bordered by low-growing shrubs interspersed with creosote bush. The reflective disturbed soils of the project area are clearly visible, along with trash piles and large excavations. The exposed compacted soils provide color and texture contrasts with the shrubby creosote bush and dry, brown grasses. Middle ground views are of the gently sloping alluvial fans intersected by rocky outcrops and deep-cut, dry gravelly drainages and the broad, open valley extending north and south of the project area. A power transmission line crosses U.S. 93 and extends over the mountains into the background. Additionally, reflective light-colored soils are exposed in a winding road that intersects the sloping alluvial fans. Background views are of the distant rocky and rugged topography of the project area. The topography consists of long, tilted bands of rock layers ending in sharp relief along the horizon.

KOP – Willard Creek

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling south on White Pine County Road 38 through Spring Valley. The AADT data nearest White

Pine County Road 38 are from U.S. 50 west of Majors Junction and was 820 vehicles in 2007 (NDOT 2007). The KOP occurs within 3 miles of the Proposed Action. Foreground views are of the rolling, densely vegetated hillsides and alluvial fans coming off of the Snake Range. Vegetation consists predominantly of bright gray-green low sage interspersed with taller, darker juniper trees. Light tan soils are faintly visible through the vegetation. The reflective disturbed soils of the dirt roads that intersect the hillsides are clearly visible. Middle ground views are of the lower slopes of the Snake Range, with large patches of treeless areas interspersed with dense stands of pinyon and juniper. An existing AT&T communication tower on private property is visible east of the project area, as well as an existing single pole transmission line cutting across the slope adjacent to the project area. Vibrant, bright green agricultural fields are clearly visible along the valley floor. Background views are of the rugged high peaks of the Snake Range and broad, wide open Spring Valley extending to the north and south.

KOP – Butte Valley

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling on graded gravel roads through Butte Valley. No traffic data are available for these graded gravel roads. The KOP occurs within 0.5 mile of the Proposed Action. Foreground views are of the broad, wide open valley floor covered with low, gray-green shrubs and grasses. Densely vegetated hillsides and alluvial fans gently slope down from the surrounding mountains. Lines of dark green junipers come down the slopes from dense stands higher on the mountain. Grayish, rocky soils are faintly visible through the vegetation. Middle ground views are of the lower foothills covered in thicker stands of pinyon and juniper. Existing dirt surface roads cross the valley at various angles. Background views are of the hazy, rugged mountains and valleys extending far into the horizon.

KOP – Lower Spruce

SWCA selected this KOP to represent the views vehicle passengers would have of the project area while traveling north and south on alternate U.S. 93. The AADT on U.S. 93 north of Currie was 1,100 vehicles in 2007 (NDOT 2007). The KOP occurs within 0.5 mile of the Proposed Action. Foreground views are of the rolling, densely vegetated hills and alluvial fans adjacent to the long reflective band of U.S. 93. A barbed-wire fence parallels U.S. 93, with low-lying shrubs, weeds, and grasses on either side. Light-colored soils are visible through the vegetative cover along the entire proposed site. The exposed light-reflective soils provide color and texture contrasts with the gray green sagebrush, perennials, and grasses. Middle ground views are of the gently sloping and rounded alluvial fans covered in low sagebrush interspersed with grasses and junipers. Background views are of the rugged distant mountain ranges extending to the horizons. These mountains have reflective patches of snow throughout much of the year.

This page intentionally left blank.

Chapter 4

ENVIRONMENTAL CONSEQUENCES

4.1 AIR QUALITY

Proposed Action

Motorized construction vehicles that would be used during construction consist of delivery trucks, road graders, backhoes, bulldozers, track-mounted augers, and welding rigs. During construction, soil-disturbing activities, such as drilling and grading associated with the Proposed Action, would generate short-term increases in CO and PM 10 emissions in the project area. Increases would occur during construction activities and from the use of gas powered generators and would be localized to the construction zone and project site. At each individual site, construction activities that would cause these increases would last no longer than one month. All construction projects in Clark County equal to or larger than 0.25 acre require a dust control permit from CCDAQEM. Permit conditions and stipulations must be complied with for the duration of the construction project, which will reduce impacts to air quality.

Increases in CO and PM 10 from short-term construction activities and the use of gas-powered generators would not affect the attainment status at any of the proposed microwave and mobile radio sites.

No-Action Alternative

Under the No-Action Alternative, the microwave and mobile radio facilities would not be developed, and there would be no impact to air quality.

4.2 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Proposed Action

ACECs highlight areas that require special management to protect and prevent irreparable damage to natural resources. The analysis of impacts to ACECs is an assessment of the Proposed Action's and alternatives' compliance with special management measures established in the land use planning process, as well as being an assessment of whether the Proposed Action and alternatives would result in irreparable damage to or loss of the resources for which the ACECs have been designated.

The Proposed Action would be in conformance with all special management requirements of both the Coyote Springs and Highland Peak ACEC designations and is not anticipated to impact any other ACECs within the vicinity of the project area.

The proposed Gunsight Pass and Silverhawk North sites are located within the Coyote Springs ACEC, which is managed for the protection of desert tortoise. The proposed Gunsight Pass site is located within a previously disturbed area. These sites would occur in desert tortoise habitat. Development of the microwave towers and facilities would result in new disturbance of 0.27 acre at the Silverhawk North site. A new loss of 0.27 of habitat within the ACEC would be negligible. For a detailed description of impacts to desert tortoise from the Proposed Action, refer to Special-Status Species.

The Highland Peak ACEC is managed for the protection of the Colorado hairstreak and broadlined saepium hairstreak and habitat for the basin waxflower. The proposed site is adjacent to existing communications facilities and would use existing access and power. Additionally, SWCA did not observe basin waxflower during surveys. Development of the proposed microwave site, Comet Peak, would result in a permanent loss of 0.6 acre, or 0.01%, of the 6,900-acre ACEC. A loss of 0.01% of potential unoccupied habitat within the ACEC would be negligible for the basin waxflower and the two hairstreak species.

No-Action Alternative

Under the No-Action Alternative, new microwave and mobile radio towers would not be constructed. The resources highlighted in the Coyote Springs and Highland Peak ACECs would continue to be subject to current conditions and trends. Under the No-Action Alternative, there would be no impact to ACECs.

4.3 CULTURAL RESOURCES

Proposed Action

Based on the data and conclusions contained in the Class III intensive inventory reports, one of the two sites (26EK011465) can and will be avoided in accordance with 36 CFR 800.9(a) and BLM Manual 8143.21 (BLM 1990).

The other NRHP-eligible site (26EK011462) identified within the proposed project area cannot be avoided under the Proposed Action, resulting in an “adverse effect.” This site will require mitigation in the form of data recovery. All data recovery would be subject to a plan approved by BLM and the Nevada State Historic Preservation Office, developed and implemented at the proponent’s expense. Construction activities would not take place at this location until a “notice to proceed” is issued, contingent on completion of all fieldwork; provisions guaranteeing an acceptable report and curation of all collected specimens are in place.

If cultural resource materials are discovered during construction, work should cease immediately and the appropriate agency (BLM) contacted. If required by the BLM, a BLM-approved archaeological monitor (funded by the project proponent) would be present during construction at any, or all, of the tower locations to further reduce any likelihood of entry onto and/or damage to cultural resources.

No-Action Alternative

Under the No-Action Alternative, new microwave and mobile radio towers would not be constructed, and there would be no impact to cultural resources.

4.4 WILDLIFE

Proposed Action

New ground disturbance would result in the permanent removal of 100.98 acres of wildlife habitat for the construction of microwave and mobile radio towers, temporary construction areas, fuel buffers, utility roads, and utility lines. Temporary impact areas (26.42 acres) would be reclaimed following completion

of construction. Development associated with the Proposed Action would also result in habitat fragmentation. During construction, wildlife may suffer mortality as a result of collisions with construction traffic. Microwave and mobile radio towers may result in the mortality of birds and bats as a result of collisions. The permanent removal of 100.98 acres of suitable wildlife habitat represents a negligible amount of habitat, compared with the suitable habitat in the surrounding areas. Additionally, it could take years before the 26.42 acres of temporary disturbance areas are successfully reclaimed. Even when vegetation is established during reclamation efforts, the composition of species in the recovery area is often different from the original plant community. Typically grasses would establish early on, while shrubs would take much longer to re-establish. The impacts of the temporary disturbance areas would persist for many years beyond the construction and reclamation phase.

The Pahrangat Site in Lincoln County is located within occupied desert bighorn sheep habitat. The BLM Ely District Office requires activities that result in the loss of special-status species habitat be mitigated on a ratio of 2 acres of comparable habitat for every 1 acre of lost habitat as determined on a project-by-project basis. This would reduce impacts to desert bighorn sheep from habitat fragmentation and direct loss of habitat. The Pahrangat Site access road passes within 0.75 miles of the wildlife water development Delamar #7. Habitat fragmentation is anticipated to be minimal, as road width would be limited to 22 feet and would be constructed of gravel or dirt, which would not create a substantial barrier for wildlife species. Additionally, the BLM Ely District restricts activities within occupied desert bighorn sheep habitat from March 1 through May 31 and from July 1 through August 31. This would further reduce impacts to desert bighorn sheep from increased human presence.

Wildlife may be indirectly impacted from the Proposed Action from increased noise and human presence, which would likely result in increases of construction-related trash and litter. Additionally, the development of new access roads may increase the number of people driving vehicles in the area. Increased accessibility and motorized travel by the public along the proposed Pahrangat access road could result in displacement of desert bighorn and discourage use of the Delamar #7 water development. This would be reduced by mitigation measure identified in Chapter 6 gating the access road to limit and control unauthorized travel. Predation by raptors and ravens on small mammals, birds, and reptiles may increase as a result of new perch sites presented by the proposed lines and towers. Sites in Lincoln and White Pine counties are located within big-game habitat for elk, mule deer and pronghorn. The BLM Ely District Office restricts activities in big-game calving/fawning/kidding/lambing grounds and crucial summer range from April 15 through June 30.

No-Action Alternative

Under the No-Action Alternative, new microwave and mobile radio towers would not be constructed, and there would be no impact to wildlife or wildlife habitat.

4.5 MIGRATORY BIRDS

Proposed Action

Implementation of the Proposed Action would result in the permanent removal of 100.98 acres of suitable migratory bird habitat. Temporary impact areas (26.42 acres) would be reclaimed following the completion of construction, although as described in Section 4.4, it could take years before the 26.42 acres of temporary disturbance areas are successfully reclaimed. Lost habitat includes vegetation that is useful for both nesting and foraging. Additionally, the facilities developed for the Proposed Action

would result in habitat fragmentation for migratory birds. Development of any facility increases the likelihood of mortality to migratory birds as a result of collisions (USFWS 2002).

Migratory birds may be indirectly impacted from the Proposed Action from increased noise and human presence, which would likely result in increases of construction-related trash and litter. Additionally, the development of new access roads may increase the number of people driving vehicles in the area.

No new disturbance would take place during the migratory bird breeding and nesting season without a biological survey conducted by a qualified biologist to ascertain the presence or absence of migratory bird nesting. This survey would take place within 1 week of disturbance activities. The migratory bird breeding and nesting season is generally between April 15 and July 15 but would be adjusted for species and environmental conditions at each site. The permanent removal of 100.98 acres of suitable foraging and nesting habitat is negligible, compared with the amount of suitable habitat in the surrounding areas. Habitat fragmentation is not anticipated to have an effect on migratory birds, as these species are highly mobile.

The Lower Spruce and Bald Mountain sites are in a raptor historic migratory pathway. The Lower Spruce site area has no other human-made aerial structures in the pathway for more than 17 miles, which is the power line off of U.S. 229 north of the site. The new line would increase mortality for the first year; however, it is not anticipated to result in a large reduction in population levels. Bird mortalities resulting from collisions with microwave and radio towers are anticipated to be minimal. Mortalities resulting from collisions are not unique to microwave and mobile radio towers and have been observed at a variety of human-made structures. Temporary disturbance during site construction is a short-term impact that is only anticipated to result in short-term displacement. Additionally, implementation of mitigation measures listed in Chapter 6 would further reduce impacts.

No-Action Alternative

Under the No-Action Alternative, new microwave and mobile radio towers would not be constructed, and there would be no impact to migratory birds.

4.6 SPECIAL-STATUS SPECIES

Proposed Action

Federally Listed Species

The desert tortoise is the only federally listed species with potential to occur within the project area. The desert tortoise is listed in both Clark and Lincoln counties, although sign of this species was only observed during ZOI surveys for the proposed Silverhawk North and Gunsight Pass project sites. Both project sites are located within the Mormon Mesa Critical Habitat Area and within the Coyote Springs ACEC. Gunsight Pass is located on previously disturbed lands. Implementation of the Proposed Action would result in the new disturbance of 0.27 acre associated with the Silverhawk North site. Reclamation in the Mojave Desert is difficult, and it could take years before the temporary disturbance areas are successfully reclaimed. The development of structures and roads would increase habitat fragmentation. Deposition of construction-related litter has potential to attract predators, such as common raven and coyote, which prey on tortoises. Temporary disturbance to tortoises may also occur as a result of increased human presence and construction-related vibration and noise. In addition, desert tortoise mortality may result from increased human presence and construction-related traffic.

Desert tortoise may be indirectly impacted as a result of post-construction vehicular traffic from the general public as well as for maintenance visits from NVE personnel. Typically, no more than one maintenance visit per month would be required by NVE personnel. Adverse impacts resulting from increased vehicular and human contact include harassment of tortoise and mortality from collisions with vehicles.

While habitat loss and fragmentation would occur from development of the proposed sites and related infrastructure, the maximum total new habitat loss from this development would be limited to 0.27 acre. This acreage is less than 0.00001% of the 151,360 acres of the Mormon Mesa Critical Habitat Area, which provides critical habitat for the desert tortoise. Similar, suitable tortoise habitat exists in areas surrounding the project area. While there is potential for direct mortality both during and after construction, a speed limit of 15 miles per hour (mph) would be established for construction-related traffic. Additionally, post-construction vehicle traffic is anticipated to be minimal, thereby decreasing the potential for desert tortoises to be killed as they enter roadways. Disturbance to desert tortoises from both construction activities and from human presence during and after construction would also potentially occur. However, this disturbance during construction would be short term and would occur only intermittently once construction was complete.

Sensitive Species

The BLM has identified eight sensitive species with potential to occur within the project area. These include two species of mammal, four species of bird, and two species of plants (see Table 3.2-1). While species-specific surveys were not conducted for sensitive species, SWCA biologists found no evidence of these species occurring at any of the proposed sites while conducting field surveys for the project sites. Therefore, implementation of the Proposed Action is not expected to have adverse impacts to these species.

The Lower Spruce site in Elko County is located within crucial greater sage grouse wintering grounds. The BLM Elko BLM District Office has issued a no-disturbance restriction for sage grouse winter habitat from November 1 through March 15. Additionally, the Cherry Creek and Willard sites in White Pine County occur within sage grouse winter range. The BLM Ely District restricts permitted activities from November 1 through March 31 within greater sage grouse winter range. As a result, impacts to sage grouse from the increased presence of humans and construction equipment would be further reduced.

No-Action Alternative

Under the No-Action Alternative, new microwave and mobile radio towers would not be constructed, and there would be no impact to special-status species.

4.7 VEGETATION

Proposed Action

Implementation of the Proposed Action would result in the permanent loss of 100.98 acres and the temporary loss of 26.42 acres of vegetation across 12 vegetation communities. The majority of the temporary laydown areas adjacent to the tower sites would be maintained as fuel breaks, while 0.12 acre within the Sonora-Mojave Creosote Bush-White Bursage Desert Scrub vegetation communities would be reclaimed following construction. The remaining temporary disturbance areas (26.30 acres) associated with access and power distribution would be reclaimed following construction. Ground-breaking

activities have the potential for introducing or spreading noxious and invasive weed populations, as well as increasing the fugitive dust in the local area, which can reduce a plant's photosynthetic ability. Development of facilities and roads would increase habitat fragmentation within the affected vegetation communities, which could reduce spread of seed and limit the ability of pollinators and wind to effectively cross-pollinate individual plants.

Indirect adverse impacts to vegetation may result from increased post-construction human presence and vehicle traffic. Further trampling of vegetation and fugitive dust could occur from increased access to a site and its surrounding area. In addition, vehicle traffic would also increase the potential for noxious or invasive weed introduction at a proposed site. This includes both traffic from company personnel and traffic from the general public, which may be more likely to use these newly developed roads.

The Proposed Action is not anticipated to result in adverse impacts to vegetation communities. The permanent loss of 100.98 acres of vegetation is negligible, compared with the total available vegetation in adjacent areas. Additionally, it could take years before the 26.42 acres of temporary disturbance areas are successfully reclaimed. Even when vegetation is established during reclamation efforts, the composition of species in the recovery area is often different than the original plant community. Typically grasses would establish early on, while shrubs would take much longer to re-establish. The impacts of the temporary disturbance areas would persist for many years beyond the construction and reclamation phase. The effects of habitat fragmentation are anticipated to be minimal, as the roads and facilities are not expected to create substantial barriers for seed dispersal or pollinators. Development of site facilities and roads is not anticipated to increase traffic from the public, who already use the existing roads to a certain degree. The effects of fugitive dust and spread of noxious and invasive weeds would be reduced through the implementation of mitigation measures listed in Chapter 6.

No-Action Alternative

Under the No-Action Alternative, the existing microwave and radio network systems would not be expanded and current trends and conditions of vegetation communities would continue unaffected.

4.8 NOXIOUS WEEDS/INVASIVE NON-NATIVE SPECIES

Proposed Action

Construction activities are known to contribute to the introduction, establishment, and/or spread of invasive plant species across the individual project areas as a result of ground-disturbing activities and via seeds brought in and dispersed by heavy equipment and project vehicles. In the long term, the introduction and establishment of exotic, non-native, invasive species could increase the risk of wild land fire (e.g., through *Bromus* spp. establishment) and potentially displace existing native vegetation communities in the project area.

SWCA botanists prepared a noxious and invasive weeds risk assessment for the Proposed Action (see Appendix C). SWCA botanists evaluated each project site as having a low to moderate risk rating. Development of the project sites would require the implementation of preventive management measures listed in Chapter 6. These measures consist of avoidance of transporting weed parts, monitoring of the site after construction, and treatment (and eradication if possible) of weeds at re-vegetation and construction locations. By applying these mitigation measures, the risk of spreading noxious and invasive weeds would be minimal.

No-Action Alternative

Under the No-Action Alternative, the existing microwave and radio network systems would not be expanded and current trends and conditions of noxious weeds and invasive non-native species would continue unaffected.

4.9 GEOLOGY AND SOILS

Proposed Action

Construction activities that would result in soil disturbance on 100.98 acres consist of grading new roads and tower sites, boring for power pole installation, and excavating foundations and underground distribution lines. Soil disturbance would result in short-term increases in erosion. The implementation of construction BMPs would minimize erosion and soil loss during construction activities. BMPs would be included in a Stormwater Pollution Prevention Plan.

No-Action Alternative

Under the No-Action Alternative, the existing microwave and radio network systems would not be expanded and current trends and conditions for geology and soils would continue unaffected.

4.10 VISUAL RESOURCES

As described in Chapter 3, BLM uses the VRM system to manage visual resources on public lands, analyze and determine visual impacts of proposed activities, and gauge the amount of disturbance an area can tolerate before it exceeds the visual objectives of its VRM class.

Generally, impacts to visual resources are considered important if impacts of the Proposed Action exceed VRM objectives. VRM objectives for a majority of the project area, which is classified as VRM Class III, are “to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape” (BLM 1986:Appendix 2). VRM objectives for Class IV areas are “to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention” (BLM 1986:Appendix 2).

Proposed Action

The Proposed Action has the potential to impact visual quality and visual resources in the project area. Construction equipment, vehicles, and associated project activities, including ground disturbance, would be temporarily visible during installation of facilities. In addition, the presence of new communications towers and associated facilities would introduce a permanent contrast to the landscape.

As described in Chapter 3, one KOP was selected for each new proposed tower site to represent the effects of the project as seen from public areas that permit a high degree of visibility to the project areas. These seven points occur along the primary travel routes and represent views of people driving past or

near the proposed sites. The BLM did not identify static KOPs for any of the proposed new sites. Visual Contrast Rating Worksheets for the seven sites are included in Appendix D. The seven sites located directly adjacent to existing communication facilities were not evaluated for further impacts to visual resources. The proposed actions at the seven sites adjacent to existing communication facilities would repeat the basic elements of form, line, color, and texture already present, resulting in a weak contrast with the existing landscape; therefore, VRM class objectives would be met.

KOP 1 – Silverhawk North

Under the Proposed Action, the 160-foot-tall microwave and mobile radio tower would be constructed on approximately 0.10 acre west of U.S. 93, and approximately 100 feet of new power distribution line would be installed. Visual analysis indicates there would be short-term landform contrasts with the natural landscape, created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower. These contrasts would be produced by the short-term presence of construction vehicles and support structures such as a trailer, portable restroom, and stored materials. Additionally, installation of the tower and distribution line, security fencing around the facilities would result in long-term structurally related form and line contrasts. The distribution line would repeat the visual elements of the existing power distribution line along U.S. 93.

Because the KOP is along a travel route allowing high speeds (70 mph), potential viewers would only have brief views of the tower. From U.S. 93, portions of the project from either direction would be in view for approximately 5 miles (Figure 4.10-1). Viewers traveling at 70 mph would have views of the project for no more than 5 minutes. Given the limited viewing time, the visual contrast is of less concern than it would be from a static KOP, such as an overlook or trailhead. Although there would be moderate visible contrast to observers from U.S. 93 resulting from the Proposed Action, those contrasts would not exceed VRM Class III objectives, which allow a moderate degree of change to the natural landscape.

KOP 2 – Gunsight Pass

Under the Proposed Action, the 160-foot-tall microwave and mobile radio tower would be constructed on approximately 0.10 acre east of U.S. 93, and approximately 100 feet of new power distribution line would be installed. Visual analysis indicates there would be short-term landform contrasts with the natural landscape, created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower. These contrasts would be produced by the short-term presence of construction vehicles and support structures such as a trailer, portable restroom, and stockpiled materials. Additionally, installation of the tower and distribution line, access road, 7-foot-tall chain-link security fencing around the facilities would result in long-term structurally related form and line contrasts.

Because the KOP is along a travel route allowing high speeds (70 mph), potential viewers would only have brief views of the tower. From U.S. 93, portions of the project from either direction would be in view for approximately 10 miles. Viewers traveling at 70 mph would have views of the project for approximately 8 to 9 minutes (see Figure 4.10-1). Given the limited viewing time, the visual contrast is of less concern than it would be from a static KOP, such as an overlook or trailhead. Although there would be moderate visible contrast to observers from U.S. 93 resulting from the Proposed Action, those contrasts would not exceed VRM Class III objectives, which allow for a moderate degree of change to the natural landscape. The conclusion that the Gunsight Pass tower would be seen but would not dominate the view of the casual observer is consistent with Class III management objectives.

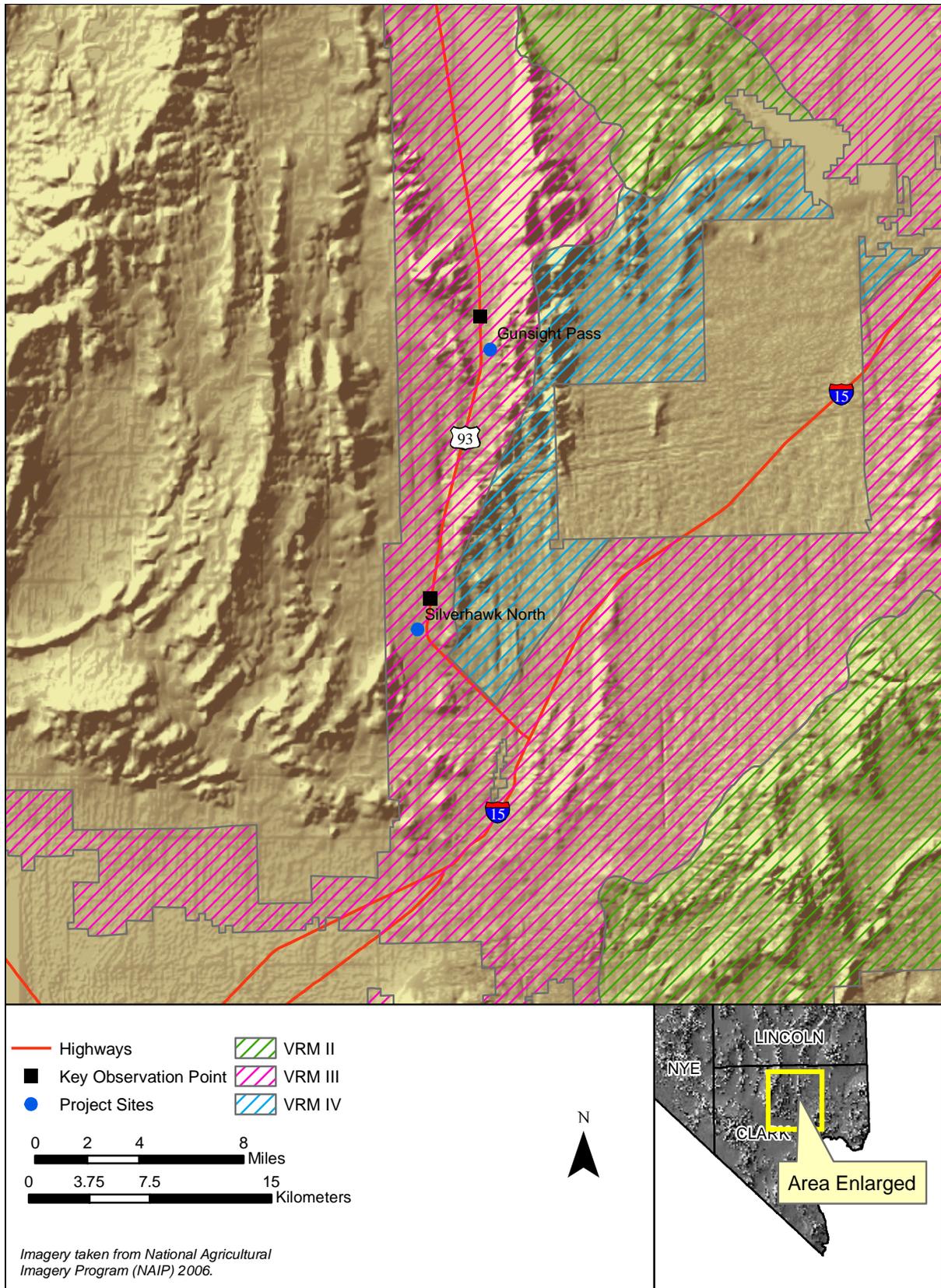


Figure 4.10-1. Clark County Visual Resource Management classes.

KOP 3 – White River Narrows

Under the Proposed Action, the 80-foot-tall microwave and mobile radio tower would be constructed on approximately 0.14 acre west of SR 318. Visual analysis indicates there would be landform contrasts with the natural landscape, created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower. There would also be structurally related form and line contrasts produced by the installation of the tower and security fencing around the facilities and the short-term presence of construction vehicles and support structures such as equipment trailers and stockpiled construction materials.

Because the KOP is along a travel route allowing high speeds (70 mph), potential viewers would only have brief views of the tower. From SR 318, portions of the project from either direction would be in view for approximately 8 miles. Viewers traveling at 70 mph would have views of the project for approximately 7 minutes (Figure 4.10-2). Given the limited viewing time, the visual contrast is of less concern than it would be from a static KOP, such as an overlook or trailhead. Moderate contrasts in the elements of the environment are consistent with BLM objectives for VRM Class III landscapes. The conclusion that the White River Narrows tower would be seen but would not dominate the view of the casual observer is consistent with Class III management objectives.

KOP 4 – Pahranaagat

Under the Proposed Action, the 80-foot-tall microwave and mobile radio tower would be constructed on approximately 0.10 acre west of U.S. 93, and approximately 5.25 miles of new access road and power distribution line would be installed. Visual analysis indicates there would be landform contrasts with the natural landscape, created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower and the access road. Soil cuts associated with the access road would be visible intermittently from points along U.S. 93. A majority of the access road would occur within VRM Class IV. There would also be structurally related form and line contrasts produced by the installation of the tower and distribution line, chain-link security fencing around the facilities, and the short-term presence of construction vehicles and support structures such as a trailer, portable restroom, and stored materials.

Because the KOP is along a travel route allowing high speeds (70 mph), potential viewers would only have brief views of the tower. From U.S. 93, portions of the project from the south would be in view for approximately 15 miles. Viewers traveling north at 70 mph would have views of the project for approximately 12 minutes. Although the visual contrast would be visible from U.S. 93, they would not exceed VRM Class III objectives. The proposed site is up to 6.3 miles distant from the KOP (see Figure 4.10-2). The greater distance from U.S. 93 to the proposed tower weakens the apparent contrast. Weak to moderate contrasts in the elements of the environment are consistent with BLM objectives for both VRM Class III and IV landscapes. The conclusion that the Pahranaagat tower would be seen but would not dominate the view of the casual observer is consistent with Class III objectives. The conclusion that the Pahranaagat access road and distribution line would be seen, but would not dominate the view of the casual observer along U.S. 93 is consistent with both Class III and Class IV objectives.

KOP 5 – Willard Creek

Under the Proposed Action, the 80-foot-tall microwave and mobile radio tower would be constructed on approximately 0.10 acre south of U.S. 50. Visual analysis indicates there would be landform contrasts with the natural landscape created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower. There would also be structurally related form and line contrasts produced by the installation of the tower and chain-link security fencing around the facilities and the short-term presence of construction vehicles and support structures such as a trailer and stockpiled materials.

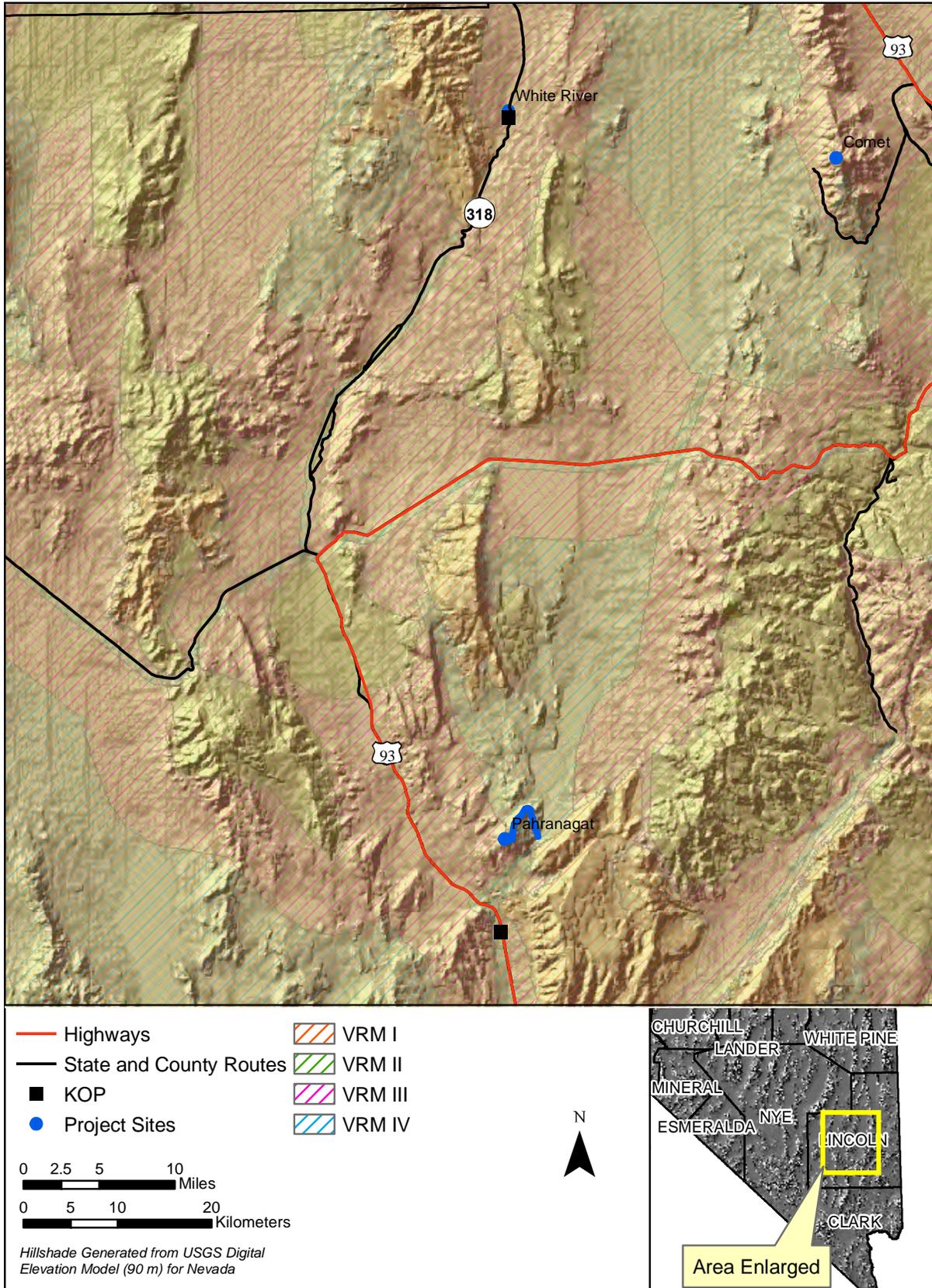


Figure 4.10-2. Lincoln County Visual Resource Management classes.

Although the visual contrast would be visible from White Pine County Road 38 and U.S. 50, they would not exceed VRM Class III objectives. Although there would be form and line contrasts, the proposed tower would repeat the visual elements of the existing AT&T tower to the east. Viewers traveling south at 50 mph would have views of the project for approximately 5 minutes. Additionally, the proposed site is up to 3 miles from the KOP on White Pine County Road 38 (Figure 4.10-3). The distance to the proposed tower weakens the apparent contrast. The proposed site would also be visible from private property to the east. The existing AT&T tower occurs on the private property between the private residence and the proposed Willard Creek site. Weak to moderate contrasts in the elements of the environment are consistent with BLM objectives for VRM Class III landscapes. The conclusion that the Willard Creek tower would be seen but would not dominate the view of the casual observer is consistent with Class III objectives.

KOP 6 – Butte Valley

Under the Proposed Action, the 220-foot-tall microwave and mobile radio tower would be constructed on approximately 0.10 acre north of U.S. 50, and approximately 1,900 feet of new power distribution line would be installed (see Figure 4.10-3). Visual analysis indicates there would be landform contrasts with the natural landscape created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower. There would also be structurally related form and line contrasts produced by the installation of the tower and distribution line, chain-link security fencing around the facilities, and the short-term presence of construction vehicles and support structures such as a trailer and stockpiled materials.

Although the visual contrast would be visible from the graded dirt road crossing Butte Valley, it would not exceed VRM Class III objectives. Viewers traveling west at 45 mph would have views of the project for approximately 4 minutes. Weak to moderate contrasts in the elements of the environment are consistent with BLM objectives for VRM Class III landscapes. The conclusion that the Butte Valley tower would be seen but would not dominate the view of the casual observer is consistent with Class III objectives.

KOP 7 – Lower Spruce

Under the Proposed Action, the 200-foot-tall microwave and mobile radio tower would be constructed on approximately 0.10 acre east of alternate U.S. 93, and approximately 12 miles of new power distribution line adjacent to alternate U.S. 93 would be installed. Visual analysis indicates there would be landform contrasts with the natural landscape created by form, line, and color changes and produced from soil disturbances from construction activities necessary for installation of the tower. There would also be structurally related form and line contrasts produced by the installation of the tower and distribution line, chain-link security fencing around the facilities, and the short-term presence of construction vehicles and support structures such as a trailer, portable restroom, and stacks of drilling pipe.

Because the KOP is along a travel route allowing high speeds (70 mph), potential viewers would only have brief views of the tower. From U.S. 93, portions of the project from the south would be in view for approximately 5 miles. Viewers traveling at 70 mph would have views of the proposed tower for approximately 5 minutes and views of the proposed distribution line for approximately 10 minutes (Figure 4.10-4). Although the visual contrast would be visible from alternate U.S. 93, it would not exceed VRM Class IV objectives. Moderate contrasts in the elements of the environment are consistent with BLM objectives for VRM Class IV landscapes. The conclusion that the Lower Spruce tower and distribution line would be seen but would not dominate the view of the casual observer is consistent with Class IV objectives.

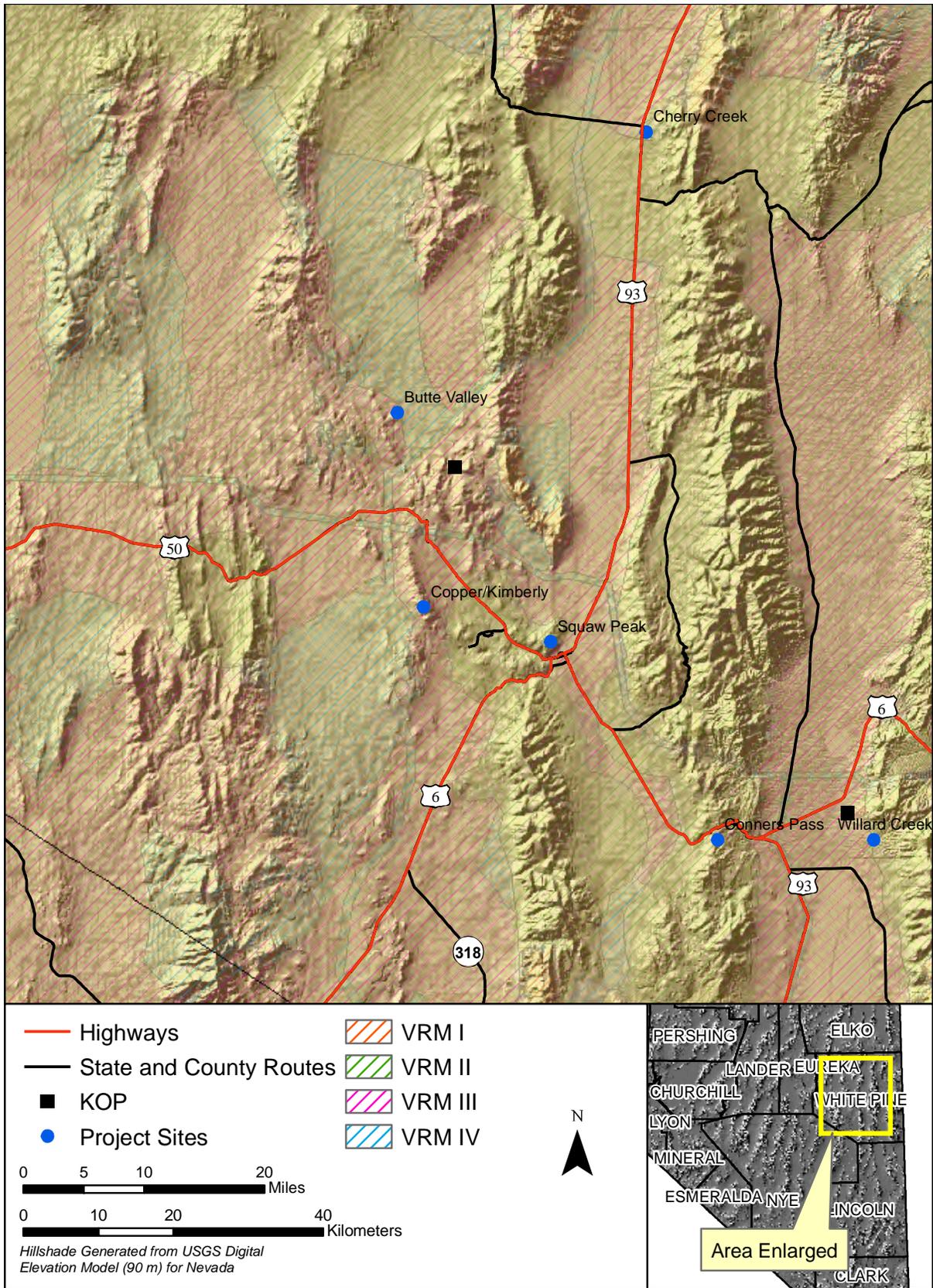


Figure 4.10-3. White Pine County Visual Resource Management classes.

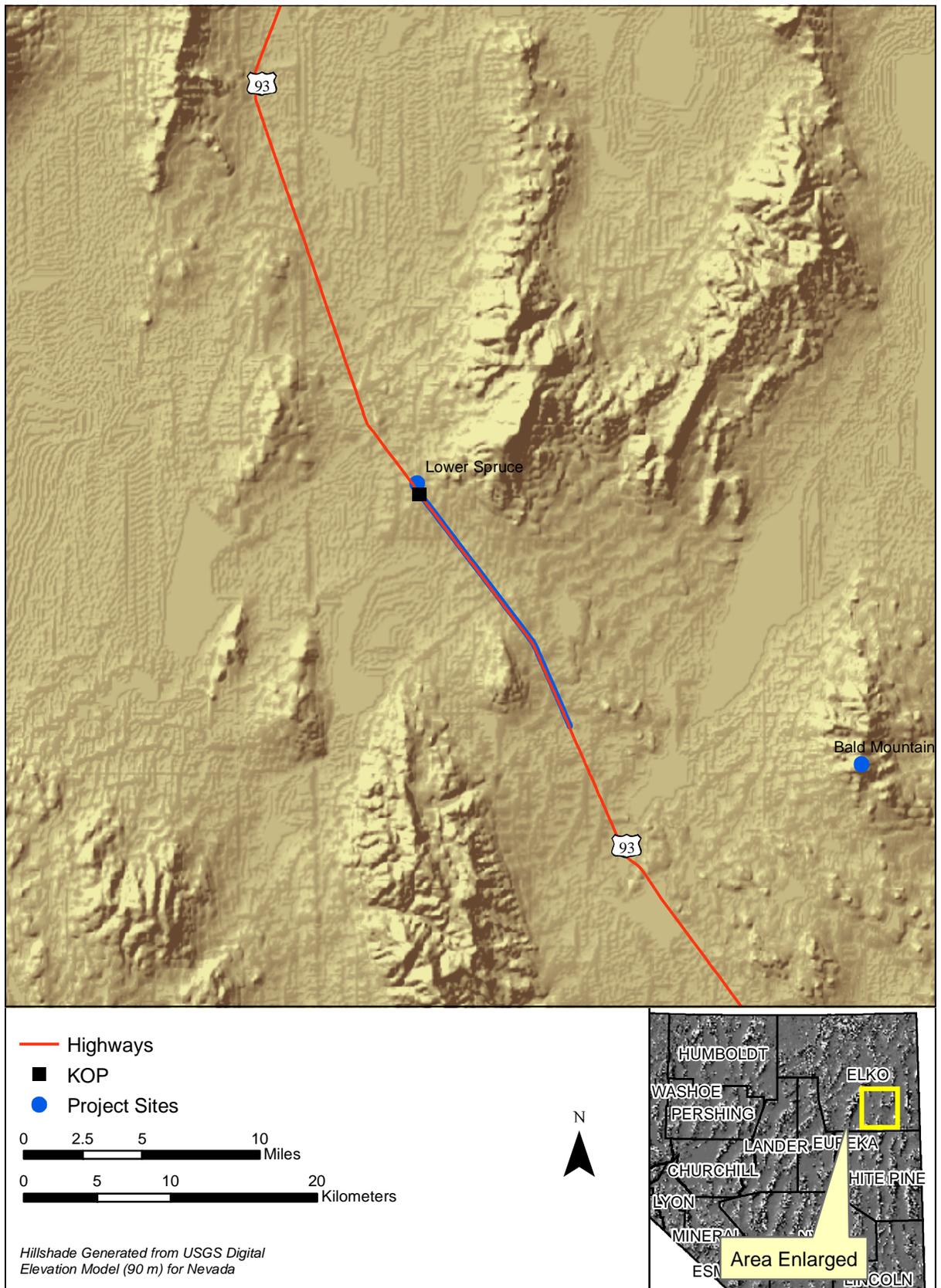


Figure 4.10-4. Elko County Visual Resource Management classes.

No-Action Alternative

Under the No-Action Alternative, the new microwave and mobile radio towers would not be built, and there would be no impact to visual resources.

This page intentionally left blank.

Chapter 5

CUMULATIVE IMPACTS

As required under NEPA and the regulations implementing NEPA, this section analyzes potential cumulative impacts from past, present, and reasonably foreseeable future actions, combined with the Proposed Action, within the area analyzed for impacts in Chapter 3 specific to the resources for which cumulative impacts may be anticipated. A cumulative impact is defined as “the impact which results from the incremental impact of the 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 such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). The resource values analyzed for the Proposed Action, which may involve a cumulative impact with other past, present, and reasonably foreseeable future actions consist of ACECs, wildlife, special-status species, migratory birds, vegetation, noxious and invasive weeds, and visual resources.

The geographic area of cumulative impacts analysis is a corridor within eastern Nevada between Las Vegas to the south and Elko to the north. This area was determined to encompass all affected resources considered for cumulative impacts. The cumulative impact analysis area is primarily undeveloped with land uses, including grazing, recreation, and land authorizations consisting of road and transmission corridors and communications facilities.

Table 5.0-1 summarizes past, present, and reasonably foreseeable future actions. Past actions are considered those that have occurred within the past 10 years. Present actions are considered those occurring at the time of this evaluation and during implementation of this Proposed Action. Future actions are those that are in planning stages, with a reasonable expectation of occurring within the next 10 years. These actions were identified through correspondence with the BLM Ely and Southern Nevada District Offices and the companies.

Table 5.0-1. Past, Present, and Reasonably Foreseeable Future Actions Considered for Cumulative Impact Analyses

Action	Description	Resources Affected	Area of Impact (acres) ¹
Past Actions			
Existing Communications Sites	There are currently up to 108 BLM permitted communication sites across 13 locations in Elko, White Pine, Lincoln, and Clark counties.	Visual resources, migratory birds, wildlife, and special-status species	75 (estimated)
Present Actions			
Harry Allen Generation Station	A 75-megawatt (MW) natural gas, simple cycle peaking power plant. The current expansion includes two new combined cycle turbines, two HRSGs, and one steam turbine totaling 500 MW, plus associated infrastructure.	Visual resources, migratory birds, wildlife	200 (estimated)
Coyote Springs Development	Residential development on private lands east of U.S. 93 in Clark and Lincoln counties at SR 168,	All	
Casual Motorized Recreation Use in Hells Half Acre	Casual motorized recreational use of existing roads, trails, and tracks in the Hells Half Acre area of the Hiko Range	Wildlife and special status species	200 (estimated)

Table 5.0-1. Past, Present, and Reasonably Foreseeable Future Actions Considered for Cumulative Impact Analyses (Continued)

Action	Description	Resources Affected	Area of Impact (acres)
Reasonably Foreseeable Future Actions			
ANTC Sites	Cellular Communications Towers throughout eastern Nevada.	ACECs, visual resources, migratory birds, wildlife and special-status species	10 (estimated)
NVE 500-kV Transmission Line	236-mile-long, 150-foot-wide 500-kV line through Elko, White Pine, Lincoln, and Clark counties.	All	4,300 (estimated)
Southern Nevada Water Authority Groundwater Development Project (GWD)	The GWD project ROW would cross the access road for the proposed Silverhawk North site. The GWD Project consists of pipelines, power lines, and associated facilities, and is located along U.S. Highway.	All	3,338 (estimated total permanent ROW)

The following subsections identify cumulative impacts to ACECs, wildlife, migratory birds, special-status species, noxious and invasive weeds, geology and soils, and visual resources. No long-term impacts were identified for air quality or cultural resources from the Proposed Action and so they are not being considered for cumulative impacts.

5.1 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Past and present actions have contributed to loss of habitat within the Coyote Springs and Highland Peak ACECs. The ANTC sites and both transmission lines can be expected to result in a loss of habitat within the Coyote Springs ACEC. The incremental impacts of the Proposed Action, when added to other actions, consist of both temporary and permanent disturbance of habitat occurring within the ACECs, resulting from construction activities, maintenance, and the presence of communications towers. This includes the loss of habitat for the federally threatened desert tortoise. The Proposed Action would result in a minor contribution (0.83 acre) to the overall disturbance of habitat for which the ACECs are designated from those past, present, and reasonably foreseeable future actions throughout eastern Nevada.

5.2 WILDLIFE

Past and present actions including casual motorized recreational use of the Hell’s Half Acre area have contributed to the temporary and permanent loss of habitat and habitat fragmentation within the area of analysis. Increased casual motorized recreation at Hell’s Half Acre has contributed to changes in wildlife movement and behavior in the Hiko Range. Reasonably foreseeable future actions including the 500-kV transmission line and SNWA GWD Project are expected to result in the development of long linear corridors and include the installation of vertical transmission structures, new access roads, and above ground support facilities on up to 7,648 acres. The incremental impacts of the Proposed Action, when added to other actions, consist of both temporary and permanent removal of vegetation and habitat during and after construction activities, increased habitat fragmentation from new fencing, access roads and structures, temporary displacement of wildlife species, and direct mortality of individuals resulting from construction activities, maintenance, and the presence of communications towers. This includes the loss of habitat for the federally threatened desert tortoise. Permanent impacts to biological resources from the Proposed Action, including seven sites in previously undeveloped locations, would be a minor contribution to the loss of habitat of those past, present, and reasonably foreseeable future actions

throughout eastern Nevada. The proposed action would contribute to an incremental increase in wildlife displacement and disturbance to behavior and movements. This could result in the relocation of wildlife to nearby areas that may provide less suitable habitat. Additionally, under the Proposed Action, there would be a long term ground disturbance of approximately 101 acres for proposed sites, access roads, and power distribution. The long term ground disturbance would equate to 1.3% of the anticipated cumulative ground disturbance from the reasonably foreseeable future actions described.

5.3 MIGRATORY BIRDS

Cumulative impacts to migratory birds would be similar to those described for wildlife above.

5.4 SPECIAL-STATUS SPECIES

Cumulative impacts to special-status species would be similar to those described for wildlife above.

5.5 NOXIOUS WEEDS/INVASIVE NON-NATIVE SPECIES

Past and present actions have introduced and contributed to the spread of invasive, nonnative species within the area of analysis, and the same may be expected from each of the reasonably foreseeable future actions. The Proposed Action may cause incremental increases in noxious weeds; however, implementation of approved mitigation and control measures would minimize this risk. Noxious weeds and invasive non-native species are likely to increase within the area of analysis in spite of mitigation measures that would be in place for all activities.

5.6 GEOLOGY AND SOILS

Past and present actions have contributed to increased soil erosion rates within the area of analysis. The Proposed Action would contribute minor short-term increases in erosion rates at the specific sites. Implementation of construction BMPs would minimize this contribution in the long term.

5.7 VISUAL RESOURCES

The area of analysis includes VRM Class III and IV as well as private lands with no VRM class objectives. Past and present actions have contributed impacts to the characteristic landscape within the area of analysis, including power generation facilities, communications facilities, transmission lines, and other ROWs. Future actions include development of additional communications facilities and power transmission lines. While increased development is planned, the extent or type of development is unknown. It is assumed that the impacts to the characteristic landscape would be similar to those of past actions and to those described for the Proposed Action.

The incremental impacts of the Proposed Action, when added to the impacts of those past, present, and reasonably foreseeable future actions, consist of moderate contrasts with the existing landscape and would have a cumulative impact to the viewshed of vehicle passengers traveling on U.S. 93, SR 318, and U.S. 50. It is assumed that mitigation measures for visual resources would be implemented with future projects to reduce those contrasts. Cumulatively, contrasts would remain consistent with VRM class objectives in the area of analysis.

This page intentionally left blank.

Chapter 6

MITIGATION MEASURES

Implementation of the following mitigation measures will reduce impacts to migratory birds and their habitat:

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using newly authorized and existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas.
- As much as possible, habitat-altering projects or portions of projects will be scheduled outside the migratory bird breeding and nesting season, which is generally from April 15 through July 15, although it can vary, depending on species and environmental conditions at each site.
- If work must be done during the migratory bird breeding and nesting season, a qualified biologist must survey the area for nests prior to commencement of construction activities. Surveys shall search for nests of burrowing, ground nesting, and vegetation nesting species. If active nests (containing eggs or young) are found, an appropriately sized buffer area must be marked and avoided until the young birds fledge.
- During the first year, monthly monitoring will occur during the migratory season along the Lower Spruce site power line to ascertain the collision impact, if any, to migrating raptors. Mortality counts will be submitted to the BLM and Nevada Department of Wildlife. Future modifications may be required if impact proves more substantial than anticipated.

The following mitigation measures will be implemented to reduce adverse impacts to natural vegetation, including sensitive plants and cactus and yucca:

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas.
- All cacti and yucca that might be impacted by this Proposed Action must be salvaged and transplanted out of harm's way but still within the ROW. Transplanted cacti shall be planted in a way that provides for a natural landscape, not in a continuous row. Areas of the project that will be bladed for temporary disturbance will salvage the first 6 inches of topsoil to capture the existing seed bank. This topsoil will be maintained intact in its own stockpile (i.e., not mixed with other soil) and redistributed as the final topsoil covering during restoration of the temporary use areas.
- Disturbed area will be stabilized with appropriate treatments (i.e., water trucks) both during and immediately following project facility construction.

The following mitigation measures will be implemented to reduce impacts from noxious and invasive weeds:

- All temporary and permanent areas to be disturbed that are outside existing fenced areas will have their boundaries flagged prior to construction, and all disturbances will be confined within the flagged and existing fenced areas. All employees will be instructed that their activities must be conducted within these areas. Disturbance beyond the fenced or flagged areas will be avoided by 1) using existing roads and already disturbed areas for vehicle and equipment access and travel; and 2) locating turnaround areas, work areas, stockpile areas, and vehicle service areas within the flagged or already fenced areas. The proponent shall be responsible for controlling all undesirable invasive plant species, including listed noxious weeds and other invasive plant identified as undesirable by federal, state, and/or local authorities. Control standards and measures must conform to applicable state and federal regulations.
- If required the proponent shall use weed-free seed for reclamation and other certified weed-free organic products (e.g., straw bales, organic mulch) used for erosion control, stabilization, or revegetation.
- The proponent is responsible for ensuring that all project related vehicles and equipment arriving at the site (including but not limited to dozers support vehicles, pickups, including those of any contractor or subcontractor) do not transport noxious weeds onto the project site. The proponent shall ensure that all such vehicles and equipment that will be traveling off constructed and maintained roads or parking areas within the project area have been power washed, including the undercarriage, since their last off-road use and prior to off-road use on the project site. When beginning off-road use on the project, such vehicles and equipment shall not harbor soil, mud, or plant parts from another project. If a noxious weed infestation is known or later discovered on the project site, project-related vehicles and equipment that have traveled through the infestation shall be power washed, including the undercarriage, prior to leaving the site, at an established, identified wash area. Wash water and sediment shall be contained in an adjacent settling basin.
- Should undesirable invasive plants become established on disturbed project areas prior to reclamation reshaping, appropriate measures will be taken to ensure that the invasive plants are eradicated prior to reclamation earthwork. Should undesirable plants become established on reshaped areas prior to reclamation seeding, appropriate measures will be taken to ensure that invasive plants are eradicated prior to seeding the site.

The following mitigation measures will be implemented to reduce impacts to wildlife:

- In addition to presenting a desert tortoise awareness program to all personnel who will be onsite, the authorized biologist will also present gila monster education and awareness training based on the NDOW's Gila Monster Status, Identification and Reporting Protocol. The program will contain information concerning the biology and distribution of the gila monster, their legal status and occurrence in the project area. The name of every individual trained will be recorded on a sign-in sheet.
- Annual monitoring of all project structures shall be conducted during the spring to ensure that observations of raven or raptor predation or nesting on project structures are reported to the BLM immediately.
- A gate will be installed along the Pahrangat Site access road to limit unauthorized motorized travel through desert bighorn sheep habitat. Access would be for authorized uses only.

Chapter 7

CONSULTATION AND COORDINATION

7.1 INTRODUCTION

The issue identification section of Chapter 1 provides the rationale for issues that were considered but not analyzed further and identifies those issues analyzed in detail in Chapter 3. The issues were identified through the public and agency involvement process described in Section 7.3 below.

7.2 PERSONS, GROUPS, AND AGENCIES CONSULTED

- Nevada Department of Wildlife
- Mount Wheeler Power
- Wells Rural Electric
- Alamo Power Company

7.3 SUMMARY OF PUBLIC PARTICIPATION

On April 14, 2010 the preliminary draft EA was provided to the Nevada State Clearinghouse for State Agency review, and was posted on the Ely BLM website for a 30-day comment period. A total of 12 comments were received from four entities. These comments were used to prepare the final the EA. Based on comments from the SHPO, the BLM is completing consultation for the Lower Spruce site. To address comments from the NDOW, the BLM met with NDOW representatives on July 7, 2010 to review their concerns and have added additional mitigation measures to address impacts to wildlife including installation of a gate on the Pahrnagat access road to manage unauthorized motorized access to the site, annual monitoring of project structures during the spring, and placement of anti-perching devices on above ground distribution line poles. The SNWA requested that NV Energy coordinate with them during the construction phase as necessary. The Elko County Commissioners was supportive of the project.

7.4 LIST OF PREPARERS/REVIEWERS

Name	Title	Affiliation	Responsibility
BLM			
Brenda Linnell	Realty Specialist/Project Manager	BLM, Ely	Lands and Realty
Zach Peterson	NEPA Coordinator	BLM, Ely	NEPA
Paul Podborny	Wildlife Biologist	BLM, Ely	Wildlife and Special-Status Species
Shawn Gibson	Archaeologist	BLM, Ely	Cultural and Paleontological Resources
Elvis Wall	Native American Coordinator	BLM, Ely	Native American Concerns and Environmental Justice

Name	Title	Affiliation	Responsibility
Elizabeth Townley	Outdoor Recreation Planner	BLM, Ely	Recreation and Visual Resources
Bonnie Million	Noxious and Invasive Weeds Coordinator	BLM, Ely	Noxious Weeds and Invasive Species
Mark D'Aversa	Hydrologist	BLM, Ely	Soil Resources and Watershed
Mark Slaughter	Wildlife Biologist	BLM, LV	Wildlife and Special Status Species
Bryan Hockett	Assistant Field Manager, Non Renewable Resources	BLM, Wells	Cultural Resources
Mark Dean	Hydrologist	BLM, Wells	Air, Soil, and Water
Nycole Burton	Wildlife Biologist	BLM, Wells	Migratory Birds and Special Status Species
Bryan Fuell	Wells Field Office Manager	BLM, Wells	Native American Religious Concerns
Whitney Wirthlin	Geologist	BLM, Wells	Hazardous Materials
Tamara Hawthorne	Outdoor Recreation Planner	BLM, Wells	Wilderness, Recreation, and VRM
Terri Dobis	Rangeland Management Specialist	BLM, Wells	Livestock Grazing and Vegetation
Bruce Thompson	Wild Horse and Burro Specialist	BLM, Wells	Wild Horses
Janet Cheek	Realty Specialist	BLM, LV	Lands and Realty
Susanne Rowe	Archaeologist	BLM, LV	Cultural, Native American Religious Concerns, and Paleontology
Nora Caplette	Weed Specialist	BLM, LV	Noxious Weeds
Sarah Peterson	Hydrologist	BLM, LV	Soil, Water, and Riparian
Fred Edwards	Botanist	BLM, LV	Vegetation, Threatened and Endangered Plants
Lisa Christianson	Air Quality Specialist	BLM, LV	Air Quality
George Varhalmi	Geologist	BLM, LV	Minerals
Lauren Brown	Restoration Ecologist	BLM, LV	VRM
<i>Non-BLM Preparers</i>			
Steve Leslie	Project Manager	SWCA	Project Management, Visual Resources, Document QA/QC, Final Document Production
Justin Streit	Environmental Specialist/Avian Ecologist	SWCA	Wildlife, Special-Status Wildlife Species, and Migratory Birds
Matt Villaneva	Environmental Specialist/Botanist	SWCA	Special-Status Plant Species, Vegetation
Lesley Hanson	Environmental Specialist/Biologist	SWCA	Wildlife, Special-Status Wildlife Species
Michael Swink	Environmental Planner	SWCA	ACECs, Geology and Soils
Scott Whitesides	Archaeologist	SWCA	Cultural Resources
Heidi Orcutt-Gachiri	Technical Editor	SWCA	Technical Editing and Document QA/QC
Camille Ensle	Publication Specialist	SWCA	Document Formatting and QA/QC

Chapter 8

LITERATURE CITED

- Belnap, J., and S.L. Phillips. 2001. Soil biota in an ungrazed grassland: response to annual grass (*Bromus tectorum*) invasion. *Ecological Applications* 11(5):1261–1275.
- Brooks M.L., and J.R. Matchett. 2003. Plant community patterns in unburned and burned blackbrush (*Coleogyne ramosissima*) Shrublands in the Mojave Desert. *Western North American Naturalist* 63(3):283–298.
- Bureau of Land Management (BLM). 1980. *Visual Resource Management Program*. Washington, D.C.: U.S. Government Printing Office.
- . 1983. *Proposed Wells Resource Management Plan and Final Environmental Impact Statement*. Elko: Bureau of Land Management, Elko District Office. November.
- . 1985. *Record of Decision for the Approved Wells Resource Management Plan*. Elko: Bureau of Land Management, Elko District Office.
- . 1986. *Visual Resource Contrast Rating*. BLM Manual Handbook 8431-1.
- . 1988. *Areas of Critical Environmental Concern*. BLM Manual 1613.
- . 1990. *Cultural Resource Inventory General Guidelines*. BLM Manual 8143.21.
- . 1992. *Visual Resource Management*. BLM Handbook 8400.
- . 1998a. *Proposed Las Vegas Resource Management Plan and Final Environmental Impact Statement*. Las Vegas: Bureau of Land Management, Las Vegas Field Office. May.
- . 1998b. *Record of Decision for the Approved Las Vegas Resource Management Plan and Final Environmental Impact Statement*. Vols. 1 and 2. Las Vegas: Bureau of Land Management, Las Vegas Field Office.
- . 2007. *Ely District Proposed Resource Management Plan and Final Environmental Impact Statement*. Ely: Bureau of Land Management, Ely District Office.
- . 2008a. *Record of Decision for the Approved Ely District Resource Management Plan and Final Environmental Impact Statement*. Ely: Bureau of Land Management, Ely District Office.
- . 2008b. *Special Status Species Management*. BLM Manual 6840.
- Clark County Department of Air Quality and Environmental Management (CCDAQEM). 2008. 8-hour ozone early progress plan for Clark County, Nevada. June 2008. Available at: http://www.accessclarkcounty.com/depts/daqem/aq/planning/Documents/Ozone/EPPbody_final.pdf. Accessed January 21, 2010.
- Clark County Department of Comprehensive Planning. 2006. Comprehensive planning northeast county planned land use. Available at: http://gisgate.co.clark.nv.us/gisplot_pdfs/cp/neplu.pdf. Accessed January 21, 2010.

- Elko County Public Land User Advisory Committee (Elko County PLUAC). 2008. Elko County public lands policy plan. Available at: <http://lands.nv.gov/docs/SLUPA/ElkoPlan.pdf>. Accessed January 21, 2010.
- Lincoln County Planning Commission. 2007. Master plan for Lincoln County, Nevada. Available at: http://www.lincolncountynv.org/planning/Master_Plan_09-07.pdf. Accessed January 21, 2010.
- Nevada Department of Transportation (NDOT). 2007. *2007 Annual Traffic Report*. Carson City, Nevada.
- NV Energy (NVE). 2008. *Microwave and Mobile Radio Plan of Development*.
- Mack, R.N. 1981. Invasion of *Bromus tectorum* L. into western North America: an ecological chronicle. *Agro-Ecosystems* 7:146–165.
- Peterson, R.T. 1990. *Western Birds*. New York: Houghton Mifflin Company.
- SWCA Environmental Consultants (SWCA). 2009a. *Biological Assessment NPC Microwave and Mobile Radio Facility: Gunsight Pass and Silverhawk North Sites*. Las Vegas.
- . 2009b. *An Intense-Level Cultural Resource Inventory of the Nevada Power Company/Sierra Pacific Power Company Microwave and Mobile Radio Development Project in Elko, White Pine, Lincoln, and Clark Counties, Nevada*. Las Vegas. July.
- U.S. Environmental Protection Agency (EPA). 2005. Southwest Regional GAP Analysis Project (SWReGAP) for Nevada, Utah, New Mexico, Colorado, and Arizona; U.S. Environmental Protection Agency, Landscape Ecology. Available at: <http://www.epa.gov/nerlesd1/land-sci/gap-status.htm>. Accessed January 21, 2010.
- U.S. Fish and Wildlife Service (USFWS). 2002. A guide to the laws and treaties of the United States for protecting migratory birds; U.S. Fish and Wildlife Service Division of Migratory Bird Management. Available at: <http://www.fws.gov/migratorybirds/intrnltr/treatlaw.html>. Accessed October 23, 2007.
- . 2007. Migratory Bird Treaty Act; U.S. Fish and Wildlife Service Alaska Region. Available at: http://alaska.fws.gov/ambcc/ambcc/treaty_act.htm. Accessed October 23, 2007.
- White Pine County Public Land User Advisory Committee (White Pine County PLUAC). 2007. White Pine County public lands policy plan. Available at: <http://lands.nv.gov/docs/SLUPA/WhitePinePlan.pdf>. Accessed January 21, 2010.

Appendix A

GENERAL SITE LOCATIONS

This page intentionally left blank.

Table A.1. General Locations

Project Area	Method*	Legal Land Description	
Bald Mountain	LSIS	T28N, R66E, Section 7	NE1/4 of NE1/4 of NE1/4
Butte Valley	Manual	T20N, R61E, Section 32	E1/2 of SE1/4 of SE1/4
		T19N, R61E, Section 5	Within L1 N1/2 of SE1/4 of NE1/4
Cherry Creek	LSIS	T23N, R64E, Section 10	N1/2 of NE1/4 of SW1/4
Comet Peak	LSIS	T1N, R66E, Section 33	N1/2 of SE1/4 of SW1/4
Conners Pass	LSIS	T13N, R65E, Section 2	Within L2
Copper Mtn	LSIS	T17N, R61E, Section 27	SE1/4 of SW1/4 of NE1/4
			NE1/4 of NW1/4 of SE1/4
Gunsight Pass	Manual	T15S, R63E, Section 27	NW1/4 of NW1/4 of SE1/4
			SW1/4 of NW1/4 of SE1/4
Mount Wilson	LSIS	T4N, R68E, Section 5	SW1/4 of NE1/4
			NE1/4 of SE1/4 of NW1/4
Silverhawk North	LSIS	T17S, R63E, Section 29	NE1/4 of SW1/4 of SE1/4
			W1/2 of NW1/4 of SE1/4
			SE1/4 of NW1/4 of SE1/4
			N1/2 of NE1/4 of SW1/4
			S1/2 of SE1/4 of NW1/4
Squaw Peak	LSIS	T16N, R63E, Section 9	Within L5
White River	Manual	T1N, R62E, Section 14	NW1/4 of SE1/4 of NE1/4
Willard Creek	LSIS	T13N, R67E, Section 1	NW1/4 of NE1/4 of SW1/4
Pahranagat	Manual	T8S, R62E, Section 1	NE1/4 of NE1/4 of SE1/4
			W1/2 of NE1/4 of SE1/4
			SE1/4 of NW1/4 of SE1/4
			E1/2 of SW1/4 of SE1/4
			SW1/4 of SW1/4 of SE1/4
		T8S, R62E, Section 12	NW1/4 of NW1/4 of NE1/4
			E1/2 of NE1/4 of NW1/4
			SW1/4 of NE1/4 of NW1/4
		T8S, R62E, Section 13	NW1/4 of SE1/4 of NW1/4
			E1/2 of SW1/4 of NW1/4
			NE1/4 of NW1/4 of SW1/4
			W1/2 of NW1/4 of SW1/4
T8S, R62E, Section 14	W1/2 of SW1/4 of SW1/4		
	W1/2 of NW1/4 of NW1/4		
	W1/2 of SW1/4 of NW1/4		
T8S, R62E, Section 14	Manual	T8S, R62E, Section 14	W1/2 of SE1/4 of NE1/4
			SE1/4 of SE1/4 of NE1/4
			SW1/4 of NE1/4

Table A.1. General Locations (Continued)

Project Area	Method*	Legal Land Description			
Pahranagat, continued	Manual, continued	T8S, R62E, Section 14, continued	SE1/4 of SE1/4 of NW1/4 NE1/4 of NE1/4 of SE1/4 NW1/4 of NE1/4 of SE1/4 NE1/4 of NW1/4 of SE1/4 NE1/4 of NE1/4 of SW1/4		
		T8S, R63E, Section 18	W1/2 of NW1/4 of NE1/4 SE1/4 of NW1/4 of NE1/4 E1/2 of SW1/4 of NE1/4		
		T8S, R63E, Section 6	SW1/4 of SW1/4 of NW1/4 SW1/4 of NE1/4 of SW1/4 E1/2 of NW1/4 of SW1/4 NW1/4 of NW1/4 of SW1/4 W1/2 of SE1/4 of SW1/4 E1/2 of SW1/4 of SW1/4		
		T8S, R63E, Section 7	W1/2 of NE1/4 of NW1/4 SE1/4 of NW1/4 W1/2 of SW1/4 of SE1/4 E1/2 of NE1/4 of SW1/4 NE1/4 of SE1/4 of SW1/4		
		Lower Spruce	LSIS	T29N, R63E, Section 2	Within L4
				T29N, R63E, Section 11	W1/2 of NE1/4 of NE1/4 NE1/4 of NW1/4 of NE1/4 E1/2 of SE1/4 of NE1/4 NW1/4 of SE1/4 of NE1/4
				T29N, R63E, Section 12	SW1/4 of SW1/4 of NW1/4 W1/2 of NW1/4 of SW1/4 SE1/4 of NW1/4 of SW1/4 SW1/4 of SE1/4 of SW1/4 E1/2 of SW1/4 of SW1/4
				T29N, R63E, Section 13	W1/2 of NE1/4 of NW1/4 SE1/4 of NE1/4 of NW1/4 E1/2 of SE1/4 of NW1/4 NW1/4 of SE1/4 of NW1/4 W1/2 of NW1/4 of SE1/4 E1/2 of SW1/4 of SE1/4 NW1/4 of SW1/4 of SE1/4 NE1/4 of NE1/4 of SW1/4

Table A.1. General Locations (Continued)

Project Area	Method*	Legal Land Description
Lower Spruce, continued	LSIS, continued	T29N, R63E, Section 2
		SW1/4 of SE1/4 of NW1/4
		E1/2 of SW1/4 of NW1/4
		W1/2 of SW1/4 of SE1/4
		SE1/4 of SW1/4 of SE1/4
		E1/2 of NE1/4 of SW1/4
		NW1/4 of NE1/4 of SW1/4
		NE1/4 of SE1/4 of SW1/4
		T29N, R63E, Section 24
		SW1/4 of NE1/4 of NE1/4
		E1/2 of NW1/4 of NE1/4
		W1/2 of SE1/4 of NE1/4
		SE1/4 of SE1/4 of NE1/4
		E1/2 of NE1/4 of SE1/4
NE1/4 of SE1/4 of SE1/4		
T29N, R63E, Section 3	Within L1	
T29N, R64E, Section 19	Within L4	
T29N, R64E, Section 30	Within L1	
	Within L2	
	W1/2 of SE1/4 of NW1/4	
	Within L7	
	E1/2 of NE1/4 of SW1/4	
	NW1/4 of NE1/4 of SW1/4	
T29N, R64E, Section 30	E1/2 of SE1/4 of SW1/4	
T29N, R64E, Section 31	W1/4 of NW1/4 of NE1/4	
	SE1/4 of NW1/4 of NE1/4	
T29N, R64E, Section 31	NE1/4 of SW1/4 of NE1/4	
T30N, R63E, Section 17	W1/2 of NW1/4 of NW1/4	
	SE1/4 of NW1/4 of NW1/4	
	W1/2 of SE1/4 of NW1/4	
	NE1/4 of SW1/4 of NW1/4	
	SW1/4 of NW1/4 of SE1/4	
	E1/2 of SW1/4 of SE1/4	
	NW1/4 of SW1/4 of SE1/4	
	E1/2 of NE1/4 of SE1/4	
	NW1/4 of NE1/4 of SW1/4	
	T30N, R63E, Section 18	NE1/4 of NE1/4 of NE1/4
T30N, R63E, Section 20	W1/2 of NE1/4 of NE1/4	
	SE1/4 of NE1/4 of NE1/4	
	NE1/4 of NW1/4 of NE1/4	
	NE1/4 of SE1/4 of NE1/4	

Table A.1. General Locations (Continued)

Project Area	Method*	Legal Land Description
Lower Spruce, continued	LSIS, continued	T30N, R63E, Section 21
		W1/2 of SW1/4 of NW1/4
		SE1/4 of NE1/4 of SW1/4
		E1/2 of NW1/4 of SW1/4
		NW1/4 of NW1/4 of SW1/4
		SE1/4 of SW1/4
		T30N, R63E, Section 27
		SW1/4 of NW1/4 of SW1/4
		W1/2 of SW1/4 of SW1/4
		SE1/4 of SW1/4 of SW1/4
		T30N, R63E, Section 28
		W1/2 of NW1/4 of NE1/4
		SE1/4 of NW1/4 of NE1/4
W1/2 of SE1/4 of NE1/4		
E1/2 of SW1/4 of NE1/4		
NE1/4 of NE1/4 of NW1/4		
E1/2 of NE1/4 of SE1/4		
NW1/4 of NE1/4 of SE1/4		
T30N, R63E, Section 34		
SW1/4 of SW1/4 of NE1/4		
W1/2 of NE1/4 of NW1/4		
SE1/4 of NE1/4 of NW1/4		
NE1/4 of NW1/4 of NW1/4		
E1/2 of SE1/4 of NW1/4		
T30N, R63E, Section 34		
SW1/4 of NE1/4 of SE1/4		
E1/2 of NW1/4 of SE1/4		
NW1/4 of NW1/4 of SE1/4		
W1/2 of SE1/4 of SE1/4		
SE1/4 of SE1/4 of SE1/4		
T30N, R63E, Section 6		
S1/2 of SE1/4 of SW1/4		
T30N, R63E, Section 7		
W1/2 of SW1/4 of NE1/4		
SE1/4 of SW1/4 of NE1/4		
Within L1		
W1/2 of NE1/4 of NW1/4		
SW1/4 of NE1/4 of NW1/4		
NE1/4 of SE1/4 of NW1/4		
SW1/4 of NE1/4 of SE1/4		
E1/2 of NW1/4 of SE1/4		
NW1/4 of NW1/4 of SE1/4		
E1/2 of SE1/4 of SE1/4		
NW1/4 of SE1/4 of SE1/4		

* LSIS = Used the Land Survey Information System to QtrQtr, then manually to QtrQtrQtr. Manual = No section breakdown provided through LSIS, so manually divided the sections in equal parts to QtrQtrQtr.

Appendix B

SITE MAPS AND PLANS

Site maps and plans can be obtained directly from the BLM Ely District Office.

This page intentionally left blank.

Appendix C

NOXIOUS AND INVASIVE WEEDS RISK ASSESSMENTS

This page intentionally left blank.

1. Project Name: NVE Microwave and Mobile Radio EA and Soil Boring CX

2. Project Number: DOI-BLM-NV-L 020-2009-0024-EA

3. Date Risk Assessment was completed: February 18, 2009

4. Describe steps taken to complete Risk Assessment:

Prior to conducting this noxious/invasive weed risk assessment, (assessment), SWCA Environmental Consultants (SWCA) obtained a BLM Weed Risk Assessment template and instructions for completing the assessment from Everett Bartz of the BLM Las Vegas Field Office (LVFO). Subsequently, SWCA biologist Justin Streit led field surveys at the Mount Wilson, Comet Peak, White River and Pahranaagat sites on June 17 and 18, 2008. Surveys of the Butte Valley, Cherry Creek, Connors Pass, Copper/Kimberly, Squaw Peak, Willard Creek, Bald Mountain and Lower Spruce sites were surveyed by SWCA biologist Audrey McCulley on June 9, 10 and 11, 2008. Surveys were done using parallel transects spaced approximately 30 ft (9.1m) apart. A list of all plants, including weeds was made and supported by field notes and photographs in order to describe the extent of noxious and invasive weeds, and the general condition of the sites.

5. Project Description:

NPC is submitting applications to the BLM to acquire permanent and temporary land rights for the construction, operation and maintenance of new, and the expansion of existing NPC/SPPC owned communication sites for the Companies Microwave and Radio Development Project Area. The project will encompass a combination of 19 communications sites in eastern Nevada; three will be co-located with existing telecommunications facilities, ten will add new facilities to existing telecommunications sites, and six will be new sites with no existing telecommunications infrastructure.

Twelve individual sites are covered in this assessment and each will require an approximate area up to 200 x 150 ft. including an area of defensible space surrounding each site. Because the towers at some sites will need to support up to 8 large dish antennas, with a total weight over 4,000lbs, co-locating on existing infrastructure is not always a feasible option. Therefore new facilities are generally required at existing sites (i.e., tower, microwave and radio antennae and supporting facilities).

NPC has also requested to conduct investigative soil borings at sites where they have proposed to install microwave mobile radio sites. The soil borings are necessary in order to complete the proposed microwave tower design to meet safety, operation and regulatory standards. A single, temporary investigative soil bore would be drilled at each site. Each bore would be approximately 6 inches in diameter with the sampler driven to a depth of about 18 inches. Once a bore is complete, the hole would be backfilled with the spoils. Although not anticipated, if it should take more than three hours to complete a bore, the hole would be covered overnight to prevent wildlife entrapment and ensure human safety.

6. Project Location:

Project site locations are described below in Table 1.

Table 1. Project Sites

Site	County	Legal Description
Mount Wilson	Lincoln	T. 4 N., R. 68 E., MDM. Sec 5: SW ¼ SW ¼ NE ¼
Comet Peak	Lincoln	T. 1 N., R. 66 E., MDM. Sec 33: NW ¼ SE ¼ SW ¼
White River	Lincoln	T. 1 N., R. 62 E., MDM. Sec 14: NW ¼ NE ¼ SE ¼
Pahranaagat	Lincoln	T. 8 S., R. 62 E., MDM. Sec 14: NW ¼ SE ¼ NW ¼

Table 2. Project Sites (Continued)

Site	County	Legal Description
Butte Valley	White Pine	T. 19 N., R. 61 E., MDM. Sec 5: NE ¼ SE ¼ NE ¼
Cherry Creek	White Pine	T. 23 N., R. 64 E., MDM. Sec 10: NW ¼ NE ¼ SW ¼
Connors Pass	White Pine	T. 13 N., R. 65 E., MDM. Sec 2: NE ¼ SE ¼ NW ¼ ,
Copper/Kimberly	White Pine	T. 17 N., R. 61 E., MDM. Sec 27: SE ¼ SW ¼ NE ¼
Squaw Peak	White Pine	T. 16 N., R. 63 E., MDM. Sec 9: SW ¼ SE ¼ NW ¼
Willard Creek	White Pine	T. 13 N., R. 67 E., MDM. Sec 1: NW ¼ SW ¼ NE ¼
Bald Mountain	Elko	T. 28 N., R. 66 E., MDM. Sec 7: NE ¼ NE ¼ NE ¼
Lower Spruce	Elko	T. 30 N., R. 63 E., MDM. Sec 6: SW ¼

7. Risk Assessment:

The risk assessment is evaluated by two categorical factors. Factor 1 is determined by the current condition of noxious and invasive weed populations within and adjacent to the project site, including access roads (Table 2). Factor 2 is independent from factor 1 and is determined by evaluating the consequences of noxious and invasive weed establishment within the project site (Table 3).

Table 3. Factor 1 Rating

Site	Level	Justification
Mount Wilson	None (0)	No noxious or invasive weeds observed within or adjacent to the project site or access roads.
Comet Peak	None (0)	No noxious or invasive weeds observed within or adjacent to the project site or access roads.
White River	Moderate (4-7)	Russian thistle (<i>Salsola tragus</i>), cheatgrass (<i>Bromus tectorum</i>), red stem stork's bill (<i>Erodium cicutarium</i>) were observed regularly on the project site.
Pahranagat	Moderate (4-7)	Red brome, cheatgrass, red stem stork's bill were frequently observed along the access road and were regularly observed in the project site.
Butte Valley	Moderate (4-7)	Cheatgrass was regularly observed in the project site.
Cherry Creek	Moderate (4-7)	Saltlover (<i>Halogeton glomeratus</i>) and cheatgrass were observed in the project site, primarily near the existing disturbance.
Connors Pass	Moderate (4-7)	Cheatgrass and tall tumbled mustard were regularly observed in the project site.
Copper/Kimberly	Moderate (4-7)	Camel thorn (<i>Alhagi camelorum</i>) and cheatgrass were regularly observed along the access road. A knapweed species was observed along the roadside within one mile of project site.
Squaw Peak	Moderate (4-7)	Russian thistle and tall tumbled mustard were regularly observed in the project site near the existing disturbance.
Willard Creek	None (0)	No noxious or invasive weeds observed within or adjacent to the project site or access roads.
Bald Mountain	Moderate (4-7)	Camel thorn was regularly observed on the ridgetop within the project site.
Lower Spruce	Moderate (4-7)	Cheatgrass, tall tumbled mustard, saltlover and camel thorn were regularly observed within the project area and along the access road to the project site.

Table 4. Factor 2 Ratings

Site	Level	Justification
Mount Wilson	High (8-10)	Since this site is currently free from noxious and invasive weed species, infestation would result in the creation of a new population. Additionally, a new population would increase the potential for establishment in the surrounding plant community.
Comet Peak	High (8-10)	Since this site is currently free from noxious and invasive weed species, infestation would result in the creation of a new population. Additionally, a new population would increase the potential for establishment in the surrounding plant community.
White River	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and further development has potential to increase the size of these populations.
Pahranagat	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and further development has potential to increase the size of these populations.
Butte Valley	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and development may result in increased establishment.
Cherry Creek	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and development may result in increased establishment.
Connors Pass	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and development may result in increased establishment.
Copper/Kimberly	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and further development has potential to increase the size of these populations. Additionally, infestations along access roads have the potential to become established within the project area.
Squaw Peak	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and development may result in increased establishment.
Willard Creek	High (8-10)	Since this site is currently free from noxious and invasive weed species, infestation would result in the creation of a new population. Additionally, a new population would increase the potential for establishment in the surrounding plant community.
Bald Mountain	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and development may result in increased establishment.
Lower Spruce	Moderate (4-7)	Noxious and invasive weeds are currently established in the project site and further development has potential to increase the size of these populations. Additionally, infestations along access roads have the potential to become established within the project area.

8. Risk Rating

The risk ratings for the project sites are determined by multiplying factors 1 and 2. The subsequent value determines the course of action required to mitigate noxious and invasive weeds, resulting from project implementation. These values are shown below in Table 4.

Table 5. Risk Ratings

Site	Level I	Level II	Rating
Mount Wilson	None (0)	High (8-10)	None (0). Project may proceed as planned.
Comet Peak	None (0)	High (8-10)	None (0). Project may proceed as planned.
White River	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Pahranagat	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Butte Valley	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Cherry Creek	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Connors Pass	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Copper/Kimberly	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.

Table 6. Risk Ratings (Continued)

Site	Level I	Level II	Rating
Squaw Peak	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Willard Creek	None (0)	High (8-10)	None (0). Project may proceed as planned.
Bald Mountain	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.
Lower Spruce	Moderate (4-7)	Moderate (4-7)	Moderate (16-49). Requires preventative mitigation measures.

9. Determination

The risk ratings in Table 4 indicate that the Mount Wilson, Comet Peak and Willard Peak sites may proceed as planned and preventative management measures **are not** needed. However, standard Best Management Practices should be employed to reduce the possibility of infestation by noxious and invasive weeds to the greatest extent possible. These include but are not limited to cleaning heavy equipment and vehicles prior to working in the project site.

The risk ratings for the remaining sites including White River, Pahrangat, Butte Valley, Cherry Creek, Connors Pass, Copper/Kimberly, Squaw Peak, Bald Mountain and Lower Spruce indicate that development of preventative management measures **are** needed. The proposed preventative measures are detailed below in the following section of this report.

10. Preventative Measures

Southern Nevada rangelands are being impacted by the presence of invasive, non-native vegetation (weeds). The Las Vegas Field Office (LVFO) of the Bureau of Land Management (BLM) has prepared the LVFO Weed plan that provides guidance for an active integrated weed management program using best management practices (BMP). The BMPs originated from a cooperative effort between BLM and other Federal agencies which produced the document, *Partners Against Weeds*. The Las Vegas Field Office Noxious Weed Plan will narrow that focus as it dovetails into the Partners Against Weeds action plan. Weeds are seen as a major threat to ecosystem health in southern Nevada. The presence of weeds in any landscape increases the inter-specific competition for resources. In most situations weeds out-compete native plants and displace them.

The management of weeds is further guided by the Las Vegas Resource Management Plan which identifies two objectives for resource management involving weeds. 1) RP-1-f., which states; “Use integrated weed management techniques to control and eradicate tamarisk, such as burning, chemical, biological or mechanical treatments, where potential for treatment is good. Rehabilitate the area with native species to help reduce the potential for tamarisk re-establishment and improve ecosystem health.” 2) VG1, which states; “Maintain or improve the condition of the vegetation on public lands to a Desired Plant Community or to a Potential Natural Community.” The LVFO Noxious Weed Plan was approved on December 18, 2006.

The following are project specific stipulations that will attempt to control NV listed noxious weeds on this project.

1. At the onset of project planning in the NEPA analysis phase the project proponent shall complete the Risk Assessment Form for noxious weeds. If pesticides are proposed then follow pesticide stipulation 2 below.
2. The project proponent shall coordinate project activities with the BLM Weed Coordinator (702-515-5000) regarding any proposed herbicide treatment. The project proponent shall prepare, submit, obtain and maintain a pesticide use proposal (PUP) for the proposed action. Additionally, should the BLM develop a treatment plan for Red Brome in the future, the project proponent

would be willing to work with the BLM in implementation of that treatment plan at the project sites.

3. The project proponent shall limit the size of any vegetation and/or ground disturbance to the absolute minimum necessary to perform the activity safely and as designed. The project proponent will avoid creating soil conditions that promote weed germination and establishment.
4. The project proponent shall begin project operations in weed free areas whenever feasible before operating in weed-infested areas.
5. The project proponent shall locate equipment storage, machine and vehicle parking or any other area needed for the temporary placement of people, machinery and supplies in areas that are relatively weed-free. The project proponent shall avoid or minimize all types of travel through weed-infested areas or restrict major activities to periods of time when the spread of seed or plant parts are least likely.
6. BLM or the project proponent shall determine equipment-cleaning sites (if equipment is infested with weed seeds, plant parts or mud and dirt). Project related equipment and machinery (this especially includes the nooks and crannies of undercarriages) will be cleaned using compressed air or water to remove mud, dirt and plant parts before moving into and from relatively weed-free areas. Seeds and plant parts will be collected, bagged and deposited in dumpsters destined for local landfills, when practical.
7. Project workers shall inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product and dispose of in a dumpster for deposit in local landfills. Disposal methods may vary depending on the project. If you have questions consult with the LVFO Noxious Weed Coordinator.
8. The project proponent shall evaluate options, including area closures, to regulate the flow of traffic on sites where native vegetation needs to be established.

NOXIOUS WEEDS RISK ASSESSMENT

1. **Project Name:** NVE Microwave and Mobile Radio EA and Soil Boring CX (Gunsight Pass and Silverhawk sites)
2. **NEPA LV No.** 2008-254 (EA) and 2008-346 (CX)
3. **Date Risk Assessment was completed:** June 16, 2008

4. Describe steps taken to complete Risk Assessment:

Prior to conducting this noxious/invasive weed risk assessment, (assessment), SWCA Environmental Consultants (SWCA) obtained a BLM Weed Risk Assessment template and instructions for completing the assessment from Everett Bartz of the BLM Las Vegas Field Office (LVFO). Subsequently, SWCA's BLM-approved botanist, Matt Villaneva, surveyed the Gunsight Pass and the Silverhawk sites on June 12, 2008. Surveys were done using parallel transects spaces approximately 30 ft (9.1m) apart. A list of all plants, including weeds was made and supported by field notes and photographs in order to describe the extent of noxious/invasive weeds, and the general condition of the sites.

5. Project Description:

NPC is submitting applications to the BLM to acquire permanent and temporary land rights for the construction, operation and maintenance of new, and the expansion of existing NPC/SPPC owned communication sites for the Companies Microwave and Radio Development Project Area. The Project will encompass a combination of 19 communications sites in eastern Nevada; three will be co-located with existing telecommunications facilities, ten will add new facilities to existing telecommunications sites, and six will be new sites with no existing telecommunications infrastructure.

The Gunsight Pass and Silverhawk sites are new sites and will require an approximate area up to 200 x 150 ft. including an area of defensible space surrounding the site. Because the towers at some sites will need to support up to 8 large dish antennas, with a total weight over 4,000lbs, co-locating on existing infrastructure is not always a feasible option. Therefore new facilities are generally required at existing sites (i.e., tower, microwave and radio antennae and supporting facilities).

NPC has also requested to conduct investigative soil borings at sites where they have proposed to install microwave mobile radio sites. The soil borings are necessary in order to complete the proposed microwave tower design to meet safety, operation and regulatory standards. No new disturbance is necessary at Gunsight Pass because the site would be accessed by existing roads and all soil boring work will be done on previously disturbed ground. At the Silverhawk North site, NPC will keep the drill rig on the existing disturbed road and hang the arm over the undisturbed site to drill a single bore hole. One temporary investigative soil bore would be drilled at each site. Each bore would be approximately 6 inches in diameter with the sampler driven to a depth of about 18 inches. Once a bore is complete, the hole would be backfilled with the spoils. Although not anticipated, if it should take more than three hours to complete a bore, the hole would be covered overnight to prevent wildlife entrapment and ensure human safety. At the Silverhawk site, NPC will keep the drill rig on the existing disturbed road and hang the arm over the undisturbed site to drill a single bore hole.

6. Project Location:

Gunsight Pass site: T. 15 S., R. 63 E., MDM. Sec 27: SW ¼ NW ¼ SE ¼
Silverhawk site: T. 17 S., R. 63 E., MDM. Sec 29: SW ¼ SE ¼ NW ¼

7. Factor 1:

The likelihood of noxious/invasive weed species spreading to both the Gunsight Pass and Silverhawk sites are rated as Moderate (4-7). This is because 1) no noxious weeds were found (Note: BLM specifically asked for Sahara mustard occurrences and none were found) and 2) "moderate" infestations of Red brome were found but were mainly restricted to areas beneath shrubs. The Silverhawk site showed signs of dumping and shooting disturbances and litter/debris was noted at the Gunsight Pass site. Because red brome is located within and adjacent to the project area, project activities are likely to result in some new areas becoming infested even when preventative management actions area followed.

8. Factor 2:

The consequences of noxious/invasive weed establishment in both the Gunsight Pass and Silverhawk sites are rated as Moderate (4-7). There is evidence of existing disturbance at both locations. The only noxious/invasive plant species found to be present during field surveys were confined to red brome infestations under shrubs. Adverse effects include the probable expansion of Red Brome infestations to areas adjacent to the project area as a result of construction activities.

9. Factor 1 × Factor 2 = Risk Rating: Moderate, (16-49).

10. Based on this risk rating, preventative management measures ~~are~~are not** needed for this project.**
Preventative management measures developed for this project are as follows:

Southern Nevada rangelands are being impacted by the presence of invasive, non-native vegetation (weeds). The Las Vegas Field Office (LVFO) of the Bureau of Land Management (BLM) has prepared the LVFO Weed plan that provides guidance for an active integrated weed management program using best management practices (BMP). The BMPs originated from a cooperative effort between BLM and other Federal agencies which produced the document titled *Partners Against Weeds*. The Las Vegas Field Office Noxious Weed Plan will narrow that focus as it dovetails into the Partners Against Weeds action plan. Weeds are seen as a major threat to ecosystem health in southern Nevada. The presence of weeds in any landscape increases the inter-specific competition for resources. In most situations weeds out-compete native plants and displace them.

The management of weeds is further guided by the Las Vegas Resource Management Plan which identifies two objectives for resource management involving weeds. 1) RP-1-f., which states; "Use integrated weed management techniques to control and eradicate tamarisk, such as burning, chemical, biological or mechanical treatments, where potential for treatment is good. Rehabilitate the area with native species to help reduce the potential for tamarisk re-establishment and improve ecosystem health." 2) VG1, which states; "Maintain or improve the condition of the vegetation on public lands to a Desired Plant Community or to a Potential Natural Community." The LVFO Noxious Weed Plan was approved on December 18, 2006.

The following are project specific stipulations that will attempt to control NV listed noxious weeds on this project.

- A. At the onset of project planning in the NEPA analysis phase the project proponent shall complete the Risk Assessment Form for noxious weeds (Uploaded into this NEPA LV project for you). If pesticides are proposed then follow pesticide stipulation 2 below.
- B. The project proponent shall coordinate project activities with the BLM Weed Coordinator (702-515-5000) regarding any proposed herbicide treatment. The project proponent shall prepare, submit, obtain and maintain a pesticide use proposal (PUP) for the proposed action. Additionally, should the BLM develop a treatment plan for Red Brome in the future, the project proponent

Appendix D

BLM CONTRAST RATING WORKSHEETS

This page intentionally left blank.

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.19.2008

District

Ely District Office

Resource Area

Egan Field Office

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – Butte Valley	4. Location UTM -	5. Location Sketch See photo
2. Key Observation Point Looking east at site from traveling on dirt road through Butte Valley.		
3. VRM Class III		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently sloping rounded alluvial fans down into the broad open Butte Valley. Rough, jagged mountains are in the distance to the east and west.	Numerous small shrubs occur throughout the foreground and middleground. Larger, conical junipers occur on the alluvial fan.	Prominent long band of graded dirt road.
LINE	Undulating lines occur along the horizon of mountain range. Rolling alluvial fans and natural berms occur throughout the foreground and middleground.	Rounded shrubs throughout valley. Shrubs and grasses have soft irregular edges. Intermittent trees	Bold lines of dirt roads occur throughout the valley floor.
COLOR	Mountains are made up of brown and black bands. Gray to buff colored soils throughout the valley.	Light gray green shrubs and tan annual grasses. Dark green juniper patches and stringers extend down from mountain slopes	Flat, dull tan dirt roads.
TEXTURE	Alluvial fans are rolling and uneven, cut by shallow dry washes. The valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Medium textured trees coming down off mountain sides. Smoother in the distance as individual plants become indistinguishable.	Smooth graded dirt roads cross the valley floor.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Graded and leveled areas on top of rounded alluvial fan.	Patchy vegetation surrounding new structures and facilities.	Blocky square and rectangular buildings. Angular elements of the power distribution line.
LINE	Weak horizontal lines created by leveling the site pad.	Diffuse edges as shrubs and weeds grow back along portions of the project area. The surrounding trees and shrubs would screen the sharp lines surrounding the proposed site.	Vertical and horizontal lines of building. Straight lines of distribution. Vertical lines of electrical poles. Bold vertical line of the new communication tower.
COLOR	White and tan soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower. Gray concrete.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Mostly smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM <u>X</u> LONG TERM															
1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <u>X</u> Yes ___ No (Explain on reverse side)	
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ___ Yes <u>X</u> No (Explain on reverse side)	
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s) Date	
ELEMENT	Form		X					X			X			Steve Leslie	6.19.2008
	Line		X					X		X				SWCA Environmental Consultants	
	Color			X					X			X			
	Texture			X					X		X				

SECTION D. (Continued)													
Comments from Item 2.													
<p>The Butte Valley Microwave tower, access road and distribution line would repeat some of the basic elements of line, color and texture From the dirt road crossing Butte Valley, the project would be in view for no more than 3 miles. Viewers traveling either direction at the 45 mph posted speed limit would only view the project for approximately 4 minutes. Moderate contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class III landscapes. The conclusion that the microwave tower and associated facilities would be seen, but would not dominate the view of the casual observer is consistent with the management objective.</p>													
U. S. GOVERNMENT PRINTING OFFICE: 1985-461-988/33094													



Butte Valley KOP – looking east

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.18.2008

District

Las Vegas Field Office

Resource Area

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – Gunsight Pass	4. Location UTM -	5. Location Sketch
2. Key Observation Point Looking south at site from traveling south on U.S. 93.		
3. VRM Class III		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Large north south trending mountains. Gently sloping bajadas in the middleground and foreground. Large, wide valley.	Numerous, rounded creosote bush and other small shrubs occur throughout the foreground and middleground. Indistinguishable vegetation to bare rock on mountains in the background.	Prominent long distribution line traverses the valley in north to south. Prominent long band of US 93.
LINE	Angular horizontal lines occur along the horizon of mountain range. Undulating erosion lines occur within the mountain ranges washes and natural berms throughout the foreground and middleground.	Rounded shrubs throughout valley. Shrubs and grasses have soft irregular edges.	Bold horizontal and vertical lines of distribution line, highway and dirt roads occur throughout the valley floor.
COLOR	Mountains are darker, tan, brown and black bands. White, tan and buff colored soils occur at the pass.	Light gray green shrubs and tan annual grasses.	Flat metallic transmission lines. Reflective, white ground disturbance from old mining activity. Whitish tan soils in project area.
TEXTURE	Mountains are coarse and uneven. Valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Indistinguishable on mountains. Sparse and patchy along in areas adjacent to project area.	Smooth highway and regular ordered distribution of power lines.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Leveled areas of within previous disturbance.	Patchy vegetation surrounding new structures and facilities.	Blocky square and rectangular buildings. Angular elements of the power distribution line.
LINE	Weak horizontal lines created by leveling of the previously disturbed lands.	Diffuse edges as shrubs and weeds grow back along portions of the project area.	Vertical and horizontal lines of building. Straight lines of distribution. Vertical lines of electrical poles. Bold vertical line of the new communication tower.
COLOR	More white gray soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower. Gray concrete.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Mostly smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM _X_ LONG TERM															
1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? _X_ Yes ___ No (Explain on reverse side)	
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? _X_ Yes ___ No (Explain on reverse side)	
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s) Date	
ELEMENT	Form			X			X			X			Steve Leslie	6.18.2008	
	Line			X			X			X			SWCA Environmental Consultants		
	Color			X				X			X				
	Texture			X			X				X				

SECTION D. (Continued)													
<p>Comments from Item 2.</p> <p>The Gunsight Pass Microwave tower would repeat some of the basic elements of line, color and texture of the existing distribution line. From US 93, the project would be in view for no more than 5 miles. Viewers traveling either direction at the 70 mph posted speed limit would only view the project for approximately 4 minutes. Weak to moderate contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class III landscapes. The conclusion that the microwave tower would be seen, but would not dominate the view of the casual observer is consistent with the management objective.</p>													
U. S. GOVERNMENT PRINTING OFFICE: 1985-461-988/33094													



Gunsight Pass KOP – looking south

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.20.2008

District

Elko District Office

Resource Area

Wells Field Office

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – Lower Spruce	4. Location UTM -	5. Location Sketch See photo
2. Key Observation Point Looking north and west at site traveling north on U.S. 93.		
3. VRM Class IV (Interim class until the Wells RMP is updated)		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling hills. Small rounded hills and mountains interspersed through the area. The jagged ruby mountains are visible in the distance to the west.	Numerous small shrubs occur throughout the foreground and middleground interspersed with clumps of larger, conical junipers.	Prominent long band of US 93. Single wooden pole distribution line at south end of proposed new line.
LINE	Angular horizontal lines occur along the horizon of the distant mountain range. Undulating hills and natural berms occur throughout the foreground and middleground.	Rounded shrubs throughout valley. Trees, shrubs and grasses have soft irregular edges.	Bold lines of highway and dirt roads occur throughout the area.
COLOR	Mountains appear brown and black. Snow is not uncommon. Grayish and buff colored soils occur throughout the area.	Light gray green shrubs and tan annual grasses. Dark green Junipers	Reflective asphalt band of US 93.
TEXTURE	The terrain is rolling and uneven, cut by angular washes. The valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Smoother in the distance as individual plants become indistinguishable.	Smooth paved road extending in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Graded and leveled area.	Patchy vegetation surrounding new structures and facilities.	Blocky square and rectangular buildings. Angular elements of the power distribution line.
LINE	Weak horizontal lines created by leveling of the previously disturbed lands.	Diffuse edges as shrubs and weeds grow back along portions of the project area.	Vertical and horizontal lines of building. Straight lines of distribution. Vertical lines of electrical poles. Bold vertical line of the new communication tower.
COLOR	More white gray soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower. Gray concrete.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Mostly smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM _X_ LONG TERM

ELEMENT	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes ___ No (Explain on reverse side)
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ___ Yes ___ No (Explain on reverse side)
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s) Date Steve Leslie 6.20.2008 SWCA Environmental Consultants
			X					X			X			
		X				X				X				
	X					X				X				

SECTION D. (Continued)

Comments from Item 2.

The Lower Spruce Microwave tower, short access road and long distribution line would repeat some of the basic elements of line, color and texture. From the US 93, the project would be in view for no more than 5 miles. Viewers traveling either direction at the 70 mph posted speed limit would only view the project for approximately 4 minutes. Moderate to strong contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class IV landscapes. The conclusion that the microwave tower and associated facilities would be seen, but would not dominate the view of the casual observer is consistent with the management objective.



Lower Spruce KOP – looking northwest

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.18.2008

District

Ely District Office

Resource Area

Caliente Field Office

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – Pahranaagat	4. Location UTM - 676795 N 4114691 E	5. Location Sketch
2. Key Observation Point Looking north at site from traveling north on U.S. 93.		
3. VRM Class III and IV		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Large north south trending mountains. Angular alluvial fans sloping down from the east. Jagged mountains to the north in the middleground and foreground. Long, wide valley.	Numerous, shrubby, rounded creosote bush and other small shrubs occur throughout the foreground and middleground. Indistinguishable vegetation to bare rock on mountains in the background.	Prominent long distribution line traverses the valley in north to south. Prominent long band of US 93.
LINE	Angular horizontal lines occur along the horizon of mountain range. Undulating bands within the mountain ranges washes are cut into alluvial fans and natural berms occur throughout the foreground and middleground.	Rounded shrubs throughout valley. Shrubs and grasses have soft irregular edges.	Bold horizontal and vertical lines of transmission lines, highway and dirt roads occur throughout the valley floor.
COLOR	Mountains are buff, tan, brown and black bands. Reddish tan and buff colored soils occur throughout the valley.	Light gray green shrubs and tan annual grasses.	Flat metallic transmission lines. Dark grey and brown metal and wooden 2-pole supports. Reflective asphalt band of US 93.
TEXTURE	Mountains are coarse and uneven. Valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Indistinguishable on mountains.	Smooth highway and regular ordered distribution of power lines extending in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Levelled area located higher than KOP.	Cleared vegetation would be indistinguishable due to distance.	Blocky square and rectangular buildings. Vertical electrical power poles
LINE	Weak horizontal lines created by leveling of the previously disturbed lands.	Buffered edges of areas cleared for proposed action. Diffuse edges as shrubs and weeds grow back along perimeter of project area.	Bold vertical line of the new communication tower would be the most visible new structure of the proposed action.
COLOR	More buff soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM _X_ LONG TERM															
1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? _X_ Yes ___ No (Explain on reverse side)	
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? _X_ Yes ___ No (Explain on reverse side)	
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s) Date	
ELEMENT	Form			X				X				X		Steve Leslie 6.18.2008 SWCA Environmental Consultants	
	Line			X				X		X					
	Color			X					X			X			
	Texture			X				X					X		

SECTION D. (Continued)													
Comments from Item 2.													
<p>The Pahrnagat Microwave tower, access road and distribution line would repeat some of the basic elements of line, color and texture of the existing distribution line and roads. From US 93, the project would be in view for no more than 15 miles. Viewers traveling either direction at the 70 mph posted speed limit would only view the project for approximately 12 minutes. Additionally, the KOP is between 5 and 6 miles from the project site. This greater distance results in weaker apparent contrasts. Weak to moderate contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class III landscapes. The conclusion that the microwave tower would be seen, but would not dominate the view of the casual observer is consistent with the management objective.</p>													
U. S. GOVERNMENT PRINTING OFFICE: 1985-461-988/33094													



Pahrnagat KOP - looking north

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.18.2008

District

Las Vegas Field Office

Resource Area

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – Silverhawk North	4. Location UTM -	5. Location Sketch
2. Key Observation Point Looking south at site from traveling south on U.S. 93.		
3. VRM Class III		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Large north south trending mountains. Gently sloping bajadas in the middleground and foreground. Long, wide valley.	Numerous, rounded creosote bush and other small shrubs occur throughout the foreground and middleground. Indistinguishable vegetation to bare rock on mountains in the background.	Prominent long distribution line traverses the valley in north to south. Prominent long band of US 93.
LINE	Angular horizontal lines occur along the horizon of mountain range. Undulating erosion lines occur within the mountain ranges washes and natural berms throughout the foreground and middleground.	Rounded shrubs throughout valley. Shrubs and grasses have soft irregular edges.	Bold horizontal and vertical lines of transmission lines, highway and dirt roads occur throughout the valley floor. Weak lines of communication site visible along horizon line.
COLOR	Mountains are darker, tan, brown and black bands. White, tan and buff colored soils occur throughout the valley.	Light gray green shrubs and tan annual grasses.	Flat metallic transmission lines. Reflective, white ground disturbance from old mining activity. Whitish tan soils in project area.
TEXTURE	Mountains are coarse and uneven. Valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Indistinguishable on mountains. Sparse and patchy along in areas adjacent to project area.	Smooth highway and regular ordered distribution of power lines.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Leveled area located higher than KOP.	Patchy vegetation surrounding new structures and facilities.	Blocky square and rectangular buildings. Vertical electrical power poles would do the same.
LINE	Weak horizontal lines created by leveling of the previously disturbed lands.	Buffered edges of areas cleared for proposed action. Diffuse edges as shrubs and weeds grow back along perimeter of project area.	Vertical and horizontal lines of building. Straight lines of distribution. Vertical lines of electrical poles. Bold vertical line of the new communication tower.
COLOR	More buff soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower. Gray concrete.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Mostly smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM _X_ LONG TERM															
1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? _X_ Yes ___ No (Explain on reverse side)	
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? _X_ Yes ___ No (Explain on reverse side)	
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s) Date	
ELEMENT	Form			X				X				X		Steve Leslie SWCA Environmental Consultants	6.18.2008
	Line			X				X				X			
	Color			X				X				X			
	Texture			X				X				X			

SECTION D. (Continued)													
Comments from Item 2.													
<p>The Silverhawk North Microwave tower would repeat some of the basic elements of line, color and texture of the existing distribution line and distant communications facilities. From US 93, the project would be in view for no more than 5 miles. Viewers traveling either direction at the 70 mph posted speed limit would only view the project for approximately 4 minutes. Weak to moderate contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class III landscapes. The conclusion that the microwave tower would be seen, but would not dominate the view of the casual observer is consistent with the management objective.</p>													
U. S. GOVERNMENT PRINTING OFFICE: 1985-461-988/33094													



Silverhawk North KOP – looking South

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.17.2008

District

Ely District Office

Resource Area

Caliente Field Office

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – White River		4. Location UTM - 677596 N 4201341 E	5. Location Sketch See photo
2. Key Observation Point Looking north at site from traveling north on U.S. 93.			
3. VRM Class III			

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gently sloping rounded alluvial fans down from the west into the broad open White River Valley. Jagged mountains are in the distance to the west.	Numerous small shrubs occur throughout the foreground and middleground. Larger, conical junipers occur on the alluvial fan.	Prominent long band of SR 318.
LINE	Angular horizontal lines occur along the horizon of mountain range. Undulating bands within the mountain ranges washes are cut into alluvial fans and natural berms occur throughout the foreground and middleground.	Rounded shrubs throughout valley. Shrubs and grasses have soft irregular edges.	Bold lines of highway and dirt roads occur throughout the valley floor.
COLOR	Mountains are buff, tan, brown and black bands. Reddish tan and buff colored soils occur throughout the valley.	Light gray green shrubs and tan annual grasses.	Reflective asphalt band of US 93.
TEXTURE	Alluvial fans are rolling and uneven, cut by angular washes. The valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Smoother in the distance as individual plants become indistinguishable.	Smooth paved road extending in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Graded and leveled areas on top of rounded alluvial fan.	Patchy vegetation surrounding new structures and facilities.	Blocky square and rectangular buildings. Angular elements of the power distribution line.
LINE	Weak horizontal lines created by leveling of the previously disturbed lands.	Diffuse edges as shrubs and weeds grow back along portions of the project area.	Vertical and horizontal lines of building. Straight lines of distribution. Vertical lines of electrical poles. Bold vertical line of the new communication tower.
COLOR	More white gray soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower. Gray concrete.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Mostly smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM _X_ LONG TERM															
1.	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? _X_ Yes ___ No (Explain on reverse side)	
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ___ Yes _X_ No (Explain on reverse side)	
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s)	Date
ELEMENT	Form		X					X			X			Steve Leslie SWCA Environmental Consultants	6.18.2008
	Line			X		X				X					
	Color			X				X				X			
	Texture			X				X			X				

SECTION D. (Continued)													
Comments from Item 2.													
<p>The White River Microwave tower would repeat some of the basic elements of line, color and texture of the existing road. From SR 318 in either direction, the project would be in view for no more than 5 miles. Viewers traveling either direction at the 70 mph posted speed limit would only view the project for approximately 4 minutes. Moderate contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class III landscapes. The conclusion that the microwave tower would be seen, but would not dominate the view of the casual observer is consistent with the management objective.</p>													
<p style="text-align: center;">U. S. GOVERNMENT PRINTING OFFICE: 1985-461-988/33094</p>													



White River KOP – looking north

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date (of field work)

6.19.2008

District

Ely District Office

Resource Area

Schell Field Office

Activity (program)

Lands and Realty

SECTION A. PROJECT INFORMATION

1. Project Name NVE Microwave and Mobile Radio – Willard Creek	4. Location UTM -	5. Location Sketch See photo
2. Key Observation Point Looking south at site from traveling south on state road.		
3. VRM Class III		

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently sloping rounded alluvial fans down from the west into the broad open White River Valley. Jagged mountains are in the distance to the west.	Numerous small shrubs occur throughout the foreground and middleground. Larger, conical junipers occur on the alluvial fan.	Prominent long band of SR 318.
LINE	Angular horizontal lines occur along the horizon of mountain range. Undulating bands within the mountain ranges washes are cut into alluvial fans and natural berms occur throughout the foreground and middleground.	Rounded shrubs throughout valley. Shrubs and grasses have soft irregular edges.	Bold lines of highway and dirt roads occur throughout the valley floor.
COLOR	Mountains are buff, tan, brown and black bands. Reddish tan and buff colored soils occur throughout the valley.	Light gray green shrubs and tan annual grasses.	Reflective asphalt band of US 93.
TEXTURE	Alluvial fans are rolling and uneven, cut by angular washes. The valley floor is smooth.	A continuous even cover of coarse vegetation across middleground and foreground. Smoother in the distance as individual plants become indistinguishable.	Smooth paved road extending in the distance.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Graded and leveled areas on top of rounded alluvial fan.	Patchy vegetation surrounding new structures and facilities.	Blocky square and rectangular buildings. Angular elements of the power distribution line.
LINE	Weak horizontal lines created by leveling of the previously disturbed lands.	Diffuse edges as shrubs and weeds grow back along portions of the project area.	Vertical and horizontal lines of building. Straight lines of distribution. Vertical lines of electrical poles. Bold vertical line of the new communication tower.
COLOR	More white gray soils exposed during construction. Natural buffs, tans, and grays of exposed soils.	Various tans and greens of shrubs, grasses and weeds.	Tan and brown of buildings. Flat, gray and dark colors of the lattice tower. Gray concrete.
TEXTURE	Smooth to medium.	Sparse, coarse shrubs.	Mostly smooth.

SECTION D. CONTRAST RATING ___ SHORT TERM _X_ LONG TERM

1.	DEGREE OF CONTRAST	FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes ___ No (Explain on reverse side)	
		LAND/WATER BODY (1)				VE GETATION (2)				STRUCTURES (3)				3. Additional mitigating measures recommended? ___ Yes <input checked="" type="checkbox"/> No (Explain on reverse side)	
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Evaluators Name(s) Date	
			X					X				X			Steve Leslie 6.18.2008 SWCA Environmental Consultants
ELEMENT	Form		X				X				X				
	Line			X			X			X					
	Color			X				X			X				
	Texture			X				X			X				

SECTION D. (Continued)

Comments from Item 2.

The Willard Microwave tower, access road and distribution line would repeat some of the basic elements of line, color and texture of the existing AT&T communications tower to the east. From the state road, the project would be in view for no more than 5 miles. Viewers traveling either direction at the 45 mph posted speed limit would only view the project for approximately 8 minutes. Moderate contrasts in the elements of the environment are consistent with BLM's objectives for VRM Class III landscapes. The conclusion that the microwave tower would be seen, but would not dominate the view of the casual observer is consistent with the management objective.



Willard Creek KOP – looking south

This page intentionally left blank.