



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

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

In Reply Refer To:

N-85067

2800 (NVB0200)

NOV 02 2009

Dear Reader:

The Bureau of Land Management, (BLM), Tonopah Field Office (TFO), Renewable Energy Coordination Office, (RECO), has prepared an Environmental Assessment, (EA), to analyze the impacts from a proposed Right-of-Way application for a wind energy site testing and monitoring project area which consists of one meteorological tower proposed for installation. The Proposed Action would be to grant a Right-of-Way to AltaGas Renewable Energy Pacific, Inc. to install a meteorological tower within a project area consisting of 6,798 acres on public land in Nye County, Nevada to collect data to determine the wind energy resource potential of the area.

Pursuant to the National Environmental Policy Act, (NEPA), and the Council on Environmental Quality regulations on implementing NEPA, the EA identifies, describes, and evaluates resource impacts from the proposed project.

Copies of the EA may be obtained by notifying the TFO at the letterhead address above or, from the internet address below.

http://www.blm.gov/nv/st/en/fo/battle_mountain_field/blm_information/national_environmental.html

Written comments on the EA will be accepted at the above letterhead address, until 4:30 p.m., December 2, 2009. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

If you have any questions or comments regarding this proposed Right-of-Way action, please contact Timothy Coward, Project Manager, Renewable Energy Coordination Office or Dana Kimbal, Planning and Environmental Coordinator at the above Tonopah Field Office address or at (775) 482-7800.

Sincerely,

Thomas J. Seley
Field Manager

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

**Environmental Assessment DOI-BLM-NV-B020-2009-0071-EA
DATE: October 2009**

**Rhyolite Wind Energy Site Testing and Monitoring Project
Area**

**INSTALLATION OF ONE METEOROLOGICAL TOWER
NEAR RHYOLITE, NYE COUNTY, NEVADA
ENVIRONMENTAL ASSESSMENT**

File Number: NVN-084067

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LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
AFB	Air Force Base
AltaGas	AltaGas Renewable Energy Pacific, Inc.
APE	Area of Potential Effect
ATV	all-terrain vehicle
BLM	(United States) Bureau of Land Management
B.P.	Before Present
CEQ	Council on Environmental Quality
CESA	Cumulative Effects Study Area
CFR	Code of Federal Regulations
DVNP	Death Valley National Park
EA	Environmental Assessment
E & E	Ecology and Environment, Inc.
FAA	Federal Aviation Administration
FLPMA	Federal Land Policy and Management Act
FO	field office
FWS	(United States) Fish and Wildlife Service
GIS	geographic information system
IR	instrument route
MET	meteorological tower
MTR	Military Training Route
NEPA	National Environmental Policy Act
OHV	off-highway vehicles
RMP	Resource Management Plan
ROW	right-of-way
SF	standard form
SR	state route
VR	visual route
VRM	Visual Resource Management

CHAPTER 1.0 INTRODUCTION

1.1 INTRODUCTION

AltaGas Renewable Energy Pacific, Inc. (AltaGas) proposes to install one meteorological tower (MET) on United States Department of the Interior Bureau of Land Management (BLM) land (Case File Number NVN-084067) administered by the Tonopah Field Office (FO) in southwestern Nye County, Nevada (Proposed Action) (see Figure 1-1).

1.2 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to collect, log, and transmit data on wind speed and wind direction at various pre-determined heights above the ground. The wind data collected from the MET is needed to determine wind energy resource potential at the Proposed Action area for a potential wind energy project (AltaGas 2009).

To conduct the Proposed Action on public lands, AltaGas submitted a Standard Form (SF) 299 application to the BLM Tonopah FO on August 28, 2007. This SF 299 application requested a wind energy testing and monitoring right-of-way (ROW) grant on 7,360 acres of land near the town of Beatty, Nevada. The BLM Tonopah FO requested additional information to complete filing of the application, which AltaGas provided, and the SF-299 was completed on January 25, 2008 (BLM 2009). The SF-299 application was given a final amendment on September 22, 2009 reducing the total acreage to 6,798 acres. The following legal land description summarizes all land currently included in the proposed ROW:

Mount Diablo Meridian

Township 12 South, Range 46 East

Section 6, All except for MS 2481 and MS 3009

Section 7, All except for MS 2599

Section 8, W ½ of the W ½

Section 15, SE ¼ except for Tract 37 and MS 5091

Section 17, All except for patented mining claims within the NE ¼

Section 18, All

Section 19, All

Section 20, All

Section 21, W ½ and SE ¼

Section 22, NW ¼ of the NW ¼ and Lots 2, 3, 4, and 8

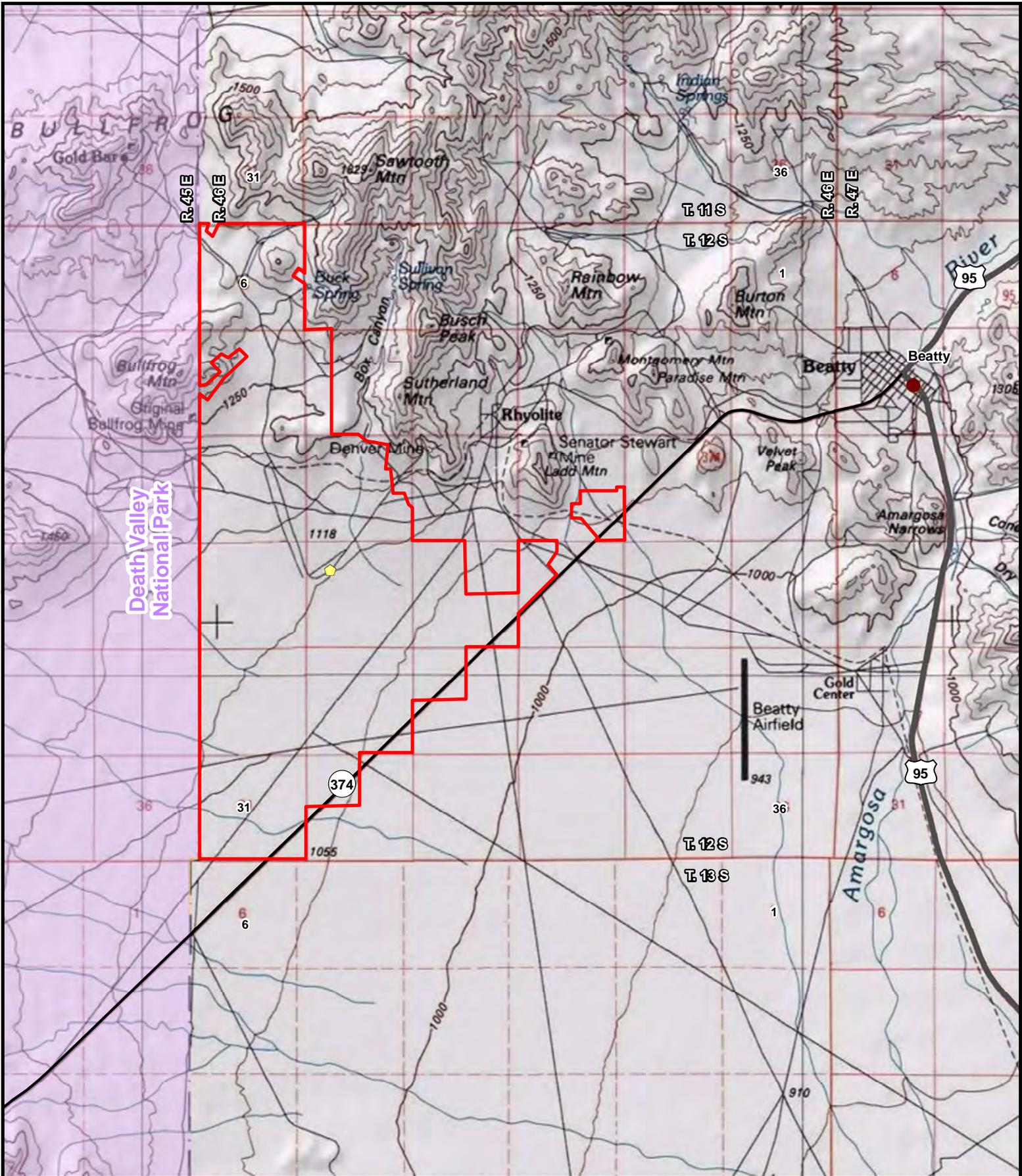
Section 28, NW ¼

Section 29, All

Section 30, All

Section 31, All

Section 32, NW ¼



Legend

- Project ROW
- MET Tower
- NPS Land
- State Route
- U.S. Highway
- Town
- T.12S PLSS Grid
- 1

Project Area Overview

Miles

Figure 1-1

Date: 09/28/2009
 Produced by: TV
 Projection: GCS North American 1983
 Datum: D North American 1983
 RF: 1:75,000
 Source: ESRI, AltaGas, USGS

1.3 Relationship to Planning and Conformance With Land Use Plans

1.3.1 Resource Management Plan

The public lands administered by the BLM in the Proposed Action vicinity are managed in accordance with the following land use plans, which are in compliance with the Federal Land Policy and Management Act (FLPMA) of 1976, as amended.

- *Proposed Tonopah Resource Management Plan and Final Environmental Impact Statement* (BLM 1994) and the *Approved Tonopah Resource Management Plan Record of Decision* (BLM 1997) for the Tonopah Field Office, BLM Battle Mountain District.

The Proposed Action is in conformance with the above Resource Management Plans (RMPs) even though it is not specifically provided for, it is clearly consistent with the following RMP decisions. The BLM, under the section titled “Lands and Rights-of-Way Objective”, describes the need “...to make lands available for community expansion and private economic development and to increase the potential for economic diversity” (p. 18; BLM 1997)

1.3.2 Local Land Use Planning and Policy

The Proposed Action is consistent with known state and local zoning or planning ordinances. Section 202(c)(9) of the FLPMA governs BLM planning and requires that BLM land use plans be consistent with state and local land use plans to the extent possible consistent with federal law.

The Nevada Statewide Policy Plan for Public Lands developed by the counties and cities of Nevada and the State Land Use Planning Agency of the Division of State Lands, Department of Conservation and Natural Resources, State of Nevada, under authority of Senate Bill 40 of the 1983 Nevada Legislature (NRS 321.7344) does not specifically provide language for wind energy projects, but states in the “Public Lands” section on under the heading “Goals of Public Lands” that the State of Nevada will “...manage and utilize public lands on the basis of multiple use and sustained yield concepts, and in a manner that will conserve natural resources; protect and preserve the quality of the environmental, ecological, scientific, historical and archeological values; protect and preserve wildlife habitat and certain lands in their natural condition; and provide for long term benefits to the people of Nevada and future generations. Ensure the development of the state's natural resources in a manner consistent with state and local goals regarding the environment, economic development and social concerns” (p. 8; State of Nevada 1985).

The Proposed Action is consistent with the goals of the *Nye County Policy Plan for Public Lands* which states that Nye County will “...provide for Nevada's energy needs through coordinated resource planning and management between private enterprise and government to plan for development of energy resources” (p. NY-10; Nye County 1985). To date, the state of Nevada and Nye County have not issued land use plans that specifically address requirements for wind energy testing.

1.4 PUBLIC SCOPING

Letters were submitted to the towns of Beatty and Amargosa Valley in May 2009 and to Death Valley National Park (DVNP) in June 2009 to inform them of the Proposed Action. At the time of this EA's publication, representatives from Beatty had responded and asked that AltaGas provide them a map of the Proposed Action area. The BLM, Tonopah Field Office received a letter from DVNP on September 24th, from Sarah Craighead, Park Superintendent, citing reservations on the project. Although the reservations were for a wind energy development project, this EA is for a wind energy project area for testing and monitoring and the installation of one meteorological tower in response to the Right-of-Way application submitted in 2007.

1.5 ISSUES

The BLM interdisciplinary team identified the resources and uses to be addressed in this document as outlined in Chapter 3. The avoidance of cultural resources, sensitive plant and wildlife species, visual resources, and airspace impacts were identified as specific issues to be addressed in relation to the Proposed Action.

1.6 AUTHORIZING ACTIONS

The BLM's approval of the Proposed Action or possible alternatives associated with the SF-299 and EA is required prior to authorization of the ROW grant and commencement of operations. AltaGas would be responsible for obtaining any other necessary permits and approvals from all stakeholders including any relevant Federal, state, and local agencies.

CHAPTER 2.0 PROPOSED ACTIONS AND ALTERNATIVES

2.1 PROPOSED ACTION

Under the Proposed Action, AltaGas would construct one MET within the proposed ROW (Case File Number NVN-084067) to determine the potential for wind energy generation in the area. The MET would be 60 meters in height and guy wires reaching from the MET would extend 50 meters (AltaGas 2009). Construction of the MET would require two 8-hour work days by a six person crew (AltaGas 2009). The MET would remain in continuous operation until sufficient data is collected to determine the suitability of a wind energy project or until the three year ROW authorization expires.

2.1.1 Location and Access

The proposed location for the MET would be within the SE¹/₄ NW¹/₄, Section 20, Township 12 South, Range 46 East, Mount Diablo Meridian (36°52'55" North, 116°51'24" West) (see Figure 1-1). The Proposed Action area would consist of a 200-foot radius (approximately 3 acres), within which all ground-disturbing activities would occur. AltaGas has conducted biological and cultural resources surveys over a larger area (5 acres) to allow for minor changes to the MET location for engineering or other reasons.

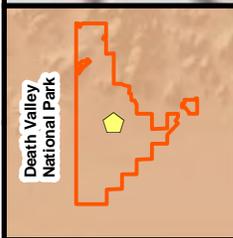
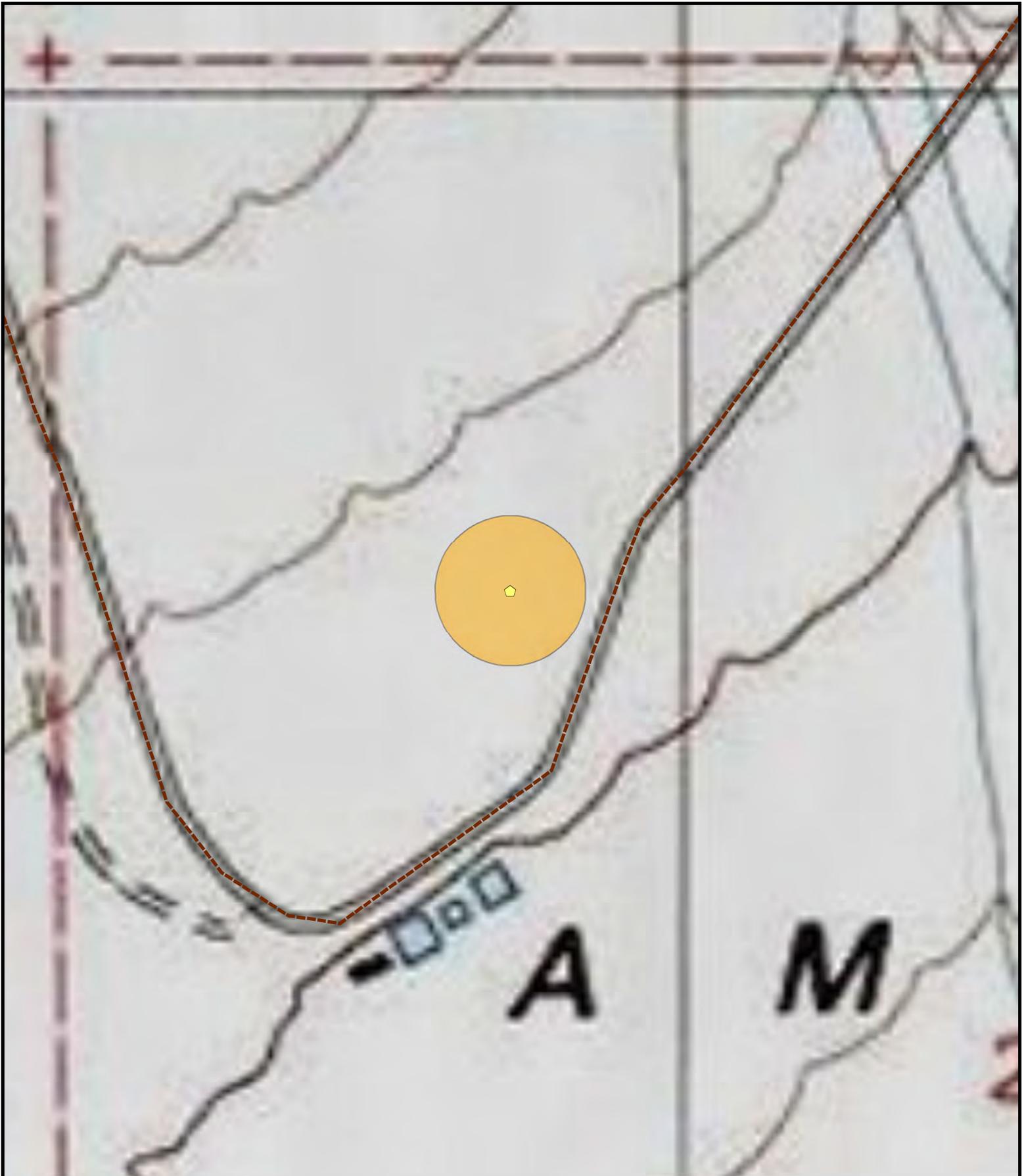
Vehicle access to the proposed MET location would be restricted to existing roads and those roads would not be improved for the purposes of construction or operation of the MET. Access to the Proposed Action area would be gained by traveling west on Goldbar Road from the Nevada State Route- (SR) 374 and following an existing dirt road south. Existing roads within the Proposed Action area have been surveyed for sensitive plant and animal species and prudent speed limits would be used to minimize airborne dust, noise generation, and potential impacts to local wildlife (AltaGas 2009).

2.1.2 Meteorological Tower Operations

The MET would remain in continuous operation until sufficient data is collected to determine the suitability of a wind energy project or until the three year ROW authorization expires. During operation, a two person crew would typically visit the MET once every three months to perform periodic maintenance, which would be completed in approximately four hours (AltaGas 2009). If non-routine maintenance, such as lowering the MET to replace malfunctioning equipment, is required, a four to six person crew would be required for approximately two 8-hour work days (AltaGas 2009). The MET would include a data logger, cell phone link, solar cell, and battery that are attached to the tower near the base. The tower system is designed to automatically store data and periodically transmit the data via the cell phone link, thus minimizing the need for on-site visits (AltaGas 2009).

2.1.3 Construction and Staging Area

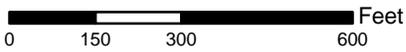
The Proposed Action would be contained within a 200-foot radius of the MET base (see Figure 2-1) and accessed by way of existing roads and tracks. The Proposed Action area,



Legend

-  Project ROW
-  MET Tower
-  Proposed Action Area
-  Access Road

Proposed Action Area

Feet
0 150 300 600

Figure 2-1

Date: 09/28/2009
 Produced by: TW
 Projection: GCS North American 1983
 Datum: D North American 1983
 RF: 1:4,000
 Source: ESRI, USGS, AltaGas,
 NV BLM

equal to approximately 3 acres, aligns with the total lay-down area needed for MET construction. In order to level the ground surface for the MET, any existing brush or other vegetation would be trimmed to no lower than 6 inches above the root ball at the proposed installed tower site or guy wires, if needed. Trimming in this manner would allow the vegetation to remain viable after construction has been completed. No ground disturbance would occur outside of this area (AltaGas 2009).

2.1.4 Equipment

The MET would be a 60-meter XHD NRG Talltower™. The MET consists of the 60-meter tower, 3-foot by 3-foot foundation plate and a total of 24 guy wires extending a maximum of 50 meters, creating an “X” pattern when viewed from overhead (AltaGas 2009). To ensure safety and reliability of the MET, construction would follow all manufacturers’ guidelines. All-terrain vehicles (ATVs) and pickup trucks would be used to transport the MET components to the Proposed Action area for construction and electric winches would be used to erect the tower once it is in place (AltaGas 2009). All vehicle access to the Proposed Action area would be restricted to existing roads and those roads would not be improved in any way by the Proposed Action.

2.1.5 Clean-up Operations

Any waste or debris associated with constructing the MET would be removed and properly disposed of at an approved off-site location.

2.2 ENVIRONMENTAL PROTECTION MEASURES

2.2.1 Vegetation

The project area is of a Mojave Desert scrub, consisting of a creosote bush (*Larrea tridentata*). Dominant vegetation in the Proposed Action area includes: creosote bush; fourwing saltbush (*Atriplex canescens*); white bursage (*Ambrosia dumosa*); Shockley’s goldenhead (*Acamptopappus shockleyi*); and desert needlegrass (*Stipa speciosa* [*Achnatherum speciosum*]) (E & E 2009).

The Proposed Action would require existing brush or other desert vegetation, excluding identified sensitive species, to be hand trimmed (AltaGas 2009) to no lower than 6 inches above the root ball at the proposed installed tower site or guy wires only, if needed. Trimming would not be required for the area outside of the tower footprint.

2.2.2 Wildlife

For avian and bat species, at the request of the BLM, industry-recognized bird flight diverters would be appropriately attached to the MET guy wires and an anabat detector would be attached to the MET itself, in an effort to ensure avian and bat species are not impacted by the Proposed Action (AltaGas 2009). Additionally, if surface disturbing construction activities take place during the April 1 to July 15 nesting season, a qualified wildlife biologist would conduct a systematic survey a maximum 10 days prior to disturbance to identify any breeding or nesting sites of migratory birds, and then develop appropriate mitigation such as delaying or relocating the activity to avoid such sites (Cooper 2009c).

2.2.3 Soils

Soils consist of very gravelly sandy loam 8-15 %, Arizo, very gravelly Strozi, Yermo, very gravelly sandy loam 2-4%, and Skeleton loam. These soils have very little organic matter in the A-horizon (first horizon layer of a soil). Wind erosion during dry conditions and water erosion from thunderstorm events are the major sources of soil loss.

The right-of-way holder would remove only the minimum amount of vegetation necessary for the construction of structures and facilities. Where possible and if needed, topsoil would be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation.

2.2.4 Wild Horses and Burros

At the request of the BLM, the MET would be fenced during construction and operation phases to minimize potential impacts to local wild horse and burro herds. The fencing would consist of four 8-foot-long by 6-foot-high panels of cyclone fence or other appropriate range fencing as directed by the Authorized Officer, placed on the surface of the soil and held in place with drive anchor footings (AltaGas 2009). This fencing would be inspected for damage during field visits and repaired if necessary (AltaGas 2009).

2.2.5 Air Quality

The Proposed Action would require minimal ground disturbance during the construction phase and, therefore, would not create large amounts of fugitive dust. To reduce fugitive dust from pickup trucks and ATVs, a speed limit of 25 miles per hour would be observed by all vehicles.

2.3 ALTERNATIVES TO THE PROPOSED ACTION

2.3.1 Alternatives Considered But Eliminated From Future Analysis

An initial alternative considered by AltaGas was to place one additional MET within Township 13 South, Range 46 East, Section 6. However, this alternative was eliminated after BLM archaeologists performed a field visit to the proposed MET site and determined that a road which AltaGas proposed to use to gain access to the MET held the possibility of being eligible for listing in the National Register of Historic Places.

2.3.2 No-Action Alternative

Under the No-Action Alternative no MET would be constructed and no meteorological data would be gathered.

CHAPTER 3.0
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION

This section describes elements of the existing environment that could be affected by the Proposed Action or the No-Action Alternative. The BLM is required to address specific elements of the environment that are subject to requirements specified in statute or regulation or by executive order (BLM 2008). Table 3-1 outlines the elements that must be addressed in all environmental analyses, as well as other resources deemed appropriate for evaluation by the BLM, and denotes if the Proposed Action or No-Action Alternative affects those elements.

Table 3-1 Supplemental Authorities of the Human Environment and Rationale for Detailed Analysis

	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Supplemental Authority				
Air Quality		X		There are no areas of non-attainment for criteria pollutants in or around the Proposed Action area.
Area of Critical Environmental Concern (ACEC)	X			Resource not present in the vicinity of the Proposed Action area.
Cultural/Historical	X			A BLM Class III cultural resources survey (ASM 2009) was conducted in June 2009 in the Proposed Action area. No cultural resources were discovered.
Environmental Justice		X		The Proposed Action would not disproportionately affect minority or low-income populations.
Farmlands Prime or Unique	X			Resource not present in the vicinity of the Proposed Action area.
Noxious Weeds/Invasive Non-native Species		X		There is a general lack of vegetation, including noxious weeds and invasive non-native species, in the Proposed Action area, therefore, risk of any such species spreading would not be increased. Invasive plants were targeted during the biological surveys, however, none were noted.
Native American Religious Concerns		X		No formal consultation with local Native American tribes was conducted by the BLM. However, members of the Timbisha tribe were notified of the project in July 2009 and a field visit was conducted on October 8, 2009. No comments have been received to date. Coordination is ongoing.

Table 3-1 Supplemental Authorities of the Human Environment and Rationale for Detailed Analysis

	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Floodplains	X			Resource not present in the vicinity of the Proposed Action area.
Riparian/Wetlands/	X			Resource not present in the vicinity of the Proposed Action area.
Threatened, Endangered Species			X	See Section 3.3.1.1 for description.
Migratory Birds			X	See Section 3.3.1.2 for description.
Waste – Hazardous/Solid		X		No hazardous waste would be generated by the Proposed Action. Any solid waste or debris associated with constructing the MET would be removed and properly disposed of at an approved off-site location.
Water Resources/Quality		X		The Amargosa Desert Watershed Area, like most others in this arid desert region, lacks perennial sources of surface water and the small amount of water that is present does not meet the United States Environmental Protection Agency’s minimum standards for drinking water according to the latest BLM studies (BLM 1997).
Wild and Scenic Rivers	X			Resource not present in the vicinity of the Proposed Action area.
Fish Habitat	X			There are no surface water bodies that provide fish habitat in the vicinity of the Proposed Action area.
Wilderness	X			There are no designated BLM Wilderness Areas in the vicinity of the Proposed Action area.
Forests and Rangelands (Healthy Forest Restoration Act land only)	X			Resource not present in the vicinity of the Proposed Action area.
Human Health and Safety			X	See Section 3.3.4 for description.
Other Resources				
Grazing Management		X		The Proposed Action area is within the Montezuma Grazing Allotment, however, there is currently no active livestock grazing.
Lands and Realty			X	See Section 3.3.3 for description.

Table 3-1 Supplemental Authorities of the Human Environment and Rationale for Detailed Analysis

	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Minerals		X		The Proposed Action would not involve excavation or other major ground disturbing activities and, therefore, would not affect local mineral resources.
Paleontological Resources		X		The Proposed Action would not involve excavation or other major ground disturbing activities and, therefore, would not affect local paleontological resources.
Recreation		X		Local recreation opportunities would not be affected by the Proposed Action.
Socio-Economic Values		X		The Proposed Action takes place in an extremely rural area and would not affect local socio-economic values.
Soils		X		The Proposed Action would not involve excavation or other major ground disturbing activities and, therefore, would not affect local soil resources.
Vegetation			X	See Section 3.3.1.3 for description.
Visual Resources			X	See Section 3.3.5 for description.
Wild Horses and Burros		X		The Proposed Action area is within the Bullfrog Herd Management Area. The MET project area does not contain any known wild horses or burros.
Wildlife			X	See Section 3.3.1.4 for description.
Airspace			X	See Section 3.3.2 for description.

Source: BLM 2008.

3.2 RESOURCES NOT EVALUATED FURTHER

The BLM interdisciplinary team reviewed the resources in Table 3-1 and determined that the following supplemental authorities of the human environment are not present in or near the Proposed Action area or are present but would not be affected by the Proposed Action or No-Action Alternative: Air Quality; Areas of Critical Environmental Concern (ACECs); Cultural and Historic Resources; Environmental Justice; Prime or Unique Farmlands; Noxious Weeds and Invasive Non-Native Species; Native American Religious Concerns; Floodplains; Riparian and Wetlands Zones; Solid and Hazardous Waste; Wild and Scenic Rivers; Wilderness; Forests and Rangelands; Grazing Management; Minerals; Paleontological Resources; Recreation; Socio-Economic Values; and Soils. These elements will not be analyzed further in this EA.

3.3 RESOURCES CARRIED FORWARD FOR FURTHER ANALYSIS

The following resources presented in Table 3-1 have been determined to be present and potentially affected by the Proposed Action: Threatened and Endangered Species; Migratory Birds; Lands and Realty; Vegetation; Visual Resources; Human Health and

Safety; and Airspace. BLM specialists have evaluated the potential impacts of the Proposed Action and No-Action Alternative on these resources.

This EA includes a description of the affected physical, biological, and human environment in the Proposed Action area. This information was derived from data gathered during literature searches and field surveys for sensitive plant and animal species and cultural resources in May 2009 at the Proposed Action area and consultation with the BLM and other federal, state and local agencies. Cumulative impacts are discussed in Chapter 4.

3.3.1 Biological Resources

3.3.1.1 Special Status Species

3.3.1.1.1 Affected Environment

Prior to initiating biological surveys (Ecology and Environment, Inc. [E & E] 2009) to determine the potential presence of sensitive plant and animal species inside the Proposed Action area, the BLM and United States Fish and Wildlife Service (FWS) reviewed publically available data to develop a “target species” list. The data reviewed included the following:

- Nevada Natural Heritage Program: Nye County Rare Species List;
- *BLM: Tonopah Resource Management Plan and Final Environmental Impact Statement*; and

A list of sensitive plant species, along with their potential to occur within the Proposed Action area, was developed after contacting a senior-level botanist at University of Nevada, Las Vegas (E & E 2009). Of the potential sensitive species (see Table 3-2), only Blaine’s fishhook cactus (*Sclerocactus polyancistrus*) was observed within the Proposed Action area during the biological surveys (E & E 2009).

Table 3-2 Potential for Sensitive Plant and Animal Species in the Proposed Action Area

Scientific Name	Common Name	Potential for Occurrence ¹
Plants		
<i>Camissonia megalantha</i>	Cane Spring Suncup	S
<i>Cryptantha tumulosa</i>	New York Mountains Cryptantha	H
<i>Eriogonum concinnum</i>	Darin Buckwheat	N
<i>E. heermannii</i> var. <i>clokeyi</i>	Clokey Buckwheat	S
<i>Galium hilendiae</i> ssp. <i>carneum</i>	Kingston Mountains Bedstraw	N
<i>Gilia nyensis</i>	Nye Gilia	H
<i>Lathyrus hitchcockianus</i>	Bullfrog Mountain Pea	H
<i>Penstemon albomarginatus</i>	White-margined Beardtongue	N
<i>P. arenarius</i>	Nevada Dune Beardtongue	H
<i>P. fruticiformis</i> ssp. <i>amargosae</i>	Death Valley Beardtongue	N
<i>Phacelia mustelina</i>	Weasel Phacelia	N

Table 3-2 Potential for Sensitive Plant and Animal Species in the Proposed Action Area

Scientific Name	Common Name	Potential for Occurrence ¹
<i>Sclerocactus polyancistrus</i>	Blaine's Fishhook Cactus	S
<i>Arctomecon merriamii</i>	White Bear Poppy	S
<i>Astragalus mohavensis</i> var. <i>hemigyus</i>	Halfring Milkvetch	S
<i>Asclepias eastwoodiana</i>	Eastwood Milkweed	N
<i>Cymopterus ripleyi</i> var. <i>saniculoides</i>	Panicle Biscuitroot	S
Reptiles		
<i>Gopherus agassizii</i>	Mojave Desert Tortoise	S
<i>Sauromalus obesus</i>	Common Chuckwalla	S

¹ Potential for Occurrence defined as: H (high); S (slight); N (none).

Source: E & E 2009.

Additionally, the BLM and FWS, during informal consultation, agreed that the Proposed Action would not likely adversely affect desert tortoise as long as the following stipulations are followed:

- All trash and food items generated by the Proposed Action shall be promptly contained in covered, raven-proof containers and regularly removed from the site to a designated solid waste disposal site;
- A speed limit of 25 miles per hour shall be required for all vehicles involved with the Proposed Action and on unposted dirt access roads;
- The Proposed Action area will be clearly marked or flagged at the outer boundaries of the disturbance area before the onset of ground disturbance. All activities shall be confined to the Proposed Action area; and
- If a tortoise enters the work area during exploration activities, all activities must cease, and the BLM Tonopah Field Office and FWS must be notified (Cooper 2009a).

During the biological surveys (E & E 2009), no signs of desert tortoise were found in or around the Proposed Action area. However, atypical burrows within Proposed Action area were documented. These burrows are considered to be associated with rodent or rabbit activity; the largest of the burrows had a slope greater than 45 degrees from the burrow apron to its inner back wall (E & E 2009). A thorough search of each burrow, using a hand-held mirror to illuminate the inner burrow area, revealed that no burrow was recorded greater than 24 inches deep (E & E 2009). Typically, burrows with steep interior slopes and shallow depths are associated with jack-rabbit use, and the majority of observed larger burrows were found excavated, which indicates canid species predation (E & E 2009). Additionally, excessively loose substrates were noted throughout the Proposed Action area, which would discourage the construction of a typical tortoise-style

burrow and necessitate the construction of the observed burrows with their steep entrance aprons which minimize the chance of ceiling collapse (E & E 2009).

3.3.1.1.2 Environmental Consequences

Provided that AltaGas avoids the documented areas with observed sensitive vegetation during construction and maintenance activities no impacts to sensitive species would occur. Similarly, due to the absence of all threatened, endangered or sensitive animal species no impact to those species would occur.

3.3.1.2 Migratory Birds

3.3.1.2.1 Affected Environment

During biological surveys (E & E 2009), avian species were observed foraging and performing courtship displays in and around the Proposed Action area including the black-throated sparrow (*Amphispiza bilineata*) and horned lark (*Eremophila alpestris*). Mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), and Northern harrier (*Circus cyaneus*) were all observed passing through the Proposed Action area. In addition, red-tailed hawks (*Buteo jamaicensis*) were observed soaring in the vicinity of the Proposed Action area during a non-survey period.

3.3.1.2.2 Environmental Consequences

Impacts to individual migratory birds and/or their nests could result from site clearing during nesting season, which extends from approximately April 1 through July 15. However, given the mitigation measures outlined in Section 2.2.2, impacts to migratory bird populations and avian species as a whole as a result of the Proposed Action would be negligible.

3.3.1.3 Vegetation

3.3.1.3.1 Affected Environment

The Proposed Action area is located in a sparsely vegetated desert valley within the Amargosa Desert. The biological survey performed (E & E 2009) found that loose alluvial soils documented within the Proposed Action area supported a creosote bush (*Larrea tridentata*)-dominated vegetative community (E & E 2009). Dominant vegetation in the Proposed Action area includes: creosote bush; fourwing saltbush (*Atriplex canescens*); white bursage (*Ambrosia dumosa*); Shockley’s goldenhead (*Acamptopappus shockleyi*); and desert needlegrass (*Stipa speciosa* [*Achnatherum speciosum*]) (E & E 2009); as well as other observed species included in Table 3-3.

Table 3-3 Plant Species List For The Proposed Action Area

Scientific Name	Common Name
<i>Larrea tridentata</i>	Creosote bush
<i>Atriplex canescens</i>	Fourwing saltbush
<i>Acamptopappus shockleyi</i>	Shockley’s goldenhead
<i>Ambrosia dumosa</i>	White bursage
<i>Lycium pallidum</i>	Pallid box thorn
<i>Grayia spinosa</i>	Spiny hopsage
<i>Ephedra funereal</i>	Death Valley ephedra

Table 3-3 Plant Species List For The Proposed Action Area

Scientific Name	Common Name
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>E. inflatum</i>	Desert trumpet
<i>Hymenoclea salsola</i>	Cheesebush
<i>Chaenactis stevioides</i>	Esteve pincushion
<i>Xylorhiza tortifolia</i>	Mojave-Aster
<i>Astragalus mollissimus</i>	Woolly loco
<i>Amsinckia tessellate</i>	Fiddleneck
<i>Erodium botrys</i>	Broadleaf filaree
<i>Stipa speciosa</i> [<i>Achnatherum speciosum</i>]	Desert needlegrass
<i>Bromus madritensis</i> ssp. <i>rubens</i>	Foxtail chess
<i>Schismus arabicus</i>	Mediterranean grass

Source: E & E 2009.

3.3.1.3.2 Environmental Consequences

Short-term impacts to local vegetative communities would be likely to occur from construction of the MET. However, these impacts would be limited to minor soil disturbance and trimming during the construction phase of the Proposed Action. Furthermore, because construction would affect a small area of vegetation and would be trimmed as described in Section 2.1.3, the vegetation community would remain viable and no long-term impacts to local vegetation would occur.

3.3.1.4 Wildlife

3.3.1.4.1 Affected Environment

Table 3-4 lists wildlife species observed during the biological survey in the Proposed Action area (E & E 2009). As an additional note, several species of bats are known by the BLM to exist near the Proposed Action area, however, the Proposed Action would have minimal, if any, impacts to these species. (Cooper 2009b).

Table 3-4 Wildlife Species List For The Proposed Action Area

Scientific Name	Common Name
Reptiles	
<i>Pituophis melanoleucus</i>	Gopher snake
<i>Sceloporus magister</i>	Desert spiny lizard
<i>Dispsosaurus dorsalis</i>	Desert iguana
Mammals	
<i>Canis latrans</i>	Coyote
<i>Lepus californicus</i>	Black-tailed jackrabbit

Source: E & E 2009.

3.3.1.4.2 Environmental Consequences

Provided that all documented wildlife species are avoided through monitoring their presence during construction and maintenance activities, no impacts to wildlife would occur.

3.3.2 Airspace

3.3.2.1 Affected Environment

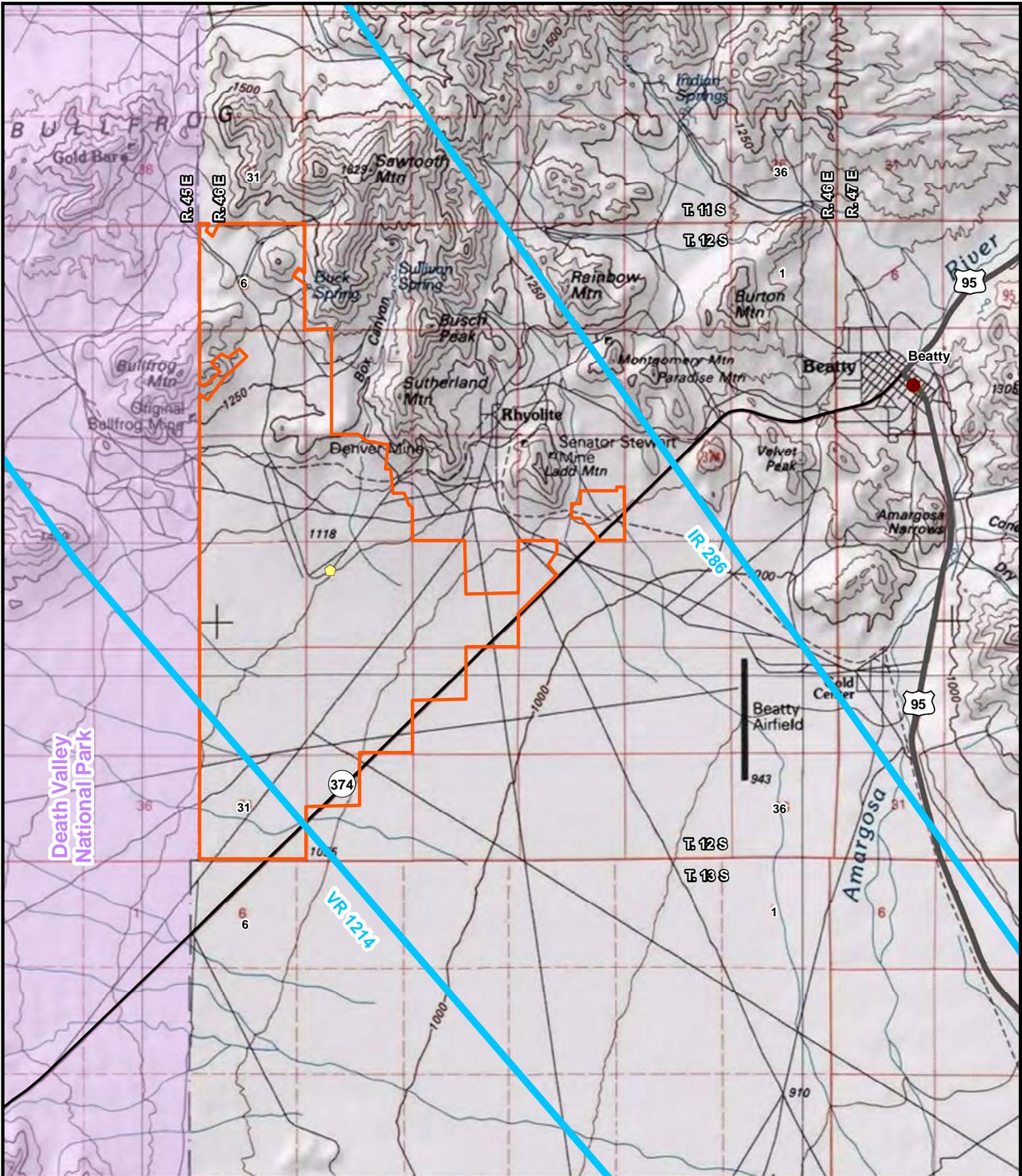
The Beatty Airport, a small-capacity public airport utilized by private pilots, is approximately 4 nautical miles east of the Proposed Action area and represents the nearest airport to the Proposed Action. McCarran International Airport in Las Vegas represents the nearest major commercial airport and is more than 50 nautical miles south of the Proposed Action area.

Military aviation activities along Military Training Routes (MTRs) occur in the vicinity of the Proposed Action area. Two MTRs are near the Proposed Action area. Visual Route (VR) 1214, administered by Edwards Air Force Base (AFB), California, occurs 1.75 miles southwest of the Proposed Action area (Federal Aviation Administration [FAA] 2009) (see Figure 3-1). Instrument route (IR) 286, administered by Nellis AFB, Nevada, is 3.2 miles northeast of the Proposed Action area (Figure 3-1) (FAA 2009).

3.3.2.2 Environmental Consequences

Representatives from Nellis AFB and Edwards AFB were consulted regarding possible impacts of the Proposed Action on military aviation activities and long- and short-range radar systems. Both representatives considered the Proposed Action to be of little-to-no impact to these activities and systems and simply requested that AltaGas install anti-collision lights atop the MET (Travis 2009; Callahan 2009).

The FAA has performed studies [2007-AWP-6292-OE] on airspace impacts resulting from the Proposed Action and issued a Determination of No Hazard to Air Navigation for the MET location (FAA 2007). Additionally, the Proposed Action area is in a “green” zone for possible long range radar impacts which signifies that no impacts to Air Defense or Homeland Security radars are anticipated (FAA 2009). With all of the aforementioned details of the local airspace environment taken into account, the Proposed Action would not cause impacts to local airspace.



Legend

- Project ROW
- Town
- MET Tower
- Military Training Route (MTR) boundary
- T.12S PLSS Grid
- Major Road
- U.S. Highway
- NPS land

Military Training Routes

Figure 3-1

Date: 09/28/2009
 Produced by: TV
 Projection: GCS North American 1983
 Datum: D North American 1983
 RF: 1:75,000
 Source: ESRI, AltaGas, USGS, FAA

3.3.3 Lands and Realty

3.3.3.1 Affected Environment

The Proposed Action is regulated under land use policies set forth by the BLM and Nye County in their respective planning documents. Section 202(c)(9) of the FLPMA governs the BLM planning and requires that the BLM land use plans be consistent with state and local land use plans to the extent possible. In the case of the Proposed Action, the BLM Tonopah RMP and the Nye County Comprehensive Plan mention utility corridors and oil, gas, and geothermal energy development, but do not specifically mention wind or other alternative forms of energy (BLM 1997).

The Proposed Action would take place entirely on BLM land within the proposed ROW (Casefile No. NVN-084067). In addition, there are 11 other ROWs adjacent to or within the Proposed Action area (Table 3-6).

Table 3-5 Adjacent ROWs

ROW Holder	ROW Case Number	Use Type
University of Nevada-Reno	NVN-062888	Other – Non-Energy
Beatty Water and Sanitation District	NVN-066534	Water Facilities
Nye County	NVN-043919	Roads
Nevada Bell	NVN-050038	Telephone/Telegraph
Barrick Bullfrog Inc.	NVN-075186	Roads
Beatty Water and Sanitation District	NVN-060568	Water Facilities
Beatty Water and Sanitation District	NVN-060965	Roads
DOE (National Nuclear Security Administration-Security Center, NV)	NVN-043247	Federal Communications Site
Valley Electric Association	NVN-048552	Power Transmission
Valley Electric Association	NVN-049529	Power Transmission
Valley Electric Association	NVN-066289	Power Transmission

Source: BLM 2009.

Key:

DOE = (United States) Department of Energy.

ROW = Right of way.

The DVNP is situated approximately 1 mile west of the Proposed Action area. The *Death Valley General Management Plan* (National Park Service 2002) mentions that small, primitive campsites may be established in the DVNP land unit nearest to the Proposed Action area, which is known as the Nevada Triangle, but does not go into any further detail.

Commercial filming for major motion pictures, documentaries, commercial music videos, still photography, and television commercials occur routinely at or near the ghost town of Rhyolite, which is located approximately 1 mile north of the proposed project area.

3.3.3.2 Environmental Consequences

The Proposed Action would not infringe upon or affect any ROWs in the area and local stakeholders have been notified of the Proposed Action. The DVNP expressed a positive view of alternative energy projects on public lands (Ek 2009) and impacts to park land would not occur under the Proposed Action. Much of the land in the vicinity of the Proposed Action remains virtually unused due to a lack of vegetation for livestock grazing and produces low levels of mineral exploration and extraction. Due to this current low level of local land use, the Proposed Action would have no impacts on local land use patterns.

3.3.4 Human Health and Safety

3.3.4.1 Affected Environment

The Rhyolite and Bullfrog mining districts each have a rich history of ore extraction and mining operations, nearly all of which are now closed and abandoned. Abandoned mine lands occur throughout the vicinity of the Proposed Action, though none are known to exist within the Proposed Action area. This, however, does not ensure the health and safety of project-related personnel at the Proposed Action area.

During the biological survey discussed in Section 3.3.2 (E & E 2009), a canister that marked a mining claim was found near the Proposed Action area. However, BLM mineral resource experts were contacted to verify the existence of active mining claims within the Proposed Action area and it was determined that none currently exist (Deverse 2009).

3.3.4.2 Environmental Consequences

Abandoned mine lands containing open pits, adits, and shafts create a serious hazard to human health and safety in and around the Proposed Action area. However, with proper observance of these hazards and development of a health and safety plan for the job site, impacts to human health and safety would be avoided.

3.3.5 Visual Resources

3.3.5.1 Affected Environment

Viewers near the Proposed Action area include residents of the town of Beatty (approximately 5 miles to the east), motorists on SR 374 and other local roads, visitors to the Rhyolite Ghost Town and Goldwell Open Air Museum, and pilots using the Beatty Airport. Designated State or National Scenic Byways do not occur within or near the Proposed Action area. Nevada SR 374 contains viewsheds from within Death Valley National Park allowing motorists and other viewers to experience the unique topography of the area. View of the Proposed Action area is 1.5 miles from SR 374. There is dispersed recreation occurring from within Death Valley National Park that also has viewpoint of the Proposed Action area from 1.2 miles away. However, these recreational viewpoints are not developed and have few overall visitors compared to interpretive recreation-based viewpoints located elsewhere within Death Valley National Park. Furthermore, views from SR 374 are considered to have moderate to low visual sensitivity due to the short duration of view and its non-scenic highway status.

The BLM assigns Visual Resource Management (VRM) classifications for all public land that it manages in an effort to preserve scenic vistas and the overall visual quality of the

landscape. VRM classifications range from Class 1, highest scenic value with the most protection for scenic values of the landscape, to Class 4, lowest scenic value with the least emphasis on preserving overall scenery. In the *Approved Tonopah Resource Management Plan and Record of Decision* (BLM 1997) the BLM classifies the valley encompassing Proposed Action area as Class 4 with a 2 mile wide corridor of Class 3 land following Nevada SR 374 from Beatty to Death Valley National Park approximately 0.5 miles southeast of the Proposed Action area.

3.3.5.2 Environmental Consequences

The fact that the BLM designates the majority of the land in and around the Proposed Action area as VRM Class 4, it can be considered to hold a lower scenic value when compared to other more scenic areas designated in the region. A VRM worksheet was prepared to assess visual impacts. Due to the MET being a slender, non-reflective structure it would not visually dominate or become highly noticeable to the casual observer. Therefore, the Proposed Action is not likely to cause a visual impact to local viewsheds or VRM classifications in the Proposed Action area.

3.3.6 No-Action Alternative

Under the No-Action Alternative no MET would be constructed within the Proposed Action area to gather meteorological data which could lead to future wind energy development. Existing BLM management activities and land uses would continue.

CHAPTER 4.0 CUMULATIVE IMPACTS

4.1 INTRODUCTION

For the purposes of this EA, cumulative impacts are analyzed as the sum of all past and present actions, the Proposed Action, and reasonably foreseeable future actions resulting primarily from public uses within the defined cumulative assessment area. Cumulative impacts have been 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).

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

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

4.2 CUMULATIVE EFFECTS STUDY AREA

The CESA for the affected resources is proposed BLM wind energy ROW (Case Number NVN-084067 [Figure 1-1]) which encompasses the Proposed Action area and currently comprises the possible area for wind energy development by AltaGas. Due to its relatively small footprint and minimal alteration to the surrounding environment, the Proposed Action would not contribute to cumulative impacts beyond the CESA boundary.

4.3 PAST AND PRESENT ACTIONS

Past and present actions within the CESA consist primarily of mining activities, mineral exploration, transportation and access, livestock grazing, commercial and non-commercial filming, and dispersed recreation.

Several mines surround the CESA, however, most are inactive and exist strictly in a historic capacity. Several BLM mining claims have existed and continue to exist in and around the CESA and the Bullfrog Hills, the latter of which has produced large amounts of minerals including gold, silver, and lead.

Past and present actions within the CESA are supported by a surface transportation network which includes SR-374, county roads, dirt roads, and “two-tracks” on public lands. Few are regularly maintained and off-highway vehicle (OHV) use may occur outside of this network.

Livestock grazing has occurred in the past within the Montezuma grazing allotment, which includes the CESA, however, the CESA is not known to contain any grazing livestock at the present time. The ghost town of Rhyolite and Goldwell Open Air Museum, less than 1 mile north of the CESA, and DVNP, immediately west of the CESA, represent local recreational destinations and attract visitors regularly.

Commercial and non-commercial filming is on-going near or at the ghost town of Rhyolite and surrounding view shed.

4.4 REASONABLY FORESEEABLE FUTURE ACTIONS

Assuming that resulting wind and climate data from the Proposed Action determine it to be feasible, AltaGas would permit, construct and operate the Rhyolite Wind Energy Park. This development would consist of multiple wind turbines at undetermined locations within the CESA and would involve additional site-specific analysis of impacts, including cumulative impacts. Under this scenario, other activities, such as mining activities, mineral exploration, livestock grazing, commercial filming, and dispersed recreation, would have less possibility of occurring within the CESA. Conversely, if the resulting data from the Proposed Action was determined to be unfavorable to wind energy development, the land would remain largely undeveloped, as no specific plans for the land within the CESA are presently known.

4.5 CUMULATIVE IMPACTS

4.5.1 Cultural and Historic Resources

The Proposed Action would not cause impacts to cultural resources due to the complete absence of such resources in the Proposed Action area. Impacts to cultural resources could result from the reasonably foreseeable future action of the proposed Rhyolite Wind Energy Park, or any other future wind power development within the CESA, but actual impacts could not be addressed until specific plans (e.g. area to be cleared and graded) are created, a new APE is established, and separate environmental analyses are performed.

4.5.2 Wildlife (Including Migratory Birds and Special Status Species)

The Proposed Action is not expected to cause impacts to local wildlife communities as long as requirements, such as avoiding sensitive species, are met. Current potential land uses, include OHV use, mining, and commercial and non-commercial filming. There would be very little long-term cumulative disturbance from the Proposed Action. Impacts to wildlife could result from the reasonably foreseeable future action of the proposed Rhyolite Wind Energy Park, or any other future wind power development within the CESA, but actual impacts could not be addressed until specific plans (e.g. area to be cleared and graded) are created and separate environmental analyses are performed.

4.5.3 Vegetation

The Proposed Action is not expected to cause significant impacts to local vegetative communities as long as requirements, such as avoiding sensitive species, are met with adequate precipitation. Plants affected should show growth within 3-5 years. Current potential land uses, include OHV use, commercial and non-commercial filming, and mining. There would be very little long-term cumulative disturbance from the Proposed Action. Impacts to vegetation could result from the reasonably foreseeable future action of the proposed Rhyolite Wind Energy Park, or any other future wind power development within the CESA, but actual impacts could not be addressed until specific plans (e.g. area to be cleared and graded) are created and separate environmental analyses are performed.

4.5.4 Airspace

The Proposed Action is not expected to cause impacts to local airspace. Conversely, the potential impacts to airspace resulting from the proposed Rhyolite Wind Energy Park, or any other future wind power development within the CESA, are a distinct possibility. Placement of wind turbines, which occupy a much larger portion of airspace when compared to METs, could be micro-sited to avoid military and civilian aeronautical routes, thus mitigating possible impacts. The FAA would make a final determination of impacts to airspace if and when development plans (e.g., exact coordinates for each wind turbine) for a wind power development are submitted to them.

4.5.5 Visual Resources

The Proposed Action is not expected to cause impacts to local visual resources, as are any current land uses. The Proposed Action meets the VRM objectives of a Class 4 designation, especially due to the fact that MET is a slender, non-reflective structure. Impacts to visual resources resulting from the reasonably foreseeable future action of the proposed Rhyolite Wind Energy Park, or any other future wind power development within the CESA could, however, occur. And though it is assumed that wind turbines would cause noticeable alteration to viewsheds in and around the CESA, actual impacts could not be addressed until specific plans (e.g., wind turbine placement in reference to roadways, recreation areas, and historic landmarks) are created and separate environmental analyses are performed.

4.6 NO-ACTION ALTERNATIVE

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

CHAPTER 5.0 MITIGATION AND MONITORING

5.1 MITIGATION AND MONITORING

5.1.1 Mitigation

AltaGas would implement the environmental protection measures outlined in Section 2.2. These measures are designed to avoid or reduce the impacts associated with the Proposed Action and have been used as a guideline for impact analysis in this EA.

Stipulations written for the proposed right-of-way grant incorporate mitigation measures identified in the EA. These stipulations would be made part of the grant document.

5.1.2 Environmental Monitoring

AltaGas was initially prepared to provide monitoring for sensitive plant and animal species and cultural resources as part of the construction phase of the Proposed Action (AltaGas 2009). Due to the fact that there was no evidence of desert tortoise and minimal evidence of sensitive plant and animal species, AltaGas is not proposing any monitoring measures at the present time. Avoidance of species would be implemented, in place of monitoring, at the locations identified in the biological survey discussed in Section 3.3.1 (E & E 2009).

CHAPTER 6.0 LIST OF PREPARERS AND SOURCES

6.1 LIST OF PREPARERS

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Town of Beatty, Nevada

Timbisha Shoshone Tribe

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