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-87324
2800 (NVB0200)

JUN 1 0 2010

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 (ROW) application for a wind energy site testing and monitoring project area which consists of one (1) meteorological tower proposed for installation. The Proposed Action would be to grant a ROW to Pacific Wind Development, LLC to install a meteorological tower within a project area consisting of 4,146 acres on public land in Esmeralda County, Nevada to collect data to determine the wind energy resource potential of the area (map enclosed).

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 titled "Oasis Divide Wind Energy Testing Site and Monitoring Project – Installation of One Meteorological Tower in Esmeralda County, Nevada, DOI-BLM-NV-B020-2009-0071-EA," may be obtained by notifying the TFO at the letterhead address above or from the Nevada State Clearinghouse at, http://budget.state.nv.us/clearinghouse/.

Written comments on the EA will be accepted at the above letterhead address, until 4:30 p.m., July 12, 2010. 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 action, please contact Timothy Coward, Project Manager, Renewable Energy Coordination Office at (775) 482-7800.

Sincerely,

Thomas J. Seley

Thomas J. Seley
Field Manager

Enclosure

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

Environmental Assessment DOI-BLM-NV-B020-2009-0071-EA
DATE: June 2010

Oasis Divide Wind Energy Testing Site and Monitoring Project

INSTALLATION OF ONE METEOROLOGICAL TOWER IN ESMERALDA COUNTY, NEVADA ENVIRONMENTAL ASSESSMENT

File Number: N-87324

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BLM

Tonopah Field Office

NATIONAL SYSTEM OF PUBLIC LANDS

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LIST OF ACRONYMS

ACEC	Area of Critical Environmental Concern
APE	Area of Potential Effect
BLM	(United States) Bureau of Land Management
CESA	Cumulative Effects Study Area
CFR	Code of Federal Regulations
EA	Environmental Assessment
FAA	Federal Aviation Administration
FLPMA	Federal Land Policy and Management Act
FO	field office
HMA	Herd Management Area
IM	Instruction Memorandum
IR	instrument route
MBTA	Migratory Bird Treaty Act
MET	meteorological tower
MTR	Military Training Route
NEPA	National Environmental Policy Act
NDOW	Nevada Department of Wildlife
NNHP	Nevada Natural Heritage Program
OHV	off-highway vehicle
Pacific Wind	Pacific Wind Development, LLC
RMP	Resource Management Plan
ROW	right-of-way
SF	standard form
SR	state route
USFWS	United States Fish & Wildlife Service
TRS	Township, Range, Section
VR	visual route
VRM	Visual Resource Management

CHAPTER 1.0
INTRODUCTION

1.1 INTRODUCTION

Pacific Wind Development, LLC (Pacific Wind), a subsidiary of Iberdrola Renewables, Inc., proposes to install one meteorological tower (MET) (Proposed Action) on public lands under the jurisdiction of the United States Department of the Interior Bureau of Land Management (BLM) (Case File Number N-87324), administered by the Tonopah Field Office (FO). The Proposed Action area is located in western Esmeralda County, Nevada (see Figure 1-1). This Environmental Assessment (EA) for the Proposed Action has been prepared by Ecology & Environment, Inc. (E & E) to fulfill the requirements of the National Environmental Policy Act (NEPA) of 1969.

Pacific Wind proposes to collect, log, and transmit data on wind speed and wind direction at various predetermined heights above the ground. The wind data collected from the MET is needed to validate the wind resource for the potential future construction of a commercial wind energy facility, including placement of wind generators, which would generate renewable energy to be sold to public utilities, local municipalities, and possibly large commercial users under medium to long-term purchase agreements.

1.2 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

Purpose and Need

The purpose of the Proposed Action is to provide Pacific Wind access to a limited number of appropriate locations to gather sufficient wind speed, direction and other meteorological data to ascertain whether there is sufficient and sustained wind energy to develop a renewable wind energy project capable of generating marketable electrical energy for commercial purposes.

The need for the Proposed Action is to respond to a Federal Land Policy and Management Act (FLPMA) right-of-way (ROW) request submitted by the proponent to construct and operate one MET on public land administered by the BLM Tonopah FO.

Decision to be made

The decision to be made would be to approve Pacific Wind's application submitted to the Tonopah FO on February 25, 2009 and if so, under what conditions.

The application requested a wind energy site testing and monitoring ROW grant for one MET within a project area of approximately 4,146 acres in western Esmeralda County.

The MET would be installed at the following location:

Mount Diablo Meridian

Township 40 South, Range 38 East, Section 33

Washington Office Instruction Memorandum (IM) No. 2009-043, dated December 19, 2008, addresses project areas for site testing and monitoring on page 3, under Item #2, Project Area Grant for Testing and Monitoring: Acreage. Item 2 states, "The lands involved in the project area grant will be defined by aliquot legal land descriptions and

configured to involve a reasonable amount of land to support a possible ROW application for a wind energy development project in the future. There are no statutory or regulatory limits on the acreage of a site testing and monitoring ROW application; however, the BLM may request additional information from the applicant to determine if the project area is a reasonable size for a potential wind energy development project in the area." It further states, "The BLM is not required to accept applications that are not in the public interest; however, BLM field offices will not inappropriately limit the size of project areas that may be needed to evaluate an area for potential wind energy development."

The following legal land description summarizes the public lands to be included in the proposed ROW:

Mount Diablo Meridian

Township 4 South, Range 37 East

Sec 13	SE4NE4, NE4SE4

Township 4 South, Range 38 East

Sec 18	W2SW4
Sec 19	NW4, SW4NE4, N2SE4, NE4SW4
Sec 20	N2SW4, SE4SW4, SW4SE4
Sec 27	SW4SW4
Sec 28	S2SE4
Sec 29	S2SE4, NW4SW4
Sec 32	E2NE4
Sec 33	SW4NW4, NW4SW4, SW4NE4, N2SE4, SE4SE4, E2SW4
Sec 34	SW4NE4, SE4SW4, SW4SW4

Township 5 South, Range 38 East

Sec 1	E2NW4, NE4SE4, W2SE4, SW4
Sec 2	SE4NW4, W2SE4, SE4SE4, NE4SW4, S2SW4, NW4SW4
Sec 3	E2NW4, SW4NE4, SE4
Sec 4	NE4NW4, W2NE4, W2SE4, SE4SW4
Sec 9	S2NW4, N2NE4, SE4NE4, N2SE4, NE4SW4
Sec 10	S2NW4, N2SE4, SW4
Sec 12	N2NW4
Sec 14	W2SW4
Sec 15	NE4NW4, W2NE4, N2SE4
Sec 23	N2NW4

Township 5 South, Range 39 East

Sec 5	SW4SW4
Sec 6	SW4, SW4SE4
Sec 7	N2NE4, SE4NE4
Sec 8	NW4, S2NE4

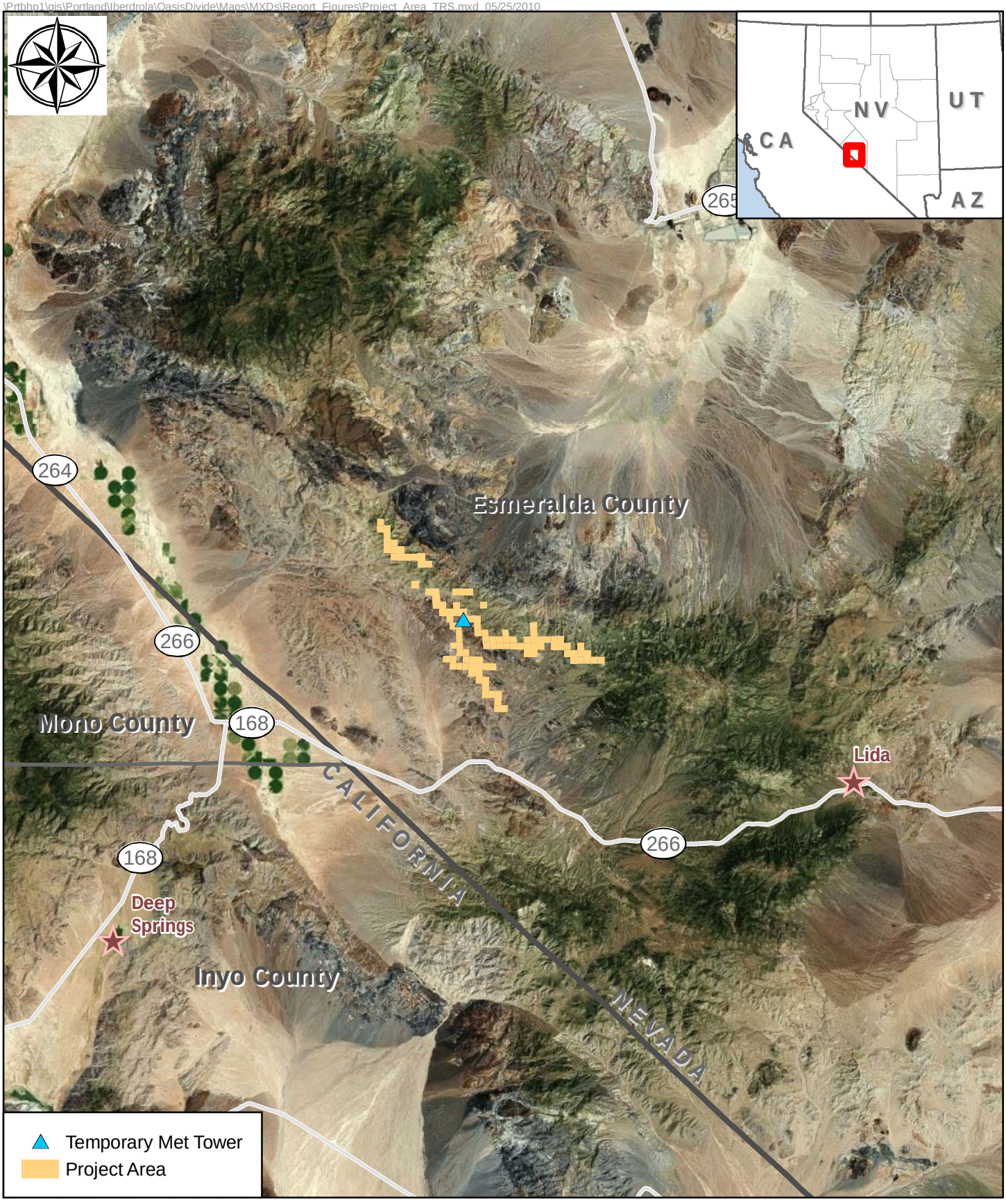


Figure 1-1 Project Area Overview
Oasis Divide
Esmeralda County, Nevada

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 for the TFO, BLM Battle Mountain District, which are in compliance with the FLPMA of 1976, as amended:

- *Proposed Tonopah Resource Management Plan and Final Environmental Impact Statement* (BLM 1994)
- *Approved Tonopah Resource Management Plan Record of Decision* (BLM 1997)

The Proposed Action is in conformance with the above Resource Management Plans (RMP), even though it is not specifically discussed. In particular, the Proposed Action is clearly consistent with the BLM's stated need "to make lands available for community expansion and private economic development and to increase the potential for economic diversity" (BLM 1997, p. 18, "Lands and Rights-of-Way Objectives" section) and is also located within a designated utility corridor.

1.3.2 Relationship to Other Statutes, Regulations, Policies, and Plans

The FLPMA of 1976, 90 Stat. 2750, 43 USC 1701, 1713, and 1719, was passed to authorize BLM's management of public lands. The applicant requested the ROW be issued under the authority of FLPMA and in accordance with Title 43 Code of Federal Regulations (CFR) 2800.

- FLPMA Section 501 gives the Bureau of Land Management the authority to grant, issue, or renew rights-of-way over, upon, under, or through such lands…

Title 43 CFR 2800 provides BLM policy and procedures.

- 43 CFR 2802.10, "What lands are available for grants", which states that lands are not available if a statute, regulation, or public land order specifically excludes rights-of-ways; the lands are specifically segregated or withdrawn from ROW uses; or the BLM identifies the area in its land use plans or in the analysis of an application as inappropriate for ROW uses. The BLM may require common use of a ROW. Safety and other considerations may limit the extent to which a ROW may be shared.

- 43 CFR 2805.15, "What rights does the United States retain?" which states that the United States retains and may exercise any rights the grant does not expressly convey. These include the BLM's right to (a) access the lands covered by the grant at any time and enter any facility constructed on the ROW; (b) require common use of the ROW, including subsurface and air space, and authorize use of the ROW for compatible uses.

- Administration of rights-of-way grants is found in Title 43 CFR 2805.11, "What does a grant contain?", 43 CFR 2805.12, "What terms and conditions must I comply with?", and 43 CFR 2805.14, "What rights does a grant contain?"

- Title 43 CFR 2805.14 discusses the issuance grants subject to the valid existing rights of others, including the United States. As such, a standard stipulation used in the administration of grants, is "This grant is subject to all valid rights existing on the effective date of this grant."

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 BLM land use plans to be consistent with land use planning and management programs of other federal departments, state agencies, local governments, and Tribes.

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, does not specifically provide language for wind energy projects, but states in the "Public Lands" section 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." The section continues with statement that Nevada will "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" (State of Nevada 1985, p. 8).

To date, the State of Nevada and Esmeralda County have not issued land use plans that specifically address requirements for wind energy testing. The project would support Section 211 of the Energy Policy Act of 2005, concerning renewable energy development on public lands.

1.4 PUBLIC SCOPING

An Iberdrola Renewables business representative provided a presentation before an Esmeralda County Commissioner meeting on April 6, 2010 on the proposed project. Five notification letters, accompanied by a figure depicting the proposed MET location site, were sent to ROW and mining claim holders within the 4,146-acre Proposed Action area to inform them of the proposed MET installation. The BLM has not received any requests for a public meeting on the proposal.

1.5 ISSUES

The BLM interdisciplinary team identified the resources and uses to be addressed in this document as outlined in Chapter 3. Avoidance of cultural resources, sensitive plant and wildlife species, 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. Pacific Wind would be responsible for obtaining any other necessary

permits and approvals from stakeholders including any relevant federal, state, and local agencies.

The lands within the proposed ROW grant area would not be available for other wind energy ROW applications. The holder of the site testing and monitoring ROW grant has established no right to development.

CHAPTER 2.0
PROPOSED ACTIONS AND ALTERNATIVES

2.1 PROPOSED ACTION

Under the Proposed Action, Pacific Wind would construct one MET within the proposed ROW (Case File Number N-87324) to determine the potential for wind energy generation in the area. The MET would be approximately 197 feet in height, with a series of guy wires extending from the top of the tower to the ground approximately 167 feet from the base. Construction of the MET is expected to require five to six personnel working approximately three days. The MET would remain in continuous operation until sufficient data was collected to determine the suitability of a wind energy project or until the three-year ROW authorization expired.

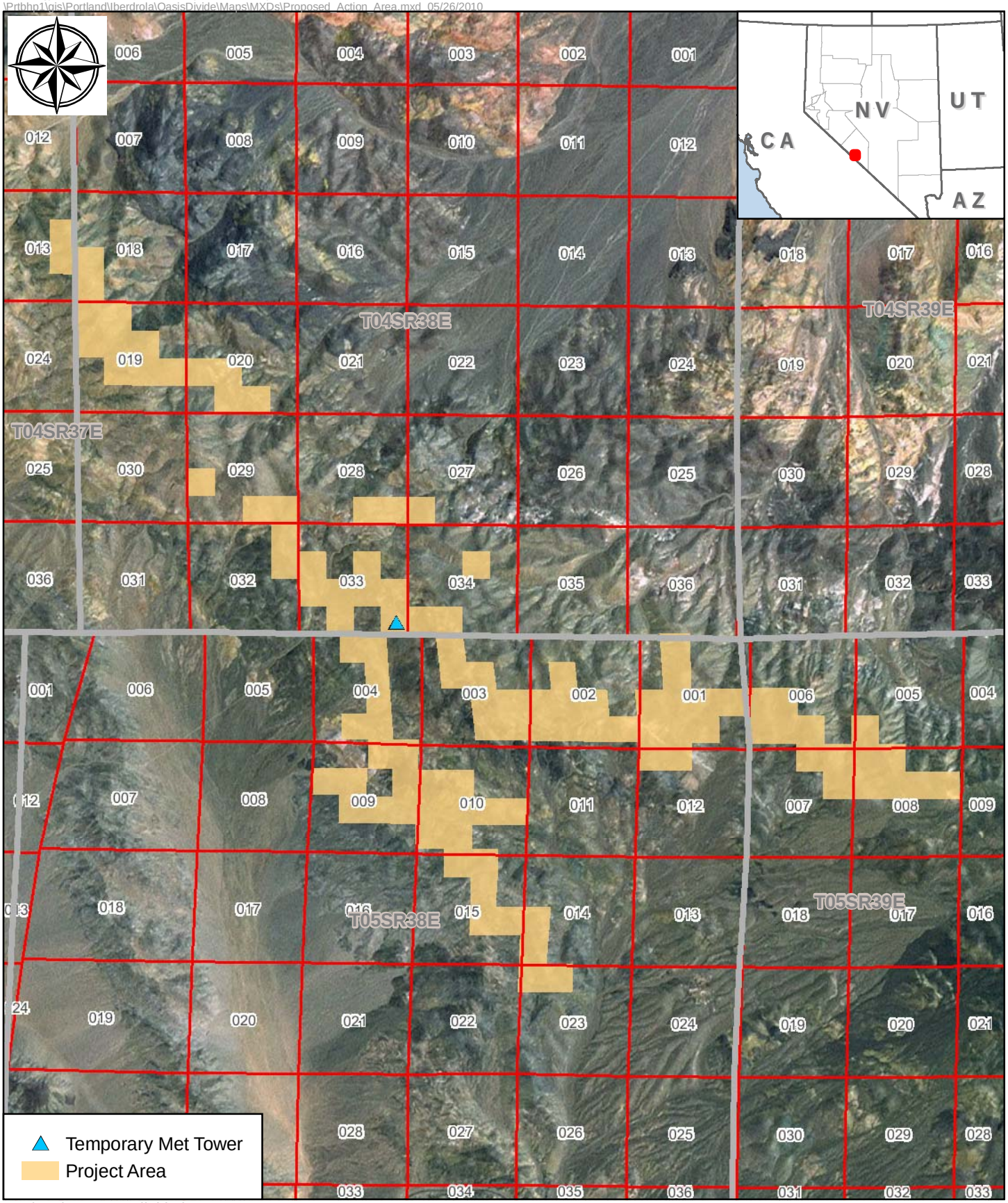
2.1.1 Location and Access

The proposed location for the MET would be 37° 32’ 30.001’’ North, 117° 45’ 28.001” West in Township 40 South, Range 38 East, and Section 33 (TRS) (Figure 2-1).

Although the authorization would be for a larger project area, the use would be limited to one five-acre area with minimal impact. The Proposed Action area would consist of a 167-foot radius area extending from the base of the MET (approximately two acres), within which all ground-disturbing activities would occur. Pacific Wind has conducted biological and cultural resources surveys over a five-acre area to allow for minor changes to the MET location due to engineering and/or environmental constraints. The five-acre survey area is within the 4,146 acres of the ROW grant. The area disturbed by installation of the MET will be kept to a minimum.

Best management practices for site monitoring and testing, as outlined by the BLM’s Wind Energy Program, include vehicle access to the proposed MET location would be restricted to existing roads, which would not be improved for the purposes of construction or operation of the MET.

Access to the MET would be gained by following Nevada State Route (SR) 266 west, then proceeding north on an existing dirt road (Esmeralda County Road 100) which turns into Silver Peak/Oasis Divide road. Prudent speed limits, maximum 25 miles per hour, would be used to minimize airborne dust, noise generation, and potential impacts on local wildlife.



Section data not available in some areas.

Figure 2-1 Proposed Action Area
Oasis Divide
Esmeralda County, Nevada

0 0.5 1 2
Miles

2.1.2 Equipment

The MET would be delivered to the Proposed Action area in multiple 33-foot sections on pickup trucks equipped with trailers. Two to three pickup trucks and potentially one or two all terrain vehicles (ATVs) would be used to transport equipment and crew. The MET would consist of a 197-foot tower, a 3-foot by 3-foot foundation plate, and 28 guy wires extending a maximum of 167 feet from the base of the tower. To ensure safety and reliability of the MET, construction would follow all manufacturers' guidelines.

2.1.3 Construction and Staging Area

The Proposed Action area (including construction and staging) for the MET would be contained within a 167-foot radius area extending from the base of the MET (see Figure 2-1) and accessed by way of existing roads and two-tracks. The Proposed Action area, equal to approximately two acres, aligns with the total lay-down area needed for MET construction. The tower would be held in place by a set of guy wires attached to four anchors arranged in a square pattern. Each anchor must be sunk to a depth of 3 to 4 feet into the soil. The type of anchoring devices (screw-in or dead man anchors) will be determined by the installation crew upon inspection of the type of soils present at the site. The MET would be placed on a flat 3-foot by 3-foot metal pad. The ground would be graded level with hand tools and the pad would be positioned directly on bare ground. Due to the sparse nature of the vegetative community in the Proposed Action area, Pacific Wind does not anticipate the need for vegetation removal during construction or maintenance.

2.1.4 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.

2.1.5 Meteorological Tower Operations

The MET would remain in continuous operation until sufficient data was collected to determine the suitability of a wind energy project or until the three-year ROW authorization expired. During operation, a two-person crew would typically visit the MET once every twelve months or as directed by a staff meteorologist to perform periodic maintenance, which would be completed in approximately four hours. If non-routine maintenance such as lowering the MET to replace malfunctioning equipment were required, a two- to six-person crew would be required for approximately two 8-hour work days. Specific frequency and duration of the work will be determined by the condition of the MET. The MET would include a data logger, cell phone link, solar cell, and battery 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.

2.2 Environmental Protection Measures

2.2.1 Vegetation and Wildlife

The Proposed Action may require trimming existing brush or other desert vegetation (excluding identified sensitive species) to approximately 6 inches above the ground surface, although not anticipated. Trimming in this manner would allow the vegetation to remain viable after construction was completed. Where possible and if needed, topsoil would be conserved during excavation and reused as cover on disturbed areas to facilitate

regrowth of vegetation. The BLM would be consulted about acceptable weed control methods within the Proposed Action area.

At the request of the BLM, industry-recognized bird flight diverters would be appropriately attached to the MET guy wires in an effort to ensure avian species are not impacted by the Proposed Action. Additionally, if surface-disturbing construction activities were to take place during the April 1 to July 15 nesting season, a qualified wildlife biologist would conduct a systematic survey a maximum of 10 days prior to disturbance to identify any breeding or nesting sites of migratory birds, and then would develop appropriate mitigation such as delaying or relocating the activity to avoid such sites. MET installation is anticipated to take place in late July or August 2010, outside the breeding or nesting window; therefore, potential disturbance would be avoided. In addition, within 12 months of MET installation, Anabat detectors would be attached to the MET itself to monitor potential bat activity in the Proposed Action area. An Anabat bracket system would be installed prior to MET installation to facilitate the attachment of detectors.

2.2.2 Wild Horses and Burros

The Proposed Action area is located within the Palmetto Herd Management Area (HMA). 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 type or Hog Wire Panel fencing, placed on the surface of the soil and held in place with drive anchor footings or T-Posts. This fencing would be inspected for damage during field visits and repaired if necessary.

2.2.3 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, drivers would be required to observe a speed limit of 25 miles per hour on all dirt roads.

2.3 Alternatives to the Proposed Action

2.3.1 Alternatives Considered but Eliminated from Further Analysis

The Proposed Action area was selected to collect data on wind speed and direction needed to validate the wind resource at the site for the potential future construction of a commercial wind energy facility. There is no other known method to sufficiently evaluate the wind resource in enough detail for the purposes of financing a potential large-scale commercial project other than the installation of MET towers. Other areas in the proposed ROW were considered for MET placement but were eliminated due to road accessibility and representative data.

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 indicates whether the Proposed Action or No-Action Alternative affects those elements.

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

Resource	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			See Section 3.3.7 for description.
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			Resource not present in the vicinity of the Proposed Action area.
Native American Concerns	X			Resource not present in the vicinity of the Proposed Action area.
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 or Endangered Species	X			Literature reviews and agency consultation (NDOW 2009; NNHP 2009) indicated that there were no threatened or endangered species, or any other special status species, present in the Proposed Action area.
Migratory Birds			X	See Section 3.3.1.1 for description.

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

Resource	Not Present	Present/Not Affected	Present/May be Affected	Rationale
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 Clayton Valley 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			Designated BLM Wilderness Study Areas are not located within 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 3.3.5 for description.
Other Resources				
Grazing Management			X	See Section 3.3.8 for description.
Lands and Realty			X	See Section 3.3.4 for description.
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.
Socioeconomic Values		X		The Proposed Action takes place in an extremely rural area and would not affect local socioeconomic values.
Soils		X		The Proposed Action would not involve excavation or other major ground-disturbing activities and therefore would not affect local soil resources.

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

Resource	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Vegetation			X	See Section 3.3.1.2 for description.
Visual Resources			X	See Section 3.3.6 for description.
Wild Horses and Burros			X	See Section 3.3.9 for description.
Wildlife			X	See Section 3.3.1.3 for description.
Airspace		X		See Section 3.3.3 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), Environmental Justice, Prime or Unique Farmlands, Noxious Weeds/Invasive Non-native Species, Native American Concerns, Floodplains, Riparian and Wetlands Zones, Threatened or Endangered Species, Solid and Hazardous Waste, Water Resources and Quality, Wild and Scenic Rivers, Fish Habitat, Wilderness, Forests and Rangelands, Minerals, Paleontological Resources, Recreation, Socioeconomic 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: Cultural/Historical, Migratory Birds, Human Health and Safety, Grazing Management, Lands and Realty, Vegetation, Visual Resources, Wild Horses and Burros, Wildlife, 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 between October 2009 and January 2010 at the Proposed Action area and in 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 Migratory Birds

Migratory birds are protected under the United States Fish & Wildlife Service (USFWS) Migratory Bird Treaty Act (MBTA) of 1918 and include short- and long-distance migrants and resident birds. The MBTA lists 836 species, and typically (with few exceptions) excludes non-native and game species.

3.3.1.1.1 Affected Environment

Two migratory bird species horned lark (*Eremophila alpestris*) and common raven (*Corvus corax*) were observed during the biological survey of the Proposed Action area on October 28, 2009. The timing of the biological survey visit was outside of the normal breeding season and peak migration periods for most migratory birds, therefore, this survey is not indicative of migratory bird use of the Proposed Action area and the surrounding landscape.

3.3.1.1.2 Environmental Consequences

Potential impacts to individual migratory birds and/or their nests could result from disturbance during nesting season, which extends from approximately April 1 through July 15. Installation of the MET is anticipated to occur outside of the nesting season. If installation falls within the nesting season, field surveys would be conducted to document migratory birds, their nests, eggs, and young prior to any planned disturbance. If any nests, eggs, or young are found, the Proposed Action should be delayed until the birds have completed their nesting and brood-rearing activities, or the Proposed Action should be redesigned so as not to negatively affect the migratory birds, their nests, eggs, or young.

Collisions with guy wires also could contribute to injuries or mortalities of individuals. In addition, the presence of a MET would provide potential perches for raptors where perches do not otherwise exist, which could increase predation on smaller migratory bird species. Adhering to the mitigation measures outlined in Section 2.2.1 would minimize impacts to migratory bird populations.

3.3.1.2 Vegetation

3.3.1.2.1 Affected Environment

Three vegetation types occur in the Clayton Valley Watershed Area, including salt desert shrub, sagebrush, and pinyon-juniper woodlands (BLM 1997). The habitat in the Proposed Action area was sagebrush steppe dominated by black sage (*Artemisia nova*) with associates such as green rabbitbrush (*Chrysothamnus viscidiflorus*), Mormon tea (*Ephedra nevadensis*), and horsebrush (*Tetradyma* sp.). The vegetation cover was approximately 40 percent. Approximately 60 percent of the area was covered by rocks and bare ground. Scattered pinyon pines (*Pinus monophylla*) and western juniper (*Juniperus occidentalis*) were present along slopes and folds of rock layers surrounding the valley. Joshua tree (*Yucca brevifolia*) habitat occurred on the adjacent lower bench and valley floor.

3.3.1.2.2 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 of the MET. Construction could affect a small area of vegetation, which may be trimmed as described in Section 2.2.1, allowing the vegetation to remain viable and minimizing or eliminating long-term impacts.

3.3.1.3 Wildlife

This section addresses all wildlife species not addressed in the Migratory Birds section (3.3.1.1).

3.3.1.3.1 Affected Environment

No wildlife species (except migratory birds) were observed during the biological survey in the Proposed Action area. Suitable habitat for mule deer (*Odocoileus hemionus*) and wintering habitat for desert bighorn sheep *(Ovis canadensis nelsoni)* exist in and around the Proposed Action area (BLM 1997). BLM has indicated that reintroduction and augmentation of bighorn sheep populations may occur in this area where suitable habitat exists. As an additional note, several species of bats are known to exist near the Proposed Action area (NDOW 2009); however, they would not likely be affected by the erection of the MET.

3.3.1.3.2 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

Three public, small-capacity airports occur within 30 miles of the Proposed Action area, including the Dyer Airport (approximately 15 nautical miles to the northwest), the Lida Junction Airport (approximately 30 nautical miles to the southeast), and the Tonopah Airport (approximately 50 miles to the northeast). McCarran International Airport in Las Vegas is the nearest major commercial airport and is more than 150 nautical miles southeast of the Proposed Action area.

Military aviation activities along Military Training Routes (MTRs) occur in the vicinity of the Proposed Action area. Visual Route (VR) 1255 is administered by Edwards Air Force Base and occurs approximately two miles to the east of the Proposed Action area. Instrumental Route (IR) 425 is administered by Naval Air Station Lemoore and occurs less than one-half mile north of the Proposed Action area (Federal Aviation Administration [FAA] 2009; see Figure 3-1).

3.3.2.2 Environmental Consequences

Representatives FAA were consulted about possible impacts of the Proposed Action on military aviation activities and long- and short-range radar systems. Representatives considered the Proposed Action to be of no impact to these activities and systems; however, noted that the MET would be located near a training area and/or route. FAA also noted that if the associated proposed Oasis Divide Wind Project is constructed there may be a cumulative effect on the national airspace system (Aeronautical Study No. 2010-WTW-162-OE).

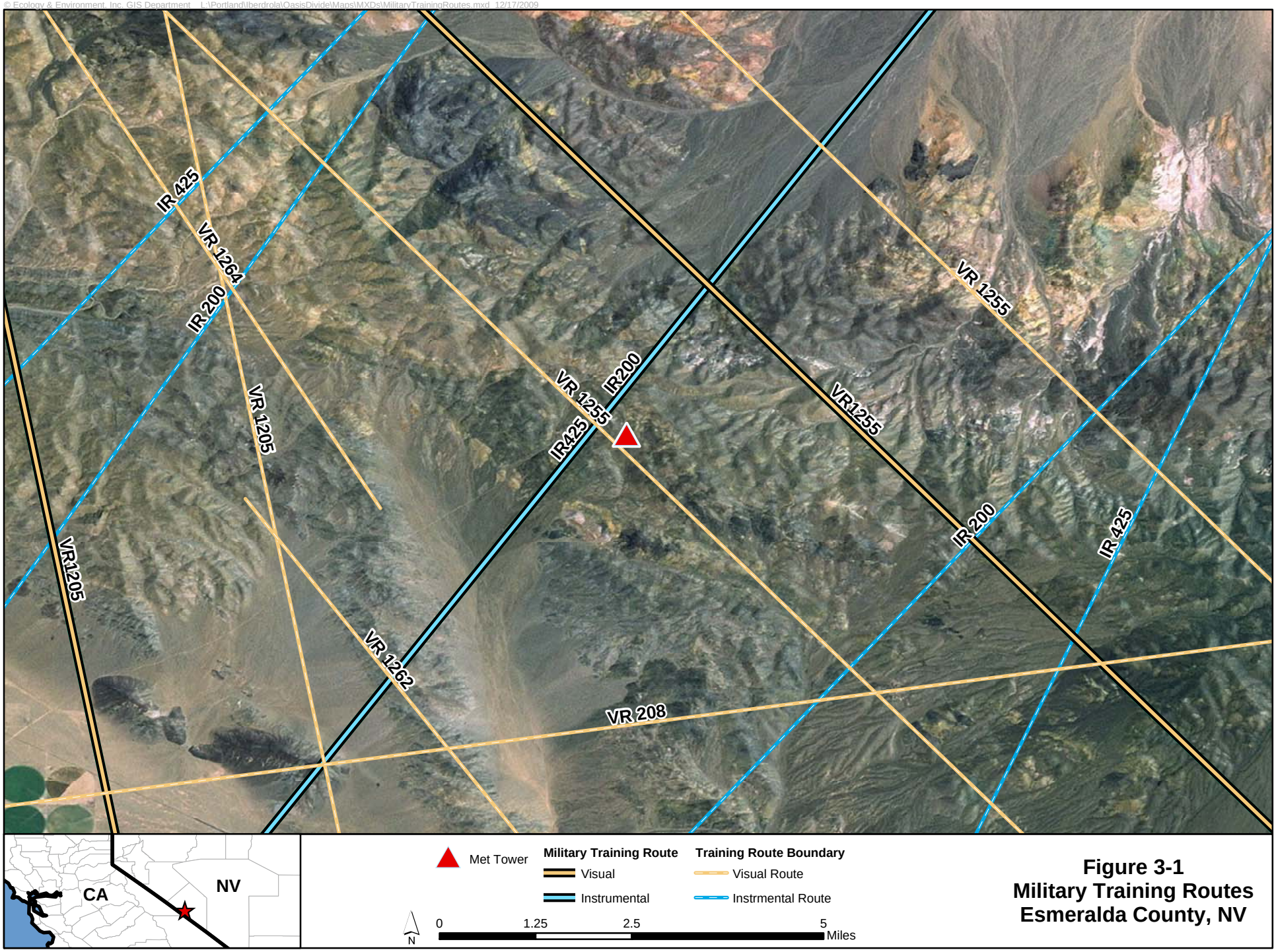


Figure 3-1
Military Training Routes
Esmeralda County, NV

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. Section 202(c)(9) of the FLPMA governs 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 mentions utility corridors and oil, gas, and geothermal energy development, but does not specifically mention wind or other alternative forms of energy (BLM 1997). The Proposed Action is located within a designated utility corridor.

The Proposed Action would take place entirely on BLM land within the proposed ROW (Casefile No. N-87234). In addition, there is one ROW and four mining claims in the vicinity of the Proposed Action area. These ROW and mining claims would be located within the boundaries of the proposed Oasis Divide Wind Project, which is associated with the Proposed Action (Table 3-2).

Table 3-2 BLM Approved Activities in the Vicinity of the Proposed Action Area

Holder	Case Number	Use Type
Sierra Pacific Power	Nev 043264	ROW - Transmission
Kristene and Roger Fisher	NMC 941366	Mining Claim - Placer
	NMC 941367	Mining Claim - Placer
Minquest Inc.	NMC 892521	Mining Claim - Lode
	NMC 892522	Mining Claim - Lode

Source: BLM 2010

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. 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

There are four active mining claims in the vicinity of the Proposed Action area, however mining activities are not known to exist within the Proposed Action area.

3.3.4.2 Environmental Consequences

Mining operations that consist of open pits, adits, and shafts may create a serious hazard to human health and safety for MET tower crews if found in the vicinity of the Proposed Action area. Observance of these hazards and development of a health and safety plan for the job site would help prevent impacts to human health and safety.

3.3.5 Visual Resources

3.3.5.1 Affected Environment

Viewers near the Proposed Action area include motorists on SR 266 and other local roads, the general public using BLM lands, and pilots using nearby airports. Designated State or National Scenic Byways do not occur within or near the Proposed Action area.

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 landscape surrounding the Proposed Action area as Class 4.

3.3.5.2 Environmental Consequences

The BLM has classified the Proposed Action area as VRM Class 4, and is considered of lower scenic value than other designated scenic areas in the region. Because the MET is 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.

3.3.6 Cultural/Historical Resources

3.3.6.1 Affected Environment

HRA, Inc., (HRA) conducted archaeological surveys on a five-acre parcel encompassing the Proposed Action area, in January 2010. No cultural sites were found during the survey and there are no known cultural sites within one mile of the Proposed Action area.

3.3.6.2 Environmental Consequences

The Proposed Action will not impact any significant archaeological resources in or near the Proposed Action area.

3.3.7 Grazing Management

3.3.7.1 Affected Environment

The Proposed Action area is situated in the Magruder Mountain Grazing Allotment (BLM 1997). This allotment is actively grazed by three BLM lessees.

3.3.7.2 Environmental Consequences

The Proposed Action would have minimal impacts on grazing management, as vegetation may be trimmed, if necessary, in relatively small areas (see Section 2.2.1). In addition, Pacific Wind will install metal galvanized fencing around the base of the MET and along the base of the guy wires to deter interference from livestock and wildlife.

3.3.8 Wild Horses and Burros

3.3.8.1 Affected Environment

The Proposed Action area is situated in the Palmetto HMA (BLM 1997). The Appropriate Management Level for herd sizes in this HMA is 184 (BLM 1997).

3.3.8.2 Environmental Consequences

The Proposed Action would have minimal impacts on herd management, as vegetation may be trimmed, if necessary, in a relatively small area (see Section 2.2.1). In addition, the MET would be fenced by Pacific Wind.

3.3.9 No-Action Alternative

Under the No-Action Alternative, no MET would be constructed within the Proposed Action area to gather meteorological data which is necessary for 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. 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).

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) that 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-087324, [Figure 1-1]) which encompasses the Proposed Action area and currently comprises the possible area for wind energy development by Pacific Wind. 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, transportation and access, livestock grazing, and herd management.

The most prominent mining operation in the vicinity of the CESA is Silver Peak, mined for lithium, and is located approximately 15 miles to the northeast. In addition, there are four active mining claims and one ROW located within the CESA.

Past and present actions within the CESA are supported by a surface transportation network that includes SR-266, 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 occurs within the Magruder Mountain Grazing Allotment, which includes the CESA. The Palmetto HMA is also located in the CESA.

4.4 REASONABLY FORESEEABLE FUTURE ACTIONS

As outlined in the BLM Wind Energy Development Policy (IM 2009-043), the scope of the environmental analysis required for either a site-specific application or a project area application such as this EA, includes direct, indirect, and cumulative effects of the proposed site testing and monitoring-related facilities only. The site testing and monitoring ROW authorization is for a limited term (3 years). This application includes only one wind monitoring tower with instruments attached to measure various meteorological parameters such as wind speed, wind direction, and temperature at various heights above the ground. The footprint for the monitoring tower is small and the need for site clearances is limited to the areas of proposed surface disturbance and associated areas of potential effect.

The environmental review should not address wind energy development facilities, as the installation of wind turbines are not proposed during site testing and monitoring. The environmental review of wind energy development facilities will occur at the point in time when a wind energy development application is submitted. A separate application for wind energy development would require a separate analysis, review, and decision.

If the Proposed Action is approved, a ROW grant for the project area would be issued for an initial term of three years from the date of issuance. This term could be renewed (43 CFR 2807.22) for a term not to exceed three years if a separate ROW application and Plan of Development is submitted for a wind energy development project prior to the end of the initial term of the site testing and monitoring grant.

Typically, only a small number of wind energy site testing and monitoring authorizations ever lead to actual wind energy development projects. Therefore, the reasonably foreseeable development discussion does not focus on uncertain future development scenarios.

4.5 CUMULATIVE IMPACTS

4.5.1 Cultural and Historic Resources

The Proposed Action would not affect cultural resources since none were identified during the cultural survey. Cumulative impacts to cultural resources could result from the reasonably foreseeable future action of the proposed Oasis Divide Wind Project 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) were created, a new Area of Potential Effect (APE) was established, and separate environmental analyses were performed.

4.5.2 Wildlife (Including Migratory Birds)

The proposed MET construction is not expected to cause impacts to local wildlife communities as long as requirements are met. Current potential land uses, such as OHV use and livestock grazing, would be much more likely to cause impacts to wildlife than

the proposed MET construction. Cumulative impacts to wildlife could result from the reasonably foreseeable future action of the proposed Oasis Divide Wind Project, 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 MET construction is not expected to cause long-term impacts to local vegetative communities as long as requirements, such as avoiding sensitive species, are met. Current potential land uses, such as OHV use and livestock grazing, would be much more likely to cause impacts to vegetation than the Proposed Action. Although ground and vegetation disturbance would affect a relatively small area, the project could facilitate the spread of non-native invasive plants, if encountered. To address this concern, appropriate preventive measures, such as examining the undercarriage of construction vehicles and removing trapped vegetation prior to departing the site could be implemented. Cumulative impacts to vegetation could result from the reasonably foreseeable future action of the proposed Oasis Divide Wind Project, 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) were created and separate environmental analyses were performed.

4.5.4 Airspace

The Proposed Action is not expected to cause impacts to local airspace. However, potential impacts to airspace resulting from the proposed Oasis Divide Wind Project, 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 than do the MET, 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 were submitted to them.

4.5.5 Visual Resources

The Proposed Action is expected to have negligible impacts on local visual resources. The Proposed Action meets the VRM objectives of a Class 4 designation, primarily because the MET is a slender, non-reflective structure. Impacts to visual resources resulting from the reasonably foreseeable future action of the proposed Oasis Divide Wind Project, or any other future wind power development within the CESA, could occur. Although 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) were created and separate environmental analyses were 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 used for past, present, and reasonably foreseeable future actions.

CHAPTER 5.0
MITIGATION AND MONITORING

5.1 MITIGATION AND MONITORING

5.1.1 Mitigation

Pacific Wind 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. No further mitigation measures are proposed.

5.1.2 Environmental Monitoring

Pacific Wind 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. However, because there was no evidence of sensitive plant and animal species or presence of cultural resources, Pacific Wind is not proposing any monitoring measures.

Best Management Practices for Site Monitoring and Testing as outlined by the BLM's Wind Energy Program include and are made part of the mitigation and environmental monitoring of this project:

• The area disturbed by installation of meteorological towers (i.e., footprint) shall be kept to a minimum.

• Existing roads shall be used to the maximum extent feasible. If new roads are necessary, they shall be designed and constructed to the appropriate BLM road design standards.

• Meteorological towers shall be located to avoid sensitive habitats or areas where ecological resources known to be sensitive to human activities are present. Installation of towers shall be scheduled to avoid disruption of wildlife reproductive activities or other important behaviors, and shall be consistent with sage grouse (*Centrocercus urophasianus*) management strategies.

• Guy wires on permanent meteorological towers shall be avoided, however, may be necessary on temporary meteorological towers installed during site monitoring and testing. If guy wires are necessary, the meteorological towers shall be periodically inspected to determine whether permanent markers (bird flight diverters) attached to the guy wires are necessary to increase visibility.

• Meteorological towers installed for site monitoring and testing shall be inspected periodically (at least every 6 months) for structural integrity.

• A study design strategy shall be required for any environmental studies initiated or baseline data collected during the site testing and monitoring period. The operator shall submit the study design strategy to the BLM authorized officer for review. Timing restrictions for construction activities may be implemented to minimize impacts to wildlife. The Tonopah Field Office has standard stipulations

for wildlife, weed control, and construction activities for ROW grants being authorized under its management jurisdiction.

In July 2003, the USFWS issued "Voluntary Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines." The guidelines are currently being reviewed by a Wind Turbine Guidelines Advisory Committee established under the Federal Advisory Committee Act to provide further advice and recommendations to the Secretary of the Interior on effective measures to avoid or minimize impacts to wildlife and their habitats from wind energy facilities. The voluntary interim guidelines are not mandatory requirements in BLM land use plan decisions. Until the Secretary determines the applicability of final guidelines for the Department of the Interior agencies, the USFWS interim guidelines should only be used as a general guide to assist the BLM in siting decisions and the design of predevelopment surveys, mitigation measures, and post-construction monitoring for site specific projects.

The BLM Washington Office IM 2008-050 (December 18, 2007) provides interim guidance for Federal responsibilities under the Migratory Bird Treaty Act. This guidance addresses analysis of BLM land use planning decisions to avoid or minimize measurable negative impacts to migratory bird populations. The BLM guidance on migratory birds and the USFWS guidelines may be used for site-specific wind energy projects to assist in developing mitigation measures for avoiding or minimizing impacts to wildlife and avoiding or minimizing measurable negative impacts to migratory birds. The BLM 6840 Manual also provides guidance on Special Status Species Management.

The Wind Energy Development Policy dated December 19, 2008, states "The wind inventory data collected and held by the ROW grant holder is proprietary information, will be protected by the Privacy Act, and may be withheld under the Freedom of Information Act to the extent allowed by Federal law. However, general wind resource information must be provided to the BLM, at the time a separate ROW application for development is submitted, to support the environmental analysis and review of the proposed development. This information becomes public information to the extent allowed by Federal law and will be used for analysis and decision-making purposes related to the processing of the ROW application for a wind energy development project. Biological and cultural resource studies and data collected by the ROW grant holder and provided to the BLM will become public information to the extent allowed by Federal law."

CHAPTER 6.0
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6.1 LIST OF PREPARERS

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CHAPTER 7.0
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