APPENDIX D

Visual Resources

1.1 VISUAL RESOURCES

Visual resources, as defined by the Bureau of Land Management (BLM), are the visible physical features of a landscape (e.g., land, water, vegetation, animals, structures, and other features). All land has inherent visual values that warrant different levels of management. Aesthetic judgment, especially related to landscape views, is often considered subjective. Over the past 30 years, the BLM has developed, refined, and implemented visual analysis and management systems that provide a tool for assessing visual qualities of the landscape in objective terms. Visual assessment of the landscape using these tools establishes identifiable, consistent qualities that can be described and measured. For the BLM, the Visual Resource Management (VRM) methodology has been developed to evaluate scenic resources under its jurisdiction and to develop management objectives for those resources. Using the BLM's VRM methodology, this section describes the Visual Resources within the Project Area, the expected effects of the Project on those resources, and the proposed mitigation measures for visual resources.

1.1.1 Applicable Regulations

NEPA sets forth a policy to "…assure for all Americans…esthetically pleasing surroundings…" (Section 101(b)) and to use "a systematic, interdisciplinary approach which will ensure the integrated use of environmental design arts in the planning and decision making [for a project]" (Section 102). As a Federal land-management agency, BLM is charged with managing the scenic resources of public lands through the Federal Land Policy and Management Act of 1976 as amended (FLPMA). Section 102(8) of the FLPMA declares the policy that, in combination with other values, public land will be managed to protect the quality of scenic values and, where appropriate, preserve and protect certain public land in its natural condition. Federal land within the Steens Mountain Cooperative Management and Protection Area (CMPA) is also managed under the Steens Mountain Cooperative Management and Protection Act of 2000 (Steens Act), 16 U.S.C. § 460nnn to 460nnn-122. To meet visual resource objectives, BLM developed the VRM methodology, which is a systematic way to evaluate and compare the potential visual effects of the different alternatives and options of this Project. This visual resources analysis applies the BLM's VRM methodology to evaluate the potential visual effects of the Project.

Once effects are identified, visual design techniques are applied to ensure surface-disturbing activities and structures are in harmony with their surroundings. Guidelines for identification of visual resource inventory classes on public land are contained in BLM Manual Handbook H-8410-1, Visual Resource Inventory (USDI 1986). Establishment of visual resource management classes on public land is based on evaluation of the landscape's scenic qualities, public sensitivity toward the landscape, and visibility of the landscape from travel routes or observation points. The VRM classes for BLM land crossed by this Project were established through the Three Rivers RMP (USDI 1991), Andrews Management Unit (AMU) ROD/RMP, and the Steens Mountain CMPA ROD/RMP (USDI 2005a/2005b). The VRM class objectives in these planning areas, which encompass the Project Area, are managed through application of the BLM Manual Handbook H-8431-1, Visual Resource Contrast Rating.

The Proposed Action (Alternative B – West Route), its two route options (Hog Wallow and South Diamond Lane), and its 115-kV transmission line option cross federal lands managed by the BLM and U.S. Fish and Wildlife Service (USFWS) as well as private lands. Alternative C (North Route) and its 115-kV transmission line option crosses federal lands managed by the BLM, state lands, and private lands. The Proposed Action would cross the Malheur National Wildlife Refuge (MNWR) managed by the USFWS. Visual resources are not specifically managed by the USFWS other than to provide opportunities for the public to engage in recreational wildlife viewing and to conserve the natural habitat of the refuge for migratory birds and other wildlife. In addition to the Refuge, the private and state lands are not managed with a system or methodology to assess the visual effects to the existing landscape. While the BLM methodology does not apply to non-

Federal lands, the VRM methodology was used for consistency to assess potential visual effects for the entire Project Area and its alternatives.

1.1.2 Affected Environment

Situated in southeastern Oregon near the rural communities of Diamond and New Princeton, the Project Area is characterized by its remote, relatively undeveloped landscape. Most of the Project Area is exceptionally rural with small communities separated by ranch complexes and undeveloped land managed by the BLM, USFWS, and the Oregon Department of State Lands. The Project Area encompasses a rich variety of landscapes, ranging from rolling agricultural valleys incised by eroded canyons to volcanic uplifts surrounding rugged mountainous terrain. The topography is further distinguished by the dramatic peaks of the Steens and Riddle Mountains. The nearly 10,000 foot peak of Steens Mountain and the surrounding Steens Mountain Cooperative Management and Protection Area divides the Project into distinctive areas. To the west of the mountains the landscape is characterized primarily by valley devoted to livestock grazing and agricultural separated by smaller volcanic uplifts. An expansive wetland and the MNWR separate the community of Frenchglen from the more rugged terrain to the northeast. To the east of the Project Area the peaks of Steens Mountain descend sharply into grazing areas for several large ranches before reaching the Alvord Desert – part of a playa or largely dry lake bed. These areas are outside of the Project Area related to the transmission lines but are considered in this analysis under Indirect and Cumulative Effects because of the visibility of the turbines from this area.

Visitation to the Project Area is facilitated by several scenic byways and private roads that traverse the ranchlands. The majority of visitors arrive at the Project Area on Highway 205, part of the High Desert Discovery Oregon Scenic Byway that connects the community of Burns/Hines to the Steens Mountain Wilderness Area. The ranchland on the north side of the Project Area is accessed by the Diamond Loop Back Country Byway, smaller local roads, and unimproved (dirt) BLM roads. Visitation to the land to the east is made possible by U.S. Route78 and the East Steens Road. Within the Steens Mountain Wilderness area access is provided by the Steens Mountain North and South Loop roads. Due to the relatively undeveloped nature of the country, elevation, and variations in topography there are many opportunities for vistas into the Project Area from relatively long distances.

1.1.3 Methodology

This section describes the methodology used for developing an inventory of visual resources within the affected environment by using the BLM's VRM methodology. The analysis was informed by comments from the public scoping process that occurred from July to September 2009. Comments from agency representatives, local organizations and private citizens requested that the following visual resources issues be addressed:

- Potential effects to tourism and recreation from an altered viewshed.
- Simulations of the following:
  - Effects of blinking lights on the wind turbines, if applicable.
  - Moving simulations of the wind turbines and transmission line.
  - Nighttime views of the Project facilities.
- Potential effects to the Project Area viewshed, including the following areas:
  - Buena Vista Butte
  - Steens Mountain

- CMPA
- Kiger Wild Horse viewing area
- Diamond Loop Back Country Byway
- Kiger Gorge
- Other recreational areas

Several comments concerning visual resources are referred to other sections of this document. Readers seeking information concerning potential effects to tourism and recreation from altered viewsheds should also review Section 3.7, Recreation. The visual analysis does include simulations taken from areas where recreators and tourists would travel or recreate.

Simulations of blinking lights on wind turbines, wind turbine movement, and nighttime views were not prepared, but effects from these proposed Project operations were considered in this section. This section also includes an analysis of Project effects to visual resources as viewed from all areas mentioned in the scoping report.

1.1.3.1 VRM Methodology - Inventory

The BLM's VRM methodology is composed of two stages: inventory and analysis. An inventory has been completed for the Project Area that is on BLM land, as noted in the Three Rivers RMP (USDI, 1991), Andrews Management Unit (AMU) ROD/RMP, and Steens Mountain CMPA ROD/RMP (USDI 2005a/2005b). Figure D.1-1 is a Visual Resource Management map. Under the BLM methodology three factors are considered in developing the inventory: scenic quality rating, sensitivity level, and distance zones (USDI, 1980, 1984, 1986). Through the inventory process, landscape units are assigned one of four visual resource management inventory classes. Class I is assigned to all special areas where the current management situations requires maintaining a natural environment essentially unaltered by man. Classes II, III, and IV are assigned based upon a combination of factors that include scenic quality, sensitivity level, and distance zones. The classes and their associated BLM management objectives are as follows:

- Class I: The objective of this class is to preserve the existing character of the landscape. The class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
- Class II: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- Class III: The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic of the landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

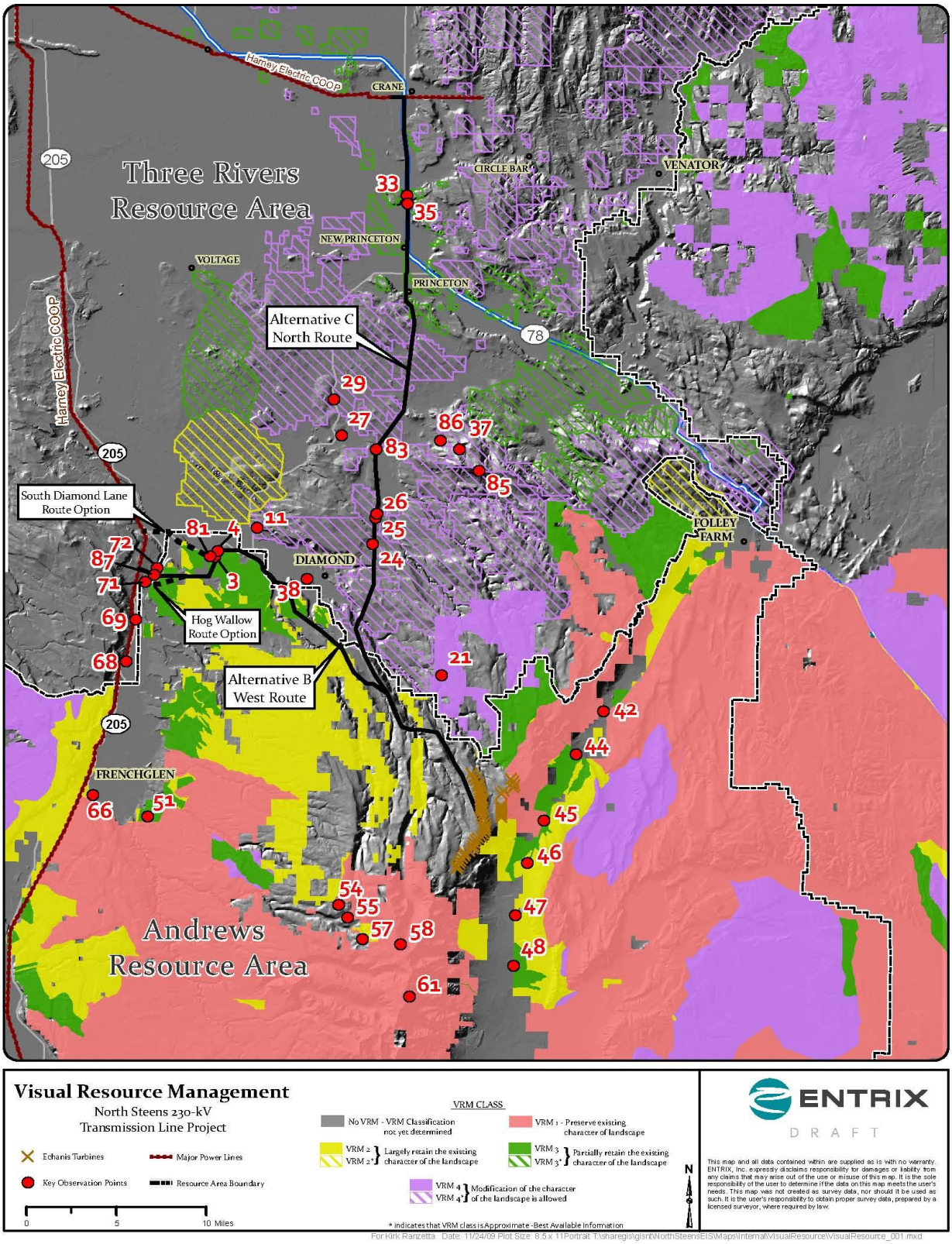

Figure D.1-1 Visual Resource Management.

- Class IV: The objective of this class is to provide management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating basic elements.

The inventory for the North Steens Project involved identifying the existing BLM visual classes on BLM lands and identifying visual resources within private lands and assigning them to inventory classes. The process of identifying visual resources has four steps, including Scenic Quality Evaluation; Sensitivity Level Analysis; Delineation of Distance Zones; and Visual Resource Classes and Objectives. The methodology for the inventory phase followed the "BLM Handbook H-8410-1, Visual Resource Inventory." While BLM methodology does not apply to non-Federal lands, the VRM methodology was used for the entire Project Area to provide a consistent method of assessing potential visual effects for the Project alternatives. When applicable, the existing VRM Class was utilized for areas that had previously been surveyed by the BLM. For the purposes of this Project, the most appropriate Visual Resource Classification for the BLM lands nearest to a key observation point (KOP) was used for lands not managed by the BLM and that lacked a VRM classification.

Data collected included U.S. Geological Survey quadrangle maps, Google Earth maps, aerial photographs, surface photographs, Project maps, and maps of existing BLM lands and Visual Resource classes. These items were utilized to analyze vegetation types, land uses, and regional topography. Fieldwork consisted of driving and walking Project Areas to qualitatively determine the visibility of the proposed transmission lines, turbines, and other facilities from residences, major roads, recreational areas, and potential sensitive views.

SCENIC QUALITY EVALUATION

The Scenic Quality Evaluation is a measure of the visual appeal of a tract of land. Consistent with BLM Manual 8410-1, public lands are given an A, B, or C rating based on the apparent scenic quality determined by seven visual qualities: landform, vegetation, water, color, influence of adjacent scenery, scarcity (common vs. rare), and cultural modifications (changes made by humans). All but the cultural modifications (changes made by humans) are scored on a scale of 5 to 1 with a 5 representing the most dramatic visual presence and 1 the least. Cultural modifications are scored on a scale from 2 to 4 based upon their ability to harmonize or detract from the surrounding landscape. Those areas with the most variety and most harmonious composition have the greatest scenic value. Scores given to each visual quality reflect the evaluator's overall impression of the area and range from a high of more than 19 (an A-rating), to a mid-range of 12-19 (B-rating), or may be as little as 11 (C-rating).

SENSITIVITY LEVEL ANALYSIS

This analysis measures public concern for scenic quality. Consistent with BLM Manual 8410-1, public lands are assigned a high, medium, or low sensitivity level by analyzing the various indicators of public concern, including type of users, amount of use, public interest, adjacent land uses, special areas, and other factors.

The types of users in the Project Area include residents and workers on the ranches, residents of the towns of Frenchglen, Crane, Diamond, and Princeton, and travelers on the various scenic byways, and recreators to the Steens Mountain Wilderness Area, Malheur Refuge, and other facilities in the area. Recreators in the Project Area would have a high visual sensitivity, whereas travelers through the area would have a lower visual sensitivity because of the shorter viewing times and engagement in driving. The amount of use of the Project Area is seasonally driven for recreators with visitation occurring predominately between March and October. The Project Area is also of interest to the Burns Paiute Tribe who attach cultural significance to natural landscape components. Other factors to consider are the number and diversity of human-made objects in the

landscape, including the existing transmission lines, roads, grazed and irrigated land, and structures associated with the ranches and the towns.

DELINEATION OF DISTANCE ZONES

The delineation of a distance zone involves identifying the Project Area's relative visibility from travel routes or observation points. These distance zones are "foreground-middle ground," "background," and "seldom seen." As defined by BLM criteria, the foreground-middle ground zone is an area less than 3 to 5 miles away from viewers and the background zone is an area between 5 to 15 miles away. Areas that are not in the foreground-middle ground or background zones are in the seldom seen zone. KOPs represent the basic building block of the BLM's VRM methodology. KOPs, or the specific points with views of the Project, were identified based upon areas of high visual sensitivity, angle of observation, number of viewers, public access, length of time the project is in view, relative project size, season of use, and light conditions.

KOPs were utilized to illustrate the characteristic landscape types found at significant viewpoints of the Project Area. The VRM process of Scenic Quality Evaluation was utilized to describe the visual attributes of the area and assign a visual resource class to private lands visible from the KOPs. Each KOP is summarized in Tables D.1-2 through D.1-6. Figure D.1-2 shows the location of each KOP. The KOPs were taken from the major access roads and publically accessible routes with views to the Project Area.

1.1.3.2 Existing VRM Classes in Project Area

This section provides a comparative analysis of the types of visual resources found within Alternative B (West Route), the two route options (Hog Wallow and South Diamond Lane), and Alternative C (North Route). Table D.1-1 lists the approximate distances traversed by the Project alternatives through the existing VRM classes currently designated by BLM through the RMP process noted in Section 3.8.1. KOPs were utilized to illustrate the characteristic landscape types found at significant viewpoints of the Project area. About 87 points were initially identified in the field as potential KOPs. Of these, 35 KOPs were selected for study to analyze the Project's direct, indirect, and cumulative effects. Figure D.1-2 is a map showing the location of each KOP and the existing BLM VRM classes. Those KOPs that were not chosen for further study included locations from which there was no view of the Project components or the KOP was repetitive in terms of the view of Project components and general location. For the purposes of this Project, in situations where private lands were crossed by the Project and was visible from a KOP, the VRM class of the nearest, most applicable BLM parcel was utilized to develop a contrast rating and analyze the associated Project effect.

For the 115-kV Transmission Line Option, the distances provided in the table for Alternatives B and C (with their respective route options) would be the same. The Echanis Wind Energy Project (Echanis Project) does not lie on federal lands and thus does not lie on pre-existing VRM classified lands.

Table D.1-1 Pre-existing VRM Classed Lands Crossed by Project Options & Alternatives

VRM Class	Length in Miles of VRM Class BLM lands Crossed by the Project
Alternative B – West Route	
VRM Class 2	1.89
VRM Class 3	6.08
Alternative C – North Route	
VRM Class 2	0.09
VRM Class 3	2.40
VRM Class 4	3.50
Kiger Mustang ACEC	7.27
Hog Wallow Route Option	
VRM Class 2	0.01
VRM Class 3	1.05
South Diamond Lane Route Option	
VRM Class 2	0.74
VRM Class 3	0.47

1.1.3.3 VRM Methodology – Analysis

The analysis stage involves determining whether the potential for visual effects from proposed surface-disturbing activities or developments would meet the management objectives established for the area, or whether design techniques would be applied to ensure that surface-disturbing activities are in harmony with their surroundings. The principal measure for assessing Project construction and operation effects to visual resources lies in the BLM's use of a "contrast rating." A visual contrast rating entails comparing Project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. The steps in the contrast rating process are outlined in the BLM Manual H-8431 – Visual Resources Contrast Rating." The analysis stage is described below.

KOP CONTRAST RATINGS

To evaluate potential visual effects, contrast ratings are assigned to each view by considering the following factors: distance, angle of observation, length of time Project is in view, relativity to size or scale, season of use, light conditions, recovery time, spatial relationship, and atmospheric conditions. The degree of visual change is measured through a contrast rating established in the BLM VRM Manual 8431. Contrast ratings are noted as being none, weak, moderate, and strong depending upon the degree of change. Contrast created by the Project is rated as follows:

Strong: The contrast demands attention and would not be overlooked by the average observer, and is dominant in the landscape.

Moderate: The contrast begins to attract attention and begins to dominate the characteristic landscape.

Weak: The contrast can be seen but does not attract attention.

None: The contrast is not visible or not perceived.

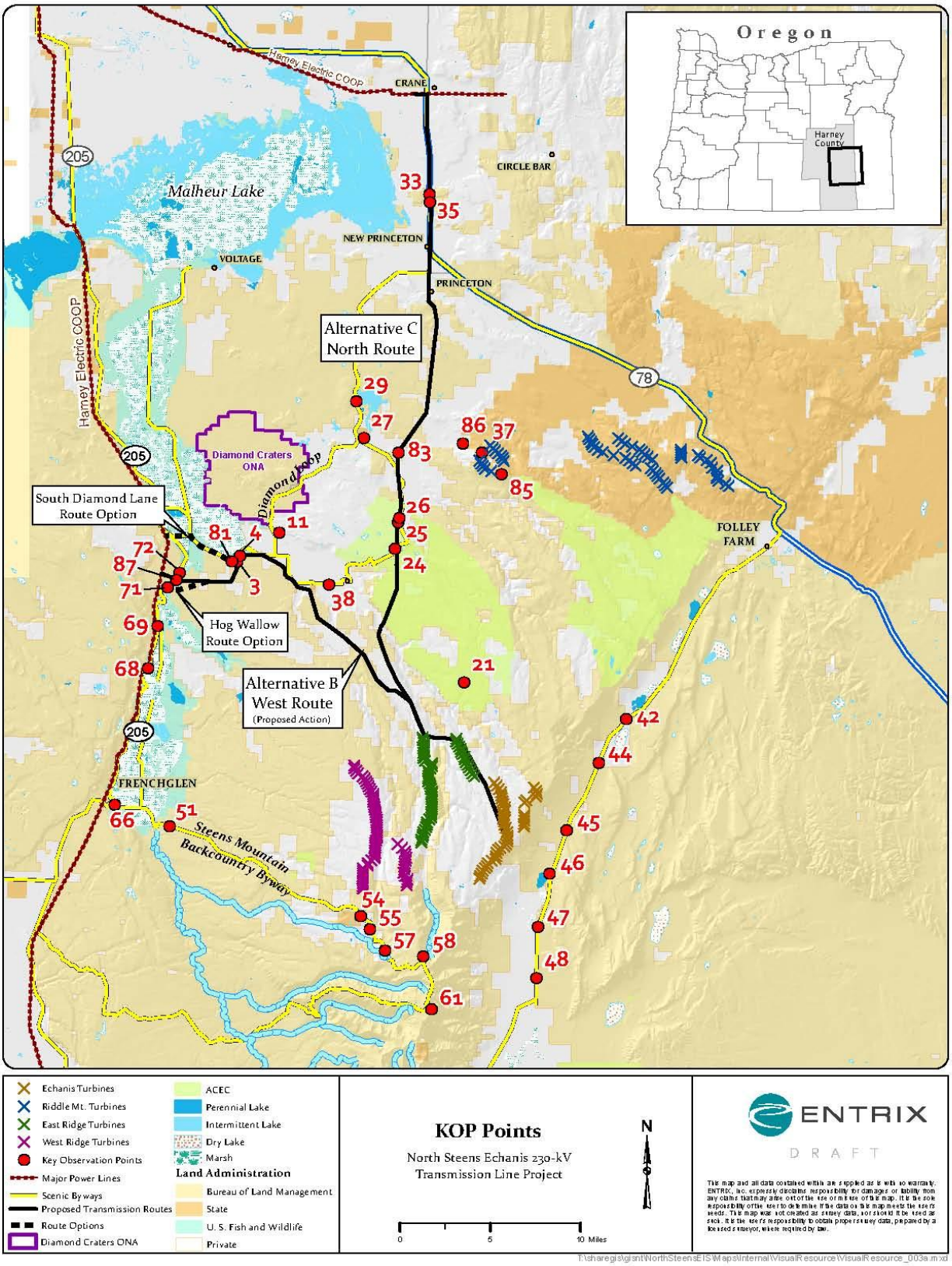

Figure D.1-2 Key Observation Points.

COMPARISON WITH VISUAL RESOURCE CLASS OBJECTIVES

A contrast rating is provided for each of the KOPs to assist in determining whether Project features meet the VRM objectives. The projected level of contrast is compared to acceptable levels of contrast for the visual resource class of the view as described in the existing conditions. The four levels of contrast are established in BLM Manual 8431 Appendix 2 and roughly correspond to the Visual Resource Class Objective (I, II, III, and IV). This means that a strong contrast rating may be acceptable in a Class IV area and probably would be acceptable in a Class III area.

Class I: Acceptable contrasts are primarily natural ecological changes.

Class II: Contrasts may be seen but should not attract the attention of the casual observer.

Class III: Contrasts may attract attention but should not dominate the view of the casual observer.

Class IV: Contrast may dominate the view and be the major focus of viewer attention.

As previously noted the BLM Visual Resource Class Objectives would not apply to visual resources located on private land that are affected by the Project, however the BLM methodology was used for all areas of the Project to consistently address visual effects for the entire Project Area and its alternatives.

EFFECT LEVELS

Effect classifications are based upon BLM Manual 8431 and are classified as high, moderate, or low based upon the degree of contrast of the Project compared to the acceptable level of contrast for that visual resource class. The following effect levels are used:

High: Contrast from the Project is substantially greater than acceptable.

Moderate: Contrast is somewhat greater than acceptable for the visual resource class.

Low: Contrast is acceptable for the visual resource class.

No effect: Visual contrast is imperceptible.

1.1.4 Environmental Effects and Mitigation

This section considers how Project-related operations and construction activities, which include transmission line route options, design options, and access roads, would affect the visual resources within the Project Area during the proposed Project. The proposed Project would traverse through lightly populated areas with an estimated 0.8 persons per square mile (http://quickfacts.census.gov/qfd/states/41/41025.html). The area is frequently accessed by tourists and recreational visitors and the proposed Project would have both temporary and permanent effects on the visual resources in these areas. As noted previously, the level of effect is contingent upon the contrast rating and the associated management objectives for the visual resource class. Some of these visual resources are situated on BLM lands previously analyzed using the BLM's Visual Resource Classification system. The Project is also located on State of Oregon, U.S. Fish and Wildlife Service, and private land. For the purposes of this Project, the most appropriate Visual Resource Classification for the BLM lands nearest to the KOP was used for these areas. BLM does not retain the jurisdiction, however, to apply Visual Resource Class Objectives to non-BLM managed lands.

1.1.4.1 Alternative A – No Action

Visual effects associated with the No Action Alternative would include the continuance of existing BLM management activities in the Project area such as those included in the North Steens Ecosystem Restoration

Project. Other privately developed wind energy projects, such as the West Ridge, East Ridge, and Riddle Mountain Projects, have been proposed near the Project Area and may still proceed under Alternative A. The BLM management activities as well as these other proposed turbine projects would have effects to the visual resources in or near the Project Area.

1.1.4.2 Effects Common to All Action Alternatives

The Project would tie into the Echanis Project, thus providing a means of electrical transmission for the power generated by the Echanis Project.

The Echanis Project would consist of multiple Project components, including wind turbines, a power collection system, a substation, access roads, and an operations and maintenance (O&M) building. Between 40 and 69 wind turbines would be situated on the proposed site located near the edge of the northern Steens escarpment overlooking Mann Lake. Turbine towers would vary in height from 213 to 262 feet with a steel and concrete foundation. The towers including the wind rotors would be approximately 400 feet tall. During Project operation, the rotors would be in motion or be still. The exterior of the tower would have a smooth surface. Each turbine would be accompanied by a transformer located near the structure's base and the power would be distributed via power collection cables situated underground. An existing access road from Ham Brown Lane would be improved, widened, and extended to the Echanis site. The completed access road would be 18.95 miles long and topped with sub-course and top-course aggregates. Additional service roads (i.e., string roads) would be constructed along and between the turbine strings. A small 24-foot by 48-foot O&M building and a substation would also be constructed. The substation would be approximately 200 feet long and 100 feet wide, enclosed with cyclone fencing and topped with a 3-strand barbed wire climb barrier. All vegetation within the fenced area would be removed and replaced with gravel. Construction would alter the visual environment through grading, installing foundations for electrical equipment, applying gravel, installing security fencing, and connecting equipment to the new transmission line.

To study the effects of the Project, seven KOPs were identified within the Project Area. The wind turbines are situated near lands that have received a Visual Resource Class of I and II. While on private land, the Echanis Project Area retains landscape characteristics similar to a BLM Visual Resource Class II.

PERMANENT EFFECTS

The effect levels of the Echanis Project would be low for KOPs 42, 44, and 48 (see Figure D.1-3), as shown in Table D.1-2. A moderate effect level would be experienced from KOPs 45, 47, and 61 and a high effect level would be experienced from KOP 46. The moderate effects come from the introduction of strong vertical, moving, human made elements into the largely stationary landscape, particularly along the East Steens Road and East Rim Overlook. The high effect for KOP 46 comes from the introduction of a strong vertical, human made element along the Steens ridgeline that is visible in the foreground from both within the Mann Lake recreational area and along the East Steens Road and immediately abuts VRM Class II lands. Due to the project's proximity to VRM Class II lands, the Project may affect the scenic quality ratings of these lands. The character of the adjacent scenery and cultural modifications near the VRM Class II lands immediately near the Echanis Project would change. While these effects would be moderate to high and otherwise not meet BLM visual resource management objectives for VRM Class II lands, the Echanis Project is located on private lands and not subject to BLM's visual resource management objectives.

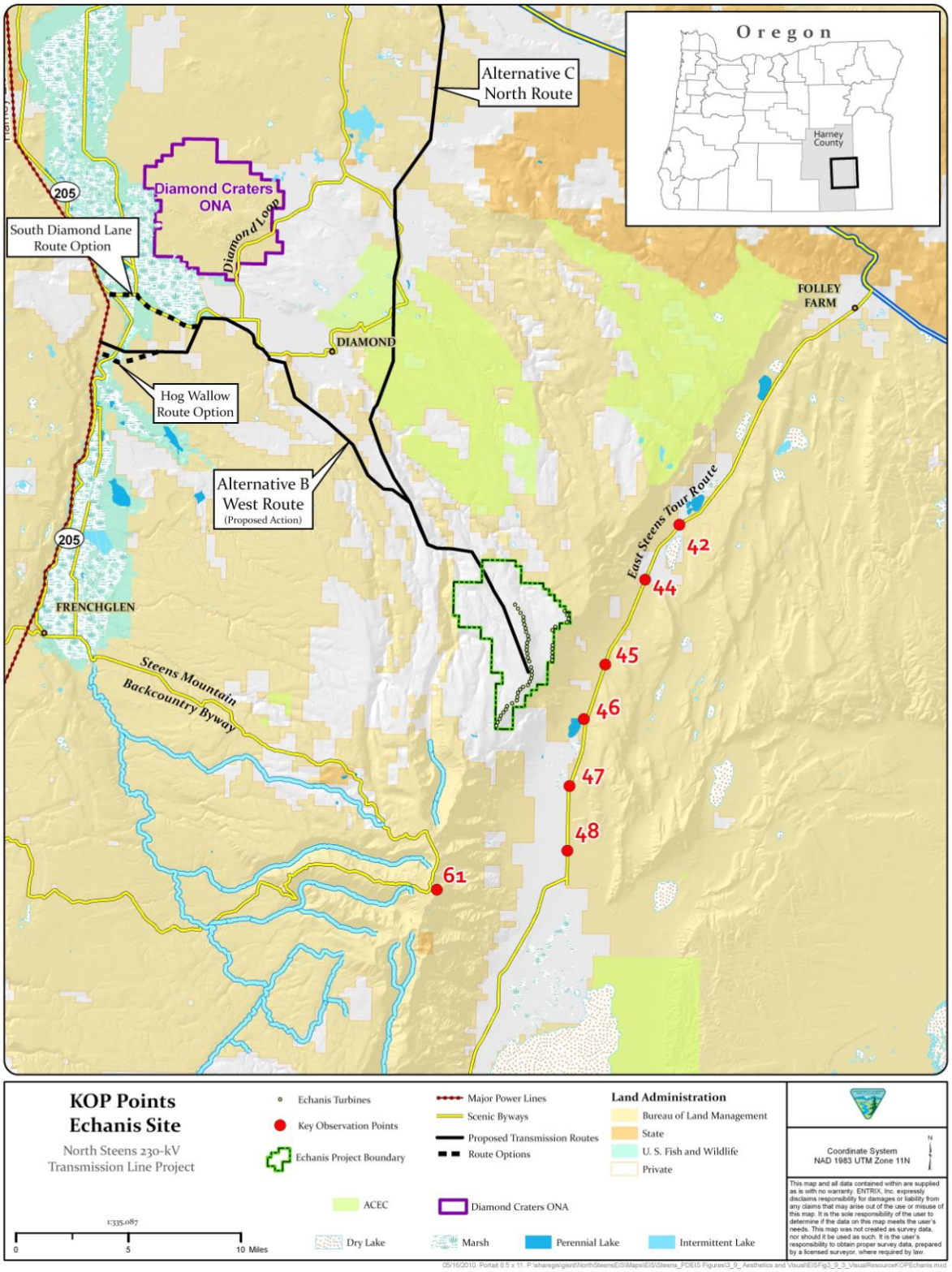

Figure D.1-3 KOPs Echanis Turbines.

Table D.1-2 Echanis Wind Energy Project Effects

Key Observation Points	Scenic Quality Rating	Sensitivity Level	Distance Zone	Visual Resource Class	Contrast Rating	Effect
KOP 42 East Steens Loop	B	Moderate	Distant	III	Weak	Low
KOP 44 East Steens Loop	B	Moderate	Foreground/ Middle ground	III	Weak	Low
KOP 45 East Steens Loop	B	Moderate	Foreground/ Middle ground	III	Weak	Low
KOP 46 Mann Lake	A	High	Foreground/ Middle ground	II	Moderate	Moderate
KOP 47 East Steens Loop	B	Moderate	Foreground/ Middle ground	II	Strong	High
KOP 48 East Steens Loop	B	Moderate	Distant	II	Moderate	Moderate
KOP 61 East Rim Overlook	A	High	Distant	III	Moderate	Moderate

KOP 42 View from East Steens Loop (Figure D.1-7a and Figure D.1-7b)

This view is of the east slope of Steens Mountain from East Steens Tour Road. The turbines are approximately 6.4 miles away on the ridge above the road.

Scenic Quality Rating

The scenic quality rating is B, which is defined by a mixture of features both common and uncommon to the physiographic region. The mountain ridges rise above the roadway but the foreground is dominated by elements fairly common to the areas with relatively even textures and little variation in form, texture, or color from the shrub brush and exposed soil. Much of the area in the foreground is already considerably altered by grazing and other agricultural practices.

Sensitivity Level

This view has a moderate sensitivity level to the proposed turbines that would be visible on the ridge above. Most viewers would be recreators on the East Steens Tour road. Residents and workers on the nearby ranches would also see this vista but would be familiar with the view. Most observers from this KOP would be in vehicles traveling at relatively high speeds whose viewing times would be relatively short.

Visual Resource Classification

The existing conditions along the highway are consistent with the nearby areas already classified by the BLM as Class III Visual Resources, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape, and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed Echanis turbines are visible but are not prominent from this distance of approximately 6.4 miles away. The metallic finish of the turbines stands out against the browns and golds of the ridgelines but much of the intermediate area is covered by dramatic ridges and rock formations that would attract the eye.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 44 View from Stonehouse Road (Figure D.1-8a and Figure D.1-8b)

This view is from the intersection of Stonehouse Road and the East Steens Tour Road. The turbines are approximately 3.5 miles away on the ridge above the road.

Scenic Quality Rating

The scenic quality rating is B, which is characterized by a mixture of features both common and uncommon to the physiographic region. The mountains rise in the distance but the foreground is dominated by elements fairly common to the areas with relatively even textures formed by the little variation in form, texture, or color from the shrub brush and exposed soil.

Sensitivity Level

This view has a medium to high sensitivity level with respect to the proposed turbines that would be visible on the ridge above. Most viewers would be recreators on the East Steens Tour road. Most observers from this KOP would be in vehicles traveling at relatively high speeds and therefore viewing times would be fairly short. Residents and workers on the nearby ranches would also see this vista but would be familiar with the view.

Visual Resource Classification

The existing conditions along the highway are similar to those in the adjacent Class III areas previously defined by the BLM, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed Echanis turbines are visible but the distance of approximately 3.5 miles away diminishes some of the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the browns and gold colors of the ridgelines. Much of the intermediate area is covered by dramatic ridges and rock formations that attract the eye.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 45 View to Steens Mountain from East Steens Tour Road (Figure D.1-9a and Figure D.1-9b)

This view is of the east slope of Steens Mountain from East Steens Tour Road. The Echanis Project turbines are visible approximately 2.0 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features both common and uncommon to the physiographic region. The mountains rise dramatically but the foreground is dominated by elements fairly common to the areas with relatively even textures and minimal variation in form, texture, or color from the shrub brush and exposed soil.

Sensitivity Level

This view has a moderate sensitivity level to the proposed turbines that would be visible on the ridge above. Most viewers would be recreators on the East Steens Tour road. The view would be most frequently viewed by residents and workers on the nearby ranches who would have a lower sensitivity.

Visual Resource Classification

The existing conditions along the highway are part of an area previously defined by the BLM as a Class II Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Moderate

The proposed Echanis Project turbines are visible but the distance of approximately 2.0 miles away diminishes some of the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the relatively even hues of browns and golds on the ridgelines. The dramatic ridges and dark rock formations would remain the most dominant visual images, whereas the lighter forms of the turbines would tend to recede into the lighter sky.

Impact Level: Moderate

The level of contrast is consistent with the Class II visual resource rating given to this view.

KOP 46 Mann Lake (Figure D.1-10a and Figure D.1-10b)

This view is taken from the parking lot for the Mann Lake Recreation Area. The turbines are approximately 3.5 miles away on the ridge above the lake.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features both common and uncommon to the physiographic region. The mountains rise dramatically above the lake but much of the view is occupied by shrub grass and exposed soil that is common throughout the Project Area.

Sensitivity Level

This view has a high sensitivity level to the proposed turbines that would be visible on the ridge above. Most viewers would be recreators at Mann Lake, who would have longer viewing times, or tourists passing on the East Steens Tour road. Residents and workers on the nearby ranches would also see this vista but would be familiar with the view.

Visual Resource Classification

The existing conditions along the highway are part of an area previously defined by the BLM as a Class II Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Strong

The proposed Echanis Project turbines are visible but the distance of approximately 3.5 miles away diminishes some of the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out sharply against the relatively even hues of browns and golds on the ridgelines.

Impact Level: High

The level of contrast begins to attract attention at a level that is too high for a Class II Visual Resource.

KOP 47 East Steens Tour Loop (Figure D.1-11a and Figure D.1-11b)

This view is taken from East Steens Tour Road. The Echanis Project turbines are approximately 4.2 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features both common and uncommon to the physiographic region. The mountain slopes are a dramatic contrast from the relatively even colors, textures, and forms of the shrub brush found in the grazing areas adjacent to the road.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor that would be visible on the ridge above. Most viewers would be recreators on the East Steens Tour road. The view would be familiar to the residents and workers on the nearby ranches.

Visual Resource Classification

The existing conditions along the highway are part of an area previously defined by the BLM as a Class II Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Moderate

The proposed Echanis Project turbines are visible but the distance of approximately 4.2 miles away diminishes some of the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the relatively even hues of browns and golds on the ridgelines. The dramatic ridges and dark rock formations would remain the most dominant visual images whereas the lighter forms of the turbines would tend to recede into the lighter sky.

Impact Level: Moderate

The level of contrast is consistent with the Class II visual resource rating given to this view.

KOP 48 East Steens Loop Road (Figure D.1-12a and Figure D.1-12b)

This view is of the east slope of Steens Mountain from East Steens Loop Road. The Echanis Project turbines are visible approximately 6.3 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features both common and uncommon to the physiographic region. The mountains rise dramatically but the foreground is dominated by the relatively even colors and textures of the road and adjacent grazing area.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor that would be visible on the ridge above. Most viewers would be recreators on the East Steens Tour road. Residents and workers on the nearby ranches would also see this vista but would be familiar with the view.

Visual Resource Classification

The existing conditions along the highway are part of an area previously defined by the BLM as a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Contrast Rating: Weak

The proposed Echanis Project turbines are visible but the distance of approximately 6.3 miles diminishes some of the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the relatively even hues of browns and golds on the ridgelines. The dramatic ridges and dark rock formations would remain the most dominant visual images, whereas the lighter forms of the turbines would tend to recede into the lighter sky.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 61 East Rim Overlook (Figure D.1-15a and Figure D.1-15b)

This view is of Steens Mountain from the East Rim Overlook. The turbines are approximately 7.6 miles away.

Scenic Quality Rating

The scenic quality rating is A, which is defined as outstanding features in the physiographic region. The viewing area provides long vistas to the jagged ridges of Steens Mountains and rolling hills beyond. The colors are primarily browns and gold with angular rock formations jutting from the ridges. The jagged peaks slope sharply to form the agricultural land that separates the mountains from the Alvord Desert. Stands of dark green juniper trees provide contrast with the brown hues of the rock faces.

Sensitivity Level

This view has a high sensitivity level to the proposed turbines that would prominently visible along the ridge.

Visual Resource Classification

The viewpoint is part of the already rated Class I Visual Resource, in which there are outstanding scenic qualities with high viewer sensitivity. The management objective is to preserve the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The proposed Echanis Project turbines are visible but the distance of approximately 7.5 miles away diminishes some of the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the browns and golds of the ridgelines. Much of the intermediate area is covered by dramatic ridges and rock formations that attract the eye.

Impact Level: Moderate

The level of contrast is too high for the resource classification.

TEMPORARY EFFECTS

In general, construction equipment and materials have the potential for moderate to strong contrast against the existing landscape of the Project Area due to their differences in form, line, texture, and color. Furthermore, construction activities would occur where sensitive viewers visit the Project Area. Construction equipment, laydown and tensioning site areas, access roads, as well as excavation and dust plumes may be seen along the transmission line corridor. While construction activities would not meet existing VRM objectives for some classified lands, these activities would be short term and transitory with effects minimized by best management practices described in Section 2 and Appendix A.

LIGHT POLLUTION AND GLARE

In response to comments received during scoping, Project effects from light pollution and glare were analyzed. The RMPs for the Three Rivers, Andrews Management Unit, and the Steens Mountain CMPA do not contain overall management objectives pertaining to light pollution and/or glare generated from private lands as well as agency activities or agency permitted activities on BLM-administered lands in the Project Area. Light pollution can be caused by the use of exterior light fixtures, strobes, or both that illuminate landscape features that would otherwise be largely devoid of light during the evening. Excessive lighting could also be visible during the day in low light situations.

To meet security and safety-oriented objectives for Project-related facilities, exterior lighting, strobes, or both are needed on several components of the Echinus Project, which is situated on private land. The FAA, for instance, requires that structures over 200 feet tall be equipped with red or white flashing lights mounted on the nacelle of a wind turbine to avoid aircraft collisions during the day and night. Additional lighting at the substation and O&M facility would be limited to reduce nighttime light pollution through the use of directed lighting, timers, and motion sensors. Due to their minimal visibility outside of the immediate Project Area, these facilities would have a minimal effect upon nighttime light pollution. The red or white flashing lights on the nacelles of the wind turbines would be most visible from the East Steens Road (KOPs 45, 46, and 47) and Steens Mountain East Rim Overlook (KOP 61). While these strobes would contrast against the nighttime visual environment, they would be intermittent and would not contribute to light pollution. Since the transmission line towers used for the Project fall below the 200 foot threshold, they would not be required to have red or white flashing lights. Due to the lack of management objectives for light pollution and glare, no mitigation measures are required.

MITIGATION

No mitigation for effects to visual resources would be implemented for the Echanis Project. Best Management Practices (BMPs) and Project Design Features (PDFs) described in Section 2 and Appendix A are designed to reduce the effects from the proposed Project; therefore, no additional mitigation would be required.

1.1.4.3 Alternative B – West Route (Proposed Action)

The West Route would consist of a 28.9 mile long transmission line from the Echanis Substation to the Harney County Electric Cooperative (HEC) tie in. The transmission components for Alternative B include a new 230-kV transmission line, an interconnection station with an existing 115-kV transmission line, numerous laydown areas and tensioning sites, new and improved access roads, and relocation of an existing HEC distribution line along Diamond Lane. The mono-pole type transmission towers would range in height from 70 to 80 feet with three sets of cross arms that extend approximately 10 to 11 feet horizontally. Each pole would be constructed of non-reflective, pre-rusted steel. Taller poles would be erected on either side of the Blitzen Valley where the transmission line would cross the MNWR. At this location, poles up to 130 feet tall would be secured to concrete footings embedded in rim rock on land administered by the BLM. The distance between the two poles would be more than 1,400 feet allowing the line to completely span the MNWR. In other areas along the transmission line route the distance between poles would range from 600 to 1,000 feet, depending on site conditions and topography. Initial construction would involve installing a single circuit of the proposed double-circuit transmission line. The second circuit would be installed in the future, if needed, to serve additional wind energy projects proposed for development in the area.

The interconnection station with an existing HEC 115-kV transmission line would consist of a 0.69 acre site adjacent to the existing line. The site would be fenced with cyclone fencing and topped with a 3-strand barbed wire climb barrier. All vegetation within the fenced area would be removed and replaced with gravel. Approximately 2.0 miles of the existing access road from Highway 205 to the interconnection station site would be improved by grading and widening. Approximately 1,000 feet of new access road would be constructed from the existing road to the interconnection station site. The Project would also include a 1.4 mile distribution line relocation along South Diamond Road that would involve placing an existing 24.9-kV transmission line underground by excavating and backfilling a 6-foot trench or by placing it under waterways through a directional bore.

The transmission line of the West Route would traverse rolling terrain but would span the wetlands of MNWR and extend from rimrock to rimrock. KOPs were situated along Diamond Lane, North Diamond Loop Road, and Highway 205 southbound. From these observation points the distance from the Project Area to viewers varied from 800 feet to 2.8 miles. KOPs 4, 11, 38, and 72 are located in Class III Visual Resource classified areas. KOP 3 is located in a Class II Visual Resource classified area. The Buena Vista Overlook, located just north of Alternative B was also analyzed at a preliminary level for the Draft EIS. It may have views of the transmission line (foreground – middleground) and wind turbines (background). The Overlook is near BLM VRM Class II and Class III lands. Additional analysis will be conducted and presented in the Final EIS to identify the extent of effects from a KOP positioned at the Buena Vista Overlook. Figure D.1-4 shows the KOPs for Alternative B.

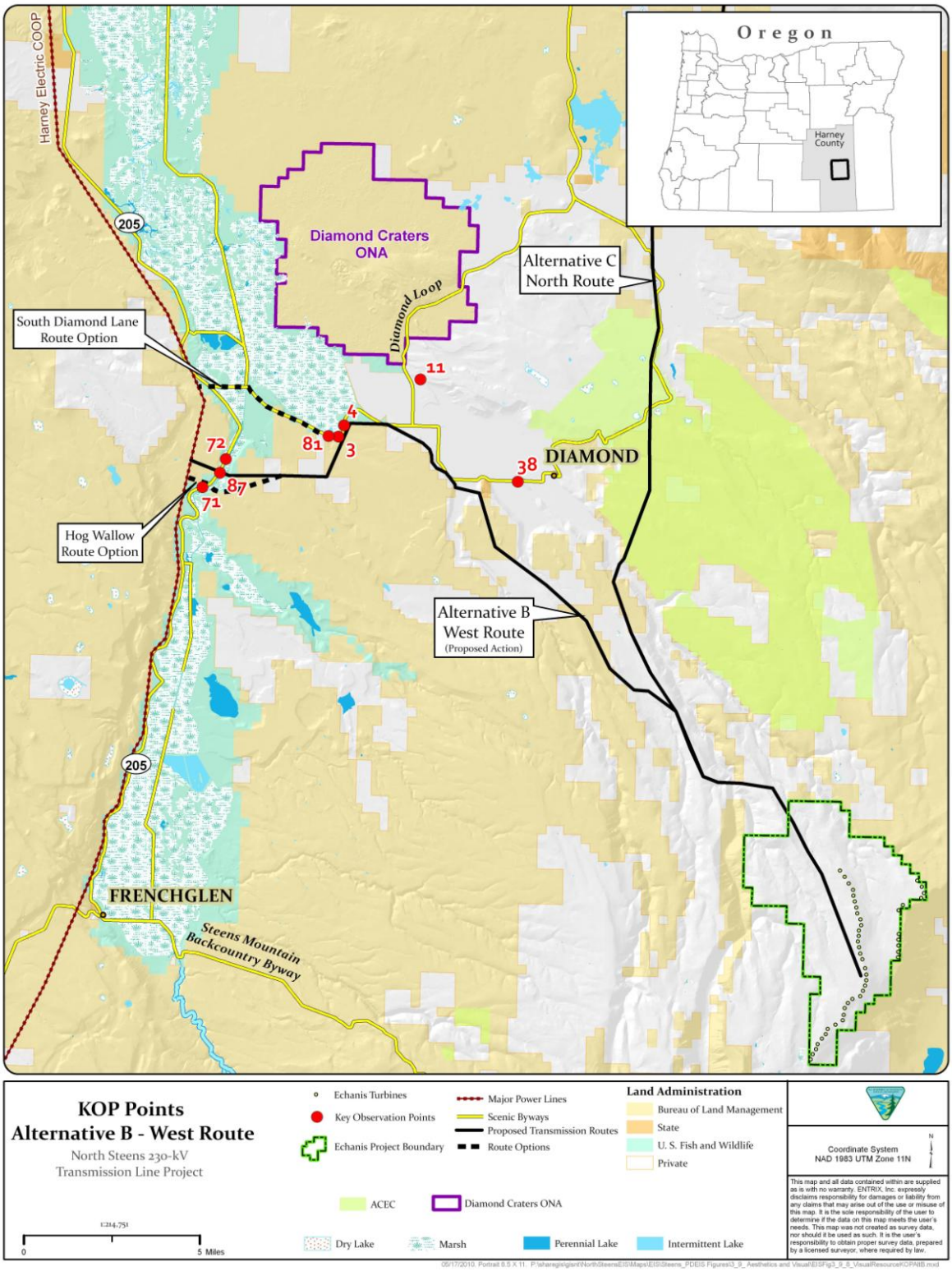

Figure D.1-4 Key Observation Points Alternative B.

PERMANENT EFFECTS

For KOP 3, where the Project Area is in a Class II area, the Project facilities would have a low to moderate contrast rating due to the use of non-reflective, pre-rusted monopoles that would reduce color contrasts with the rolling landscape composed of brown and gold hues. The management objective for the Class II Visual Resource classification is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape. The permanent effect from KOP 3 would be moderate due to the increased height and size of power distribution structures that would attract the attention of the casual observer. As shown in Table D.1-3, KOPs 4, 11, 38, and 72, where the Project appears in a Class III area, the permanent effect was evaluated as low due to the relatively low scenic quality, proximity to sensitive viewers, and moderate to low contrast rating. For Class III areas, the management objective is to partially retain the existing character of the landscape, and the level of change to the characteristic landscape should be moderate. While the BLM-administered land in the vicinity of the KOPs are designated Class II and Class III areas, existing modifications to the landscape already include fencelines, grazing, and electrical/telephone wires and vertical wood poles. To somewhat reduce the visual effect slightly near BLM Class II lands along South Diamond Lane, a 1.4 mile segment of an existing 24.9-kV transmission line along South Diamond Lane would be placed underground to reduce visual effects. For those sections of the Proposed Action situated within BLM-managed VRM Class II areas, the VRM management objectives would not be met. For those sections of the Proposed Action within BLM-managed VRM Class III areas, the VRM management objectives would be met. A KOP at the Buena Vista Overlook would be developed and analyzed for the Final EIS.

Table D.1-3 Alternative B (West Route) Permanent Effects Visual Resource Analysis

Key Observation Points	Scenic Quality Rating	Sensitivity Level	Distance Zone	Visual Resource Class	Contrast Rating	Effect
KOP 3 Diamond Lane	C	Moderate	Foreground/ Middle ground	II	Moderate	Moderate
KOP 4 Diamond Lane	C	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 11 N. Diamond Loop Road	C	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 38 View from Diamond School	B	Moderate	Foreground/ Middle ground	III	Low	Low
KOP 72 Hwy-205 southbound	B	Moderate	Foreground/ Middle ground	III	Moderate	Low
Buena Vista Overlook (to be added)	-	-	-	-	-	-

KOP 3 Diamond Lane Road (Figure D.1-14a and Figure D.1-14b)

The transmission lines are approximately 800 feet away.

Scenic Quality Rating

The scenic quality rating is C, which is defined as a view with features commonly found in the physiographic region. Elements in the foreground are found frequently in this region with little variation in form, texture, or color of the vegetation or landscape features.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor which would be visible in the foreground. Most viewers would be visitors to the Steens Mountain area who would be sensitive to changes in the environment, however the area is typically observed from a vehicle where the viewing times are brief.

Visual Resource Classification

The existing conditions along the highway are part of an area previously defined by the BLM as a Class II Visual Resource classification, which is an area of outstanding scenic quality, high visitor sensitivity, and is viewed as foreground or middle ground. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible approximately 800 feet away. The rusted finish of the poles tends to blend in with the brown and gold colors of the field. The tower size, when compared to the existing poles would attract the attention of the casual observer.

Impact Level: Moderate

The level of change would be inconsistent with BLM visual resource management objectives for this class..

KOP 4 Diamond Lane (Figure D.1-15a and Figure D.1-15b)

The proposed route is approximately 0.15 mile to the east.

Scenic Quality Rating

The scenic quality rating is C, which is defined as a view fairly common to the physiographic region. Views in the foreground are fairly common to this region with little variation in form, texture, or color. The rolling hills in the distance provide some contrast but the landscape is dominated by the road, grassland, and relatively undefined hillsides.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor that would be visible in the foreground. Most viewers would be visitors to the Steens Mountain area who would be sensitive to changes in the environment.

Visual Resource Classification

The landscape is part of a previously classified Class III Visual Resource, in which outstanding and common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible approximately 1.5 miles away. The surrounding hillsides obscure many of the transmission poles. The rusted colors of the poles blend in with the muted colors of the landscape.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 11 North Diamond Loop Road (Figure D.1-16a and Figure D.1-16b)

This view is provided from North Diamond Loop Road. The proposed route is approximately 1.6 miles to the south.

Scenic Quality Rating

The scenic quality rating is C, which is characterized by features both common to the physiographic region. The views in the foreground are fairly common to the areas with relatively even textures created by the shrub brush and exposed soil. The mountains are visible but as distant outlines. The more dominant visual elements are the shrub grasses, with some contrast created by the sloping walls that descend into the valley below.

Sensitivity Level

This view has a moderate sensitivity level to the proposed transmission lines, as the majority of viewers from this vantage point would be residents and workers on the nearby ranches who would be familiar with the view.

Visual Resource Classification

The existing conditions along the road indicate a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are barely visible as they cross the highway approximately 1.6 miles to the south. The vertical characteristics of the poles stand out against the relatively flat environment but the rusted finish would blend in with the relatively even brown and gold hues. Although the transmission lines are visible in the foreground to middle ground, the jagged peaks of Steens Mountain that are visible in the distance would attract the focus of the viewer. The existing roadway and vegetation in the immediate foreground would remain the most dominant visual images whereas the lighter forms of the transmission lines would tend to recede into the lighter sky.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 38 View from Diamond School (Figure D.1-17a and Figure D.1-17b)

The proposed transmission lines are approximately 2.8 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features both common and uncommon to the physiographic region. The views in the foreground are fairly common to the areas with relatively even textures formed by grazing land. Although the middle ground is dominated by the gorges and plateaus, the forms are relatively even and smooth with little variation in texture or vegetation. The road, pastures, and existing transmission lines dominate the foreground.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor which, while visible, would only be seen in the distance. Most viewers would be students and local visitors to the school who would regularly experience the view.

Visual Resource Classification

The existing conditions indicate a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Low

The transmission lines of the proposed route are barely visible as they cross between the ridges approximately 2.8 miles away. Although the transmission lines are in the foreground, the surrounding plateaus and gorges would continue to dominate the view. Additionally, the existing power line and grazing areas in the immediate foreground would distract the viewer's gaze from the new transmission lines.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 72 Highway 205 Southbound (Figure D.1-18a and Figure D.1-18b)

This view is from Highway 205 travelling south. The Proposed route is approximately 0.30 mile to the southeast.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of outstanding and common. Views in the foreground are fairly common to the area with little variation in form, texture, or color. The rimrock projections frame the view but the landscape is dominated by the road, grassland, and relatively undefined hillsides.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor that would be visible in the foreground. Most viewers would be visitors to the Steens Mountain area who would be sensitive to changes in the environment. However, the view is from a road traveled at relatively high speeds that results in brief viewing times.

Visual Resource Classification

The existing conditions are similar to the adjacent BLM-administered land that has been classified as a Class III Visual Resource, in which outstanding and common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible approximately 0.30 mile away. The rusted finish of the poles blends in with the relatively even hues of browns and golds of the surrounding grassland and hillside. The transmission lines would be noticeable but only for a brief period as the driver passes on the

roadway. The existing roadway, fencing, and rock formations would remain the most dominant visual images whereas the lighter forms of the transmission lines would tend to recede into the lighter sky.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

TEMPORARY EFFECTS

In general, construction equipment and materials have the potential for moderate to strong contrast against the existing landscape of the Project Area due to their differences in form, line, texture, and color. Furthermore, construction activities would occur where sensitive viewers visit the Project Area. Construction equipment, laydown and tensioning site areas, access roads, as well as excavation and dust plumes may be seen along the transmission line corridor. While construction activities would not meet existing VRM objectives for some classified lands, these activities would be short term and transitory with effects minimized by the best management practices described in Section 2 and Appendix A.

FUTURE CONSTRUCTION PHASE – UPGRADE TO 230-KV

The upgrade of the initial single-circuit transmission line to a full double-circuit 230-kV transmission line would require a second construction phase at a future date when additional capacity is required on the transmission line. During the second construction phase, visual resources in the Project Area would experience similar temporary construction related effects as described above, including visible equipment, areas of excavation, and dust. Permanent effects would be the introduction of an additional horizontal element into the visual environment. All simulations were developed to show the full line capacity so that the effects of future construction could be analyzed.

MITIGATION

No mitigation for effects to visual resources would be implemented for Alternative B. Best Management Practices (BMPs) and Project Design Features (PDFs) described in Section 2 and Appendix A are designed to reduce the effects from the proposed Project; therefore, no additional mitigation would be required.

South Diamond Lane Route Option

The South Diamond Lane Route Option would be approximately 28.26 miles long from the Echanis Project site to the interconnection station near HEC transmission line. Approximately 18.08 miles of the alignment would cross privately-owned rangeland, 6.09 miles would cross land administered by the BLM, and 4.09 miles would cross land (in five locations) within the MNWR. The visual resources analysis for the South Diamond Lane Route Option focuses on the 4.6 mile segment of the transmission line that would deviate from the alignment of Alternative B. This segment would extend north and west from the alignment of Alternative B along South Diamond Lane to its intersection with Highway 205, where it would cross the highway and follow a primitive road and short cross-country segment, to a new interconnection station adjacent to the HEC 115-kV transmission line. The route would parallel South Diamond Lane for nearly the entire distance and would be approximately 800 feet south from travelers along the road (represented by KOP 3). The Project would be situated in approximately the same location as the existing 24.9-kV distribution system.

PERMANENT EFFECTS

This Route Option, whose effects are evaluated by KOP 81, features views of an area near or on BLM-administered lands that currently have a Class II Visual Resource classification. It is evaluated as having a moderate visual effect due its close proximity to sensitive viewers, scenic quality rating, and moderate

contrast rating. This route option would replace the poles from an existing transmission line with larger towers which would attract the attention of the casual observer. Due to the increased prominence of the Project within a Class II Visual Resource area, the VRM management objectives would not be met. This route option would also be visible in the foreground for the Buena Vista Overlook. A KOP for the Buena Vista Overlook will be developed and analyzed for the Final EIS. Table D.1-4 presents Project effects for the transmission lines associated with the South Diamond Lane Option.

Table D.1-4 Alternative B (West Route) Project Effects: South Diamond Lane Option

Key Observation Points	Scenic Quality Rating	Sensitivity Level	Distance Zone	Visual Resource Class	Contrast Rating	Effect
KOP 81 South Diamond Lane	C	Moderate	Foreground/ Middle ground	II	Moderate	Moderate
Buena Vista Overlook (to be added)	-	-	-	-	-	-

KOP 81 South Diamond Lane near the South Diamond Canal (Figure D.1-19a and Figure D.1-19b)

This view is from South Diamond Lane and travelling west. The South Diamond Lane route option is immediately adjacent to the road.

Scenic Quality Rating

The scenic quality rating is C, which is defined as a view with features common to the physiographic region. Views in the foreground are fairly common to this region with little variation in form, texture, or color.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor that would be visible in the foreground. Most viewers would be visitors to the Steens Mountain area who would be sensitive to changes in the environment.

Visual Resource Classification

The existing conditions along the roadway are part of an area previously defined by the BLM as a Class II Visual Resource classification, which is an area of outstanding scenic quality, high visitor sensitivity, and is viewed as foreground or middle ground. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible approximately 800 feet away. The rusted finish of the poles tends to blend in with the browns and gold colors of the surrounding field. The tower size, when compared to the existing poles would attract the attention of the casual observer.

Impact Level: Moderate

The level of change is inconsistent with BLM visual resource management objectives for this class...

TEMPORARY EFFECTS

The same temporary effects described above for Alternative B would apply to the South Diamond Lane Route Option, including the future upgrade to a full double-circuit 230-kV line.

MITIGATION

No mitigation for effects to visual resources would be implemented for the South Diamond Lane Route Option of Alternative B. Best Management Practices (BMPs) and Project Design Features (PDFs) described in Section 2 and Appendix A are designated to reduce effects from the proposed Project; therefore, no additional mitigation would be required.

Hog Wallow Route Option

The Hog Wallow Route Option would be approximately 29.06 miles long from the Echanis Project site to the interconnection station near HEC transmission line. Approximately 18.73 miles of the alignment would cross privately-owned rangeland, 68.43 miles would cross land administered by the BLM, and 1.90 miles would cross land (in two locations) within the MNWR. The visual resources analysis for the Hog Wallow Route Option focuses on the 2.84 mile segment of the transmission line that would deviate from the alignment of Alternative B. This segment would extend south and west from the alignment of Alternative B and would cross Highway 205 and extend from rim to rim over the MNWR. One tower would be located approximately 100 feet to the west of Highway 205 and another tower would be situated approximately 0.25 mile east of the road. The major differences between this route option and Alternative B would be: 1) the interconnection station to the HEC 115-kV transmission line would be 0.5 mile further south; 2) the access road to the site from Highway 205 (the same road used for Alternative B) would be about 0.5 mile shorter; and 3) several additional laydown areas and tensioning sites would be required along the optional route. The 1.4 miles of the existing 24.9-kV distribution system located along South Diamond Lane would be placed underground with this option, using the same construction techniques described for Alternative B.

PERMANENT EFFECTS

The two KOPs (71 and 87) that evaluate the permanent effect of the Hog Wallow Route Option are located on Highway 205 and would have views of the Project from the north and south. The view from KOP 87 would have a moderate effect due to the line's visibility in the foreground/middle ground and the Steens escarpment in the background. Existing landscape characteristics include the roadway, fence lines and utility lines, wetlands, rock formations, as well as linear ridges. Both KOPs feature views of the Project Area located near BLM-administered lands that currently have a Class III Visual Resource classification. The Project would not be a dominant component of the landscape thus the modifications to the existing character of the landscape would meet VRM Class III management objectives.

Table D.1-5 Alternative B (West Route) Project Effects: Hog Wallow Route Option

Key Observation Points	Scenic Quality Rating	Sensitivity Level	Distance Zone	Visual Resource Class	Contrast Rating	Effect
KOP 71 I-205 northbound	C	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 87 I-205 southbound	C	Moderate	Foreground/ Middle ground	III	Moderate	Moderate

KOP 71 Highway 205 near Hog Wallow Springs (Figure D.1-20a and Figure D.1-20b)

This view is from Highway 205 and travelling north. The Hog Wallow Route Option is approximately 0.20 mile to the northeast.

Scenic Quality Rating

The scenic quality rating is B, which is comprised of features fairly common to the area. Views in the foreground are fairly common to the area with little variation in form, texture, or color. The rimrock projections provide some contrast but the landscape is dominated by the road, grassland, and existing fencing.

Sensitivity Level

This view has a moderate sensitivity level to the proposed transmission lines that would be visible in the foreground. Most viewers would be visitors to the Steens Mountain area and the MNWR who would be sensitive to changes in the environment. However, viewing times are typically brief as the road is heavily trafficked at relatively high speeds.

Visual Resource Classification

The existing conditions are similar to the nearby BLM-administered land that has been classified as a Class III Visual Resource, in which outstanding and common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible from approximately 0.20 mile away. The rusted finish of the pole blends in with the relatively even hues of pale brown and gold in the grassland. The existing roadway, fencing, and rock formations would remain the most dominant visual images, particularly as the transmission lines are relatively high from the perspective of traveler in a car.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 87 Highway 205 Near Donner und Blitzen River (Figure D.1-21a and Figure D.1-21b)

This view is from Highway 205 travelling south. The Hog Wallow Route Option is approximately 0.45 mile to the northeast.

Scenic Quality Rating

The scenic quality rating is C, which is defined as features fairly common with the region. Views in the foreground are fairly common to the area with little variation in form, texture, or color. The rimrock projections provide some contrast but the landscape is dominated by the road, grassland, and existing fencing.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor, which would be visible in the foreground. Most viewers would be visitors to the Steens Mountain area and the MNWR who would be sensitive to changes in the environment. However, the road is heavily traveled at relatively high speeds that afford only brief viewing times.

Visual Resource Classification

The existing conditions are similar to the nearby BLM-administered land that has been classified as a Class III Visual Resource, in which outstanding and common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

The transmission lines of the proposed route are visible from approximately 0.45 mile away. The poles conform to the curves of the landscape and the rusted finish blends in with the relatively even hues of browns and gold colors found in the nearby grasslands. The existing roadway, fencing, and rock formations would remain the most dominant elements from this view.

Contrast Rating: Moderate

Impact Level: Moderate

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

TEMPORARY EFFECTS

The same temporary effects described above for Alternative B and the South Diamond Lane Route Option would apply to the Hog Wallow Route Option.

MITIGATION

No mitigation for effects to visual resources would be implemented for the Hog Wallow Route Option of Alternative B. Best Management Practices (BMPs) and Project Design Features (PDFs) described in Section 2 and Appendix A are designed to reduce effects from the proposed Project; therefore, no additional mitigation would be required.

115-kV Transmission Line Option

The 115-kV Transmission Line Option would be a reduced capacity design configuration constructed along the same transmission line alignments described above for Alternative B – West Route, the South Diamond Lane Route Option, and the Hog Wallow Route Option. The only difference between this option and the routes described above would be that the transmission line would carry one 115-kV 3-conductor circuit instead of one 115-kV 3-conductor circuit and one 230-kV circuit. The pole heights, pole spacing, ROW widths, construction methods, interconnection points, and access requirements would be the same as those described for the other 230-kV routes.

PERMANENT EFFECTS

The permanent effects to visual resources of this design option would be largely the same as described for Alternative B and the two route options. The principal difference would be the slightly different visual appearance of the towers is that only one 115-kV 3-conductor circuit would be present rather than the two that are proposed under Alternative B and the two route options. While there would be slightly less of a visual impact, it would not reduce the visual presence of the towers within the overall landscape.

TEMPORARY EFFECTS

The temporary visual effects for this option would be less than those for Alternative B, South Diamond Lane Route Option, and the Hog Wallow Route Option. This option would not require a second round of construction to add the second 230-kV circuit, nor would equipment upgrades be required at the interconnection station adjacent to the HEC line. With no second round of construction to upgrade to 230-kV, the temporary effects from the presence of construction equipment and materials and lay down areas would be less than those proposed for Alternative B. The remaining temporary effects described above for Alternative B, South Diamond Lane Route Option, and the Hog Wallow Route Option would apply to the 115-kV Transmission Line Option.

MITIGATION

No mitigation for effects to visual resources would be implemented for the 115-kV Transmission Line Option of Alternative B. Best Management Practices (BMPs) and Project Design Features (PDFs) described in Section 2 and Appendix A are designed to reduce effects from the proposed Project; therefore, no additional mitigation would be required.

1.1.4.4 Key Observation Points in the Alternative North Route

Alternative C (North Route) consists of a 45.9 mile long transmission line that follows the same Project corridor as Alternative B until the Project leaves the CMPA. This alternative then turns north and extends through the Kiger Mustang ACEC. It then partially follows Happy Valley Road and then proceeds northward until it intersects and then follows Route 78 near New Princeton, until it terminates near the community of Crane. For those sections of the route near roads such as the Diamond Loop Road and Route 78, the Project would be visible while traveling either north or south. The Project components include the transmission line, an interconnection station, access roads, and laydown areas and tensioning sites. These Project components would have the same physical characteristics as those proposed for Alternative C.

PERMANENT EFFECTS

All of the KOPs used for this alternative are situated either near or on BLM-administered land. This alternative crosses a very small amount of VRM Class II lands as well as larger amount of VRM Class III and Class IV lands. The Project would be most visible from KOPs 24, 25, 26, 33, and 35 (see Figure D.1-5). The Project would introduce new vertical elements into the landscape for KOPs 24, 25, and 26. KOPs 33 and 35 already contain an existing utility corridor with vertical poles and wires. The Project effects for all of these KOPs are low due to the respective Scenic Quality Ratings, visual resource classes, and distance of sensitive viewers from KOPs to the Project area. Table D.1-6, below, summarizes these effects.

Table D.1-6 North Route Alternative Project Effects

Key Observation Points	Scenic Quality Rating	Sensitivity Level	Distance Zone	Visual Resource Class	Contrast Rating	Effect
KOP 24 SW on Happy Valley Road	C	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 25 S on Happy Valley Road	C	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 26 Happy Valley Road	B	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 27 Round Barn Visitor Center	B	High	Distant	II	Weak	Low
KOP 29 Dry Lake Reservoir	B	Moderate	Distant	II	Weak	Low
KOP 33 Hwy 78	C	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 35 Hwy 78	B	Moderate	Foreground/ Middle ground	III	Moderate	Low
KOP 37 Riddle Mountain	B	Moderate	Distant	II	Weak	Low

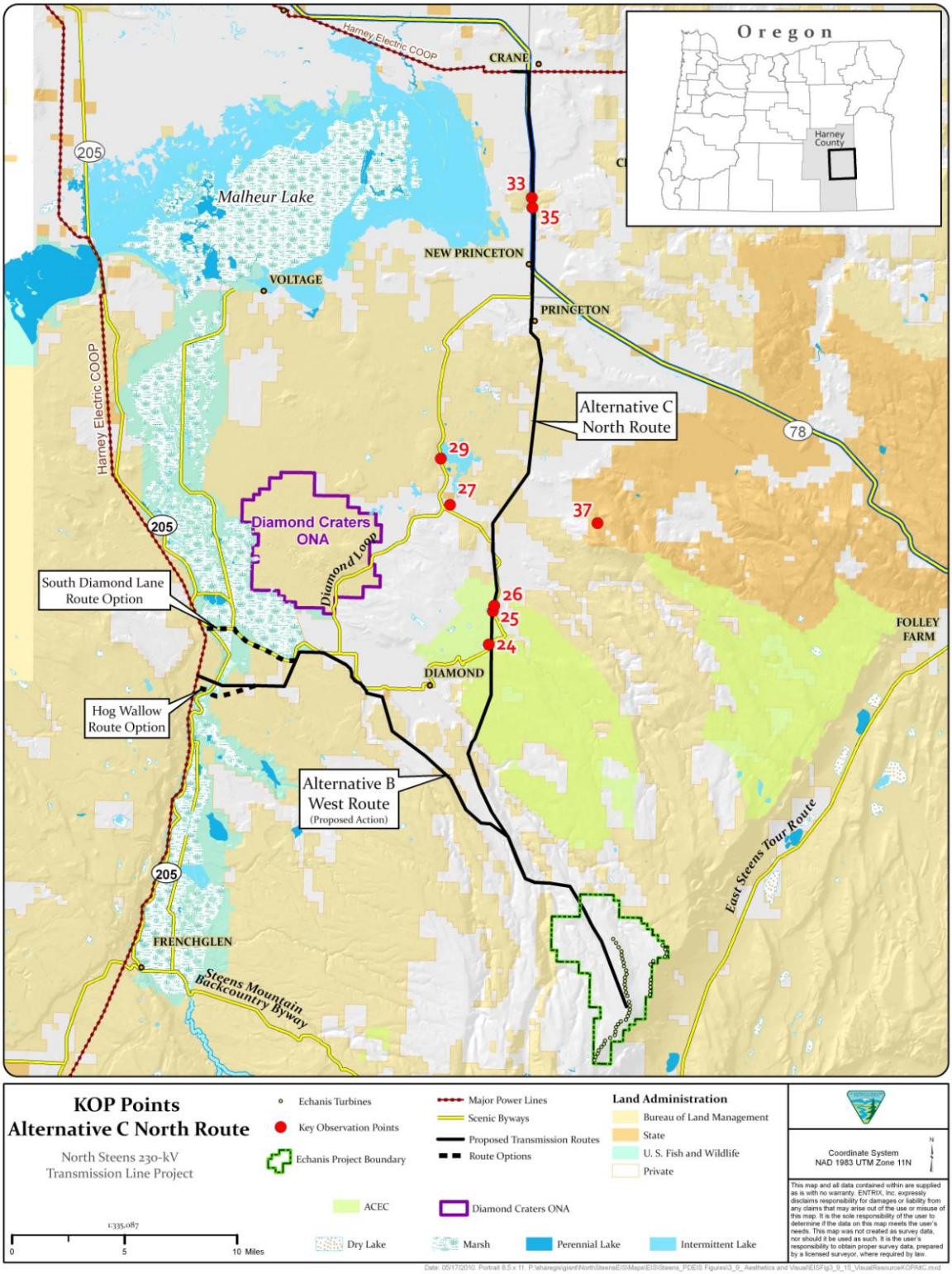

Figure D.1-5 KOPs Alternative C.

KOP 24 Happy Valley Road (Figure D.1-22a and Figure D.1-22b)

This view is from Happy Valley Road. The transmission lines for the North Alternative are 0.11 mile away.

Scenic Quality Rating

The scenic quality rating is C, based upon the preponderance of features fairly common to the physiographic region. The ridges rise in the far distance but the foreground is dominated by elements fairly common to the areas with relatively even textures and minimal variation in form, texture, or color from the shrub brush, rocks, and exposed soil.

Sensitivity Level

This view has a medium sensitivity level with respect to the proposed transmission corridor, which would be visible immediately in the foreground adjacent to the road. Most viewers would be recreators traveling to the Kiger Horse Viewing area or the Round Barn who would be more sensitive to changes in the environment.

Visual Resource Classification

The existing conditions along the highway are similar to those in the existing Class III Visual Resources, in the vicinity where common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible as they cross the highway in the distance. Although the landscape is relatively undistinguished, there are also minimal features to distract the viewer. The line is a noticeable element but the rustic finish of the poles blends in with many of the muted colors in the landscape.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 25 Happy Valley Road (Figure D.1-23a and Figure D.1-23b)

This view is provided from Happy Valley Road. The transmission lines for the North Alternative are approximately 1.75 miles to the south.

Scenic Quality Rating

The scenic quality rating is C, which exhibits features fairly common to the physiographic region. The view consists of relatively even textures formed with small shrubs and trees providing the only variation in form, texture, or color from the shrub brush and exposed soil.

Sensitivity Level

This view has a medium to high sensitivity level to the proposed corridor which, while visible, would only be seen in the distance. Most viewers would be residents and workers on the nearby ranches who would be familiar with the view. However, the road is also used by visitors to the Round Barn who would be more sensitive to changes in the environment.

Visual Resource Classification

The existing conditions along the highway are similar to those in the existing Class III Visual Resources in the vicinity, in which common scenic qualities are evident with moderate to high viewer sensitivity. The

management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible adjacent to the roadway. Although the landscape is relatively undistinguished, there are also minimal features to distract the viewer. The rustic finish of the poles blends in with the relatively even brown and gold hues in the nearby field.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 26 Happy Valley Road with View to Happy Valley (Figure D.1-24a and Figure D.1-24b)

This view is of the grazing land in the Happy Valley, with the Riddle Mountains in the distance. The alternative route is immediately adjacent to the road.

Scenic Quality Rating

The scenic quality rating is B, which is defined by a mixture of features both common and uncommon to the physiographic region. The mountains rise in the distance but the foreground is dominated by elements fairly common to the area, including shrub grass and pasture lands for the ranch.

Sensitivity Level

This view has a moderate level with respect to the proposed corridor. The corridor's appearance immediately adjacent to the road would become commonplace to the residents and workers on the nearby ranches. However, visitors to the Round Barn who utilize this road would be more sensitive to changes in the environment caused by the proposed lines.

Visual Resource Classification

The existing conditions along the highway are similar to existing Class III Visual Resources in the vicinity, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are clearly visible immediately adjacent to the road. The rustic finish of the poles blends in with the hues of browns and green in the surrounding grazing lands. Although the transmission lines are visible in the foreground to middle ground, the plateaus in the distance dominate the view. Additionally, the existing transmission line and grazing areas in the immediate foreground would distract the viewer's gaze from the new transmission lines.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 27 Round Barn Visitors Center (Figure D.1-25a and Figure D.1-25b)

This view is from the parking lot at the Round Barn Visitors Center. The North Alternative route is approximately 2.25 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features common and uncommon to the physiographic region. The peaks of Riddle Mountain are visible in the distance but the foreground is dominated by the even colors and textures of the grazing areas similar to those found throughout the Project Area.

Sensitivity Level

This view has a high sensitivity level. Most viewers would be visitors to the Round Barn, who are highly sensitive to the environment. However, the project features would be located in the distance and the viewer's interest would be more drawn to the Barn and nearby resources.

Visual Resource Classification

The existing conditions from the Round Barn indicate a Class II Visual Resource classification, in which common and outstanding scenic qualities are evident with high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Weak

The transmission lines of the proposed route are visible as they cross the fields approximately 2.25 miles to the east. The dark hues and rustic finish of the poles blend in with the surrounding browns and golds of the rolling hills that front Riddle Mountain. Although the transmission lines and turbines are visible in the foreground to middle ground, the plateaus and gorges would dominate the view. Additionally, the grazing areas in the immediate foreground would distract the viewer's gaze from the new transmission lines.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 29 Dry Lake Reservoir from Lava Bed Road (Figure D.1-26a and Figure D.1-26b)

This view is from Lava Bed Road looking east to Dry Lake Reservoir. The North Alternative route is approximately 3.9 miles to the east.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features both common and uncommon to the physiographic region. The cool blues of the water in the reservoir are uncommon for the area. The mountains rise in the distance but the foreground is dominated by elements fairly common to the areas with relatively even textures and little variation in form, texture, or color.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor which, while visible, are approximately 3.9 miles in the distance. Most viewers would be residents and workers on the nearby ranches who would be familiar with the view. However, the road is used by many visitors to the Round Barn, who would be more sensitive to changes in the environment.

Visual Resource Classification

The existing conditions along the highway indicate a Class II Visual Resource classification, in which common and outstanding scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be low.

Contrast Rating: Weak

The transmission lines of the proposed route are visible as they cross the fields approximately 3.9 miles to the east. The rustic finish of the poles blends in with the relatively even hues of browns and golds. Although the transmission lines are visible in the foreground to middle ground, the plateaus would dominant the view. Additionally, the grazing areas in the immediate foreground would distract the viewer's gaze from the new transmission lines.

Impact Level: Low

The level of contrast is consistent with the Class II Visual Resource rating given to this view. For Class II resources, contrasts may be seen but should not attract the attention of the casual observer.

KOP 33 Steens Highway near Crane (Figure D.1-27a and Figure D.1-27b)

The proposed transmission line is approximately 146 feet to the east of the road.

Scenic Quality Rating

The scenic quality rating is C, which is characterized by features common to the physiographic region. The mountains rise in the distance but the foreground is dominated by elements found throughout the area. The primary variation in form, texture, or color is caused by the human influenced elements of the ranch complex. The agricultural land, deciduous trees, and low rectangular buildings associated with the ranchland draw the attention of the viewer. Other man-made elements, including the road and existing transmission lines, also detract from the scenic quality of the view.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor that would be immediately visible adjacent to the road. Most viewers would be residents and workers on the nearby ranches who would be familiar with the view. However, the road is used by many visitors to the Round Barn, who would be more sensitive to changes in the environment.

Visual Resource Classification

The existing conditions along the road indicate a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape, and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible immediately adjacent to the road. The rusted metal finish of the poles blends in with the relatively even hues of browns and golds found in the nearby fields. Although the transmission lines are visible adjacent to the road, human introduced elements including the grazing areas in the immediate foreground would distract the viewer's gaze from the new transmission lines.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 35 Highway 78 near Crane (Figure D.1-28a and Figure D.1-28b)

This view is taken from Highway 78 near Crane. The North Alternative route is approximately 200 feet from the road.

Scenic Quality Rating

The scenic quality rating is C, with features common to the physiographic region. The mountains are visible in the far distance but the foreground is dominated by shrub grass and manmade elements fairly common to the area. The eye is drawn to the brighter greens of the irrigated fields and the more vertical elements of the deciduous trees and ranch buildings. The irrigation features, road, and transmission lines also read strongly.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor which, while visible, would only be seen in the distance. The view would be primarily seen by residents and workers on the nearby ranches who would be accustomed to its appearance. However, the road is used by many visitors to the Round Barn, who would be more aware of this change to the environment.

Visual Resource Classification

The existing conditions along the highway indicate a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The transmission lines of the proposed route are visible as they cross the highway approximately 200 feet to the east of the road. Although the transmission lines are visible in the foreground to middle ground, the rolling hills and mountains in the distance would continue to dominate the view.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 37 View from Riddle Mountain (Figure D.1-29a and Figure D.1-29b)

This view is taken on the access road from midway up Riddle Mountain. The North Alternative route is approximately 4.6 miles from the viewpoint.

Scenic Quality Rating

The scenic quality rating is B, which is defined as features outstanding to the physiographic region. The volcanic uplifts swell dramatically across the landscape with additional contrast provided by the cool blues of the reservoir. Although the foreground is dominated by the relatively common grasslands, the eye is drawn to the more distinctive elements in the distance.

Sensitivity Level

This view has a moderate sensitivity level to the proposed corridor which, while visible, would only be seen in the distance. Most viewers would be recreators and users of the Riddle Mountain trail who would be very sensitive to the view. Many of the visitors might also have binoculars, cameras, or other tools that would bring the transmission lines more clearly into focus. However, due to the rugged driving and hiking conditions the number of visitors would be relatively low.

Visual Resource Classification

The existing conditions indicate a Class II Visual Resource classification, in which outstanding scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: Weak

The transmission lines of the proposed route are visible approximately 4.6 miles to the west. The expansive view provides a continuous view of a long line of vertical elements but the distance is great enough that the more dramatic ridges and long vistas would remain the focus of the viewer's attention.

Impact Level: Low

The level of contrast is consistent with the Class II Visual Resource rating given to this view. For Class II resources, contrasts may be seen but should not attract the attention of the casual observer.

TEMPORARY EFFECTS

The temporary effects described above for Alternative B would also apply for Alternative C.

FUTURE CONSTRUCTION PHASE – UPGRADE TO 230-KV

The upgrade of the initial single-circuit transmission line to a full double-circuit 230-kV transmission line would require a second construction phase at a future date when additional capacity is required on the transmission line. During the second construction phase, visual resources in the Project Area would experience similar temporary construction related effects as described above, including visible equipment, areas of excavation, and dust. Permanent effects would include the introduction of an additional horizontal element into the visual environment. All simulations were developed to show the full line capacity so that the effects of future construction could be analyzed.

MITIGATION

No mitigation for effects to visual resources would be implemented for Alternative C. Best Management Practices (BMPs) and Project Design Features (PDFs) described in Section 2 and Appendix A are designated to reduce effects from the proposed Project; therefore, no additional mitigation would be required.

115-kV Transmission Line Option

The Project features for the 115-kV Transmission Line Option would be the same as described under the 115-kV Transmission Line Option of Alternative B.

PERMANENT EFFECTS

The same permanent effects described above for the 115-kV Transmission Line Option of Alternative B would apply to the 115-kV Transmission Line Option for Alternative C as well.

TEMPORARY EFFECTS

The same temporary effects described above for the 115-kV Transmission Line Option of Alternative B would apply to the 115-kV Transmission Line Option for Alternative C as well.

MITIGATION

The same mitigation described above for the 115-kV Transmission Line Option of Alternative B would apply to the 115-kV Transmission Line Option for Alternative C as well.

1.1.4.5 Comparison of Effects of the Alternatives

The effect to aesthetics and visual resources from development of the Echanis wind development, primary access road, and each alternative is compared in Table D.1-7.

1.1.4.6 Light Pollution and Glare

The RMPs for the Three Rivers and Andrews Resource Areas, as well as the Kiger Mustang ACEC Management Plan, do not contain overall management objectives pertaining to light pollution and/or glare generated from private lands as well as agency activities or agency permitted activities on BLM-managed lands in the Project Area. Light pollution can be caused by the use of exterior light fixtures and/or strobes that illuminate landscape features that would otherwise be largely devoid of light during the evening.

To meet security and safety-oriented objectives for Project-related facilities, exterior lighting and/or strobes are needed on several components of the Echinus Wind Energy Project, which would be situated on private land. The FAA, for instance, requires that structures over 200 feet be equipped with red or white flashing lights, as would be mounted on the nacelles of wind turbines. Additional lighting at the substation and operation and maintenance facility would be limited to reduce nighttime light pollution through the use of directed lighting, timers, and motion sensors. Since the transmission towers used for the Project fall below the 200 foot threshold, they would not be required to have red or white flashing lights.

1.1.4.7 Comparison of Effects of the Alternatives

The effect to aesthetics and visual resources from development of the Echanis wind development, primary access road, and each alternative is compared in Table D.1-7.

Table D.1-7 Environmental Effects and Mitigation by Alternative for Aesthetics and Visual

	Alternative A No Action	Alternative B West Route (Proposed Action)	Alternative B S. Diamond Lane Route Option	Alternative B Hog Wallow Route Option	Alternative C North Route
Echanis turbines	No temporary or permanent effects to aesthetic resources	High level of change for 1 KOP 47 Moderate level of change for 2 KOPs (46, 48) Low level of effect for 4 KOPs (42, 44,45,61) Temporary effects to visual resources from dust and visible construction activities	High level of change for 1 KOP (47) Moderate level of change for 2 KOPs (46, 48) Low level of effect for 4 KOPs (42, 44,45,61) Temporary effects to visual resources from dust and visible construction activities	High level of change for 1 KOP (47) Moderate level of change for 2 KOPs (46, 48) Low level of effect for 4 KOPs (42, 44,45,61) Temporary effects to visual resources from dust and visible construction activities	High level of change for 1 KOP 47 Moderate level of change for 2 KOPs (46, 48) Low level of effect for 4 KOPs (42, 44,45,61) Temporary effects to visual resources from dust and visible construction activities
Transmission Line	No temporary or permanent effects to aesthetic resources	Low Effect for all KOPs Temporary effects to visual resources from dust and visible construction activities	Low Effect for all KOPs Temporary effects to visual resources from dust and visible construction activities	Moderate Effect for one KOP (87) Low Effect for one KOP (71) Temporary effects to visual resources from dust and visible construction activities	Low Effect for All KOPs Temporary effects to visual resources from dust and visible construction activities

GEOGRAPHIC SCOPE AND TIMEFRAME OF ANALYSIS

The geographic scope for the cumulative effects analysis includes the same area noted in the Visual Resource section of this document (see Section 3.9) as well as the area within the viewshed of three wind projects that are reasonably foreseeable future actions by private entities and that lie in close proximity to the proposed Project. This additional area is largely confined to the south and west of the Echanis Project. The timeframe of analysis extends from the historical past when Euro-American settlers began to alter the landscape within these areas into the future to include the 40 year operational life of the Echanis Project and the North Steens Transmission Line Project.

EXISTING VISUAL RESOURCES AND HOW THEY HAVE BEEN AFFECTED BY PAST AND PRESENT ACTIONS

The visual resources included within the cumulative effects analysis area encompass a rich variety of landscapes ranging from rolling agricultural valleys incised by eroded canyons and volcanic uplifts surrounding rugged mountainous terrain. The topography is further distinguished by the dramatic peaks of the Steens and Riddle Mountains. The nearly 10,000 foot peak of Steens Mountain and the surrounding Steens Mountain Cooperative Management and Protection Area divides the Project into distinctive areas. To the west of the mountains, the landscape is characterized primarily by a valley devoted to livestock grazing and agricultural use, separated by smaller volcanic uplifts. An expansive wetland and the Malheur National Wildlife Refuge separate the community of Frenchglen from the more rugged terrain to the northeast. To the east of the Project Area, the peaks of Steens Mountain descend sharply into grazing areas for several large ranches before reaching the Alvord Desert, part of a playa or largely dry lake bed.

The existing visual resource management (VRM) classes within the cumulative effects analysis area are depicted in Figure D.1-6 and range in classification from VRM Class 1 (Steens Wilderness Area) to VRM Class 4. Areas that do not have a designated VRM class in this figure are typically state or private lands. Much of the area has been historically affected by manmade actions such as ranching and fire. The cumulative effects analysis area for visual resources also has been affected by ongoing BLM management plans and projects, including the Five Creeks Rangeland Restoration Project, Steens Mountain Travel

Management Plan, and the North Steens Ecosystem Restoration Project. The visual resource analysis conducted for these three projects concluded that project activities would affect visual resources present within the Project Area, but these effects would be consistent with the underlying VRM objectives.

EFFECTS OF REASONABLY FORESEEABLE FUTURE ACTIONS ON VISUAL RESOURCES WITHOUT THE PROPOSED ACTION

To examine the cumulative effects upon visual resources from the East Ridge, West Ridge, and the Riddle Mountain Wind Energy Projects, the BLM's VRM methodology was employed (see Section 3.9 for the methodology). KOPs in areas near these wind energy projects were chosen. Like the Echanis Project, these other wind projects are situated on private lands. As shown in Table D.1-8, visual effects from these other wind energy projects are expected to be low for KOPs 21, 54, 57, 66, 68, and 69. Moderate effects are expected to be KOPs 51, 55, 58, 83, and 84. A high impact is anticipated for KOP 85. The moderate effects are largely derived from the introduction of strong vertical elements that move on prominent ridgelines that are white to grey in color within an otherwise motionless natural landscape consisting of low lying vegetation. The high effect is derived from the introduction of strong man made vertical elements in the immediate foreground that would be visually dominant to nearly visually dominant. These effects would be in addition to the visual resource effects discussed in Section 3.9. While these combined effects are moderate to high and would not otherwise meet the BLM visual resource management objectives for VRM Class I, II, and III lands, these wind energy projects, like the Echanis Wind Energy Project, would be located on lands that are not subject to the BLM's visual resource management objectives. Since they are located on private and state lands, the wind energy projects would be subject to Section 6.02(A)(2) (Scenic Quality) of the Harney County Comprehensive Plan and state Goal 5 rules (OAR 660, division 23). Figures 1-2 through 1-9 show views of these three projects from the KOPs. KOP locations are shown in Figure D.1-1.

Table D.1-8 Project Impacts for the East Ridge, West Ridge, and Riddle Mountain

Key Observation Points & Project	Scenic Quality Rating	Sensitivity Level	Distance Zone	Visual Resource Class	Contrast Rating	Effect
KOP 21 Kiger Wildhorse ACEC; East Ridge Wind Energy Project	C	Moderate	Foreground/ Middle ground	III	Weak	Low
KOP 54 Steens Loop Road; West Ridge Energy Project	C	Moderate		III	Moderate	Low
KOP 51 North Steens Loop at turnout to Juniper Management Area Trail; West Ridge Energy Project	B	Moderate	Foreground/ Middle ground	I/II	High	Moderate
KOP 55 Whorehouse meadows; West Ridge Wind Energy Project	A	High	Foreground/ Middle ground	I/II	Moderate	Moderate
KOP 57 Steens Loop Trail; West Ridge Wind Energy Project	B	Moderate	Foreground/ Middle ground	I/II	Weak	Low
KOP 58 Kiger Gorge Parking Lot; East Ridge Wind Energy Project	A	High	Foreground/ Middle ground	I/II	Moderate	Moderate
KOP 66 Frenchglen Hotel; West Ridge Wind Energy Project	B	High	Distant	II	Weak	Low
KOP 68 Pullout on Blitzen Valley Road near Baca Lake; West and East Ridge Energy Project	C	Moderate	Distant	III	Weak	Low
KOP 69 Krumbo Lane; West and East Ridge Energy Project	C	Moderate	Distant	III	Weak	Low
KOP 83 Base of Riddle Mountain; Riddle Mountain Wind Energy Project	B	Moderate	Foreground/ Middle ground	II	High	Moderate
KOP 84 Middle of Riddle Mountain; Riddle Mountain Wind Energy Project	B	Moderate	Foreground/ Middle ground	II	High	Moderate
KOP 85 Riddle Mountain Lookout; Riddle Mountain Wind Energy Project	B	High	Foreground/ Middle ground	II	High	High

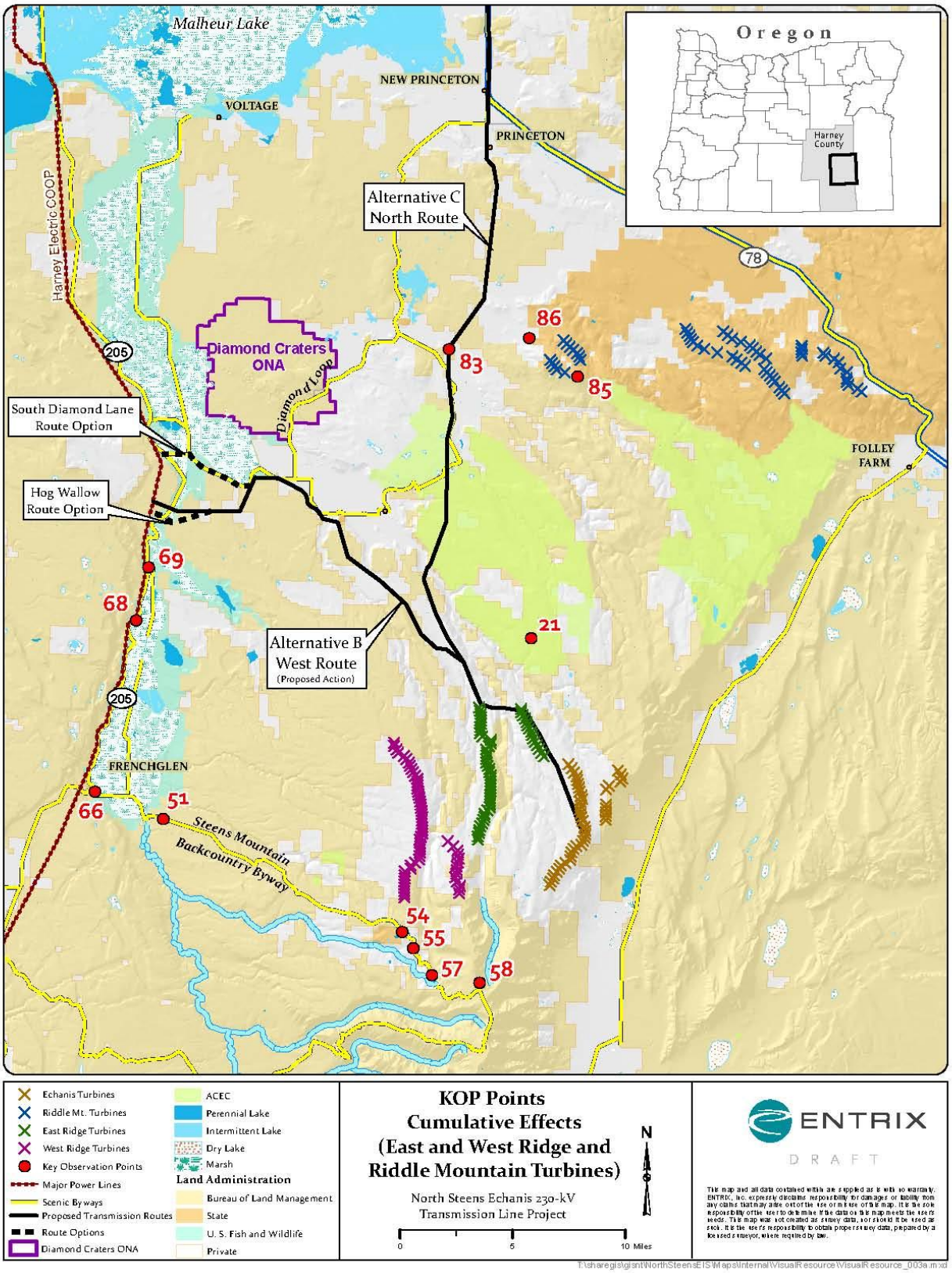

Figure D.1-6 **Map Showing KOPs for Cumulative Effects (East and West Ridge and Riddle Mountain Turbines).**

KOP 21 View from Kiger Wildhorse Viewing Area (Figure D.1-30a and Figure D.1-30b)

This view is from the Kiger Wildhorse Viewing area. The East Ridge and West Ridge Project turbines are approximately 2.6 miles away.

Scenic Quality Rating

The scenic quality rating is C, which is defined as a mixture of features common to the physiographic region. The area affords long vistas to the hills but the immediate views feature the drab greens and browns of the shrub grasses with few outstanding elements. Juniper trees obscure the views in all directions.

Sensitivity Level

This view has a moderate sensitivity level to the proposed turbines and transmission lines which, while visible, would only be seen in the distance. Most viewers would be recreators who would be very sensitive to the view. However, the road is only accessible by a very rugged road that limits the number of potential viewers.

Visual Resource Classification

The viewpoint is part of the already rated Class III Visual Resource, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed turbines for the Echanis, East Ridge, and West Ridge Projects are all visible, but only in the far distance. The turbines are approximately 2.6 miles away and are obscured by juniper trees that dominate the views.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 51 North Steens Loop at Turnout to Juniper Management Area Trail (Figure D.1-31a and Figure D.1-31b)

This view is from the North Steens Loop at the turnout to the Juniper Management Trail. The East Ridge and West Ridge Project turbines are approximately 8.6 miles away.

Scenic Quality Rating

The scenic quality rating is C, which consists of features common to the physiographic region. The viewing area provides long vistas to the rolling hills but the views are relatively even with the characteristic features defined by the drab greens and browns of the grasses.

Sensitivity Level

This view has a moderate sensitivity level to the proposed turbines that would be visible in the distance on the ridge. Although most viewers would be recreators who would be sensitive to the view, the view of the turbines is from a point where the majority of features of interest are located on the opposite side of the road

Visual Resource Classification

The viewpoint is part of the already rated Class III Visual Resource, in which a mixture of rare and common scenic qualities is evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The proposed turbines for the West Ridge Project are all visible, but only in the far distance approximately 8.6 miles away. Their strong vertical characteristics and light colors stand out above the dark colors and tightly spaced conifers on the intermediate ridge.

Impact Level: High

The level of contrast is consistent with the Class II Visual Resource rating given to this view. For Class II resources, contrasts may be seen but should not attract the attention of the casual observer.

KOP 54 View from Steens Loop Road 54 (Figure D.1-32a and Figure D.1-32b)

This view is from the Steens Loop Road. The East Ridge and West Ridge Project turbines are approximately 2.3 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features common and uncommon to the physiographic region. The foreground is dominated by the even textures and drab browns and greens of the grasses that are found throughout the area. There are glimpses of the rolling hills in the distance but these areas are also dominated by the shrub grass that is found throughout the area.

Sensitivity Level

This view has a moderate sensitivity level to the proposed turbines. Only the top portion of two of the turbines would be visible above the ridge that is roughly 2.3 miles away. However, most viewers would be recreators who would be sensitive to the view. From this viewpoint most of the visitors are travelling by car and their viewing times would be relatively limited.

Visual Resource Classification

The viewpoint is adjacent to an area of the Steens Wilderness that are part of the already rated Class I Visual Resource, in which uncommon scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to preserve the existing environment. However, the land on which the turbines would be located is adjacent to a Class II level resource. The management objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: High

Although only the West Ridge Project turbines would be visible, they stand out against the pristine landscape.

Impact Level: Moderate

The level of change is higher than acceptable for a Class II resource, where contrasts may be seen but should not attract the attention of the casual observer.

KOP 55 View from Whorehouse Meadows (Figure D.1-33a and Figure D.1-33b)

This view is from Whorehouse Meadows on Steens Mountain. The East Ridge and West Ridge Project turbines are approximately 3.5 miles away.

Scenic Quality Rating

The scenic quality rating is A, which is defined as features rarely found within the physiographic region. The viewing area provides long vistas to the rolling hills with more varied features in the foreground, including the bright greens of the meadow and the stand of aspen trees.

Sensitivity Level

This view has a high sensitivity level with to the proposed corridor that would be clearly visible against the ridge. Most viewers would be recreators who would be highly sensitive to the view.

Visual Resource Classification

The viewpoint is adjacent to an area of the Steens Wilderness that are part of the already rated Class I Visual Resource, in which uncommon scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to preserve the existing environment. However, the land on which the turbines would be placed is adjacent to a Class II level resource. The management objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The proposed turbines for the East Ridge and West Ridge Projects are visible but only in the distance. The turbines are approximately 3.5 miles away but their strong vertical characteristics and light colors stand out clearly in the distance. The transmission lines have a relatively low contrast rating due to their narrow profile and dark colors. Much of the intermediate area is covered by juniper trees that obscure the views.

Impact Level: Moderate

The level of change is higher than acceptable for a Class II resource, where contrasts may be seen but should not attract the attention of the casual observer.

KOP 57 Steens Loop Trail (Figure D.1-34a and Figure D.1-34b)

This view is from Steens Loop Road. The East Ridge and West Ridge Project turbines are visible approximately 3.6 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of common elements and features rarely found within the physiographic region. The viewing area provides long vistas to the rolling hills but the views are relatively even with the characteristic features defined by the drab greens and browns of the grasses and clumps of shrubs.

Sensitivity Level

Most viewers would be recreators visiting the MNWR and the historic town of Frenchglen, who would be very sensitive to the view. Although the proposed turbines are in the distance, the sensitivity of the area is heightened by the fact that many viewers would be observing wildlife for extended periods of time with binoculars and other equipment.

Visual Resource Classification

The viewpoint is adjacent to an area of the Steens Wilderness that are part of the already rated Class I Visual Resource, in which uncommon scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to preserve the existing environment. However, the land on which the turbines would be placed is adjacent to a Class II level resource. The management objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed turbines for the East Ridge and West Ridge Projects are somewhat visible in the foreground to middle ground at approximately 3.6 miles away. The foreground view is dominated by the grasses, deciduous trees, and other vegetation.

Impact Level: Low

Although the area is a Class II resource, due to the distance of the viewer from the turbines and other features in the foreground, the contrast would be seen but not attract the attention of the viewer.

KOP 58 Kiger Gorge Parking Lot (Figure D.1-35a and Figure D.1-35b)

This view is from the parking lot of the Kiger Gorge viewing area on Steens Mountain. The East Ridge and West Ridge Project turbines are approximately 4.10 miles away.

Scenic Quality Rating

The scenic quality rating is A, which is defined as a mixture of common elements rarely found within the physiographic region. The view overlooks the dramatic forms of the Kiger Gorge with vistas into the landscape beyond.

Sensitivity Level

The sensitivity of this viewpoint is high with easy access to many recreators who have cameras, binoculars, and sketching materials.

Visual Resource Classification

The viewpoint is part of the already rated Class I Visual Resource, in which rare scenic qualities are evident with moderate to high viewer sensitivity. The turbines are in an area adjacent to an area classified as a Class II Resource. The management objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Moderate

The proposed turbines for the East Ridge and West Ridge Projects are visible in the foreground to middle ground at approximately 4.1 miles away. The foreground view is dominated by the dramatic slopes of the Kiger Gorge.

Impact Level: Moderate

The level of change is higher than acceptable for a Class II resource, where contrasts may be seen but should not attract the attention of the casual observer.

KOP 66 View from the Frenchglen Hotel (Figure D.1-36a and Figure D.1-36b)

This view is from in front of the historic Frenchglen Hotel in the town of Frenchglen. The MNWR is immediately in the foreground. The East and West Ridge turbines are approximately 14.45 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of common elements and features rarely found within the physiographic region. The viewing area provides long vistas to the rolling hills but the views are relatively even with the characteristic features defined by the drab greens and browns of the shrub grasses. The areas of the middle ground are more varied with deciduous trees, shrubs, and grasses associated with the MNWR.

Sensitivity Level

Most viewers would be recreators visiting the MNWR and the historic town of Frenchglen, who would be very sensitive to the view. Although the proposed turbines are far in the distance, the sensitivity of the area is increased by the number of visitors with equipment for viewing wildlife and the orientation of many of the buildings to this vista.

Visual Resource Classification

The viewpoint is adjacent to land already rated as a Class II Visual Resource, in which rare scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed turbines for the East Ridge and West Ridge Projects are hardly visible from nearly 14 miles away. The foreground view is dominated by the grasses, deciduous trees, and other vegetation found in the MNWR.

Impact Level: Low

Although the area is a Class II resource, due to the distance of the viewer from the turbines and other features in the foreground the contrast would be seen but not attract the attention of the viewer.

KOP 68 Pullout on Blitzen Valley Road near Baca Lake (Figure D.1-37a and Figure D.1-37b)

This view is provided from a pullout on Blitzen Valley Road. The East Ridge and West Ridge Project turbines are approximately 13.0 miles to the east.

Scenic Quality Rating

The scenic quality rating is C, which is defined as primarily common elements in the landscape. Views in the foreground are fairly common to the Project Area with little variation in form, texture, or color. The plateaus and mountains provide some distinctive vistas, but more dominant landscape features are the relatively even colors and textures of the shrubgrass and the human altered aspects of the landscape, including the existing transmission lines and grazing areas.

Sensitivity Level

This view has a moderate sensitivity level to the proposed East Ridge and West Ridge Project turbines which, while visible, would only be seen in the distance. Most viewers would be travelers to the Steens Mountain area who would be sensitive to changes in the environment, however the views from the road would only be glimpsed at short intervals in which the turbines would not be a central element.

Visual Resource Classification

The existing conditions are in the vicinity of BLM-administered land rated as a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed East Ridge and West Ridge Project turbines are visible but the distance of approximately 12 miles away diminishes the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the browns and golds of the ridgelines but intermediate vegetation and existing transmission lines reduce the level of contrast. Much of the intermediate area is covered by clusters of vegetation that attracts the eye.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 69 Krumbo Lane Looking North to Ridge (Figure D.1-38a and Figure D.1-38b)

This view is provided from a pullout on Blitzen Valley Road that serves as the access road to the Krumbo Reservoir. The East Ridge and West Ridge Project turbines are approximately 2.8 miles to the north and 9.5 miles to the east.

Scenic Quality Rating

The scenic quality rating is C, which is defined as fairly common to the physiographic region. The views in the foreground are fairly common to the areas with little variation in form, texture, or color. The mountains are visible, but only as distant outlines. The more dominant elements consist of the shrub brush and relatively even colors and textures in the foreground.

Sensitivity Level

This view has a medium sensitivity level to the proposed East Ridge and West Ridge Project turbines which, while visible, would only be seen in the distance. Most viewers would be travelers to the Krumbo Reservoir and the Steens Mountain area, who would be sensitive to changes in the environment.

Visual Resource Classification

The existing conditions are in proximity to BLM-administered land rated as a Class III Visual Resource classification, in which common scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to partially retain the existing character of the landscape and the level of change to the characteristic landscape should be moderate.

Contrast Rating: Weak

The proposed Echanis turbines are visible but the distance of approximately 12 miles away diminishes the contrast between the vertical elements of the turbines and the rolling ridges. The metallic finish of the turbines stands out against the browns and golds of the ridgelines but intermediate vegetation and existing transmission lines diminish the level of contrast.

Impact Level: Low

The level of contrast is consistent with the Class III visual resource rating given to this view. For Class III visual resources, changes may attract attention but should not dominate the view of the casual observer.

KOP 83 Base of Riddle Mountain (Figure D.1-39a and Figure D.1-39b)

The view is provided from Coontown Road. The Riddle Mountain turbines are approximately 4.8 miles away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features common and uncommon to the physiographic region. The peaks of Riddle Mountain dominate the distant view but the foreground is dominated by the even colors and textures of the grazing areas that are similar to those found throughout the Project Area.

Sensitivity Level

This view has a moderate sensitivity level. Most viewers would be residents of the nearby ranches and recreators accessing the Riddle Mountain trail, who would be very sensitive to the view. However, due to the rugged driving and hiking conditions, the number of visitors would be relatively low.

Visual Resource Classification

The existing conditions indicate a Class II Visual Resource classification, in which outstanding scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: High

There is little in the foreground to detract from the rows of vertical elements atop an otherwise minimally disturbed landscape.

Impact Level: Moderate

The level of change is higher than acceptable for a Class II resource, where contrasts may be seen but should not attract the attention of the casual observer.

KOP 84 Middle of Riddle Mountain Lookout (Figure D.1-40a and Figure D.1-40b)

This view is provided from the mid point of the access road to the lookout on Riddle Mountain. The Riddle Mountain Project turbines are approximately 0.50 mile away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as a mixture of features common and uncommon to the physiographic region. The peaks of Riddle Mountain dominate the distant view but the foreground is dominated by the even colors and textures of the grazing areas that are similar to those found throughout the Project Area.

Sensitivity Level

This view has a moderate sensitivity level. Most viewers would be residents of the nearby ranches and recreators accessing the Riddle Mountain trail, who would be very sensitive to the view. However, due to the rugged driving and hiking conditions, the number of visitors would be relatively low.

Visual Resource Classification

The existing conditions indicate a Class II Visual Resource classification, in which outstanding scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: High

The two sets of turbines are clearly visible from this viewpoint. The continuous rows of strong verticals and horizontals contrast with the otherwise undisturbed landscape.

Impact Level: Moderate

The level of change is higher than acceptable for a Class II resource where contrasts may be seen but should not attract the attention of the casual observer.

KOP 85 Riddle Mountain Lookout (Figure D.1-41a and Figure D.1-41b)

This view is provided from the Riddle Mountain Lookout. The Riddle Mountain Project turbines are approximately 0.50 mile away.

Scenic Quality Rating

The scenic quality rating is B, which is defined as features unique to the physiographic region. The volcanic uplifts swell dramatically across the landscape with additional contrast provided by the cool blues of the reservoir. Although the foreground is dominated by the relatively common grasslands, the eye is drawn to the more distinctive elements in the distance.

Sensitivity Level

This view has a moderate sensitivity level with respect to the proposed corridor which, while visible, would only be seen in the distance. Most viewers would be recreators and users of the Riddle Mountain trail who would be very sensitive to the view. Many of the visitors might also have binoculars, cameras, or other tools that would bring the turbines more clearly into focus. However, due to the rugged driving and hiking conditions, the number of visitors would be relatively low.

Visual Resource Classification

The existing conditions indicate a Class II Visual Resource classification, in which outstanding scenic qualities are evident with moderate to high viewer sensitivity. The management objective is to retain the existing character of the landscape. Any changes must repeat the basic elements of form, lines, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating: High

The strong vertical characteristics of the turbines towers and horizontal arms stand out dramatically against the pristine landscape.

Impact Level: High

The level of change is higher than acceptable for a Class II resource where contrasts may be seen but should not attract the attention of the casual observer.

Figure D.1-7a Existing KOP 42 View from East Steens Loop.

Figures Common to All Alternatives

KOP 42 View from East Steens Loop

This view is of the east slope of Steens Mountain from East Steens Loop Road. The turbines are approximately 6.4 miles away on the ridge above the road.

Figure D.1-7b Proposed KOP 42 View from East Steens Loop.

Figure D.1-8a Existing KOP 44 View from Stonehouse Road.

KOP 44 View from Stonehouse Road

This view is from the intersection of Stonehouse Road and the East Steens Loop Road. The turbines are approximately 3.5 miles away.

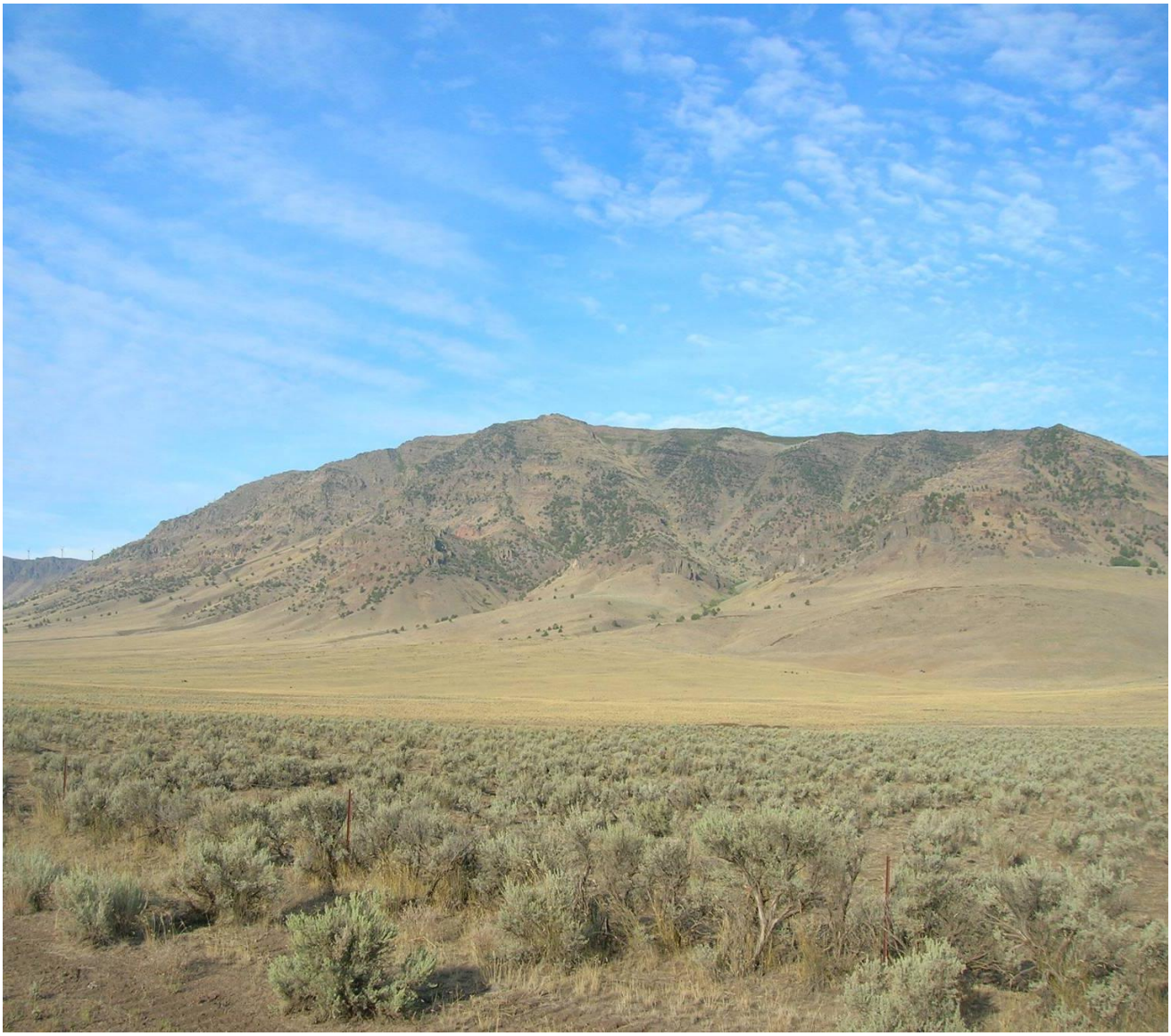

Figure D.1-8b Proposed KOP 44 View from Stonehouse Road.

Figure D.1-9a Existing KOP 45 View to Steens Mountain from East Steens Loop Road.

KOP 45 View to Steens Mountain from East Steens Loop Road

This view is of the east slope of Steens Mountain from East Steens Loop Road. The Echanis Project turbines are visible approximately 2.0 miles away.

Figure D.1-9b Proposed KOP 45 View to Steens Mountain from East Steens Loop Road.

Figure D.1-10a Existing KOP 46 Mann Lake.

KOP 46 Mann Lake

This view is taken from the parking lot for the Mann Lake Recreation Area. The Echanis Project turbines are approximately 3.5 miles away on the ridge above the lake.

Figure D.1-10b Proposed KOP 46 Mann Lake.

Figure D.1-11a Existing KOP 47 East Steens Tour Loop.

KOP 47 East Steens Tour Loop

This view is taken from East Steens Tour Loop. The Echanis Project turbines are approximately 4.2 miles away.

Figure D.1-11b Proposed KOP 47 East Steens Tour Loop.

Figure D.1-12a Existing KOP 48 East Steens Loop Road.

KOP 48 East Steens Loop Road

This view is of the east slope of Steens Mountain from East Steens Loop Road. The turbines are visible approximately 6.3 miles away.

Figure D.1-12b Proposed KOP 48 East Steens Loop Road.

Figure D.1-13a Existing KOP 61 East Rim Overlook.

KOP 61 East Rim Overlook

View of Steens Mountain from East Rim Overlook. The Echanis Project turbines are approximately 7.6 miles away.

Figure D.1-13b Proposed KOP 61 East Rim Overlook.

Figure D.1-14a Existing KOP 3 Diamond Lane.

KOP 3 Diamond Lane

This view is taken from Diamond Lane looking northeast near the town of Diamond. The transmission lines are approximately 800 feet away.

Figure D.1-14b Proposed KOP 3 Diamond Lane.

Figure 1-15a Existing KOP 4 Diamond Lane.

KOP 4 Diamond Lane

This view is taken from Diamond Lane near the town of Diamond. The proposed route is approximately 0.15 mile to the east.

Figure D.1-15b Proposed KOP 4 Diamond Lane.

Figure D.1-16a Existing KOP 11 North Diamond Loop Road.

KOP 11 North Diamond Loop Road

This view is provided from North Diamond Loop Road. The proposed route is approximately 1.6 miles to the south.

Figure D.1-16b Proposed KOP 11 North Diamond Loop Road.

Figure D.1-17a Existing KOP 38 View from Diamond School.

KOP 38 View from Diamond School

The proposed transmission lines are approximately 2.8 miles away.

Figure D.1-17b Proposed KOP 38 View from Diamond School.

Figure D.1-18a Existing KOP 72 Highway 205 Travelling South.

KOP 72 Highway 205 Travelling South

This view is from Highway 205 travelling south. The Proposed route is approximately 0.30 mile to the southeast.

Figure D.1-18b Proposed KOP 72 Highway 205 Travelling South.

Figure D.1-19a Existing KOP 81 South Diamond Lane near the South Diamond Canal.

South Diamond Lane Route Option Figures

KOP 81 South Diamond Lane near the South Diamond Canal

This view is from South Diamond Lane, travelling west. The South Diamond Lane Route Option is immediately adjacent to the road.

Figure D.1-19b Proposed KOP 81 South Diamond Lane near the South Diamond Canal.

Figure D.1-20a Existing KOP 71 Highway 205 near Hog Wallow Springs.

Hog Wallow Route Option

KOP 71 Highway 205 near Hog Wallow Springs

This view is from Highway 205, travelling north. The Hog Wallow Route Option is approximately 0.20 mile to the northeast.

Figure D.1-20b Proposed KOP 71 Highway 205 near Hog Wallow Springs.

Figure D.1-21a Existing KOP 87 Highway 205 near Donner und Blitzen River.

KOP 87 Highway 205 near Donner und Blitzen River

This view is from Highway 205, travelling south. The Hog Wallow Route Option is approximately 0.45 mile to the northeast.

Figure D.1-21b Proposed KOP 87 Highway 205 near Donner und Blitzen River.

Figure D.1-22a Existing KOP 24 Happy Valley Road.

North Route Alternative

KOP 24 Happy Valley Road

This view is looking southwest on Happy Valley Road. The transmission lines are 0.11 mile away.

Figure D.1-22b Proposed KOP 24 Happy Valley Road.

Figure D.1-23a Existing KOP 25 Happy Valley Road.

KOP 25 Happy Valley Road

This view is provided from Happy Valley Road. The proposed route is approximately 1.75 miles to the south.

Figure D.1-23b Proposed KOP 25 Happy Valley Road.

Figure D.1-24a Existing KOP 26 Happy Valley Road with View to Happy Valley.

KOP 26 Happy Valley Road with View to Happy Valley

This view is of the grazing land in the Happy Valley with the Riddle Mountains in the distance. The Alternate route is immediately adjacent to the road.

Figure D.1-24b Proposed KOP 26 Happy Valley Road with View to Happy Valley.

Figure D.1-25a Existing KOP 27 Round Barn Visitors Center.

KOP 27 Round Barn Visitors Center

This view is from the parking lot at the Round Barn Visitors Center. The Alternate route is approximately 2.25 miles away.

Figure D.1-25b Proposed KOP 27 Round Barn Visitors Center.

Figure D.1-26a Existing KOP 29 Dry Lake Reservoir from Lava Bed Road.

KOP 29 Dry Lake Reservoir from Lava Bed Road

This view is from Lava Bed Road looking east to Dry Lake Reservoir. The Alternate route is approximately 3.9 miles to the east.

Figure D.1-26b Proposed KOP 29 Dry Lake Reservoir from Lava Bed Road.

Figure D.1-27a Existing KOP 33 Highway 78 near Crane.

KOP 33 Highway 78 near Crane

This view is from Highway 78 near the town of Crane. The transmission line is approximately 146 feet to the east of the road.

Figure D.1-27b Proposed KOP 33 Highway 78 near Crane.

Figure D.1-28a Existing KOP 35 Highway 78 near Crane.

KOP 35 Highway 78 near Crane

This view is from Highway 78 near the town of Crane. The Alternate route is approximately 200 feet from the road.

Figure D.1-28b Proposed KOP 35 Highway 78 near Crane.

Figure D.1-29a Existing KOP 37 View from Riddle Mountain.

KOP 37 View from Riddle Mountain

This view is taken on the access road from midway up Riddle Mountain. The Alternate route is approximately 4.6 miles from the viewpoint.

Figure 1-29b Proposed KOP 37 View from Riddle Mountain.

Figure D.1-30a Existing KOP 21 View from Kiger Wildhorse Viewing Area.

KOP 21 View from Kiger Wildhorse Viewing Area

This view is from the Kiger Wildhorse Viewing Area. The Echanis Project turbines are approximately 2.6 miles away.

Figure D.1-30b Proposed KOP 21 View from Kiger Wildhorse Viewing Area.

Figure D.1-31a Existing KOP 51 North Steens Loop at Turnout to Juniper Management Area Trail.

KOP 51 North Steens Loop at Turnout to Juniper Management Area Trail

This view is from the North Steens Loop at the turnout to the Juniper Management Trail. The East Ridge and West Ridge Project turbines are approximately 8.6 miles away.

Figure D.1-31b Proposed KOP 51 North Steens Loop at Turnout to Juniper Management Area Trail.

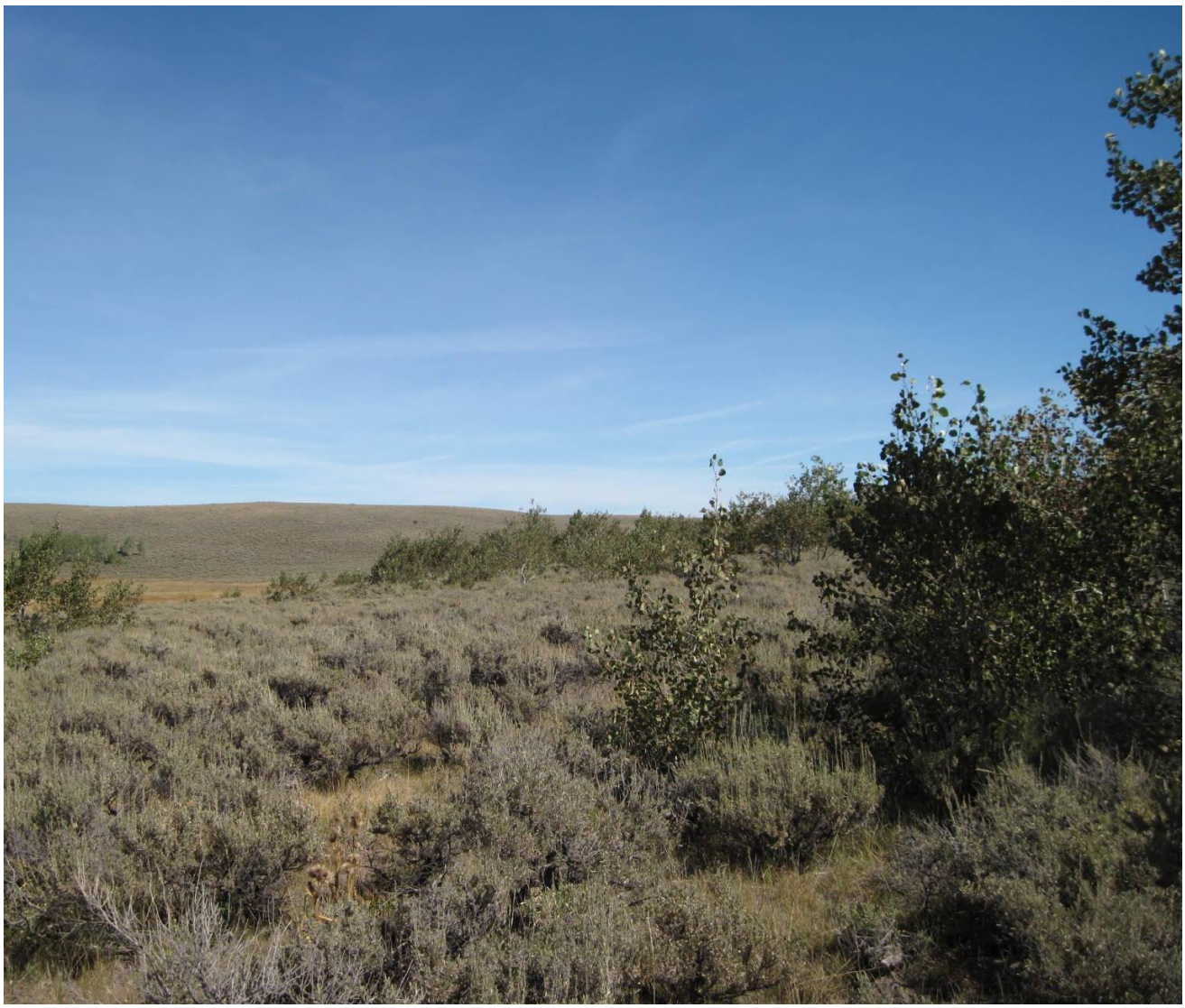

Figure D.1-32a Existing KOP 54 View from Steens Loop Road.

KOP 54 View from Steens Loop Road

The East Ridge and West Ridge Project turbines are approximately 2.3 miles away.

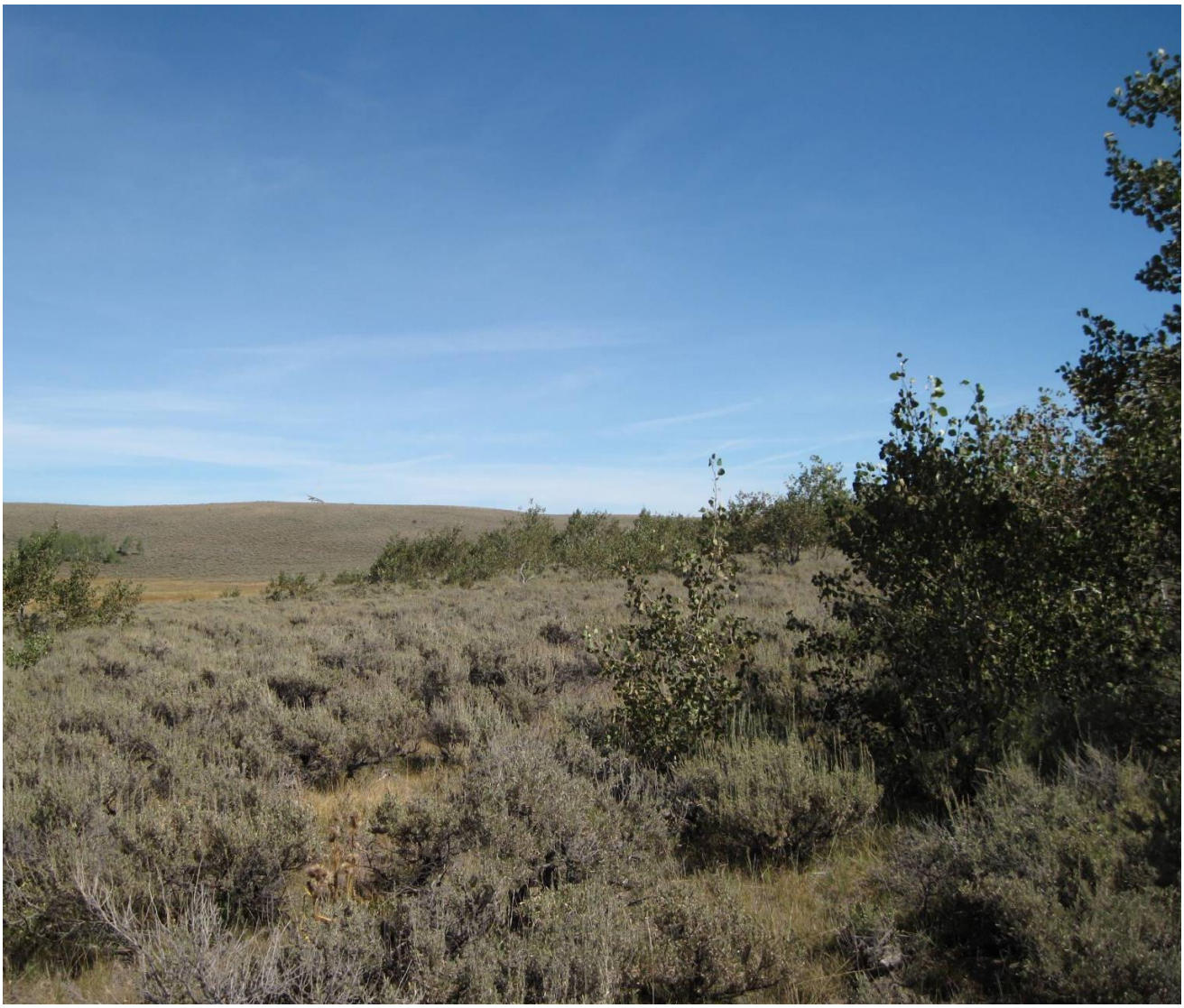

Figure D.1-32b Proposed KOP 54 View from Steens Loop Road.

Figure D.1-33a Existing KOP 55 View from Whorehouse Meadows.

KOP 55 View from Whorehouse Meadows

This view is from Whorehouse Meadows on Steens Mountain. The East Ridge and West Ridge Project turbines are approximately 3.5 miles away.

Figure D.1-33b Proposed KOP 55 View from Whorehouse Meadows.

Figure D.1-34a Existing KOP 57 Steens Loop Trail.

KOP 57 Steens Loop Trail

This view is from Steens Loop Road. The East Ridge and West Ridge Project turbines are visible approximately 3.6 miles away.

Figure D.1-34b Proposed KOP 57 Steens Loop Trail.

Figure D.1-35a Existing KOP 58 Kiger Gorge Parking Lot.

KOP 58 Kiger Gorge Parking Lot

This view is from the parking lot of the Kiger Gorge viewing area on Steens Mountain. The East Ridge and West Ridge Project turbines are approximately 4.10 miles away.

Figure D.1-35b Proposed KOP 58 Kiger Gorge Parking Lot.

Figure D.1-36a Existing KOP 66 View from the Frenchglen Hotel.

KOP 66 View from the Frenchglen Hotel

This view is from in front of the historic Frenchglen Hotel in the town of Frenchglen. The Malheur Wildlife Refuge is immediately in the foreground. The East Ridge and West Ridge Project turbines are approximately 14.45 miles away.

Figure D.1-36b Proposed KOP 66 View from the Frenchglen Hotel.

Figure D.1-37a Existing KOP 68 Pullout on Blitzen Valley Road near Baca Lake.

KOP 68 Pullout on Blitzen Valley Road near Baca Lake

This view is provided from a pullout on Blitzen Valley Road. The East Ridge and West Ridge Project turbines are approximately 13.0 miles to the east.

Figure D.1-37b Proposed KOP 68 Pullout on Blitzen Valley Road near Baca Lake.

Figure D.1-38a Existing KOP 69 Krumbo Lane Looking North to the Ridge.

KOP 69 Krumbo Lane Looking North to the Ridge

This view is provided from a pullout on Blitzen Valley Road. The proposed route is approximately 2.8 miles to the north and 9.5 miles to the east.

Figure D.1-38b Proposed KOP 69 Krumbo Lane Looking North to the Ridge.

Figure D.1-39a Existing KOP 83 Base of Riddle Mountain.

KOP 83 Base of Riddle Mountain

The view is provided from Coontown Road. The Riddle Mountain Project turbines are approximately 4.8 miles away.

Figure D.1-39b Proposed KOP 83 Base of Riddle Mountain.

Figure D.1-40a Existing KOP 84 Middle of Riddle Mountain.

KOP 84 Middle of Riddle Mountain

This view is provided from the mid point of the access road to the lookout on Riddle Mountain. The Riddle Mountain Project turbines are approximately 0.50 mile away.

Figure D.1-40b Proposed KOP 84 Middle of Riddle Mountain.

Figure D.1-41a Existing KOP 85 Riddle Mountain Lookout.

KOP 85 Riddle Mountain Lookout

This view is provided from the Riddle Mountain Lookout. The Riddle Mountain Project turbines are approximately 0.50 mile away.

Figure D.1-41b Proposed KOP 85 Riddle Mountain Lookout.