

3.13 STEENS MOUNTAIN WILDERNESS, WILDERNESS STUDY AREAS AND WILD AND SCENIC RIVERS

This section discusses existing federal regulations, management goals, and objectives that apply to the Steens Mountain Wilderness Area, Wilderness Study Areas, and Wild and Scenic Rivers in or near the Analysis area. It also analyzes the potential effects the project would have on the intrinsic wilderness and/or outstanding resource values of each area covered by these special designations. While the Project would not directly affect any lands protected by these special designations, the Project would have the potential to effect values inherent to these specially designated areas.

3.13.1 Methodology

This section was prepared using information from a variety of sources, including:

- Three Rivers Resource Management Plan.
- Andrews Management Unit Resource Management Plan.
- Steens Mountain Cooperative Management and Protection Area Resource Management Plan.
- Steens Mountain Wilderness and Wild and Scenic Rivers Plan.
- Malheur National Wildlife Refuge Master Plan.
- Oregon BLM Wilderness Study Report, Volume I (1991).
- H-8550-1 Interim Management Policy for Lands Under Wilderness Review (1995).
- H-8560-1 Manual Handbook for Management of Designated Wilderness Areas (July 1988).
- BLM Manual 8560 for Management of Designated Wilderness Areas (April 1983).
- 8561 Manual for Wilderness Management Plans.
- 8351 Manual for Wild and Scenic Rivers.
- Wilderness Characteristics Inventory for the Proposed North Steens Transmission Line Route and Alternative Routes (BLM-Burns District 2010).
- 43 CFR Part 6300.
- 43 CFR Part 8351.2.

Additional policy and procedural guidance was obtained from the following sources:

- Federal Land Policy and Management Act of 1976, as amended.
- BLM National Environmental Policy Act Handbook (H-1790-1).
- Land Use Planning Handbook ((H-1601-1).

This section assesses the temporary (short-term) effects resulting from the use of construction equipment, and permanent (long-term) effects resulting from facility operation of the Proposed Action, Alternatives, and No Action Alternative upon the Steens Mountain Wilderness Area, Wilderness Study Areas (WSAs), and Wild and Scenic Rivers (WSRs). To analyze effects to values, this section draws from the analysis conducted for other environmental subjects within this EIS to qualitatively and quantitatively describe how the geologic, recreational, fisheries, wildlife, cultural, and historic resources within these special designations would be affected. In addition, a GIS-based viewshed analysis was conducted to assess the potential for visual effects

from various project features, including turbine towers and transmission line poles, on scenic values in particular. Due to the proximity of the project to the Steens Mountain Wilderness Area, Wild and Scenic Rivers, as well as Wilderness Study Areas, a five mile radius around project facilities was established to take into account the potential for possible project effects such as noise and visual.. Five miles was chosen as the Analysis area for this section as it consists of an area subject to foreground to middleground views of the Project as defined by the BLMs VRM methodology and is the zone where changes are more noticeable and are more likely to trigger public concern (BLM Manual 8410).

Where appropriate, mitigation or effect minimization measures have been identified to reduce or avoid anticipated adverse effects resulting from construction and operation of the proposed project. Consistent with BLM Manual 8560, mitigation of effects from projects that occur outside designated wilderness must not be so restrictive as to preclude, or seriously impede, such activities.

The analysis in this section was informed by comments received from the public during the formal EIS process. Several agency representatives, local organizations, and private citizens requested that EIS investigate the potential effects of the North Steens Transmission Line Project and the Echanis Wind Energy Project on designated the Steens Mountain Wilderness Area, WSAs, and WSRs.

3.13.2 Affected Environment

The affected environment for this section includes the Analysis area as well as special designation areas whose intrinsic wilderness and/or outstanding resource values may be affected by the proposed project. For the purposes of this analysis, the Analysis area is defined as the five mile radius areas around project facilities, including all improvements on the Echanis Wind Energy Project site and approximately five miles of the proposed transmission line extending from the Echanis substation to the five mile radius boundary. Due to the fact that no Wilderness Areas, WSAs, and WSRs are located within five miles of the alignments of Alternative B (including the South Diamond Lane and Hog Wallow Route Options) or Alternative C, this analysis has been limited to this Analysis area only.

Between 2006 and 2009, the BLM conducted a “Wilderness Characteristics Inventory for the Proposed North Steens Transmission Line Route and Alternative Routes” (BLM-Burns 2010) which determined that the transmission line alternatives would not extend through public lands that retain Wilderness characteristics. While the project and its alternatives would not be directly located within any WSRs, Wilderness Areas, and WSAs, the project has the potential to affect their value. It should be noted that no buffer zones are created around wilderness areas to protect them from the influence of activities on adjacent land. The fact that non-wilderness activities or uses can be seen or heard from areas within the wilderness does not, of itself, preclude such activities or uses up to the boundary of the wilderness area. When activities (such as the Proposed Action and Alternative Actions) are proposed, the BLM must identify the specific impacts upon wilderness resources and upon public use of the wilderness area (BLM Manual 8560.19 *Buffer Zones and Adjacent Lands*).

3.13.2.1 Wild and Scenic Rivers

Wild and Scenic Rivers

LEGISLATION, OBJECTIVES AND VALUES

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 USC 1271 et seq.) to preserve certain rivers with outstanding natural cultural and recreational values in a free-flowing condition for the enjoyment of present and future generations. Under the Act, rivers are classified as wild, scenic, or recreational. These categories are defined as follows:

- Wild river areas – Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- Scenic river areas – Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- Recreational river areas – Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

The Kiger Creek WSR is situated approximately three miles at its closest point to the Echanis Wind Energy Project. Other WSRs that are more than five miles from the Analysis area include the Fish Creek WSR and the Donner und Blitzen WSR (Little Blitzen River). All of these rivers have received a “wild” designation. When a WSR is designated, there are three general main goals that guide management of designated river segments. They include Free-Flowing Characteristics, Outstandingly Remarkable Values (ORVs), and Wild Classification.

The conservation of free-flowing characteristics assures that the river is free from man-made obstructions and impoundments such as those used for irrigation and/or hydropower. ORVs refer to the specific values in the scenic, geologic, recreational, fisheries, wildlife, cultural, and historic resources that are present within the WSR. Lastly, wild classification relates to those characteristics that support a river’s designation as being “wild”. The Kiger Creek WSR is considered wild and is generally inaccessible except by trail, with watersheds and shorelines that are primitive, and waters that are not polluted.

In general, the ORVs present within the Kiger Creek WSR consist of exceptional scenic values that include a diversity of landforms, varying vegetation patterns that change with canyon elevations, and viewsheds that are largely untouched and in a natural condition. Opportunities for primitive recreation and solitude are also present at Kiger Creek WSR along with excellent fish resources. Geologic features include a moderate to deep glaciated gorge that has exposed layers of Steens Basalt. The Kiger Creek WSR also features a variety of wildlife that includes bighorn sheep, elk, mule deer, as well as pronghorn antelope in addition to unique assemblages of vegetative communities.

The Kiger Creek WSR is also situated in the Steens Mountain Wilderness. The Steens Act mandated that where management requirements differ between the Wild and Scenic Rivers Act and the Wilderness Act, the more restrictive requirements shall apply. In general, the protection of wilderness resources is more restrictive than those for WSRs with a Wild River designation. Furthermore, the protection of wilderness resources and character would provide adequate protection for ORVs within WSR corridors. The three WSRs closest to the Analysis area, therefore, would be largely protected by the management principles found within the Steens Mountain Wilderness (USDI 2004).

3.13.2.2 Steens Mountain Wilderness Area

Legislation, Management Objectives, and Values

With the signing of the Wilderness Act of 1964 (Public Law 88-577) a process for delineating and protecting public lands that retained wilderness characteristics was established. In 2000, Congress passed the Steens Act designating the Steens Mountain Cooperative Management and Protection Area (CMPA) which included the Steens Mountain Wilderness. In addition to the Wilderness Act of 1964, the Steens Mountain Wilderness is managed according to the Federal Land Policy and Management Act (FLPMA), BLM Manuals 8560/H-8560-1 (Management of Designated Wilderness Areas), and 8561 (Wilderness Management Plans); BLM’s Wilderness Management Regulations at 43 CFR Part 6300; and the specific directives contained within the

Steens Act. The Steens Mountain Wilderness represents the only formally designated Wilderness Area located in close proximity to the proposed project and its alternatives.

Wilderness values, including those present in the Steens Mountain Wilderness, are outlined in section 2(c) of the Wilderness Act and are broken into several categories including naturalness, opportunities for solitude, primitive and unconfined recreation, and supplemental values which may include values associated with ecological, geological, or other features of scientific, education, scenic, or historic importance. Naturalness refers to an area which “generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable” (BLM Manual 8560). The Steens Mountain Wilderness is generally considered to be in a natural condition except for areas containing certain human-made elements (USDI 2004).

Opportunities for solitude within the Steens Mountain Wilderness are plentiful as the area features a varied and rugged topography as well as vegetated creek and canyon bottoms that enhance the experience of seclusion and remoteness. There is also an outstanding opportunity throughout the Steens Mountain Wilderness for primitive and unconfined recreation which includes hiking, backpacking, camping, horseback riding, hunting, fishing, photography, and sightseeing. Supplemental values of the Wilderness include geology, scenery, vegetation, wildlife, and historic. Management within the Wilderness is centered on the protection of naturalness and wildness while providing for public use and primitive recreation in a manner that would leave wilderness unimpaired for future use.

The nearest point of the Steens Mountain Wilderness is situated approximately 1.5 miles to the south of the Echanis Wind Energy Project. Neither the proposed project nor any project alternatives would bisect or cross Steens Mountain Wilderness.

3.13.2.3 Wilderness Study Areas

Legislation, Management Objectives, and Values

Wilderness Study Areas are managed in a manner consistent with BLM’s WSA IMP (USDI 1995), FLPMA, as well as the Wilderness Act of 1964 (Public Law 85-577). Preservation of wilderness values is the “overriding consideration” of WSA management and WSAs are to be managed under the WSA IMP until Congress makes a determination regarding wilderness designation. The general standard for interim management is that land under wilderness review must be managed so as not to impair suitability for preservation as wilderness. Wilderness characteristics and values must, therefore, be protected and enhanced in all WSA’s.

The initial task of identifying areas suitable for wilderness preservation in the State of Oregon has been completed as mandated in FLPMA section 603 and is documented in BLM 1989 Oregon Final Wilderness EIS and the Wilderness Study Report for Oregon (USDI 1991). As currently proposed, none of the action alternatives would be located on lands classified as a WSA. Project facilities associated with the Echanis Wind Energy Project and the southernmost portions of Alternative B (including route options) and Alternative C, would be within five miles of five WSAs: Lower Stonehouse WSA, Stonehouse WSA, High Steens WSA, West Peak WSA, and Heath Lake WSA.

The degrees of naturalness in these WSAs range from having an outstanding natural condition (High Steens WSA) to a relatively natural condition (Lower Stonehouse WSA). The WSA’s closest to the project also offer outstanding opportunities for solitude with vegetation and topographic variation providing the principal forms of screening. Opportunities for primitive and unconfined recreation that includes day hiking, backpacking, camping, horseback riding, hunting, fishing, sightseeing and photography are also in many

cases outstanding. Special features of the WSAs include geology, botanical, vegetation, wildlife, cultural resources, and scenic qualities generally enhance and contribute to wilderness values in each of the WSAs.

3.13.3 Environmental Consequences and Mitigation

The proposed action alternatives analyzed below (including transmission line route options, design options, and access roads) would require ROW grants from BLM and USFWS, and easements from approximately 10 to 30 property owners (depending on alternative) to construct transmission lines and access roads across private lands. For all action alternatives, the permanent ROW width would be 150 feet. A 40-foot wide ROW would be required on public lands to accommodate new and improved access roads.

Transmission line poles would range in height from 70 to 80 feet with three sets of cross arms that extend approximately 10 to 11 feet horizontally. 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.

The 40 to 69 wind turbines on the Echanis Wind Energy Project site would vary in height from 213 to 262 feet. The towers including the wind rotors at the 12-o'clock position would be approximately 415 feet tall. The exterior of the tower would have a smooth surface. Potential project effects to values inherent to the Steens Mountain Wilderness Area, WSAs, and WSRs would include construction impacts such as noise and dust from construction equipment, noise from wind turbines and transmission lines, visual effects from Project facilities.

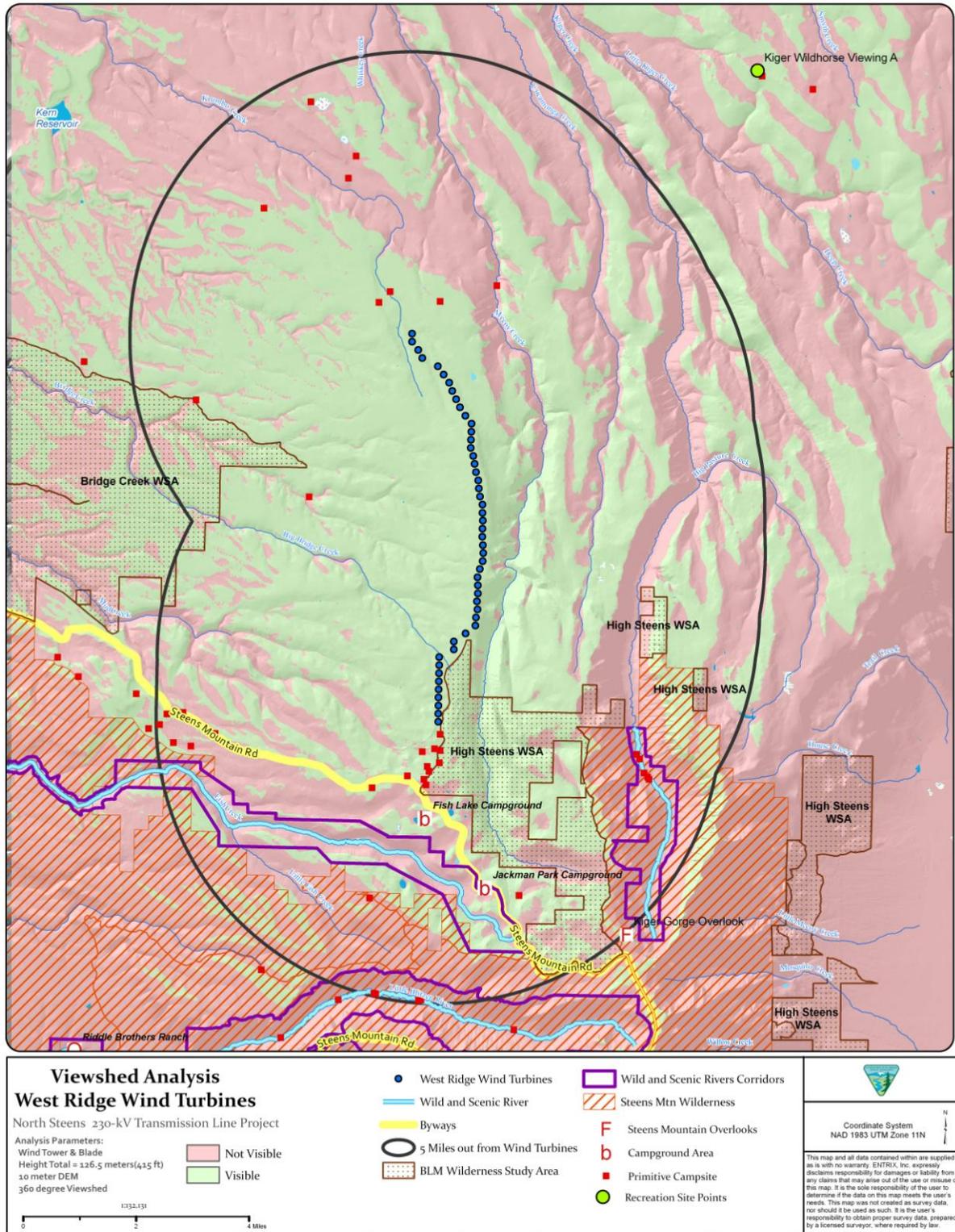
The potential short- and long-term effects of the proposed project on the Steens Mountain Wilderness Area, WSAs, and WSRs are described below. For the purposes of this analysis, short term effects relate to construction activities related to Alternative B (five months), Alternative C (six months), and the Echanis Wind Energy Project (9 to 12 months). Long term effects relate to the operational effects associated with the Echanis Wind Energy Project and Alternatives B or Alternative C. For all of these project components, the long term effects would anticipate a 40 year span.

3.13.3.1 Alternative A – No Action

Under the No Action alternative, no new transmission lines, substations, interconnection stations, or the Echanis Wind Energy Project, would be constructed. Improvements to existing access roads would not be needed and new access roads would not be constructed. No new ROW would be obtained from BLM or USFWS, and the Echanis site would remain undeveloped and continue to be used for livestock grazing. Land use and development on private parcels near WSRs, the Steens Mountain Wilderness Area, and WSAs would continue consistent with Harney County zoning regulations.

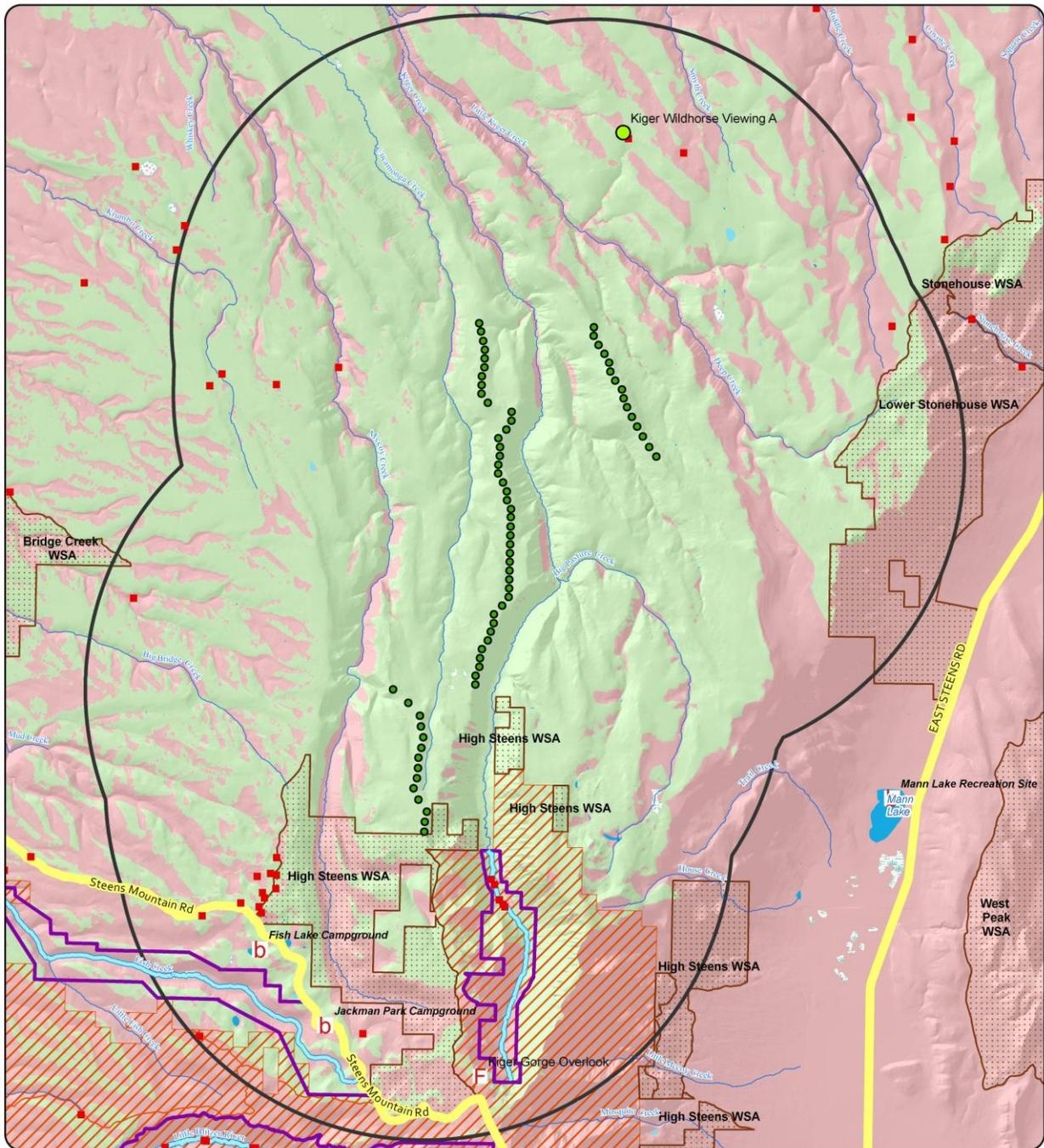
3.13.3.2 Project Effects Common to All Action Alternatives

Project effects to the Steens Mountain Wilderness Area, WSAs, and WSRs would be identical for all of the action alternatives. For the purposes of this section, the Analysis area is limited to the area within a five mile radius viewshed of project facilities and which encompasses the Steens Mountain Wilderness Area, WSAs, and WSRs. This area includes the portion of the transmission line route and wind turbines that are common to all alternatives. The transmission line route alternatives and route options that lie beyond the five mile radius were not analyzed because neither the Steens Mountain Wilderness Area nor any WSAs and WSRs are not located within five miles of those sections of Project Alternatives B and C. This section, therefore, analyzes project impacts to the Steens Mountain Wilderness Area, five WSAs, and one WSR that fall within the boundaries of the Analysis area, as defined by the five mile radius viewshed (Figures 3.13-1 through 3.13-5).



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Figure 3.13-2 West Ridge Viewshed Analysis.



<h3>Viewshed Analysis</h3> <h4>East Ridge Wind Turbines</h4> <p>North Steens 230-kV Transmission Line Project</p>		<ul style="list-style-type: none"> ● East Ridge Wind Turbines — Wild and Scenic River — Byways 5 Miles out from Wind Turbines BLM Wilderness Study Area 	<ul style="list-style-type: none"> Wild and Scenic Rivers Corridors Steens Mtn Wilderness F Steens Mountain Overlooks b Campground Area ■ Primitive Campsite ● Recreation Site Points 	<p>Coordinate System NAD 1983 UTM Zone 11N</p> <p><small>This map and all data contained within are supplied as-is with no warranty. ENTRIX, Inc. expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.</small></p>
<p>Analysis Parameters:</p> <ul style="list-style-type: none"> Wind Tower & Blade Height Total = 126.5 meters (415 ft) 10 meter DEM 360 degree Viewshed 		<ul style="list-style-type: none"> Not Visible Visible 		
<p>0 2 4 Miles</p>				

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Figure 3.13-3 East Ridge Viewshed Analysis.

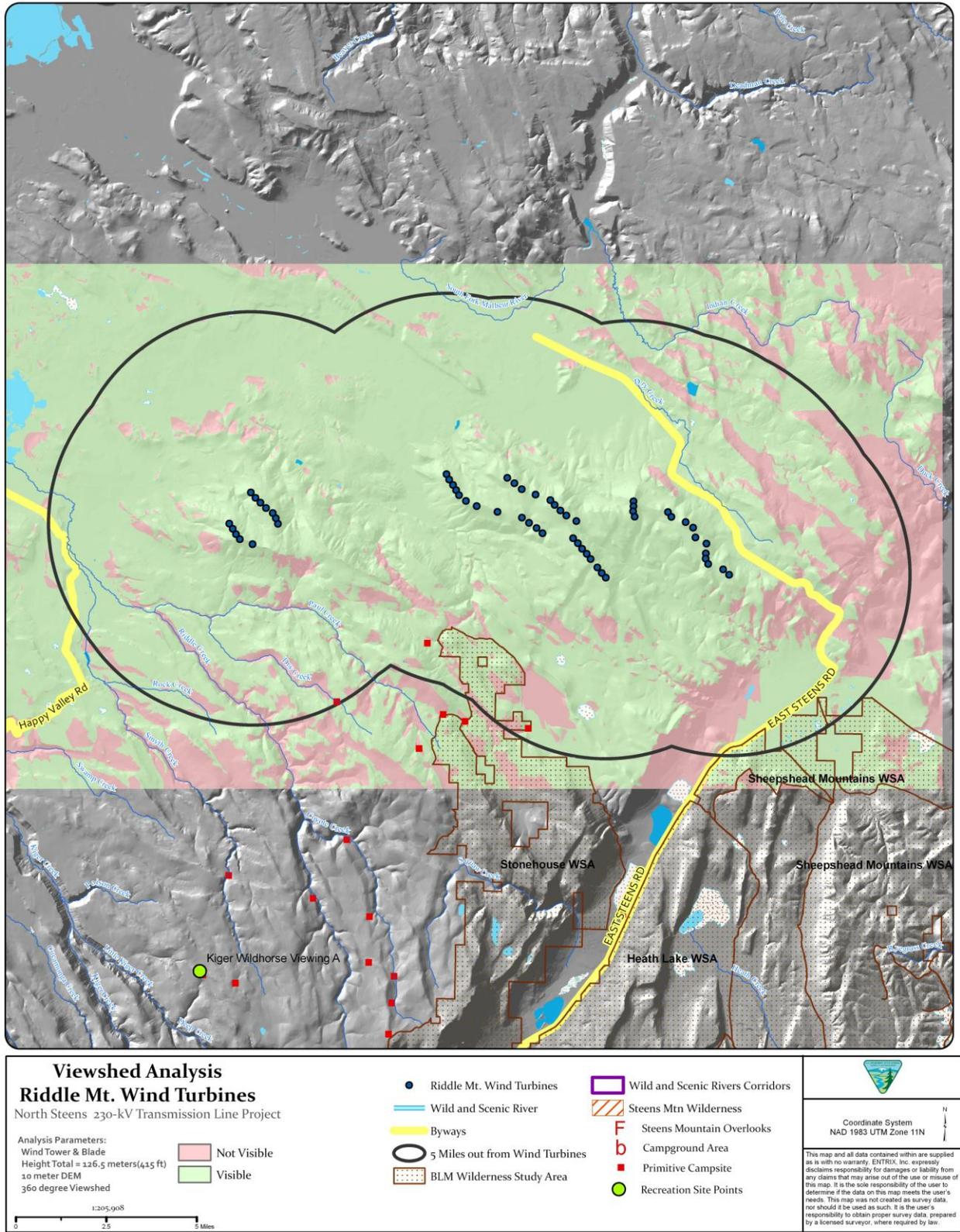


Figure 3.13-4 Riddle Mountain Viewshed Analysis.

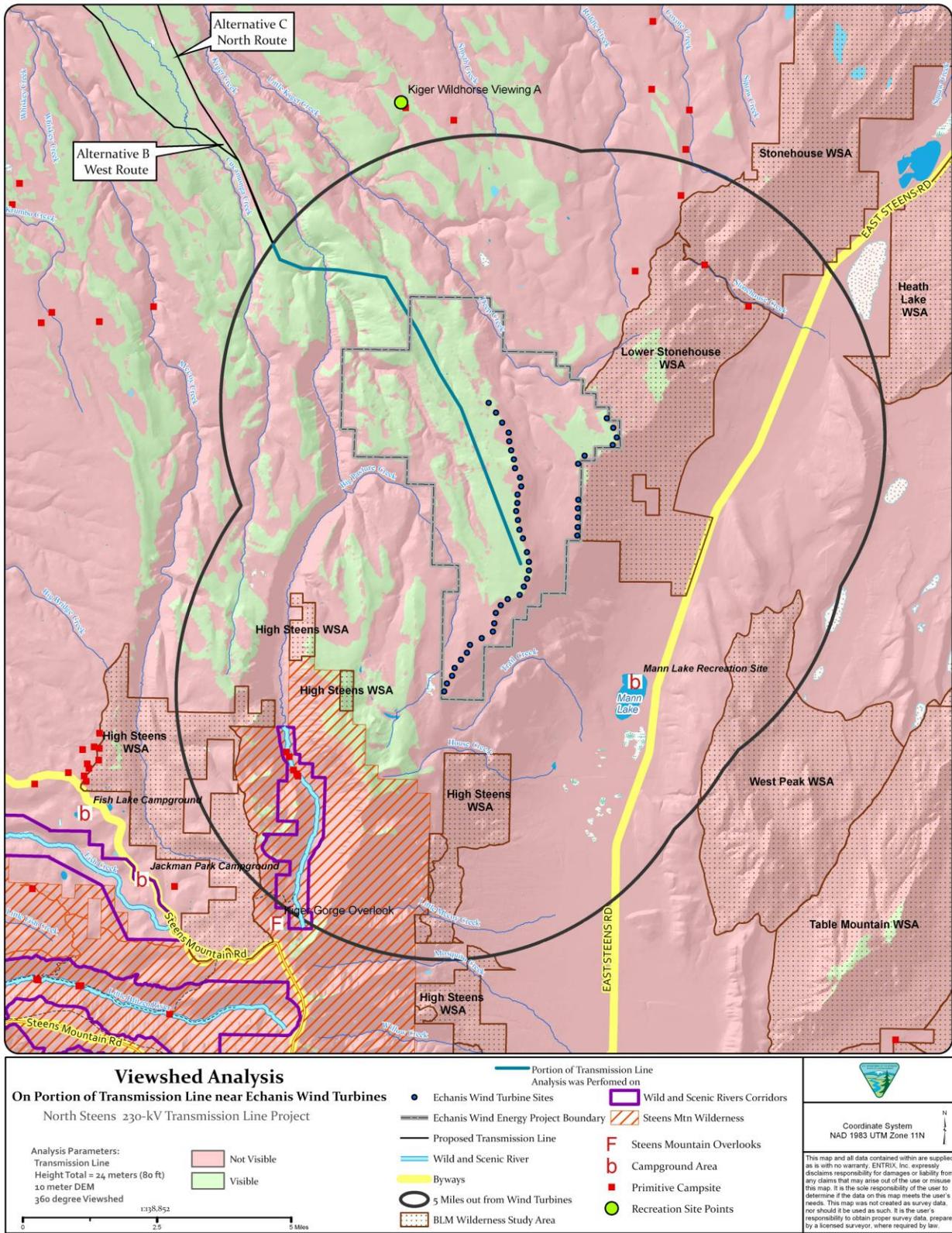


Figure 3.13-5 Transmission Line Viewshed Analysis.

Wild and Scenic Rivers

PERMANENT EFFECTS

Under all of the action alternatives, potential effects to WSRs would be from the introduction of man-made structures that would impair views and generate noise during operation. Figures 3.13-1 and 3.13-2 show that the only WSR situated within the five mile Analysis area is the Kiger Creek WSR. Located over 2 miles from the southern tip of the Echanis Wind Energy Project, the lands situated within the Kiger Creek WSR would not be affected by project operation noise and would not have views of operating wind turbines. The noise analysis included in Section 3.17 reveals that construction related and operation-related noise at this distance from the Project may exceed ambient levels (ambient = 26 dBA), but due to screening topography and the distance from the noise sources, noise levels would fall below the 46 dBA level that would require mitigation for sensitive receptors.

Figure 3.13-1 indicates that topographic screening, namely the walls of the Kiger Gorge would preclude views of the Echanis wind turbines from areas within the boundary of WSR designated lands. Figure 3.13-2 illustrates that 37.9 acres or 2.7 percent of the total 1,420 acre Kiger Creek WSR would have background views of the transmission line where it would cross private and public lands. Due to the approximately six mile distance of the transmission line from the Kiger Creek WSR, the effects on views within the Kiger Creek WSR would be minimal as the transmission lines would appear in the background.

Since no Project facilities would be constructed within the Kiger Creek WSR, none of the Project action alternatives would impair the free-flowing characteristics of Kiger Creek or affect the scenic, geologic, recreational, fish, wildlife, vegetation and botanical, cultural, or historic ORVs specific to these WSR designated lands. Lastly, none of the Alternative Actions would affect the characteristics that support the designation of the Kiger Creek WSR as being “wild.”

TEMPORARY EFFECTS

Due to the distance of the Kiger Creek WSR from areas of construction, and the presence of screening topography, temporary effects to the Kiger Creek WSR’s free-flowing characteristics, ORVs, and “wild” characteristics would not occur. According to Section 3.17, construction related noise levels could potentially rise above ambient levels, but due to the presence of screening topography and the distance between potential noise sources and the WSR, these effects would not require mitigation. In addition, Figures 3.13-1 and 3.13-2 indicate that screening topography would preclude views of construction-related activities.

Steens Mountain Wilderness Area

PERMANENT EFFECTS

NATURALNESS

The Steens Mountain Wilderness Area generally retains its natural condition. The Project is situated approximately 1.5 miles from the Steens Mountain Wilderness. As shown in Figures 3.13-1 and 3.13-2, the project would be visible from portions of the northernmost part of the Steens Mountain Wilderness. No Project facilities, however, would be located within the Wilderness Area and thus would not affect its natural condition.

SOLITUDE

Opportunities for solitude within the Steens Mountain Wilderness are plentiful. The area features a varied and rugged topography, including vegetated creek and canyon bottoms that enhance the experience of

seclusion and remoteness. As described above, the Project would be visible from portions of the northernmost part of the Steens Mountain Wilderness. Some project operation noise may exceed ambient noise levels in the Wilderness (ambient = 26 dBA) (See Section 3.19). However, noise levels would not rise to levels that would require mitigation for sensitive receptors under OEQC standards (beyond 36 dBA).

This portion of the Steens Mountain Wilderness is generally frequented by visitors who travel off main trails as it features steep topography, a lack of trails, and proximity to private property; therefore enhancing opportunities for solitude. Based on the GIS viewshed analysis, approximately 668 acres (0.4 percent) of the Steens Wilderness Area would have foreground to middleground views of the Echanis Wind Energy Project, while approximately 822 acres (0.5 percent) of the Wilderness Area would have foreground to middleground views of the transmission line (Figure 3.13-1 and Figure 3.13-2). Of the acreage noted above, approximately 470.8 acres within the Steens Mountain Wilderness would have views of both the wind turbines on the Echanis site as well as the transmission line. Opportunities for solitude on those parts of the Steens Mountain Wilderness that would have views of the Project would be diminished.

PRIMITIVE AND UNCONFINED RECREATION

Access to primitive and unconfined recreation would not be affected by Project construction or Project operation. No road closures are planned for the Echanis Wind Energy Project that would prevent the public from accessing recreation areas. During project operation, noise generated by the wind turbines could potentially rise above the ambient noise levels within the northeastern most portion of the Steens Mountain Wilderness. The ambient noise level throughout the analysis area is assumed to be 26 decibels(dBA) and the level where mitigation is required for sensitive receptors is 36 dBA. Due to distance from the noise source and changes in topography, noise levels within the Steens Mountain Wilderness, would not rise to levels that require mitigation for sensitive receptors (See Section 3.17). Project construction and operation would be visible from the Steens Mountain Wilderness, but the visibility of these project activities would not diminish or restrict opportunities for primitive and unconfined recreation.

SUPPLEMENTAL VALUES

No effects to supplemental values embodied within the Steens Mountain Wilderness are anticipated. The 1.5 mile distance from the southernmost turbine of the Echanis Wind Energy Project to the boundary of the Wilderness Area precludes the possibility of effects to the unique geology of the Wilderness area. The Project would affect the scenery that is located outside of the Wilderness Area, but would not affect the scenery within the Wilderness Area itself. Effects to vegetation, habitat, and wildlife are anticipated in the Analysis area, but not within the Wilderness Area (See Section 3.5). The potential for effects to historic properties exists within the Analysis area, but not within the Steens Mountain Wilderness (See Section 3.11).

TEMPORARY EFFECTS

Temporary construction effects to wilderness area values are not expected. The naturalness of the Steens Mountain Wilderness would not be affected as no project facilities would be located on Wilderness Area properties. The northeastern most portion of the Wilderness Area would have limited views of the construction of the project, but due to the steep topography, limited access routes, and proximity to private property, effects to solitude are not expected. Solitude within the Wilderness Area would not be affected by construction related noise, which is not expected to rise above ambient levels within the Wilderness Area. No roads are expected to be closed during project construction, thus there would be no effects to primitive and unconfined recreation. Lastly, effects to supplemental values of the Steens Mountain Wilderness from Project construction are not anticipated.

The Project's temporary effects caused by construction, construction-related activities, and maintenance would not affect the unique geology of the Wilderness. The Project's construction would affect the scenery outside of the Wilderness, but would not affect the scenery within the Wilderness. Impacts from construction

to vegetation, habitat, and wildlife are anticipated within the Analysis area, but not within the Steens Mountain Wilderness Area (See Section 3.5). Potential for effects to historic properties exists within the Analysis area, but not within the Steens Mountain Wilderness Area (See Section 3.11). To minimize effects to wilderness values, the applicant would comply with the conditions of approval related to visual resources set forth in Exhibit B to the Harney County Conditional Use Permit No. 07-14 issued on April 18, 2007, and revised on May 21, 2008.

Wilderness Study Areas

PERMANENT EFFECTS

NATURALNESS

The High Steens WSA, Lower Stonehouse WSA, Stonehouse WSA, Heath Lake WSA, and West Peak WSA are all located within a five mile radius of the Analysis area. In general, these WSAs retain their natural condition; existing manmade intrusions are minimal and only modestly noticeable. Project features on the Echanis site would be visible from portions of all five of the WSAs. Wind turbines would be located within a few hundred meters of the Lower Stonehouse WSA, about 0.5 mile from the High Steens WSA, about 3.0 miles from the West Peak WSA, 4.0 miles from the Stonehouse WSA, and 4.5 miles from the Heath Lake WSA. The wind turbines would be most visible from the Lower Stonehouse WSA, which abuts the eastern boundary of the Echanis site. No Project facilities would be constructed within any of these WSAs and thus all of the WSAs would retain their naturalness values.

SOLITUDE

Opportunities for solitude within four of the five WSAs (with the Lower Stonehouse WSA as the exception) are generally plentiful as the area features a varied and rugged topography as well as vegetated creek and canyon bottoms that enhance the experience of seclusion and remoteness. Due to the distance from wind turbines and the beneficial effect of topographic screening, noise from the Project operations would not exceed ambient noise levels in the West Peak WSA, Heath Lake WSA, or the Stonehouse WSA (See Section 3.17). Noise would exceed ambient noise levels in the High Steens WSA, but would be below state standards that require mitigation (below 36 dBA). Noise levels on the Lower Stonehouse WSA, however, would exceed ambient levels and OEQC standards, due to the close proximity of the wind turbines (See Section 3.17). It should be noted that the December 1989 Oregon Wilderness EIS states that the Lower Stonehouse WSA would support only a limited number of users. The effects to solitude have been diminished further since the 1989 Wilderness EIS from past wildland fires and upgrading of the East Steens Road. A majority of the eastern portion of the WSA can be seen from the East Steens Road.

Excessive noise on the Lower Stonehouse WSA would further diminish the already limited opportunities for solitude, making it difficult for a visitor to find seclusion and isolation from the developed world. The effect on a visitor's desired experience would vary with each individual. For some visitors who travel off main trails, the disruption of quiet and solitude would be short term and fleeting as they move through the area. There are no improved recreational areas in the Lower Stonehouse WSA and therefore long term effects to visitors are not anticipated. Exhibit B to the Harney County Conditional Use Permit (20070853) issued to CEP for the Echanis Project on April 18, 2007 includes a requirement that the project comply with applicable noise standards. This requirement would apply to the noise levels on the Lower Stonehouse WSA described above.

As shown in Figures 3.13-1 and 3.13-2, the Project would be visible from within all five of the WSAs. Table 3.13-1 reflects the respective acreages of areas within the five WSAs that would have views of the project in the foreground to middleground area. Notable visual effects would occur within the West Peak WSA, Lower Stonehouse WSA, and High Steens WSA. The visibility of wind turbines from these three WSAs would

diminish opportunities for solitude, making it difficult for a visitor traveling through these areas to find seclusion and isolation from the developed world.

Table 3.13-1 Acres of WSAs with Views of Echanis Wind Turbines and Transmission Lines

Names of WSA	Acres of WSA with Views of Wind Turbines (% of total WSA)	Acres of WSAs with Views of Transmission Lines (% of total WSA)
Heath Lake WSA	64.7 (0.3%)	0
High Steens WSA	924.2 (6.6%)	183.0 (1.3%)
Lower Stonehouse WSA	4646.1 (62.4%)	342.5 (4.6%)
Stonehouse WSA	765.6 (3.4%)	0
West Peak WSA	1261.5 (14.7%)	0

Assumptions: 10 DEM; wind tower and blade height total = 126 meters (415 ft); transmission tower heights = 24 meters (80 ft); 360 degree viewshed.

PRIMITIVE AND UNCONFINED RECREATION

Primitive and Unconfined Recreation is contingent upon nonmotorized and undeveloped types of outdoor recreation activities and generally refers to wilderness recreation opportunities such as nature study, hiking, photography, backpacking, fishing, hunting, and other related activities. As currently proposed, the Echanis Wind Energy Project does not propose closure of any roads that would affect existing opportunities for primitive and unconfined recreation in any of the WSAs. During project operation, noise from wind turbines would exceed ambient levels and OEQC standards within the southern portion of the Lower Stonehouse WSA and would require mitigation for sensitive receptors. Project operation noise that extends into the High Steens WSA would also exceed ambient levels but would not require mitigation (See Section 3.17) because noise levels would not exceed the threshold for mitigation for sensitive receptors as noted in Section 3.17 (above 36 dBA). Excessive noise would diminish opportunities for primitive and unconfined recreation in the Lower Stonehouse WSA. Primitive campsites situated along Stonehouse Creek would not be affected by noise effects due to their distance (about 3 miles) from the turbines and their sheltered position within a canyon. To minimize effects of noise, the applicant would comply with the conditions of approval related to noise set forth in Exhibit B to the Harney County Conditional Use Permit No. 07-14 issued on April 18, 2007, and revised May 21, 2008.

As illustrated in Figures 3.13-1 and 3.13-2, the Project would be visible from within all five of the WSAs. Project visibility, however, would not affect the opportunities for primitive and unconfined recreation within the WSAs. Opportunities for primitive and unconfined recreation would still exist in all WSAs and no project-related facilities would visibly obstruct, preclude or impair access to these forms of recreation.

SUPPLEMENTAL VALUES

In general, supplemental wilderness values present in the five WSAs include geology, botanical, vegetation, wildlife, cultural resources, and scenic qualities. Each of these values generally enhance and contribute to each of the WSAs wilderness values. The east rim of Steens Mountain, which is situated within the Lower Stonehouse WSA, High Steens WSA, and Stonehouse WSA provides spectacular scenic values with views of the surrounding area, including Alvord Basin and Sheepshead Mountains. The views atop the rim looking east would not be affected. West facing views would be affected by the close proximity of the wind turbines on the Echanis site, particularly in the Lower Stonehouse WSA.

Due to the proximity of the project to the Lower Stonehouse WSA, there would be effects to scenery that lies just beyond the WSA’s western border on private property. To minimize effects to the scenic values that lie beyond the Lower Stonehouse WSA’s western border, the applicant would comply with the conditions of

approval related to visual resources set forth in Exhibit B to the Harney County Conditional Use Permit No. 07-14 issued on April 18, 2007, and revised on May 21, 2008.

The High Steens WSA, West Peak WSA, Heath Lake WSA, and Stonehouse WSA would have views of the Project. The areas with views of the project are not served by any BLM designated trails and therefore would only affect visitors who recreate off main trails or who use cattle trails. The project, therefore, would affect the scenic characteristics that extend beyond the boundaries of these WSAs. Effects to vegetation, habitat, and wildlife are anticipated in the Analysis area, but not within any of the WSAs (See Section 3.5). The potential for effects to historic properties exists within the Analysis area, but not within the WSAs (See Section 3.10).

TEMPORARY EFFECTS

Temporary construction effects to wilderness values are only expected within the Lower Stonehouse WSA and High Steens WSA, which are located immediately east of a proposed string of turbines on the Echanis site and about 0.5 mile south of the southernmost turbine, respectively. The naturalness of these two WSAs would not be affected as no Project-related construction would occur on WSA properties, thereby not affecting the natural condition of these areas.

The Lower Stonehouse WSA would have unobstructed views of Project-related construction activities and would be subject to Project related noise in excess of ambient noise levels (above 26 dBA) (See Section 3.17). Excessive noise would diminish opportunities for solitude, making it difficult for a visitor to find seclusion and isolation from the developed world. In addition, periodic maintenance activities that would occur along the string of turbines closest to the Stonehouse WSA could also affect experiences of solitude within the Stonehouse WSA. The effects on a visitor's desired experience would vary with each individual. For some visitors, the disruption of quiet and solitude would be short term and fleeting as they move through the area. The effect would be greater for visitors who stay in the affected area for a longer period.

Opportunities for primitive and unconfined recreation within the Lower Stonehouse WSA and High Steens WSA, would be affected by Project construction noise. To minimize effects of noise, the applicant would comply with the conditions of approval related to noise set forth in Exhibit B to the Harney County Conditional Use Permit No. 07-14 issued on April 18, 2007, and revised on May 21, 2008.

Primitive campsites situated along Stonehouse Creek would not be affected by noise due to their distance (about three miles) from the turbines and their sheltered position within a canyon. No roads are proposed for closure during Project construction and thus would not limit access to primitive and unconfined recreation. The Project's temporary effects caused by construction, construction-related activities, and maintenance would not affect the unique geology of any of the WSAs due to the lack of construction-related activities within the WSAs.

The Project's construction would affect the scenery outside of the High Steens WSA and Lower Stonehouse WSA, but would not affect the scenery within any of the WSAs. To minimize effects to wilderness values, the applicant would comply with the conditions of approval related to visual resources set forth in Exhibit B to the Harney County Conditional Use Permit No. 07-14 issued on April 18, 2007, and revised on May 21, 2008. Effects from construction to vegetation, habitat, and wildlife are anticipated in the Analysis area, but not within the Wilderness area (See Section 3.5). Potential for effects to historic properties exists within the Analysis area, but not within the Wilderness Study Area (See Section 3.11).

MITIGATION

No additional mitigation, beyond the PDFs and BMPs listed in Appendix A, is proposed to address the noise and visual changes that could affect the wilderness values of solitude and primitive and unconfined recreation in the Lower Stonehouse WSA and High Steens WSA.

3.13.3.3 Light Pollution and Glare

While the 1989 Oregon Wilderness EIS does not specifically identify the nighttime sky as a characteristic of the Steens Mountain Wilderness, WSAs, or WSRs in the Analysis area, the lack of manmade light in the area make it an ideal location for observing the nighttime sky. Some visitors come to the area to engage in stargazing activities. The Project may affect these activities. Effects from Project-related light pollution and glare are discussed in more detail in Section 3.9 Visual Resources.

3.13.3.4 Residual Effects after Mitigation

The Lower Stonehouse WSA would have unobstructed views of project-related construction activities and would be subject to project related noise in excess of ambient noise levels. In addition, maintenance activities for turbines could affect experiences of solitude in this area. Residual effects that would last at least as long as the life of the project (an expected 40 years) would include effects on a visitor's desired experience. For some visitors, the disruption of quiet and solitude would be short term and fleeting as they move through the area. The effect would be greater for visitors who stay in the affected area for a longer period.

3.13.3.5 Summary Comparison of Alternatives

The effects on Wilderness, WSAs and WSRs from development of the Echanis Project and each transmission line alternative are summarized in Table 3.13-2. The table includes the effect to Wilderness, WSAs and WSRs along the main access road to the Echanis site, in addition to effects from each transmission line alternative.

Table 3.13-2 Summary of Effects - Steens Mountain Wilderness Area, Wilderness Study Areas, and Wild and Scenic Rivers

Alternative A – No Action	Echanis Wind Energy Project	Alternative B – West Route	South Diamond Lane Route Option	Hog Wallow Route Option	Alternative C – North Route
<p>No new transmission lines, substations, interconnection stations, or the Echanis Wind Energy Project, would be constructed.</p> <p>Improvements to existing access roads would not be needed and new access roads would not be constructed.</p> <p>No new ROW would be obtained from BLM or USFWS, and the Echanis site would remain undeveloped and continue to be used for livestock grazing.</p> <p>Land use and development on private parcels near WSRs, the Steens Mountain Wilderness Area, and WSAs would continue consistent with Harney County zoning regulations.</p>	<p>The Project is situated approximately 1.5 miles from the Steens Mountain Wilderness, and approximately 668 acres (0.4%) of the Steens Wilderness Area would have fore- to middle-ground views of the Project where opportunities for solitude would be diminished.</p> <p>No project facilities would be located within the Steens Mountain Wilderness.</p> <p>During construction, the northeastern most portion of the Wilderness Area would have limited views of the construction of the project, but due to the steep topography, limited access routes, and proximity to private property, effects to solitude are not expected.</p> <p>Wind turbines would be located within a few hundred meters of the Lower Stonehouse WSA, about 0.5 miles from the High Steens WSA, 3.0 miles from the West Peak WSA, 4.0 miles from the Stonehouse WSA, and 4.5 miles from the Heath Lake WSA. Project features would be visible from portions of all 5 of these WSAs.</p> <p>Opportunities for primitive and unconfined recreation would still exist in all WSAs, no facilities would impair access to these forms of recreation, and no project facilities would be constructed within any WSAs so that all would retain their naturalness values.</p> <p>During operations, noise from wind turbines would exceed ambient levels within the southern portion of the Lower Stonehouse WSA and would diminish opportunities for primitive and unconfined recreation.</p> <p>During construction, the Lower Stonehouse WSA would have unobstructed views of project-related construction activities and would be subject to project related noise in excess of ambient noise levels. In addition, maintenance activities for turbines could affect experiences of solitude in this area.</p>	<p>Approximately 37.9 acres or 2.7% of the total 1,420 acre Kiger Creek WSR would have background views of the transmission line where it would cross private and public lands, but effects would be minimal.</p> <p>No Wilderness Areas, WSAs, and WSR's are located within five miles of the northern portions of the transmission line alternatives located to the north of the analysis area. However, one Wilderness Area, five WSAs, and one WSR's do fall within the boundaries of the analysis area, as defined by the five mile radius viewshed.</p> <p>Approximately 822 acres (0.5%) of the Wilderness Area would have foreground to middleground views of the transmission line. Opportunities for solitude on those parts of the Steens Mountain Wilderness that would have views of the Project would be diminished.</p> <p>No project facilities would be located within the Steens Mountain Wilderness.</p> <p>Opportunities for primitive and unconfined recreation would still exist in all WSAs, no facilities would impair access to these forms of recreation, and no project facilities would be constructed within any WSAs so that all would retain their naturalness values.</p>	<p>Project effects to the Steens Mountain Wilderness Area, WSAs, and WSRs would be the same as for Alternative B – West Route.</p>	<p>Project effects to the Steens Mountain Wilderness Area, WSAs, and WSRs would be the same as for Alternative B – West Route.</p>	<p>Project effects to the Steens Mountain Wilderness Area, WSAs, and WSRs would be the same as for Alternative B – West Route.</p>

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