

3.12 WILD HORSES, BURROS, AND AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Passage of the Wild Free-Roaming Horses and Burro Act (Public Law 92-195) in 1971, requires the Bureau of Land Management (BLM) to protect, manage, and control wild free-roaming horses and burros on public lands. The act requires the BLM to manage wild horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands.

The BLM oversees eight wild horse and burro Herd Management Areas (HMAs) on the public lands within the Burns District. Six of the HMA's would be located in the general Project vicinity, and portions of two HMA's would be directly affected by construction and operation of the proposed Project.

3.12.1 Methodology

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

- Oregon BLM Wild Horses and Burros website
- Riddle Mountain and Kiger Wild Horse Herd Management Area Plan
- Kiger ACEC Management Plan
- Warm Springs Wild Horse Herd Management Area Plan
- Steens Mountain Cooperative Management and Protection Area Resource Management Plan
- Three Rivers Resource Management Plan
- Andrews Management Unit Resource Management Plan

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

- Wild Free-Roaming Horses and Burros Act of 1971
- BLM National Environmental Policy Act Handbook (H-1790-1)

The information obtained from these sources was used to identify the existing wild horse herd conditions within the Project Area and to assess the temporary (short-term) effects resulting from the use of construction equipment, and the permanent (long-term) effects resulting from facility operation of the Proposed Action, alternatives, and No Action Alternative on existing and future wild horse and burro herds. Where appropriate, mitigation measures have been identified to reduce or avoid anticipated adverse effects resulting from construction and operation of the proposed Project.

For the purposes of this analysis, the Project Area was defined to include the area within the 150-foot wide transmission line ROW and all areas affected by the construction and operation of the transmission line, access roads, interconnection stations, substations, turbine towers, power collection systems, and other permanent and temporary project features, including temporary laydown areas and tensioning sites.

3.12.2 Affected Environment

Within the proposed Project Area the Burns District BLM manages three HMAs encompassing approximately 529,721 acres (Table 3.12-1). The three HMAs are managed to provide habitat for an Appropriate Management Level (AML) range of 195 to 340 horses and burros (Table 3.12-2).

Two of these HMAs, the Warm Springs and Kiger, would be directly affected by construction and operation of the transmission line alternatives, access roads, and other project features (Figure 3.12-1). The Warm Springs HMA has a current estimated wild horse and burro population of 356 animals, compared to the established AML range of 111 to 202 animals (Table 3.12-2). The Warm Springs HMA also includes an AML for burros of 20. The Kiger HMA has a current estimated wild horse population of 91 animals, compared to the established AML range of 51 to 82 animals (Table 3.12-2). Although Riddle Mountain HMA is included in the Riddle Mountain and Kiger Wild Horse HMA Plan and the Kiger ACEC, no portion of the Riddle Mountain HMA would be located within the Project Area. The Echanis Wind Energy Project would not occur within an HMA or herd area.

Table 3.12-1 Herd Management Areas within the Project Area in the BLM Burns District

| Herd Management Areas | Size (acres) | Herd Size | Diet | Water Source | Environment |
|-----------------------|--------------|-----------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Warm Springs | 474,501 | 101-202 Horses; approximately 20 Burros | Bluebunch wheat grass and Idaho Fescue in the sagebrush vegetation zone | <u>Reservoirs, water holes, and wells</u> | Gently rolling sage covered hills and rim rocks with small valleys in-between. |
| Kiger | 26,874 | 51-82 | Native bunchgrasses within sagebrush and juniper cover | Perennial streams, natural ponds, <u>reservoirs</u> , and springs | Rugged high desert country with extremely rocky surfaces divided by deep canyons, rim rock and plateaus. |
| Riddle Mountain | 28,346 | 33-56 | Native bunchgrasses within sagebrush and juniper cover | Perennial streams, natural ponds, <u>reservoirs</u> , and springs | Rugged high desert country with extremely rocky surfaces divided by deep canyons, rim rock and plateaus. |

Source: BLM Burns District website - <http://www.blm.gov/or/districts/burns/wildhorse/herd-manage.php>; Oregon BLM Wild Horses and Burro Population Data September 29, 2009

Table 3.12-2 Appropriate Herd Management Levels

| Herd Management Area Name (HMA) | HMA No | Last Gather Date | Last Inventory Date | <u>Estimated No. on Inventory Date</u> | <u>Estimated Population 2011*</u> | Appropriate Management Level |
|---------------------------------|--------|-------------------|---------------------|----------------------------------------|-----------------------------------|------------------------------|
| Warm Springs | OR0009 | <u>11/09/2010</u> | 4/13/2010 | 356 | <u>130</u> | 111-202 |
| Riddle Mountain | OR0009 | 10/3/2007 | 4/12/2010 | 60 | <u>83</u> | 33-59 |
| Kiger | OR0010 | 10/7/2007 | 4/12/2010 | 91 | <u>116</u> | 51-82 |

Source: Oregon BLM Wild Horses and Burro Population Data September 29, 2009

*Estimated Population for 2011 is based on a 25% foal crop that is concurrent with past gathers and inventory for these three herds.

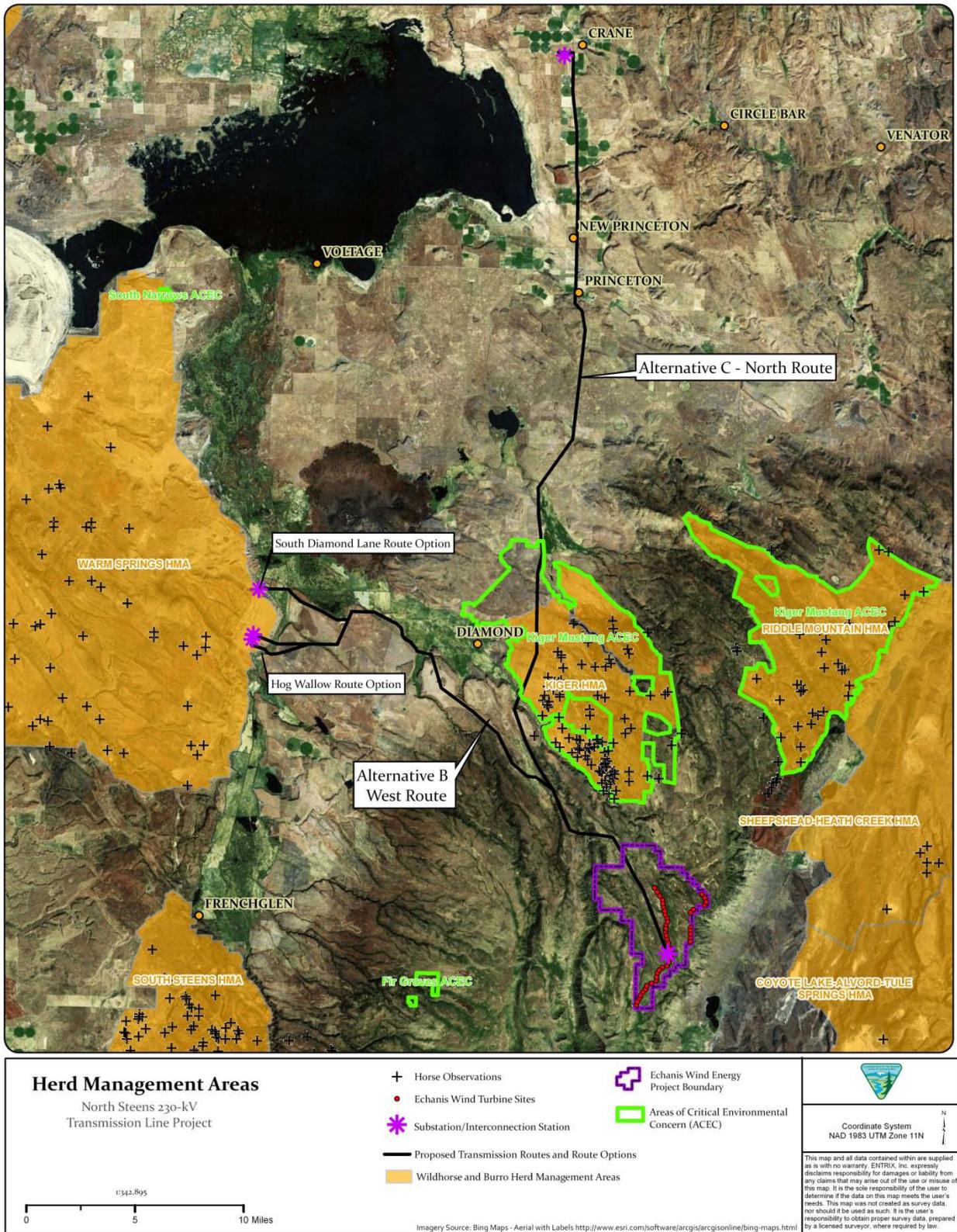


Figure 3.12-1 Project Location, Herd Management Area, and Herd Observations.

3.12.2.1 BLM Management Plans

The Kiger Mustang and Warm Spring HMA's (the two HMA's in the Burns District that would be directly affected by the proposed Project) are managed under the Three Rivers RMP. The goals and actions for managing and maintaining healthy wild horse herds in the Three Rivers RMP are consistent with the goals and actions set forth in the Riddle Mountain and Kiger Wild Horse Herd Management Area Plan prepared in 1996, and the Warm Springs Herd Management Area Plan (HMP) prepared in 1979 and updated in 1987. Further details on these HMA's, HMP's, and the wild horses that use these areas are described below.

Kiger Herd Management Area

The Kiger HMA is located approximately 45 air miles southeast of Burns, Oregon, and 2 miles east of Diamond. The HMA covers approximately 26,874 acres of rugged, high desert country with extremely rocky surfaces divided by deep canyons, rim rocks, and plateaus. Some areas are open playa flats while others are dominated by scattered to thick western juniper cover that has an understory of sagebrush and bunchgrass. Water sources include perennial streams, intermittent streams, natural ponds, reservoirs, and springs.

The wild horses in the Kiger and Riddle Mountain HMAs exhibit Spanish Mustang characteristics and are thought to be one of the most pure herds of Spanish Mustangs existing in the wild today. The Kiger Mustangs display various colors including dun, buckskin, grulla, bay, brown, and red dun. The herd size ranges from 51 to 82 horses, and increases at a rate of approximate 25 percent per year. Animal sizes range from 13 to 15 hands high and 750 to 1,000 pounds.

When the herd reaches the maximum population (based largely upon what the area can healthfully support), excess horses are rounded up and taken to the Burns Wild Horse Corrals where they are processed and made available for adoption by the public. Animals may also be transported between herds within the Kiger HMA and the Riddle Mountain HMA to maintain genetic diversity. Quality animals are returned to the herds after roundups to maintain herd integrity and improve adoptability.

The following management actions from the Riddle Mountain and Kiger Wild Horse Herd Management Area Plan are used to perpetuate the horses within the Kiger HMA and maintain their habitat:

- Forage allocation of 984 Animal Unit Months (AMUs).
- Maintain the Appropriate Management Level (AML) of horse population ranging from 51 to 82 animals.
- Population control through gathering, potential fertility control, and sex ratio.
- Maintain a 50:50 sex ratio.
- Helicopter horse census.
- Forage Utilization.

Kiger Mustang Area of Critical Environmental Concern

In 1992, the Three Rivers RMP designated the Kiger and Riddle Mountain HMAs as the Kiger Mustang Area of Critical Environmental Concern (ACEC). As expressed in the ACEC Management Plan, the primary objective of the ACEC is to perpetuate and protect the dun color factor and conformation characteristics of the wild horses within the Herd Management Area. Secondary objectives for the area identified in the ACEC management plan include providing educational opportunities to increase public knowledge of wild horses and BLM's role in managing wild horses. An additional objective includes ensuring that lands within the Stonehouse Wilderness Study Area be managed for wilderness values in accordance with BLM's Interim Management Policy for Area under Wilderness Review.

The Kiger Mustang ACEC is open to livestock grazing, camping, plant and rock collection, and other low-impact recreational pursuits. It is also open to fire suppression activities; however, prescribed burning and vegetation treatment are restricted activities. Off Highway Vehicle (OHV) use is limited to existing roads and trails. The ACEC is designated as a “right-of-way avoidance area” in the Three Rivers RMP.

Warm Springs Herd Management Area

The northern boundary of the Warm Springs HMA is located approximately 20 miles southwest of Burns, west of Highway 205, and extends to the south and east to encompass approximately 474,501 acres of gently rolling sage covered hills and rim rocks with small valleys in between. The area is fenced on all four sides and a division fence divides the area into two units, East and West. The herd AML established as a range from 111 to 202 horses and individuals range in size from 14 to 15 hands high and 1,000 to 1,200 pounds. The animals in the HMA survive on a diet of bluebunch wheat grass and Idaho Fescue within the sagebrush vegetation zone. Water sources include intermittent streams and reservoirs.

The Warm Springs HMA contains the widest variety of horse colors including, appaloosa, blue and red roan, palomino, buckskin, sorrel, brown, bay, and pinto. It is also the only HMA in the Burns District where burros are present (currently about 20 individuals). Burros are typically gray or brown. Historically, it is not known how long horses have grazed in the Warm Springs HMA. However, it is known that horses have been produced in the area by local ranchers since the turn of the century. It is not known how long burros have been in the area or how they got here. Burros occur only in the western unit of the Warm Springs HMA. Horses have moved into the herd area from Sunset Valley, the Lakeview District of BLM, as well as the Andrews Resource Area of the Burns district because of increased pressure due to roundups in these areas. This is a contributing factor in the increase in the horse numbers over the years.

The following management actions from the Warm Springs Wild Horse Herd Management Plan are used to perpetuate the horses within the Warm Springs HMA and maintain their habitat:

- Forage allocation: East Unit 1,200 Animal Unit Months (AMUs) and West Unit 1,224 Animal Unit Months (AMUs).
- Rangeland utilization studies are done in September to determine forage availability.
- Maintain the AML of horse population ranging from 111 to 202 horses and approximately 20 burros.
- Population control through gathering, potential fertility control, and sex ratio.
- Maintain a 50:50 sex ratio.
- Helicopter horse census.

3.12.3 Environmental Effects and Mitigation

The primary effects on BLM lands designated as wild horse HMAs and ACEC would be from construction and operation of the transmission line and access roads, including periodic maintenance inspections and repairs. Permanent effects include loss of vegetation consumed by wild horses or used as refuge (i.e., juniper trees) from various permanent project features, including transmission line poles, access roads, or interconnection stations. Temporary effects include vegetation damage or increased risk of fire due to heavy equipment operation or the transport and storage of construction materials. Mitigation is proposed where permanent and temporary effects could be reduced by implementing reasonable and effective mitigation measures.

3.12.3.1 Alternative A – No Action

Under the No Action Alternative, no new transmission lines, interconnection stations, or related facilities would be constructed and no new or improved access roads would be required. The potentially affected areas

within HMAs would continue to be used for wild horse forage and range, and the Kiger Mustang ACEC would continue to be used for low-impact recreational pursuits, including camping, hunting, and plant and rock collection.

3.12.3.2 Echanis Project Effects Common to All Action Alternatives

The proposed development of the Echanis Wind Energy Project, including construction of the main access road to the Echanis site would be the same under all of the action alternatives (i.e., Alternative B, the Alternative B route options, and Alternative C). None of the improvements associated with the wind farm site would encroach onto BLM lands designated as HMA or ACEC.

3.12.3.3 Alternative B – West Route (Proposed Action)

PERMANENT EFFECTS

Alternative B would extend 0.83 mile into the east unit of the Warm Springs HMA (Figure 3.12-1). The amount of ROW required in the HMA to accommodate the new line would be approximately 15.1 acres. Assuming a distance of 600 feet between transmission line poles, up to seven poles would be placed within the new ROW. The land area within the 150-foot wide ROW corridor in the Warm Springs HMA that was not affected by pole placement would remain available for wild horse forage and shelter. Construction of the new interconnection station adjacent to the Harney Electric Company (HEC) 115-kV transmission line would permanently remove 0.69 acre of vegetation within the Warm Springs HMA currently available for wild horse forage and shelter. Alternative B would also require the construction of 2.17 miles of new access roads within the HMA that would permanently remove vegetation on up to 2.77 acres currently available for wild horse forage and shelter. The total ROW requirement of 18.56 acres to accommodate the new line, new interconnection station, and new access roads would affect 0.004 percent of the 474,501 acre Warm Spring HMA. No permanent effects would occur to intermittent streams, waterholes, or reservoirs used by wild horses and burros because transmission line poles would be spaced at least 600 feet apart, enabling any water body located along the transmission line corridor to be completely avoided (i.e., spanned by aerial crossing).

TEMPORARY EFFECTS

Temporary effects on wild horses within the Warm Springs HMA would include noise and increased human activity during installation of the transmission line poles, construction of the new interconnection station, clearing and grading existing and new access roads, vehicle operation in areas where overland vehicle travel would occur, and use of temporary laydown areas and tensioning sites. These activities would result in additional surface disturbance and vegetation damage. One small intermittent tributary to the Donner und Blitzen River located in the easternmost portion of the Warm Springs HMA would be temporarily affected by culvert modifications during construction and improvements to an existing access road. The access road improvements would be needed to improve vehicle access to the proposed interconnection station that is to be located adjacent to the existing HEC transmission line.

Areas of temporary disturbance would be restored to pre-construction contours and restored with BLM approved seed mixtures. The owner/operator (HEC) of the transmission line would monitor revegetation. Additional seeding or other measures could be required by BLM to ensure adequate reclamation of temporary use areas affected by construction. Ongoing operations would involve periodic inspections and maintenance of the transmission line (including poles, insulators, and conductors), interconnection station, and access roads. Increased human activity during periods of construction and maintenance could cause wild horses to avoid these areas while humans are present.

FUTURE CONSTRUCTION PHASE – UPGRADE TO 230-kV

The upgrade of the initial North Steens 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 was required on the transmission line. During the second construction phase, wild horses in the Project Area

would experience similar temporary construction related effects as described above, including the disruptive effects from the presence workers, equipment operation, additional surface disturbance, and vegetation damage from overland vehicle travel, and use of temporary laydown areas and tensioning sites.

MITIGATION

No additional mitigation measures would be required because Project Design Features (PDFs) and best management practices (BMPs) were taken into account in the effects analysis for the action alternatives and would be implemented to reduce effects to wild horses, burros, and ACEC (see Section 2 and Appendix A).

Little to no effect to the wild horse population or individual horses within the Warm Springs HMA would be expected. Construction activities would occur near Highway 205 where there is already vehicular disturbance to the herd. If horses were in the area, they would likely migrate away from areas affected by increased activity or when humans were present. Although horses could temporarily be disturbed by construction activity, there would be little effect to the horses themselves and no effect on their unique characteristics from long-term operation and maintenance of the transmission line. Construction, operation, and maintenance of the transmission line would not affect the long term viability or management of the horse herd. To further minimize any potential effects to wild horses, the BLM could impose restrictions on construction or major maintenance activities if foaling mares were anticipated to be in the area. For these reasons, no mitigation is proposed.

South Diamond Lane Route Option

PERMANENT EFFECTS

The South Diamond Lane Route Option would extend approximately 0.32 mile into the east unit of the Warm Springs HMA (Figure 3.12-1). The amount of ROW required from the HMA to accommodate the new line would be approximately 5.8 acres. Assuming a distance of 600 feet between transmission line poles, three poles would be placed within the new ROW. The land area within the ROW corridor in the Warm Springs HMA not affected by pole placement would remain available for wild horse forage and shelter. Construction of the new interconnection station adjacent to the HEC 115-kV transmission line would permanently remove 0.69 acre of vegetation within the Warm Springs HMA currently available for wild horse forage and shelter. The total ROW requirement of 6.49 acres to accommodate the new line and new interconnection station would affect 0.001 percent of the 474,501 acre Warm Spring HMA. The South Diamond Lane Route Option would require no new or improved access roads within the HMA that could affect wild horse forage and shelter. No permanent effects to intermittent streams, waterholes, or reservoirs used by wild horses and burros would occur because transmission line poles would be spaced at least 600 feet apart, enabling any water body located along the transmission line corridor to be completely avoided (i.e., spanned by aerial crossing).

TEMPORARY EFFECTS

The temporary effects to wild horses within the Warm Springs HMA would be the same as described for Alternative B, except that this route option would not require any new or improved access roads within the Warm Springs HMA.

FUTURE CONSTRUCTION PHASE – UPGRADE TO 230-KV

The upgrade of the initial North Steens 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 was required on the transmission line. During the second construction phase, wild horses in the Project Area would experience similar temporary construction related effects as described above, including the disruptive effects from the presence of workers, equipment operation, additional surface disturbance, and vegetation damage from overland vehicle travel, and use of temporary laydown areas and tensioning sites.

MITIGATION

No additional mitigation measures would be required because Project Design Features (PDFs) and best management practices (BMPs) were taken into account in the effects analysis for the action alternatives and would be implemented to reduce effects to wild horses, burros, and ACEC (see Section 2 and Appendix A).

Hog Wallow Route Option

The Hog Wallow Route Option would extend approximately 0.41 mile into the east unit of the Warm Springs HMA (Figure 3.12-1). The amount of ROW required within the HMA to accommodate the new line would be approximately 7.5 acres. Assuming a distance of 600 feet between transmission line poles, four poles would be placed within the new ROW. The land area within the ROW corridor in the Warm Springs HMA not affected by pole placement would remain available for wild horse forage and shelter. Construction of the new interconnection station adjacent to the HEC 115-kV transmission line would permanently remove 0.80 acre of vegetation within the Warm Springs HMA currently available for wild horse forage and shelter. The Hog Wallow Route Option would also require the construction of 2.17 miles of new access roads within the HMA that would permanently remove vegetation on up to 2.77 acres currently available for wild horse forage and shelter. The total ROW requirement of 10.96 acres to accommodate the new line, new interconnection station, and new access roads would affect 0.002 percent of the 474,501 acre Warm Spring HMA. No permanent effects would occur to intermittent streams, waterholes, or reservoirs used by wild horses and burros because transmission line poles would be spaced at least 600 feet apart, enabling any water body located along the transmission line corridor to be completely avoided (i.e., spanned by aerial crossing).

TEMPORARY EFFECTS

The temporary effects on wild horses within the Warm Springs HMA would be the same as described for Alternative B.

FUTURE CONSTRUCTION PHASE – UPGRADE TO 230-kV

The upgrade of the initial North Steens 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 was required on the transmission line. During the second construction phase, wild horses in the Project Area would experience similar temporary construction related effects as described above, including the disruptive effects from the presence of workers, equipment operation, additional surface disturbance, and vegetation damage from overland vehicle travel, and use of temporary laydown areas and tensioning sites.

MITIGATION

No additional mitigation measures would be required because Project Design Features (PDFs) and best management practices (BMPs) were taken into account in the effects analysis for the action alternatives and would be implemented to reduce effects to wild horses, burros, and ACEC (see Section 2 and Appendix A).

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 and the South Diamond Lane and Hog Wallow Route Options. The 115-kV Transmission Line Option would include a single three-phase (i.e., three conductor) 115-kV circuit. The alignment of the transmission line, pole heights and spacing, ROW width, construction methods, interconnection points, and access requirements would be the same as described for Alternative B and the two route options, described above.

PERMANENT AND TEMPORARY EFFECTS

The permanent and temporary effects of this design option on wild horses within the Warm Springs HMA would be the same as described for Alternative B, and the South Diamond Lane and Hog Wallow Route Options. The only notable differences between this design option and others is that this option would not

require a second round of construction to upgrade the line to 230-kV, nor would additional equipment upgrades be required at the interconnection station adjacent to the HEC 115-kV line. This option would have fewer temporary construction related effects on wild horses than Alternative B and the two route options because workers and equipment would not be operating on site during two separate construction phases, and a second round of construction activity would not cause additional surface disturbance and vegetation damage. Ongoing operations and maintenance activities would be the same as described for Alternative B and the two route options above.

MITIGATION

No additional mitigation measures would be required because Project Design Features (PDFs) and best management practices (BMPs) were taken into account in the effects analysis for the action alternatives and would be implemented to reduce effects to wild horses, burros, and ACEC (see Section 2 and Appendix A).

3.12.3.4 Alternative C – North Route (Preferred Alternative)

PERMANENT EFFECTS

Alternative C would cross 7.27 miles of the Kiger Mustang ACEC, of which 4.46 miles would be within the Kiger HMA. (Figure 3.12-1). The amount of ROW required within the ACEC to accommodate the new line would be approximately 132.2 acres, and the amount required within the HMA would be approximately 81.1 acres. Assuming a distance of 600 feet between transmission line poles, up to 64 poles would be placed within the new ROW within the Kiger Mustang ACEC, of which about 39 would be on the Kiger HMA. The land area within the 150-foot wide ROW corridor within the HMA and ACEC not affected by pole placement would remain available for wild horse forage and shelter. Alternative C would also require the construction of 3.48 miles of new access roads within the Kiger HMA, which would permanently remove up to 6.76 acres of vegetation currently available for wild horse forage and shelter within the HMA. Alternative C would also require construction of an additional 2.41 miles of overland roads within the Kiger Mustang ACEC, affecting an additional 2.34 acres within the ACEC boundary. The ROW requirement of 87.86 acres from the Kiger HMA and 141.3 acres from the Kiger Mustang ACEC to accommodate the new line and new access roads would affect 0.327 percent of the 26,874 acre Kiger HMA and 0.219 percent of the 64,639 acres Kiger Mustang ACEC, respectively. No permanent effects would occur to perennial or intermittent streams, natural ponds, reservoirs or springs used by wild horses and burros because transmission line poles would be spaced at least 600 feet apart, enabling any water body located along the transmission line corridor to be completely avoided (i.e., spanned by aerial crossing). Construction activities related to new or improved access roads would not occur within 100 feet of any known streams or water bodies.

The alignment of Alternative C would be on the far westerly side of the ACEC in an area where BLM horse observation data indicates that horses do not frequent (Figure 3.12-1 shows Alternative C alignment relative to recorded wild horse observations). Further, although horses may temporarily be disturbed by construction activity, there would be little effect to the horses themselves and no effect on their unique characteristics from long-term operation and maintenance of the transmission line. Construction, operation, and maintenance of the transmission line would not be expected to affect the viability or management of the horse herd.

There would be no effects to wilderness values within the Kiger Mustang ACEC because Alternative C does not traverse the Stonehouse Wilderness Study Area portion of the ACEC.

Other possible alternative alignments in the area of Alternative C that would also cross the Kiger Mustang ACEC and would have similar or greater effects than the proposed alignment because they could be located where horses are more frequent or may make management activities, such as horse gathering and censusing by aircraft, more difficult; especially if the route were located more central in the ACEC.

TEMPORARY EFFECTS

Temporary effects on wild horses within the Kiger ACEC and HMA would include noise and increased human activity during installation of the transmission line poles, clearing and grading of existing and new access roads, vehicle operation in areas where overland vehicle travel would occur, and use of temporary laydown areas and tensioning sites. These activities would result in additional surface disturbance and vegetation damage. Areas of temporary disturbance would be restored to pre-construction contours and restored with BLM approved seed mixtures. The owner/operator (HEC) of the transmission line would monitor revegetation. Additional seeding or other measures could be required by BLM to ensure adequate reclamation of temporary use areas affected by construction. Ongoing operations would involve periodic inspections and maintenance of the transmission line (including poles, insulators, and conductors), interconnection station, and access roads. Increased human activity during periods of construction and maintenance could cause wild horses to avoid these areas while humans are present.

FUTURE CONSTRUCTION PHASE – UPGRADE TO 230-kV

The upgrade of the initial North Steens 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, wild horses in the Project Area would experience similar temporary construction related effects as described above, including the disruptive effects from the presence of workers, equipment operation, additional surface disturbance, and vegetation damage from overland vehicle travel, and use of temporary laydown areas and tensioning sites.

MITIGATION

No additional mitigation measures would be required because Project Design Features (PDFs) and best management practices (BMPs) were taken into account in the effects analysis for the action alternatives and would be implemented to reduce effects to wild horses, burros, and ACEC (see Section 2 and Appendix A).

Because the alignment of Alternative C is on the far westerly side of the ACEC in an area where horses do not frequent (Figure 3.12-1), little to no effect on the wild horse population or individual horses within the Kiger HMA or the Kiger Mustang ACEC would be expected. Further, although horses could temporarily be disturbed by construction activity, there would be little effect on the horses themselves and no effect on their unique characteristics from continued operation and maintenance of the transmission line. Construction, operation, and maintenance of the transmission line would not likely affect the viability or management of the horse herd. To further minimize any potential effects to wild horses, the BLM could impose restrictions on construction or major maintenance activities if foaling mares were anticipated to be in the area.

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 as described above for Alternative C – North Route. The 115-kV Transmission Line Option would include a single three-phase (i.e., three conductor) 115-kV circuit and the alignment, pole heights and spacing, ROW width, construction methods, interconnection points, and access requirements would be the same as described for Alternative C.

PERMANENT AND TEMPORARY EFFECTS

The permanent and temporary effects of this design option on wild horses within the Kiger HMA and the Kiger Mustang ACEC would be the same as described for Alternative C. The only notable differences between this design option and Alternative C is that this option would not require a second round of construction to upgrade the line to 230-kV, nor would additional equipment upgrades be required at the interconnection station adjacent to the HEC 115-kV line. This option would have lower temporary construction related effects on wild horses than Alternative C because workers and equipment would not be operating on site during two separate construction phases, and a second round of construction activity would

not cause additional surface disturbance and vegetation damage. Ongoing operations and maintenance activities would be the same as described for Alternative C.

MITIGATION

No additional mitigation measures would be required because Project Design Features (PDFs) and best management practices (BMPs) were taken into account in the effects analysis for the action alternatives and would be implemented to reduce effects to wild horses, burros, and ACEC (see Section 2 and Appendix A).

3.12.3.5 Residual Effects after Mitigation

There are no mitigation measure beyond the PDFs and BMPs recommended in Section 2 and Appendix A, so there would not be any residual effects.

3.12.3.6 Summary Comparison of Alternatives

Table 3.12-3 shows the number of miles crossed and acres affected on the Warm Springs and Kiger HMAs and the Kiger Mustang ACEC, by the transmission line ROW requirement, access roads, and other project related facilities for each alternative. No portion of the Echanis Wind Energy Project or its main access road would affect the Warm Springs and Kiger HMAs or the Kiger Mustang ACEC. The effects to wild horses, burros, and areas of critical environmental concern are summarized in table 3.12-4.

Table 3.12-3 Comparison of Effects - Wild Horses, Burros, and Areas of Critical Environmental Concern

| HMA/ACEC | Alternative A – No Action | Echanis Wind Energy Project | West Route (Proposed Action) | | S. Diamond Lane Route Option | | Hog Wallow Route Option | | Alternative C North Route (Preferred Alternative) | |
|---------------------------|---------------------------|-----------------------------|------------------------------|-------|------------------------------|-------|-------------------------|-------|---------------------------------------------------|-------|
| | | | Miles | Acres | Miles | Acres | Miles | Acres | Miles | Acres |
| Warm Spring HMA | | | | | | | | | | |
| Transmission Line ROW | na | na | 0.83 | 15.1 | 0.32 | 5.8 | 0.41 | 7.5 | - | - |
| Access Roads | na | na | 2.17 | 2.77 | 0 | 0 | 2.17 | 2.77 | - | - |
| Other Facilities | na | na | 0 | .69 | 0 | .69 | 0 | .69 | - | - |
| Kiger HMA | | | | | | | | | | |
| Transmission Line ROW | na | na | - | - | - | - | - | - | 4.46 | 81.1 |
| Access Roads | na | na | - | - | - | - | - | - | 3.48 | 6.76 |
| Other Facilities | na | na | - | - | - | - | - | - | 0 | 0 |
| Kiger Mustang ACEC | | | | | | | | | | |
| Transmission Line ROW | na | na | - | - | - | - | - | - | 7.27 | 132.2 |
| Access Roads | na | na | - | - | - | - | - | - | 5.89 | 9.10 |
| Other Facilities | na | na | - | - | - | - | - | - | 0 | 0 |

Table 3.12-4 Summary of Effects - Wild Horses, Burros, and Areas of Critical Environmental Concern

| Alternative A – No Action | Alternative B | | | Alternative C – North Route (Preferred Alternative) | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Echanis Wind Energy Project | West Route (Proposed Action) | South Diamond Lane Route Option | | Hog Wallow Route Option |
| <p>Under the No Action Alternative, no new transmission lines, interconnection stations, or related facilities would be constructed and no new or improved access roads would be required.</p> <p>The potentially affected areas within HMAs would continue to be used for wild horse forage and range, and the Kiger Mustang ACEC would continue to be used for low-impact recreational pursuits, including camping, and plant and rock collection.</p> | <p>None of the improvements associated with the wind farm site would encroach onto BLM lands designated as HMA or ACEC.</p> | <p>Alternative B would extend 0.83 mile into the east unit of the Warm Springs HMA. The amount of ROW required in the HMA to accommodate the new line would be approximately 15.1 acres.</p> <p>Construction of the new interconnection station adjacent to the HEC 115-kV transmission line would permanently remove 0.69 acre of vegetation within the Warm Springs HMA currently available for wild horse forage and shelter.</p> <p>Alternative B would also require the construction of 2.17 miles of new access roads within the HMA that would permanently remove vegetation on up to 2.77 acres currently available for wild horse forage and shelter.</p> <p>Temporary effects would include noise and increased human activity during installation of the transmission line poles, construction of the new interconnection station, clearing and grading existing and new access roads, vehicle operation in areas where overland vehicle travel would occur, and use of temporary laydown areas and tensioning sites. These activities would result in additional surface disturbance and vegetation damage.</p> <p>Ongoing operations would involve periodic inspections and maintenance of the transmission line (including poles, insulators, and conductors), interconnection station, and access roads. Increased human activity during periods of construction and maintenance could cause wild horses to avoid these areas while humans are present.</p> | <p>The South Diamond Lane Route Option would extend approximately 0.32 mile into the east unit of the Warm Springs HMA. The amount of ROW required from HMA to accommodate the new line would be approximately 5.8 acres.</p> <p>Other effects would be the same as for Alternative B – West Route.</p> | <p>The Hog Wallow Route Option would extend approximately 0.41 mile into the east unit of the Warm Springs HMA. The amount of ROW required within the HMA to accommodate the new line would be approximately 7.5 acres.</p> <p>The South Diamond Lane Route Option would also require the construction of 2.17 miles of new access roads within the HMA that would permanently remove vegetation on up to 2.77 acres currently available for wild horse forage and shelter.</p> <p>Other effects would be the same as for Alternative B – West Route.</p> | <p>Alternative C would cross 7.27 miles of the Kiger Mustang ACEC, of which 4.46 miles is within the Kiger HMA. The amount of ROW required within the ACEC to accommodate the new line would be approximately 132.2 acres, and the amount required within the HMA would be approximately 81.1 acres.</p> <p>Alternative C would also require the construction of 3.48 miles of new access roads within the HMA that would permanently remove up to 6.76 acres of vegetation currently available for wild horse forage and shelter.</p> <p>Access road construction (including overland roads) would cross 5.89 miles of the Kiger Mustang ACEC affecting approximately 9.10 acres.</p> <p>Temporary effects would be the same as for Alternative B – West Route.</p> |