

Exhibit T

Recreational Opportunities

**Wheatridge Renewable Energy Facility East
December 2022**

**Prepared for
Wheatridge East Wind, LLC**

Prepared by



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Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
ASC	Application for Site Certificate
BLM	Bureau of Land Management
Certificate Holder	Wheatridge East Wind, LLC
Council	Energy Facility Siting Council
dBA	A-weighted decibels
Facility	Wheatridge Renewable Energy Facility East
FHWA	Federal Highway Administration
KOP	Key Observation Points
LOS	Level of Service
MBTH	maximum blade tip height
MW	megawatt
NPS	National Park Service
NTSA	National Trails System Act
OAR	Oregon Administrative Rule
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
ONHT	Oregon National Historic Trail
OPRD	Oregon Parks and Recreation Department
OR-##	Oregon Route
RFA 1	Request for Amendment 1
VRM	Visual Resource Management
ZVI	zone of visual influence

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1.0 Introduction

The Wheatridge Renewable Energy Facility East (Facility) is an approved, but not yet constructed, wind energy generation facility consisting of up to 66 turbines and related or supporting facilities with a peak generating capacity of up to 200 megawatts (MW), to be located in an Approved Site Boundary of approximately 4,582 acres on over 42,000 acres of leased land in Morrow and Umatilla counties, Oregon. As part of Request for Amendment (RFA) 1 to the Facility Site Certificate, Wheatridge East Wind, LLC (Certificate Holder) is proposing to expand wind power generation at the Facility to provide the opportunity for increased power capacity and availability. This includes expanding the Site Boundary and micrositing corridors, increasing the peak generating capacity by adding more and newer turbines, changing the intraconnection routes, and extending the construction date. See the RFA 1's Division 27 document (*Request for Amendment #1 for the Wheatridge Renewable Energy Facility East*) for a more detailed summary of the proposed changes.

This Exhibit T was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(t). Analysis in this exhibit incorporates and/or relies on reference information, analysis, and findings found in the Application for Site Certificate (ASC), previous RFAs, and Oregon Department of Energy Final Orders to demonstrate that the Facility, as modified by RFA 1, continues to comply with applicable Site Certificate conditions and the approval standard in OAR 345-022-0100.

2.0 Analysis Area

OAR 345-021-0010(1)(t)(D) A map of the analysis area showing the locations of important recreational opportunities identified in (A).

In accordance with OAR 345-001-0010(35)(d), the Analysis Area for recreational opportunities is the area within and extending 5-miles from the site boundary (Figure T-1). The Amended Site Boundary is inclusive of portions of the Approved Site Boundary.

3.0 Recreational Opportunities in the Analysis Area – OAR 345-021-0010(1)(t)(A)(E)

OAR 345-021-0010(1)(t) Information about the impacts the proposed facility would have on important recreational opportunities in the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0100, including:

OAR 345-021-0010(1)(t)(A) A description of the recreational opportunities in the analysis area that includes information on the factors listed in OAR 345-022-0100(1) as a basis for identifying important recreational opportunities;

OAR 345-021-0010(1)(t)(E) A map of the analysis area showing the locations of important recreational opportunities identified in paragraph (A);

As previously found by the Energy Facility Siting Council (Council), the design, construction and operation of the Facility are not likely to result in a significant adverse impact to any important recreational opportunities in the Analysis Area.^{1, 2} No new recreational areas are located within the Analysis Area since the Final Order on the ASC and RFA 4 were issued. Note that seven previously identified recreation areas are no longer within the Analysis Area of the proposed Facility: the Wells Spring Interpretive Site, Rolling Hills Hunting Preserve, Social Ridge Access Area, Bunker Hill Access Area, Willow Creek RV Park, Willow Creek Reservoir, and Hager Park. The Analysis Area is shown on Figure T-1 and an inventory of the recreational opportunities within the Analysis Area is included as Attachment T-1.

3.1 Inventory Methods

Recreational opportunities within the Analysis Area were identified through collection and review of existing published and unpublished information available from desktop research sources commonly used for recreation inventory efforts. Key types of information resources investigated for the inventory included:

- Geographic Information System files documenting recreational resources obtained from key recreation provider agencies, e.g., the Bureau of Land Management (BLM; BLM 2018), Oregon Department of Fish and Wildlife (ODFW; ODFW 2021), United States Forest Service (USFS; USFS 2022a, USFS 2022b), United States Geological Survey (USGS; USGS 2020), and Oregon Parks and Recreation Department (OPRD; OPRD 2018);
- Land management agency planning documents;
- Comprehensive plans, park and recreation plans, and individual park master plans prepared by OPRD and by counties and municipal governments within the Analysis Area;
- Internet sites maintained by recreation provider agencies, including OPRD, ODFW, and county and city park departments (Heppner Chamber 2022, Morrow County 2022, ODFW 2022, OPRD 2022, Umatilla County 2022); and
- Internet sites maintained by various commercial entities, including sites providing general recreation and tourism information and sites applicable to specific private-sector recreation opportunities (Google Earth 2021, ORBIC 2020).

3.2 Summary of Recreational Opportunities

In general, recreation activities in the Analysis Area consist of hiking, fishing, boating, camping, bicycling, photography, game and bird hunting, and sightseeing. These activities also occur in

¹ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 215

² Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 114

numerous locations outside the Analysis Area, and therefore some of the recreational opportunities identified within the Analysis Area do not rise to the level of uniqueness or irreplaceability that is required by OAR 345-022-0100(2).

There are eight identified recreational opportunities within the Analysis Area. These include the Blue Mountain National Scenic Byway, a portion of the Oregon Trail and the related Oregon Trail Area of Critical Environmental Concern (ACEC)/ Echo Meadows Interpretive Site, Morrow County Fairgrounds, several parks managed by the City of Heppner, and a golf course open to the public. As noted above, none of these recreational areas are new and all were previously assessed by Council as described in the Final Order on the ASC and RFA 4.^{3, 4} None of the recreational opportunities are within the Amended Site Boundary as proposed by RFA 1. RFA 1 proposes extending the acreage around the Facility, thereby the new sites for the proposed turbines are located at a greater distance from the eight identified recreation areas than previously sited in the ASC/RFA 4. Thus, the impacts will be less than what was previously described in ASC/RFA 4 and approved in the Final Order (see Attachment T-1).

Recreational opportunities within the Analysis Area are described below in order of federal, state, local and private ownership/management. Attachment T-1 provides a summary of each identified recreational opportunity, and an assessment of the importance of each opportunity. Figure T-1 shows the location of the recreation opportunities identified in the Analysis Area.

3.2.1 Federal

The National Park Service (NPS), in conjunction with the Oregon Historic Trails Advisory Committee, manages the remaining segments and important sites of the Oregon National Historic Trail. The trail route passes about 2.6 miles north of the Amended Site Boundary. The Echo Meadows Interpretive Site is a high-potential historical site located within the Analysis Area. Due to their rareness and historic importance, the Oregon Trail and the Echo Meadows Interpretive Site are considered important recreational resources. The Echo Meadows Interpretive Site is managed by the BLM as an ACEC; as such it is also considered a protected area for the analysis in Exhibit L of this application.

The BLM Vale District manages five parcels within the Analysis Area, two of which are surrounded by the Amended Site Boundary but not within the Amended Site Boundary (see Exhibit R, Figure R-1; in addition to the Oregon Trail ACEC/Echo Meadows Interpretive Site parcel discussed above); none of these parcels contain a designated recreation area nor are they considered to be a recreational resource.

There are no other federal lands or lands managed by a federal agency within the Analysis Area. This portion of the Oregon Trail and the Oregon Trail ACEC/Echo Meadows Interpretive Site for the trail are within five miles of the Amended Site Boundary and the turbines proposed by RFA 1 (4.43

³ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 206-215

⁴ Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 107-114

miles and 4.26 miles, respectively; see Attachment T-1). However, these recreational opportunities are greater than five miles from the Intraconnection Line options proposed by RFA 1 (see Attachment T-1).

3.2.2 State

There is a single parcel owned by the State of Oregon surrounded by the Amended Site Boundary (but not considered part of the Amended Site Boundary) and in turn the Analysis Area (see Exhibit R, Figure R-1), in addition to state highway rights-of-way. This parcel does not contain a designated recreation area nor is considered to be a recreational resource. Within the Analysis Area and within five miles of the Amended Site Boundary, Oregon Route 74 (OR-74) is designated as a part of the Blue Mountain National Scenic Byway. As a result of the designation OR-74 is considered an important recreation resource, inviting travelers from afar and providing an economic boost to towns along the route. This scenic byway is within five miles of the Amended Site Boundary but is greater than five miles from the turbines and Intraconnection Line options proposed by RFA 1 (see Attachment T-1).

3.2.3 Local Governments and Special Districts

Counties, cities, and special districts provide a number of recreation opportunities within the Analysis Area. Local government resources tend to be smaller-scale parks with an emphasis on day-use activities and typically serve more localized user populations. Local government recreation providers within the Analysis Area include Morrow County and the City of Heppner.

Morrow County operates one recreational facility in the Analysis Area, the Morrow County Fairgrounds in Heppner, which functions as the sole fairgrounds in the County (Morrow County 2022). The County Fair and other agricultural- and ranching-related events that take place at the fairgrounds form an important part of community life. Because of this role in community life and the rare nature of county fairgrounds, this is considered an important recreation resource.

Three parks owned and managed by the City of Heppner are located in the Analysis Area: Heritage Park, Heppner City Park, and the Willow Creek Water/Community Park. Heritage Park is primarily dedicated to history with several displays of antique farming equipment and informational signs, but no recreational facilities. Heppner City Park has recreational facilities (playgrounds), restrooms and usable open space. These two parks primarily serve the residents of Heppner. The Willow Creek Water/Community Park provides one of a few public pools in the region; due to its relative scarcity it is considered an important recreation resource.

These four recreational facilities owned by local governments or special districts are within five miles of the Amended Site Boundary but are greater than five miles from the turbines and Intraconnection Line options proposed by RFA 1 (see Attachment T-1).

3.2.4 Private

One privately owned recreational opportunity has been identified within the Analysis Area. This recreation facility was included in the ASC because, although it is privately owned, it is open to the public. This private opportunity is the Willow Creek Country Club and golf course.

The Willow Creek Country Club is a private, nonprofit social club located near the western outskirts of Heppner. While the club is private, the golf course is open to the public with greens fees. Facilities and amenities are few but include cart and club rental. The 9-hole course is rated below average difficulty by the United States Golf Association.

This privately owned recreational area is within five miles of the Amended Site Boundary but is greater than five miles from the turbines and Intraconnection Line options proposed by RFA 1 (see Attachment T-1).

3.3 Importance Criteria

Recreational opportunities identified within the Analysis Area were evaluated for “importance” based on the criteria outlined in OAR 345-022-0100. A recreational opportunity may be determined to be important based on assessment of available information specific to each criterion, and a qualitative balancing of the attributes for all five criteria for a given resource. Specific considerations used to characterize the importance of a recreational opportunity relative to the five criteria outlined in OAR 345-022-0100 are summarized as follows:

1. *Any special designation or management of the location;*

There are distinct, identifiable differences among the types of special management designations that apply to lands within the Analysis Area, and their associated implications for resource protection. Wilderness designation, for example, results in management direction to preserve the resource values of the designated area and represents a high level of protection. Other types of designations allow much more latitude in undertaking management activities and involve a lower degree of resource protection. The source of the special designation is also a relevant consideration; a designation established through an Act of Congress clearly carries more weight than an administrative designation applied by a resource management agency.

2. *The degree of demand;*

Qualitative ratings of High, Moderate, and Low were used as proxy measures for the level of demand for a specific recreational opportunity.

3. *Outstanding or unusual qualities;*

Identification of characteristics that might be considered outstanding or unusual for a given opportunity is a highly subjective task, as there is a wide variation in the values, tastes, and perceptions among the recreational public. The standard does not specify what qualities would define an opportunity as “outstanding” or “unusual,” or indicate how those characteristics could be measured. Some sites or areas have attributes that qualify them as “unique” (i.e., one of a kind),

while others have qualities that are not unique, but intuitively set them apart from other opportunities and could be considered outstanding or unusual.

4. Availability or rareness; and

Qualitative ratings of Rare, Uncommon, and Common were used to address the criterion based on the apparent rareness of an opportunity. Consideration of this rareness attribute was based on the approximate set of comparable opportunities (and the geographic scale appropriate to each type of opportunity) available within the region surrounding the Facility.

5. Irreplaceability or irretrievability of the opportunity.

Ratings of Irreplaceable, Somewhat Irreplaceable, and Replaceable were used to address the criterion based on the ability to replace an opportunity. In general, opportunities based on inherent natural resource characteristics that could not feasibly be recreated in the same place or at another reasonably nearby location were considered Irreplaceable. By contrast, most opportunities that are based on constructed recreational facilities or infrastructure (such as typical campgrounds) could feasibly be replaced and were considered Replaceable.

The assessment of the overall importance for each identified recreational opportunity occurred on a case-by-case basis. Attachment T-1 provides a summary of each identified recreational opportunity in the Analysis Area, describes the characteristics of the opportunity relative to the importance criteria, and indicates which opportunities are considered important for the purposes of this exhibit. A description of each recreational opportunity appears in the following section.

3.4 Importance Assessment Summary

Based on the importance criteria described above, five of the identified recreation resources have been determined to be important for the purposes of this exhibit. These are:

- The high-potential segment of the Oregon National Historic Trail and the high-potential site, the Oregon Trail ACEC/Echo Meadows Interpretive Site;
- The Blue Mountain National Scenic Byway;
- The Morrow County Fairgrounds; and
- The Willow Creek Water/Community Park.

These resources were described in the ASC and are summarized in Attachment T-1 of this exhibit. The potential for impacts to the important recreation resources as a result of the proposed Facility is discussed in Section 4.

4.0 Impact Assessment – OAR 345-021-0010(1)(t)(B)(C)

The potential effects to important recreational opportunities in the Analysis Area were studied to determine whether the Facility's design, construction, and operation, when taking into account

mitigation, would be likely to result in any significant adverse impacts. The following sections summarize the types of potential adverse impacts evaluated and provide summaries of the analysis.

OAR 345-021-0010(1)(t)(B) A description of any potential adverse impacts to the important opportunities identified in paragraph (A) including, but not limited to: ...

(C) An evaluation of the significance of the potential adverse impacts identified under paragraph (B);

4.1 Direct or Indirect Loss of Recreational Opportunities – OAR 345-021-0010(1)(t)(B)(i)

(i) Direct or indirect loss of a recreational opportunity as a result of facility construction or operation;

For a direct loss of opportunity to occur, the Facility would need to physically disturb the ground located within the affected recreational resource area. The Facility as modified by RFA 1 would not directly impact any identified recreation resource as none of the recreational opportunities are within the Amended Site Boundary.

An indirect loss of opportunity could occur if 1) a recreational opportunity nearby the Facility would not be physically disturbed by construction activity but might need to be temporarily closed to public use in response to safety concerns; or 2) if development of the Facility were to alter the environment of a recreational opportunity through indirect effects that it substantially adversely impacted the quality of the recreation experience at that site. For example, if the Facility were to destroy intact evidence of the Oregon Trail in view of an interpretive site (which it does not), it could render the site meaningless in terms of its historic importance and value as a tourism resource.

Because all five important recreation resources in the Analysis Area are located farther than one mile from the Amended Site Boundary, indirect loss of opportunity for safety concerns is unlikely to occur. Potential sources of indirect disturbance impacts to important recreational opportunities include noise, traffic, and changes in visual quality associated with the Facility; the following sections analyze these three factors.

4.2 Facility Noise – OAR 345-021-0010(1)(t)(B)(ii)

(ii) Noise resulting from facility construction or operation;

Noise would be generated during both construction and operation of the Facility. As previously found by the Council, noise generated by the construction and operation phases of the Facility is unlikely to cause significant adverse noise impacts to recreation areas.^{5, 6} Exhibit Y provides an assessment of the existing acoustical environment and anticipated Facility sound levels; the

⁵ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 211

⁶ Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 109-110

methodology for noise modeling is detailed in that exhibit. As noted in Exhibit Y, sound generated by an operating turbine includes both mechanical sound and aerodynamic sound. The dominant noise component for wind farms is aerodynamic sound, which refers to the sound produced by air flow around the turbine blades and the tower. Construction activities associated with construction of the additional wind turbines and related or supporting facilities would be similar to the construction noise already reviewed by Council for the Facility.

Exhibit Y describes sound level thresholds derived from the Oregon Department of Environmental Quality (ODEQ) noise regulations (OAR 340-035-0035), which are used to assess the significance of impacts to noise sensitive properties. As defined in OAR 340-035-0035, “noise sensitive properties” are “real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it meets the above criteria in more than an incidental manner.”

Based on the results of noise reduced operations modeling, described in detail in Exhibit Y, operation of the additional wind turbines and related or supporting facilities would not create new noise impacts to recreational opportunities beyond those that were previously identified for the Facility. Facility noise (including turbines, battery energy storage system, Intraconnection Line, and substations) would attenuate to below 26 A-weighted decibels (dBA), or less than the background noise level, within approximately 2 miles from the Amended Site Boundary. All five important recreational opportunities are located more than 2 miles from the Amended Site Boundary so would not be affected by Facility turbine operation or other Facility noise. The two closest sites are the high-potential segment of the Oregon Trail, and the Oregon Trail ACEC/Echo Meadows Interpretive Site located over 2.5 miles from the Amended Site Boundary (and approximately 4.43 miles and 4.26 miles to the nearest turbines, and 6.72 miles and 9.08 miles to the nearest transmission line, respectively). Modeled worst-case Facility operational noise levels along the trail route would be as high as 22 dBA, significantly below rural ambient background noise levels. This is less than the noise level previously modeled for the approved wind facility. Modeled worst-case operational noise levels at the Oregon Trail ACEC/Echo Meadows Interpretive Site would be similar; no higher than 23 dBA. Note that the Oregon Trail ACEC/Echo Meadows Interpretive Site is the nearest point of the trail to the Facility. The worst-case noise level of 23 dBA is also significantly below rural ambient background noise level and less than the noise level previously modeled for the approved wind facility. This level of noise is unlikely to substantively diminish the experience of visitors to the Oregon Trail ACEC/Echo Meadows Interpretive Site along the high-potential Oregon Trail segment. Neither the Oregon Trail ACEC/Echo Meadows Interpretive Site nor the Oregon Trail would be considered noise-sensitive receptors under the ODEQ noise regulations.

The remainder of the identified recreation resources in the Analysis Area would similarly be unaffected by Facility operational noise, due to their locations of over 4.5 miles from the Amended Site Boundary and over 6.01 miles to the nearest turbines.

Noise from construction would similarly be less than 26 dBA and effectively inaudible in all but the two closest recreation sites, the Oregon Trail ACEC/Echo Meadows Interpretive Site and the high-potential Oregon Trail segment; Facility noise levels along the trail would peak at the Oregon Trail

ACEC/Echo Meadows Interpretive Site, the nearest point of the trail to the Facility. Pursuant to OAR 340-035-0035(5), noise from construction activities is exempt from the state noise standards. Noise-generating activities during construction could result from the use of heavy machinery, such as heavy trucks, bulldozers, graders and cranes. Based on the estimated noise levels of construction equipment provided in Exhibit Y, construction noise levels at the Oregon Trail ACEC/Echo Meadows Interpretive Site would peak at approximately 34 dBA; this noise level is comparable to a quiet library. This elevated noise level would occur sporadically, generally 9 to 11 days of construction, over a period of about 3 to 4 weeks, while the access roads and turbines closest to the Oregon Trail ACEC/Echo Meadows Interpretive Site are built. As construction progresses elsewhere in the Facility, noise levels would drop to background levels. At this time, pending geo-technical investigation of the final layout, blasting is not anticipated to be required for Facility construction.

4.3 Traffic – OAR 345-021-0010(1)(t)(B)(iii)

(iii) Increased traffic resulting from facility construction or operation;

OAR 345-021-0010(1)(t) requires consideration of impacts to recreational resources from Facility-related traffic that could occur during construction or operation. Exhibit U provides information on construction traffic levels and typical travel routes for Facility truck and construction worker traffic. Based on the analysis provided in Exhibit U, traffic resulting from construction proposed in RFA 1 will be similar to or less than traffic already evaluated for the approved Facility. Therefore, the construction traffic is not anticipated to result in a reduction of Level of Service (LOS) on any roads that provide access to the important recreational resources identified in this exhibit. However, some roads near some recreational opportunities would experience higher traffic levels during construction, and visitor travel to some areas may be disrupted or delayed for brief periods due to delivery of Facility materials or construction equipment.

As previously found by the Council, the traffic generated by the construction and operation of the facility is not likely to result in significant adverse impacts to any of the recreational opportunities identified as “important”.^{7, 8} Delays are most likely to occur only during deliveries of oversized loads such as turbine blades, which will occur sporadically and will be accompanied by traffic control teams. These impacts would be intermittent and temporary, and traffic levels would return to normal following construction. Note that the Certificate Holder has previous experience utilizing similar transportation routes for constructing facilities (i.e., the Wheatridge Renewable Energy Facilities) and in turn working with the Morrow County Road Department; no public use impacts have been noted to date. Out of the five important recreation sites, only the Oregon Trail ACEC/Echo Meadows Interpretive Site is likely to have temporary traffic impacts during construction because it is accessed by roads that would also carry Facility construction traffic.

The Oregon Trail ACEC/Echo Meadows Interpretive Site is accessed primarily via a gravel road extending north from Oregon Trail Road, which intersects with Interstate 84 (I-84) to the east at

⁷ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 211-212

⁸ Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 110-111

Echo, and with OR-207 to the west. The gravel road continues north past the site and joins with several other east-west gravel roads, e.g. Curtis Road, that in turn access OR-207 or wind eastward toward Echo or Stanfield. Truck traffic attributable to the northeast portion of the Facility would pass the entrance to the site from Oregon Trail Road, and OR-207 would carry truck traffic for all segments of the Facility. None of the gravel roads north of Oregon Trail Road will be used for Facility traffic. Oregon Trail Road and OR-207 would be most affected during the morning peak hours, when visitors are unlikely to arrive at the Oregon Trail ACEC/Echo Meadows Interpretive Site; for the remainder of the day, truck trips would be sporadic and unlikely to cause any delays. The intersection of OR-207 may be cause for concern, largely due to the difficulty of turning/merging from a stop on Oregon Trail Road into high-speed traffic on OR-207; this would most affect visitors *leaving* the site. However, the volume of construction traffic is unlikely to materially affect the operation of this intersection, and the Certificate Holder will work with the Oregon Department of Transportation (ODOT) and the counties to provide any necessary traffic controls. The level of visitorship at this site is fairly low⁹, indicating that the likelihood for significant delays for visitors reaching the site is low.

Other important and identified recreation resources are accessed primarily by roads that would not carry substantial amounts of Facility construction traffic and are therefore unlikely to experience any traffic impacts. Again, temporary, short-term delays are most likely to occur only during deliveries of oversized loads such as turbine blades, which will occur sporadically and will be accompanied by traffic control teams. Construction truck traffic will not travel on OR-74, and based on the availability of housing in the area little construction worker traffic is anticipated on this road (see Exhibit U); Facility construction would have negligible impact to the Blue Mountain National Scenic Byway. Access to the Morrow County Fairgrounds or the Willow Creek Water/Community Park is primarily via OR-74 and OR-207. Access to the sites via OR-74 is unlikely to be affected, while the traffic analysis in Exhibit U demonstrates that Facility construction would not reduce LOS on OR-207.

The operational phase of the Facility would affect recreational opportunities only to the extent that operation and maintenance activities generate significant amounts of traffic. Typical operational traffic would be minimal, as the Facility would permanently employ only approximately 5 to 10 personnel. Larger amounts of traffic would be generated only if a turbine would need significant repairs or replacement. In that event, some roads would experience higher traffic levels, and visitor travel to some areas may be disrupted or delayed for brief periods during delivery of materials or equipment. However, these impacts would be rare, intermittent and temporary, and would not represent significant adverse impacts to any recreational resource in the area.

⁹Site receives up to an estimated maximum of about 1,200 visitors per year (pers. comm. from Brian Woolf, BLM Vale District, Baker Office, July 13, 2022).

4.4 Visual – OAR 345-021-0010(1)(t)(B)(iv)

(iv) Visual impacts of facility structures or plumes, including, but not limited to, changes in landscape character or quality;

4.4.1 Visual Impact Assessment Methodology

Visual impacts of the Facility are primarily related to views of the turbines, and to a lesser degree, other facilities such as the Intraconnection Line, access roads, shared/existing operations and maintenance building, and substations. Evaluation of visual impacts to recreational opportunities echoes the methodology described in Exhibit L. Some of the recreation resources are represented as Key Observation Points (KOPs) in the analysis of visual impacts in Exhibit R; these are noted below as applicable.

In evaluating the visual impacts, the Certificate Holder first determined whether the Facility would be visible from each recreation resource area using digital bare earth modeling. The analysis began with a zone of visual influence (ZVI) analysis (also known as a viewshed or visibility analysis), using Environmental Systems Research Institute ArcGIS software, to identify the areas from which the proposed Facility turbines might be visible.

To assess the potential visibility of the structures, the ZVI analysis was performed for the turbine layout and both associated Intraconnection Line routes (Figure T-2, T-3 and T-4). The analysis assumed 110% of the maximum blade tip height (MBTH), utilizing the proposed MBTH of 152.09 meters (499 feet). This resulted in an assumed turbine MBTH of 167 meters (549 feet).

Additionally, a maximum height of 45.7 meters (150 feet) was assumed for the Intraconnection Line, for both transmission line options. A viewing height of 1.8 meters (6 feet) was assumed. Visibility of Facility infrastructure was further defined by proximity, i.e., foreground (<0.5 miles), middleground (0.5 to 5 miles), or background distances (> 5 miles).

It should be noted that this bare-earth modeling approach (based only on the effects of terrain on visibility) results in a highly conservative assessment of potential visibility for several reasons. First, a bare-earth analysis does not take into account the effects of vegetation or buildings, which will in practice block or screen views in some places. Second, by using a MBTH that is 10 percent taller than the turbine being analyzed, the ZVI analysis indicates potential visibility beyond what would actually occur. In addition, in some areas where the analysis indicates Facility structures would be visible, the only visible components might be the tips of the turbine blades at MBTH, which would likely be noticeable only at relatively close viewing distances. Finally, the model does not account for distance, lighting, weather, and atmospheric attenuation factors that diminish visibility under actual field conditions. Figure T-2 shows the areas from which the wind turbines would likely be visible; the number of turbines potentially visible is indicated by color coding. Figures T-3 and T-4 shows the areas from which the Intraconnection Line (both transmission line options) would be visible or not visible, also indicated by color coding.

4.4.2 Visual Impact Assessment Results

Based on the results of the ZVI analysis, there would be visibility of some portions of the Facility from all five of the important recreation resource areas in the Analysis Area (see Figures T-2 through T-4 and Table T-1). Turbine visibility is characterized as minimal (20 or fewer turbines potentially visible), low (21 to 50 turbines visible), or moderate (51 to 113 turbines visible), and Intraconnection Line visibility is characterized as visible or not visible.

Potential visibility is one of several factors that comprise an assessment of visual impact to a recreation resource. Other factors to consider include the existing visual context, particularly other sources of visual contrast present within the view; the likely number and nature of visitors to a recreation area; and whether there is any management direction related to preservation of scenic quality, either within the recreation area or outside of it. Table T-1 provides a summary of the visual impact assessment for each of the important recreation resources in the Analysis Area. Table T-1 also considers the visibility of the approximately 26-mile Transmission Line A or Transmission Line B for the Facility. The proposed Facility turbines would potentially be visible from all important recreation resources areas and the Intraconnection Line (both Transmission Line A and B options) would *not* be visible from all important recreation resource areas except the Oregon National Historic Trail and the Oregon Trail ACEC/Echo Meadows Interpretive Site. Turbine visibility ranges from minimal to moderate depending on specific location. Visual impacts for each of the five important recreation areas from which the Facility would be visible are described in the following paragraphs.

4.4.2.1 Blue Mountain National Scenic Byway

The Blue Mountain National Scenic Byway passes through the southwestern part of the Analysis Area. The designated route in this area follows OR-74 southeast to Heppner, then follows Willow Creek Road southeast out of Heppner into the Blue Mountains. Approximately 7.26 miles of the 145-mile route are within the Analysis Area.

The National Scenic Byway Program was created in 1995 in response to program requirements within the Intermodal Surface Transportation Efficiency Act of 1991. Under this program, roads are designated as National Scenic Byways or All-American Roads based on their “scenic, historic, recreational, cultural, archeological, and/or natural intrinsic qualities” (Federal Register 1995). Roads are nominated through a state’s “identified scenic byway agency and include a corridor management plan designed to protect the unique qualities of a scenic byway.” Roads nominated for the federal program should already be designated as state scenic byways. Federal scenic byways are eligible for a variety of grants from the Federal Highway Administration (FHWA), which support the development of corridor management plans, safety improvements, byway facilities, access to recreation, interpretive information, and marketing programs (FHWA 2022).

The Oregon Scenic Byways Program was created “as an opportunity for Oregon to take advantage of the national program defined in Intermodal Surface Transportation Efficiency Act. The Program provides an ‘umbrella’ to include various federal, state, city and county defined scenic roads and

highways. The Oregon Scenic Byways Program crosses jurisdictional boundaries and establishes appropriate signage for each designated byway, and statewide promotion. This program also offers an opportunity to preserve and enhance Oregon's most scenic corridors while ensuring the transportation function is protected" (Oregon.gov 2022).

The Blue Mountain State Scenic Byway Management Plan (USFS 1993) focuses on means to improve visitor experience while traveling the byway. While the scenery is important, the management plan focuses on appropriate signage and wayfinding, development of interpretive media, identification of local partnerships for economic development, and development of historic and cultural activities and sites within the towns along the route. The management plan focuses largely on the towns, views, and historic sites located in the Blue Mountains, with little discussion of the portion of the route in the Columbia Plateau. In the vicinity of the Facility, the only scenic features noted in the management plan are the lava cliffs and outcrops, and no specific locations are identified.

As previously found by the Council, significant adverse visual impacts from the Facility would not be expected at this important recreation opportunity.¹⁰ The visibility analysis demonstrates that potential views of the Facility turbines would be blocked by terrain for most of the length of the Blue Mountain National Scenic Byway. At the limited points along the highway where some Facility turbines may be visible, the visibility is characterized as minimal (0 to 20 turbines), and turbines would be viewed at a background viewing distance of at least 6.01 miles (the proximity of the closest turbine). The Intraconnection Line would not be visible from the Blue Mountain National Scenic Byway (located 5.86 miles away at the closest point). In addition, the viewing duration at highway speed would be short. Limited views of some turbines for a short portion of the 145-mile route, in a region experiencing substantial growth in wind energy development, is unlikely to substantially affect the overall tour route experience. While the Blue Mountain Scenic Byway Management Plan describes scenic resources in some segments of the route, none are specified in the vicinity of the Facility, and there is no management direction for preservation of views or scenic quality related to the private lands on which the Facility is located and through which the byway runs. Views of the Facility would not compromise the integrity of the scenic byway route; would not affect wayfinding between the towns and sites along the route; would have no direct impacts to the historic properties or historic districts for which the towns are known; and would not affect programs or activities at the destination sites geared toward increasing tourism along the byway.

4.4.2.2 Oregon National Historic Trail

Congress designated the route of the Oregon Trail as a National Historic Trail in 1978, and the Oregon Historic Trails Advisory Committee was created to provide public input and advice to the NPS on management of historic trails in Oregon. The National Historic Trail designation applies to a general, primary route (and two specified branches) extending approximately 2,000 miles from Independence, Missouri, to Oregon City, Oregon. The Oregon Trail designation was intended to preserve the legacy of the westward immigration of settlers to the Oregon Territory, based on

¹⁰ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 213

routes used from 1841 to 1848 (NPS 1999). In recognition of the intermittent evidence of many of the historic trail routes, the National Trails System Act (NTSA) provided for the identification of “high-potential sites and segments” along these routes, using specified criteria for historic significance, the presence of visible historic remnants, scenic quality, and relative freedom from intrusion. High-potential segments are portions of a trail route that afford high-quality recreational experiences in areas that have greater than average scenic values or afford the opportunity to vicariously share the experience of the original trail users, while high-potential sites are specific locations with similar attributes. Each site or segment must have the potential to interpret the trail’s historical significance and to provide opportunities for high-quality recreation. The following sections describe these locations within the Analysis Area that are available and accessible to the public for recreation.

In Umatilla County, the designated Oregon Trail route runs from Deadman Pass down Emigrant Hill to the Pendleton area, westward to cross the Umatilla River at Echo, and continues westward to cross OR-207 before turning southwesterly to cross Butter Creek and into Morrow County. In Morrow County, the designated Oregon Trail route runs across the southern end of the Boardman Bombing Range¹¹, then southwesterly to Cecil, Oregon, across Willow Creek, and continues west. NPS has formal responsibility for administering the Oregon Trail and preservation of the remaining trail segments. Approximately 13.34 miles of the 2,000-mile route are within the Analysis Area. The trail route passes approximately 2.5 miles northeast of the Amended Site Boundary and the 13.34-mile segment is contained within the Umatilla County portion of the Analysis Area.

As previously found by the Council, the overall visual impact of the Facility on the Oregon Trail would be negligible because the existing viewshed contains wind turbines and other industrial infrastructure.^{12, 13} The updated visibility analysis demonstrates that turbine visibility along the high-potential Oregon Trail segment would range from minimal (0 to 20 turbines) to moderate (51 to 113 turbines) depending on location along the route; turbines would be viewed at a middleground viewing distance of at least 4.26 miles (the proximity of the closest turbine). The Intraconnection Line would be potentially visible from portions of this Oregon Trail segment, but is unlikely to be visible or indiscernible at the background distance of 6.72 miles (at the closest point).

As assessed in Exhibit R, KOP 3 represents the Oregon Trail ACEC/Echo Meadows Interpretive Site which is the nearest point of the trail to the Facility, therefore the visual impacts assessed at KOP 3 represent the worst-case visual impacts to the Oregon Trail segment. Per Exhibit R, viewers at KOP 3 would have low visibility of Facility turbines, to the south at middleground and background distances of 4.2 to over 6 miles from the KOP (see Figure R-5). Some of the turbines would be

¹¹ The U.S. Navy recently renamed this installation as the Naval Weapons System Training Facility (NWSTF), Boardman. In recognition of conventional usage in the local area, this document employs the original Boardman Bombing Range term.

¹² Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 213

¹³ Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 113

skylined, but with the long viewing distance the turbines would appear smaller than the existing man-made features evident in the view.

The Oregon Trail is managed to maintain historic value (i.e., view of visible trail remnants and ruts, along with the immediate surroundings), rather than scenic qualities; there is no management direction for preservation of views or scenic quality related to the lands on which this segment of the Oregon Trail is located (NPS 1999). Although the relatively undeveloped viewshed is said to provide an experience that enables visitors to relate to the emigrants, the viewshed is no longer in the nearly pristine condition that it was during the emigrants' time. The road is evident, much of the landscape is farmed and fenced, little of the tallgrass native prairie remains and the turbines of existing wind farms are visible to the south and southwest. The Facility turbines would be visible to the south/southwest and would not intervene in views northward to the remaining evidence of the Trail. The remaining evidence of the Oregon Trail within this trail segment would not be disturbed by the Facility, allowing visitors to continue their enjoyment of the site's history.

4.4.2.3 Oregon Trail ACEC/Echo Meadows Interpretive Site

This high-potential Oregon Trail site is located approximately 5.5 miles west of the town of Echo, north of the Lexington-Echo Highway (a.k.a. OR-320 or Oregon Trail Road); approximately 2.5 miles northeast of the Amended Site Boundary. This was a popular location for emigrants where they could rest themselves and their stock. Visitors can hike along a paved trail to see nearly one mile of intact wagon ruts and read interpretive signs about the area and its history; there are no other developed facilities (NPS 2020). This site is managed by the BLM as the Oregon Trail ACEC, pursuant to the BLM's Vale District, Baker Resource Management Plan (1989); it is also considered a protected area and discussed in Exhibit L.

As previously found by the Council, significant adverse visual impacts from the Facility would not be expected at this important recreation opportunity.¹⁴ The updated visibility analysis demonstrates that turbine visibility at the site would range from minimal (0 to 20 turbines) to moderate (51 to 113 turbines) depending on location; turbines would be viewed at a middleground viewing distance of at least 4.26 miles (the proximity of the closest turbine). The Intraconnection Line would be potentially visible from portions of the site but is unlikely to be visible or indiscernible at the background distance of 9.08 miles (at the closest point).

Updated visual impacts to the Oregon Trail ACEC/Echo Meadows Interpretive Site are analyzed in Exhibit R. As stated above, this site is represented by KOP 3, which is located on the Oregon Trail Highway (OR-320) approximately 0.5 miles south of an isolated parcel of BLM land within the Oregon Trail ACEC. The visual simulation (Figure R-5) shows visible turbines between 4.2 to over 6 miles from the viewpoint; the nearest turbines would be at least 4.26 miles from the remaining Oregon Trail ruts within the site. Some of the turbines would be skylined, but with the long viewing distance the turbines would appear comparable in size or smaller than the existing man-made features evident in the view. Some portions of the western portion of the Facility would also be

¹⁴ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 214-215

visible, but at a far background distance of over 15 miles these would be barely noticeable. The existing views include evident vertical modifications including a power line, irrigation pivots, and existing wind turbines in the background, and the viewing distance is relatively long, reducing the apparent size of the turbines.

Despite the site's historic importance and potential as a tourism resource, this site receives low levels of public use, up to an estimated maximum of about 1,200 visitors per year (pers. comm. from Brian Woolf, BLM Vale District, Baker Office, July 13, 2022). With no facilities beyond the paved trail and some information signs, viewing durations would be fairly short, visitor numbers are fairly low, and the existing viewshed contains many reminders of modern life. Although it is managed as an important historic site, it is not managed as an important scenic resource (i.e., assigned to BLM Visual Resource Management (VRM) Class I or II). Regardless of its VRM classification, the BLM's VRM system does not apply outside the boundaries of the ACEC, thus there is no management direction for preservation of views or scenic quality applicable to the lands on which the Facility is located. The remaining evidence of the Oregon Trail at the Oregon Trail ACEC/Echo Meadows Interpretive Site would not be disturbed by the Facility, allowing visitors to continue their enjoyment of the site's history.

4.4.2.4 Morrow County Fairgrounds

The Morrow County Fairgrounds is located approximately 4.6 miles southwest of the Amended Site Boundary in the town of Heppner. In addition to offering rodeo and other agricultural/ranching-related events, the site also has a multipurpose sport field, campground, and other facilities (Morrow County 2022). As the sole County fairgrounds, it is considered uncommon and demand for the resource is assumed to be moderate.

As previously found by the Council, significant adverse visual impacts from the Facility would not be expected at this important recreation opportunity.^{15, 16} The updated visibility analysis demonstrates that turbine visibility at the site would be minimal (0 to 20 turbines); turbines would be viewed at a background viewing distance of at least 6.93 miles (the proximity of the closest turbine). The Intraconnection Line would not be visible from the Morrow County Fairgrounds (located 8.82 miles away).

Due to the distant proximity to the Facility, and existing views of other wind farms and utility infrastructure virtually in all directions from the Morrow County Fairgrounds, visual impacts from the Facility are anticipated to be negligible. Additionally, no scenic management direction is provided from the site (Morrow County 2017, Morrow County 2019).

¹⁵ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 212-215

¹⁶ Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 111-113

4.4.2.5 *Willow Creek Water/Community Park*

The Willow Creek Water/Community Park is located approximately 4.8 miles southwest of the Amended Site Boundary in the city of Heppner. The site offers a public pool, reservable for lessons and private parties, as well as several sports and fitness parks (Willow Creek Park District 2022). As one of the few public pools in the region, it is considered rare and demand for the resource is assumed to be moderate.

As previously found by the Council, significant adverse visual impacts from the Facility would not be expected at this important recreation opportunity.^{17, 18} The updated visibility analysis demonstrates that turbine visibility at the site would be minimal (0 to 20 turbines); turbines would be viewed at a background viewing distance of at least 7.05 miles (the proximity of the closest turbine). The Intraconnection Line would not be visible from the Willow Creek Water/Community Park (located 8.78 miles away).

Due to the distant proximity to the Facility, and existing views of other wind farms and utility infrastructure virtually in all directions from the Willow Creek Water/Community Park, visual impacts from the Facility are anticipated to be negligible. Additionally, no scenic management direction is provided from the site (City of Heppner 2015, City of Heppner 2022).

4.5 **Summary of Impacts**

The Facility has been designed to avoid direct loss to all important and identified recreational opportunities (see Table T-1), and indirect disturbance effects would not lead to an indirect loss of any important or identified recreational opportunity.

Most identified recreation resources would experience virtually no impact from the Facility as compared to what was previously approved. They are located where they would not be affected by Facility construction or operational traffic; they are too far away to hear operational noise; and they already have the turbines of existing wind farms and utility infrastructure in view and would have limited views of the Facility that would adversely affect the visitor experience. The only important recreation resources that are likely to experience more than negligible impacts to user experience are the Oregon National Historic Trail segment and the Oregon Trail ACEC/Echo Meadows Interpretive Site. The location of these sites is such that they may experience some traffic impacts (primarily Oregon Trail ACEC/Echo Meadows, the closest point of the Oregon National Historic Trail to the Amended Site Boundary), would receive some Facility construction noise, and would have minimal to moderate visibility of Facility turbines at middleground to background viewing distances. Traffic impacts for these sites would be limited to potential delays accessing the sites (primarily Oregon Trail ACEC/Echo Meadows) rather than traffic at these sites; any potential traffic impacts would be temporary and intermittent, and unlikely to affect the level of use at these sites. The turbine noise level at these sites would be comparable in volume to a quiet library. Views of the

¹⁷ Final Order on Application for the Wheatridge Wind Energy Facility (April 2017), p. 212-215

¹⁸ Final Order on Request for Amendment 4 to the Site Certificate for the Wheatridge Wind Energy Facility (November 2019), p. 111-113

turbines would not interfere with the purpose of these sites and would not conflict with management direction for these sites. Similar to the other important recreation resources from which some of the Facility turbines may be visible, views of the turbines are considered unlikely to significantly affect visitor experience or numbers of visitors.

Table T-1. Summary of Impacts to Important Recreational Opportunities

Recreational Opportunity	Direct or Indirect Loss of Opportunity?	Worst-case Modeled Operational Noise Level (dBA L ₅₀)	Maximum Received Sounds Levels During Construction (dBA)	Potential Traffic Impacts	Potential Visual Impacts ¹
Blue Mountain National Scenic Byway	No	<26; Background (no increase from approved wind facility)	<26; Background (no increase from approved wind facility)	Negligible	Viewshed analysis indicates minimal turbine visibility (0 to 20 turbines) at background viewing distance (6.01 miles minimum), depending on location along OR-74; moderate viewer numbers but intermittent, short viewing duration at background distance; existing wind and utility infrastructure; no conflict with management direction. The up to 26-mile Intraconnection Line routes are not visible, and therefore will not contribute to visual contrast from this location.
Oregon Trail High-Potential Segment	No	<26; Background (no increase from approved wind facility)	<33; Background (no increase from approved wind facility)	Negligible	Viewshed analysis indicates turbine visibility ranging from minimal (0 to 20 turbines) to moderate (51 to 113 turbines) depending on location, at middleground viewing distance (4.26 miles minimum); turbines would not interfere with viewing of remaining trail evidence; existing wind and utility infrastructure; no conflict with management direction. The up to 26-mile Intraconnection Line routes are highly unlikely to be visible or otherwise discernible at the background viewing distance of over 6.72 miles, and therefore will not contribute to visual contrast from this location.

Recreational Opportunity	Direct or Indirect Loss of Opportunity?	Worst-case Modeled Operational Noise Level (dBA L ₅₀)	Maximum Received Sounds Levels During Construction (dBA)	Potential Traffic Impacts	Potential Visual Impacts ¹
Oregon Trail ACEC/Echo Meadows Interpretive Site	No	<26; Background (no increase from approved wind facility)	<34; Background (no increase from approved wind facility)	Negligible	Viewshed analysis indicates turbine visibility ranging from minimal (0 to 20 turbines) to moderate (51 to 113 turbines) depending on location, at middleground viewing distance (4.26 miles minimum); turbines would not interfere with viewing of remaining trail evidence within the ACEC; low public use; existing wind and utility infrastructure; no conflict with management direction. The up to 26-mile Intraconnection Line routes are highly unlikely to be visible or otherwise discernible at the background viewing distance of over 9.08 miles, and therefore will not contribute to visual contrast from this location.
Morrow County Fairgrounds	No	<26; Background (no increase from approved wind facility)	<26; Background (no increase from approved wind facility)	Negligible	Viewshed analysis indicates minimal turbine visibility (0 to 20 turbines) at background viewing distance (6.93 miles minimum); existing wind and utility infrastructure; no management direction. The up to 26-mile Intraconnection Line routes are not visible, and therefore will not contribute to visual contrast from this location.
Willow Creek Water/Community Park	No	<26; Background (no increase from approved wind facility)	<26; Background (no increase from approved wind facility)	Negligible	Viewshed analysis indicates minimal turbine visibility (0 to 20 turbines) at background viewing distance (7.05 miles minimum); existing wind and utility infrastructure; no management direction. The up to 26-mile Intraconnection Line routes are not visible, and therefore will not contribute to visual contrast from this location.

Recreational Opportunity	Direct or Indirect Loss of Opportunity?	Worst-case Modeled Operational Noise Level (dBA L ₅₀)	Maximum Received Sounds Levels During Construction (dBA)	Potential Traffic Impacts	Potential Visual Impacts ¹
<p>dBA = A-weighted decibels.</p> <p>1. Indicates potential visibility of any part of the wind turbines (up to 499 feet), Intraconnection Line (up to 150 feet), or other Facility components as determined through viewshed analysis. Both heights are the same as what was previously approved in the ASC.</p>					

5.0 Minimization and Mitigation Measures – OAR 345-021-0010(1)(t)(D)

OAR 345-021-0010(1)(t)(D) A description of any measures the applicant proposes to avoid, reduce or otherwise mitigate the significant adverse impacts identified in paragraph (B);

As described Section 4, the Facility will have no significant, direct adverse impact on any important recreational opportunity in the Analysis Area. Indirect disturbance effects associated with traffic, noise or visual aspects of the proposed Facility would not lead to an indirect loss of any important or identified recreational opportunity. Consequently, no mitigation measures for recreation are proposed.

6.0 Monitoring Program – OAR 345-021-0010(1)(t)(F)

OAR 345-021-0010(1)(t)(F) The applicant's proposed monitoring program, if any, for impacts to important recreational opportunities.

Because construction and operation of the proposed Facility would have no significant adverse impacts on recreational opportunities in the Analysis Area, and no mitigation specific to recreation is warranted or proposed, no monitoring program for recreation is proposed.

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Figures

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Wheatridge Renewable Energy Facility East

Figure T-1
Recreation Areas

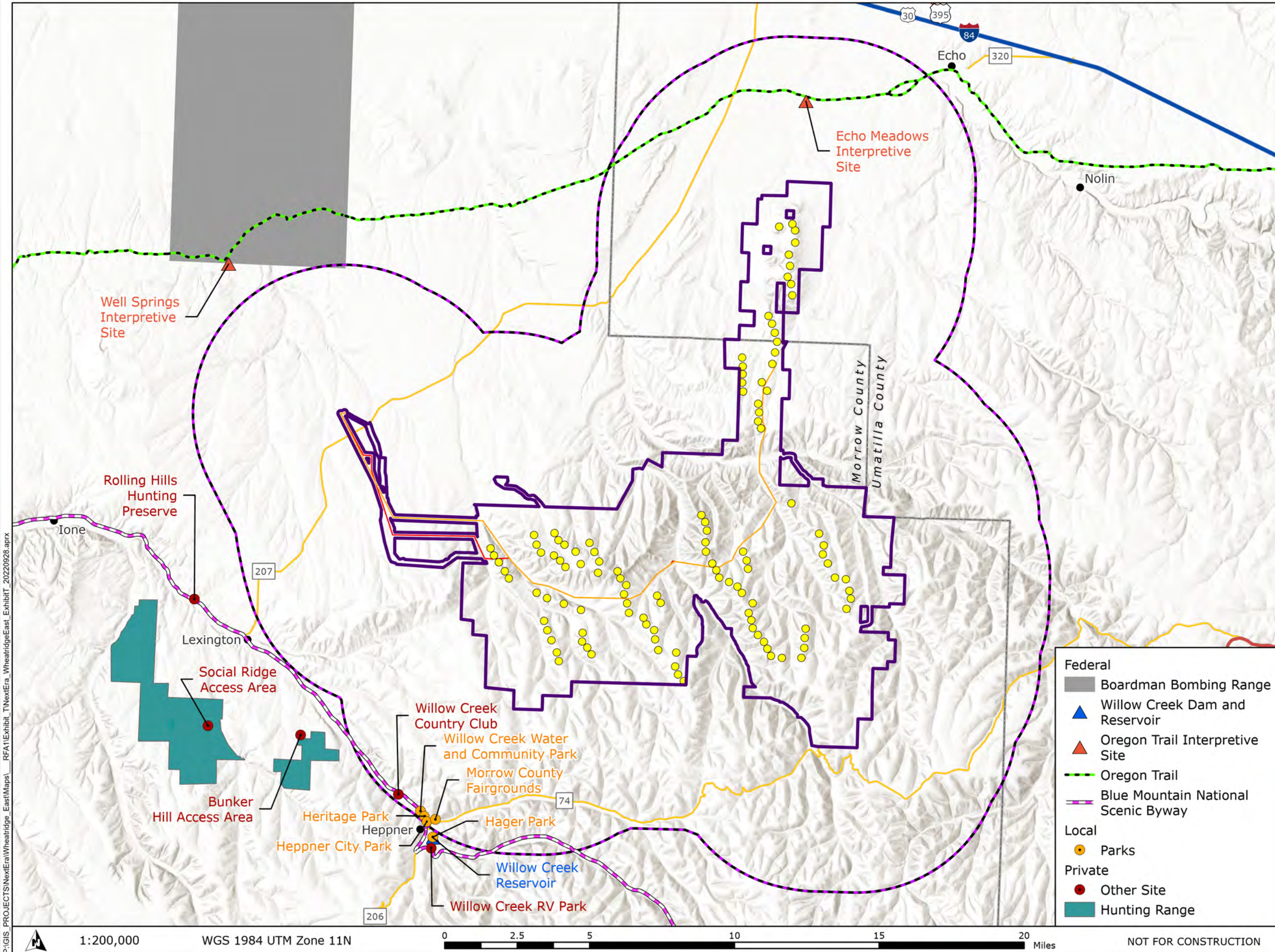
MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- Analysis Area (5 mile buffer)
- Turbines
- Transmission Line Option A
- Transmission Line Option B
- County Boundary
- City/Town
- Interstate Highway
- US Highway
- State Highway

- Federal
- Boardman Bombing Range
 - Willow Creek Dam and Reservoir
 - Oregon Trail Interpretive Site
 - Oregon Trail
 - Blue Mountain National Scenic Byway
- Local
- Parks
- Private
- Other Site
 - Hunting Range



Reference Map



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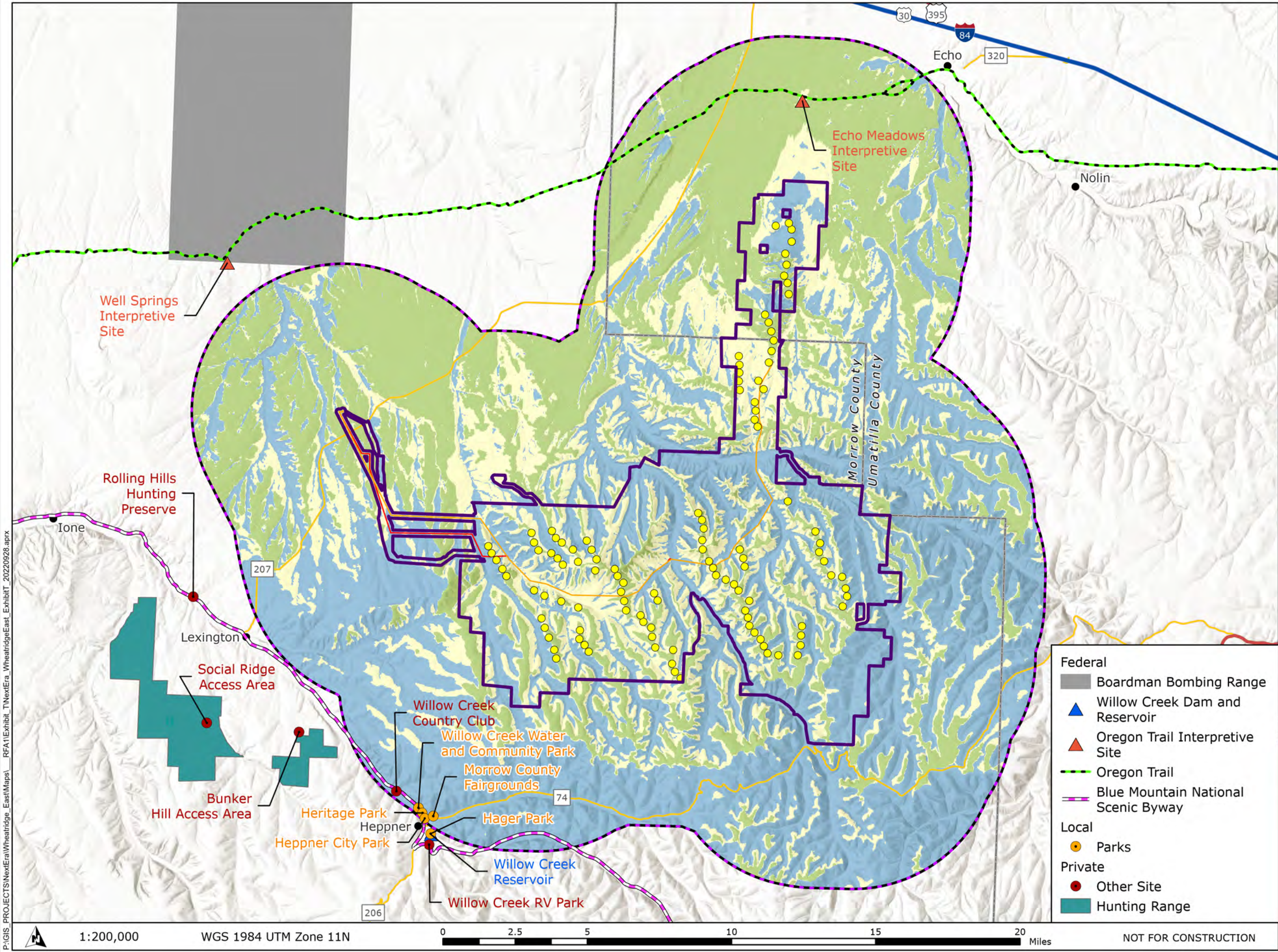
Wheatridge Renewable Energy Facility East

Figure T-2 Recreation Areas Turbine Viewshed

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
 - Analysis Area (5 mile buffer)
 - Turbines
 - Transmission Line Option A
 - Transmission Line Option B
 - County Boundary
 - City/Town
 - Interstate Highway
 - US Highway
 - State Highway
- Viewshed
- Number of Turbines Visible*
- Minimal (0-20 turbines)
 - Low (21-50 turbines)
 - Moderate (51-113 turbines)

*Potential turbine visibility calculated using a 10 meter bare-earth digital elevation model with turbine heights of 499 feet (152.09 meters) representing 110% Maximum Blade Tip Height and a viewing height of 6 feet (1.8 meters).



- Federal
- Boardman Bombing Range
 - Willow Creek Dam and Reservoir
 - Oregon Trail Interpretive Site
 - Oregon Trail
 - Blue Mountain National Scenic Byway
- Local
- Parks
- Private
- Other Site
 - Hunting Range

Wheatridge Renewable Energy Facility East

**Figure T-3
Recreation Areas
Transmission Line
Option A Viewshed**

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- Analysis Area (5 mile buffer)
- Transmission Line Option A
- County Boundary
- City/Town
- Interstate Highway
- US Highway
- State Highway
- Viewshed Results
 - Transmission Line Not Visible
 - Transmission Line Potentially Visible

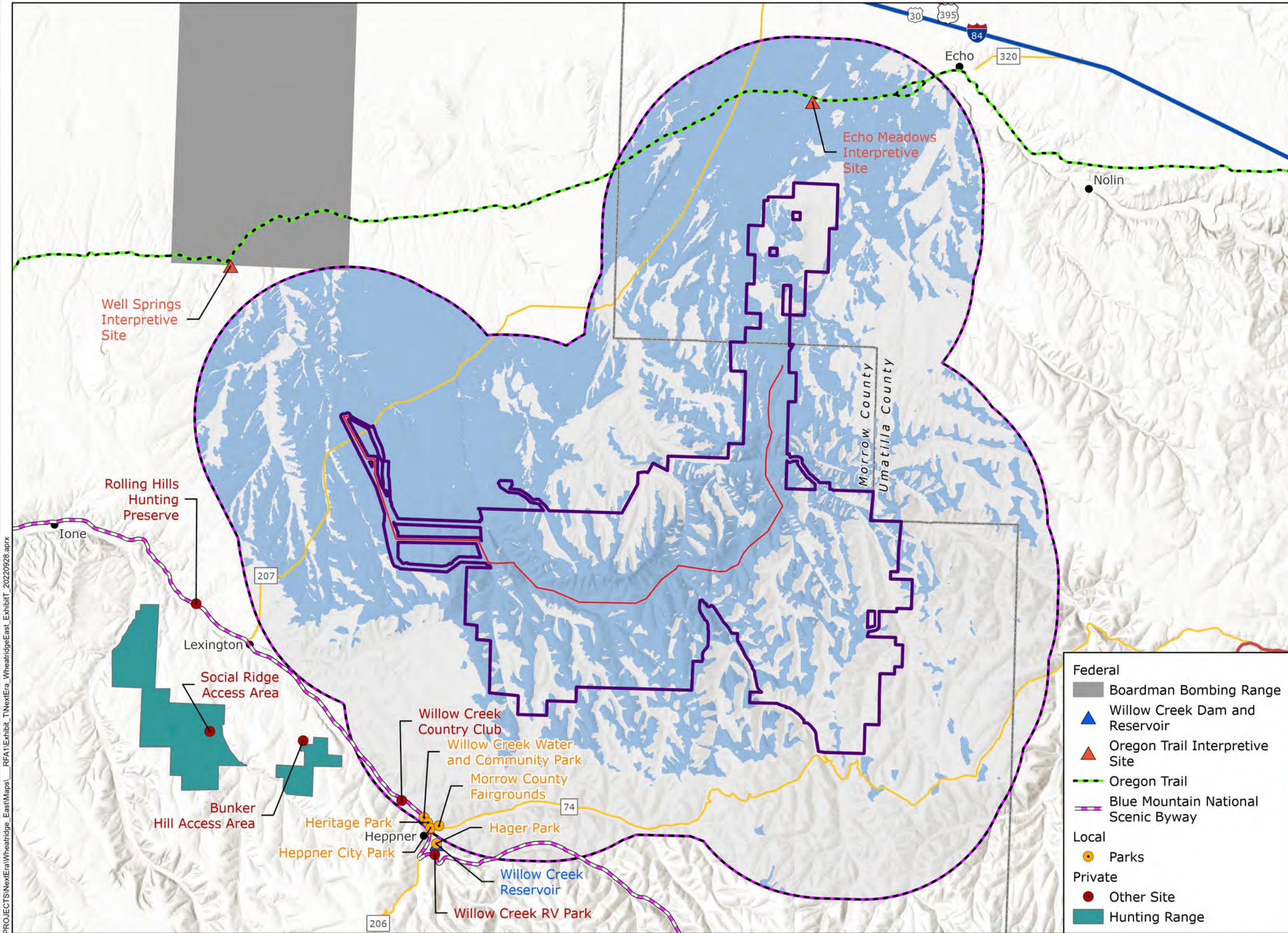
*Potential transmission line visibility calculated using a 10 meter bare-earth digital elevation model with transmission line height of 150 feet (45.72 meters) and a viewing height of 6 feet (1.8 meters).



Reference Map



- Federal**
 - Boardman Bombing Range
 - Willow Creek Dam and Reservoir
 - Oregon Trail Interpretive Site
 - Oregon Trail
 - Blue Mountain National Scenic Byway
- Local**
 - Parks
- Private**
 - Other Site
 - Hunting Range



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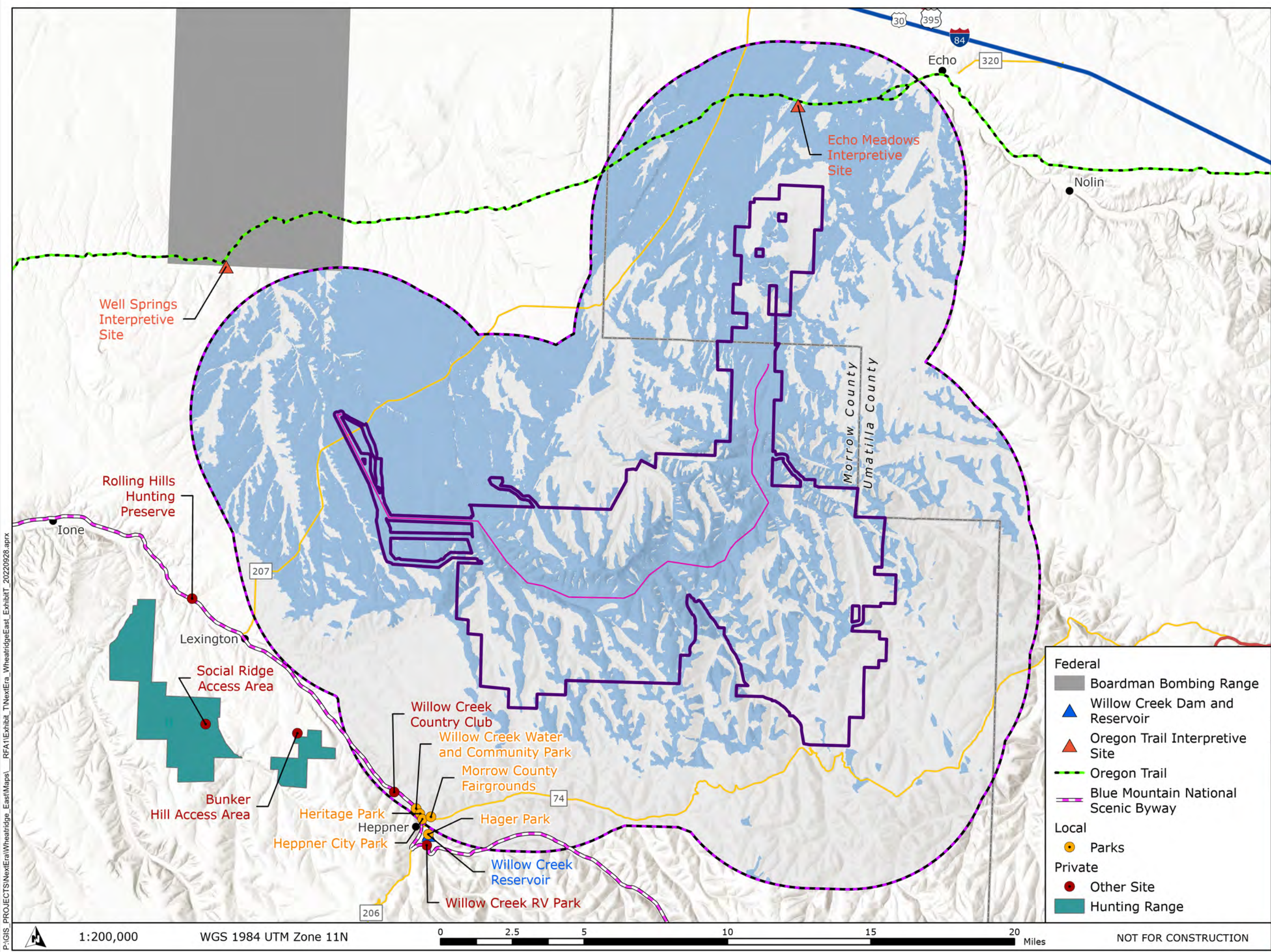
Wheatridge Renewable Energy Facility East

Figure T-4 Recreation Areas Transmission Line Option B Viewshed

MORROW AND UMATILLA COUNTIES, OR

- Amended Site Boundary
- Analysis Area (5 mile buffer)
- Transmission Line Option B
- County Boundary
- City/Town
- Interstate Highway
- US Highway
- State Highway
- Viewshed Results
 - Transmission Line Not Visible
 - Transmission Line Potentially Visible

*Potential transmission line visibility calculated using a 10 meter bare-earth digital elevation model with transmission line height of 150 feet (45.72 meters) and a viewing height of 6 feet (1.8 meters).



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**Attachment T-1.
Inventory of Recreational Opportunities
in the Analysis Area**

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Table T-1. Inventory of Recreational Resources in the Analysis Area												
Recreational Opportunity	Responsible Entity	Distance to Amended Site Boundary			Description	Size or Distance	Importance Factors					Important Recreation Resource?
		Wind Turbines		Intraconnection Line (miles; Line A and Line B)			Designation	Demand	Outstanding or Unusual Qualities	Rareness	Replaceability	
		Distance (miles)	Distance Change Relative to RFA 4/ASC Analyses									
Blue Mountain National Scenic Byway	Oregon Department of Transportation, FHWA	6.01	2.01-mile increase	5.86, 5.86	Route starts at Heppner Junction on I-84 and ends at Sumpter and Haines in Baker County. The route passes through agricultural land, forest land, near Oregon Trail segments and several historic towns. (USFS 1993)	Approx. 145 miles total; Approx. 7.26 miles in Analysis Area	Oregon State Scenic Byway	Moderate	Entire route includes diverse scenery, historic towns, a national forest, rocky peaks, and streams; OR 74 is one of several highways through similar eastern Oregon landscapes	Relatively common travel route in the north-central Oregon region	Somewhat Irreplaceable	Yes
Oregon National Historic Trail Segments/Sites	NPS, Oregon Historic Trails Advisory Committee	4.43	3.23-mile increase	6.72, 6.72	The Oregon Trail was one of the main overland migration routes on the North American continent, leading from locations on the Missouri River to the Oregon Country. A high-potential trail segment has been identified, extending from the eastern boundary of the Boardman Bombing Range westward to Immigrant Road. (NPS 1999)	Approx. 2,000 miles total; Approx. 13.34 miles of high-potential trail segment in Analysis Area	National Historic Trail	Low	Most trail segments destroyed by agricultural use; interpretive information at the Wells Springs Interpretive Site; public access to this high-potential trail segment restricted by federal and private ownership	Intact evidence of trail route rare	Irreplaceable (intact segments only)	Yes
		4.26	1.46-mile increase	9.08, 9.08	The Echo Meadows Interpretive Site offers a short paved trail walk with informational signage, and views of about one mile of intact wagon ruts. (NPS 2020)	Approx. 300 acres; Approx. 300 acres in Analysis Area	National Historic Trail interpretive site; BLM ACEC	Low	Interpretive signage with historical information; paved trail leading to views of intact wagon ruts; no other facilities; surrounded by center-pivot irrigated agriculture	Intact evidence of trail route rare	Irreplaceable	Yes
Morrow County Fairgrounds	Morrow County	6.93	3.83-mile increase	8.82, 8.82	Site developed for County Fair with large riding/competition ring, stockyards, barns, grandstand, multipurpose sport field, campground, and other facilities, located in City of Heppner. (Morrow County 2022)	Approx. 11.7 acres; Approx. 11.7 acres in Analysis Area	County fairgrounds	Moderate	Venue for agricultural/ ranching-related events that are important part of community social and business life	Uncommon; one per county	Replaceable	Yes
Heritage Park	City of Heppner	7.09	3.99-mile increase	8.88, 8.88	Open space between two roads, with historic information/ exhibits; no developed recreation facilities (Google Earth 2021)	Approx. 1.4 acres; Approx. 1.4 acres in Analysis Area	City park	Low	Typical neighborhood park	Common in the local area	Replaceable	No
Heppner City Park	City of Heppner	7.18	3.88-mile increase	9.01, 9.01	Small park near center of Heppner, with playground and restrooms (Google Earth 2021)	Approx. 0.8 acres; Approx. 0.8 acres in Analysis Area	City park	Low	Typical neighborhood park	Common in the local area	Replaceable	No
Willow Creek Water/Community Park	City of Heppner	7.05	4.05-mile increase	8.78, 8.78	Community swimming pool offering seasonal public swimming, lessons and private parties; includes a basketball court, fitness park, and pickleball courts (Willow Creek Park District 2022)	Approx. 1 acre; Approx. 1 acre in Analysis Area	City park	Moderate	Outdoor swimming pool open in summer; facilities include locker rooms, showers, slide, hot pool, basketball court	Rare; one of a few public pools in the region	Replaceable	Yes
Willow Creek Country Club	Private	7.21	4.21-mile increase	8.65, 8.65	Private country club with 9-hole golf course open to public use. (Oregon Golf 2022)	30 acres; Approx. 30 acres in Analysis Area	Private club and golf course	Low-moderate	Short course of below average difficulty in unremarkable setting	Relatively uncommon in the local area	Replaceable	No

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