

Exhibit R

Scenic Resources

Nolin Hills Wind Power Project January 2022



d/b/a Nolin Hills Wind, LLC

Prepared by



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Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
Applicant	Nolin Hills Wind, LLC
BESS	battery energy storage system
BLM	U.S. Bureau of Land Management
I-84	Interstate 84
kV	kilovolt
MBTH	maximum blade tip height
O&M	Operations and Maintenance
OAR	Oregon Administrative Rule
OCTA	Oregon-California Trails Association
ODFW	Oregon Department of Fish and Wildlife
OPRD	Oregon Parks and Recreation Department
Project	Nolin Hills Wind Power Project
RMP	Resource Management Plan
UDC	Unified Development Code
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management
ZVI	zone of visual influence

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1.0 Introduction

Exhibit R provides an analysis of the Nolin Hills Wind Power Project (Project) impacts to scenic resources, as required to meet the submittal requirements of Oregon Administrative Rule (OAR) 345-021-0010 (1)(r) paragraphs (A) through (F). This exhibit demonstrates that the Project can comply with the approval standard in OAR 345-022-0080:

345-022-0080 Scenic Resources

...to issue a Site Certificate, the Council must find that the design, construction, and operation of the Facility, taking into account mitigation, are not likely to result in significant adverse impacts to scenic resources and values identified as significant or important in local land use plans, tribal land management plans, and federal land management plans for any lands located within the analysis area described in the Project Order.

2.0 Analysis Area

The Analysis Area for scenic resources includes the area within the Site Boundary, as well as 10 miles from the Site Boundary, as defined in OAR 345-001-0010(59)(b). The Site Boundary is defined in detail in Exhibits B and C. The Analysis Area is shown on Figure R-1.

3.0 Identification of Significant or Important Scenic Resources – OAR 345-021-0010(1)(r)(A)(B)(E)

OAR 345-021-0010(1)(r) An analysis of significant potential impacts of the proposed facility, if any, on scenic resources identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0080, including:

OAR 345-021-0010(1)(r)(A) A list of the local, tribal and federal plans that address lands within the analysis area.

OAR 345-021-0010(1)(r)(B) Identification and description of the scenic resources identified as significant or important in the plans listed in (A), including a copy of the portion of the management plan that identifies the resource as significant or important.

OAR 345-021-0010(1)(r)(E) A map or maps showing the location of the scenic resources described under (B).

This section inventories scenic resources identified as significant or important in local, tribal, and federal land use plans within the Analysis Area, as required to demonstrate compliance with the

approval standard in OAR 345-022-0080. The Analysis Area includes parts of two Oregon counties, one Washington State county, seven Oregon municipalities, and land administered by, the Oregon Department of Fish and Wildlife (ODFW), the U.S. Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Army Corps of Engineers (USACE).

The following sections describe the applicable jurisdictions, their applicable land use plans, and the determination as to whether visual resources in the Analysis Area are designated as significant or important. These descriptions are summarized in Table R-1 and shown on Figure R-1.

Table R-1. Important Scenic Resources Inventory

Jurisdiction	Plan	Scenic Resources Specified in Plan (Y/N)	Important or Significant Scenic Resources Identified in Analysis Area (Y/N)	Name of Scenic Resource in Analysis Area	Location Scenic Resources Discussed in Plan
COUNTIES					
Morrow County, OR	Morrow County Comprehensive Plan(Morrow County 2013)	No	No	None identified	Natural and Cultural Resources Element
Umatilla County, OR	Umatilla County Comprehensive Plan (Umatilla County 2017; Umatilla County 1984)	Yes	No	None identified	Chapter 8, p. 8-10, 8-11; Technical Report, D-104-109
Benton County, WA	Benton County Comprehensive Plan (Benton County 2018)	Yes	No	None identified	Chapter 2, p. 27
CITIES					
City of Irrigon	City of Irrigon Comprehensive Plan (City of Irrigon 2005) and Development Code (City of Irrigon 2017)	No	No	None identified	Chapter IV, Goal 4
City of Umatilla	City of Umatilla Comprehensive Land Use Plan (City of Umatilla 2013)	No	No	None identified	Chapter 5, Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces
City of Hermiston	City of Hermiston Comprehensive Plan and Development Code (City of Hermiston 2018)	No	No	None identified	Chapters II, III
City of Stanfield	City of Stanfield Comprehensive Plan (City of Stanfield 2001) and Development Code (City of Stanfield 2003)	No	No	None identified	Development Code Chapters 2-3

Jurisdiction	Plan	Scenic Resources Specified in Plan (Y/N)	Important or Significant Scenic Resources Identified in Analysis Area (Y/N)	Name of Scenic Resource in Analysis Area	Location Scenic Resources Discussed in Plan
City of Echo	City of Echo Comprehensive Plan (City of Echo 2005) and Zoning Administrative Regulations (City of Echo 2015)	No	No	None identified	Comprehensive Plan Section 7-1-5
City of Pendleton	City of Pendleton Comprehensive Plan (City of Pendleton 2013) and Unified Development Code (City of Pendleton 2017)	Yes	Yes	Umatilla River	Chapter II
City of Pilot Rock	City of Pilot Rock Comprehensive Plan (1979), Ordinance 489 (2001)	No	No	None identified	Chapters V, VIII
STATE					
ODFW	Columbia Basin Wildlife Areas Management Plan (ODFW 2008)	No	No	None identified	N/A
TRIBAL					
None Applicable	None	N/A	N/A	N/A	N/A
FEDERAL					
BLM, Vale District, Baker Resource Area	Baker Resource Management Plan (BLM 1989)	Yes	Yes	Echo Meadows Oregon Trail ACEC Site	Chapter 2, Baker Resource Management Plan Decisions, p. 47-49; Management Guidance for applicable Geographic Units; Map 5

Jurisdiction	Plan	Scenic Resources Specified in Plan (Y/N)	Important or Significant Scenic Resources Identified in Analysis Area (Y/N)	Name of Scenic Resource in Analysis Area	Location Scenic Resources Discussed in Plan
USFWS	Cold Springs National Wildlife Refuge – <i>No conservation plan</i>	N/A	N/A	N/A	N/A
	Umatilla National Wildlife Refuge Comprehensive Conservation Plan (USFWS 2007)	No	No	None identified	N/A
	McKay Creek National Wildlife Refuge – <i>No conservation plan</i>	N/A	N/A	N/A	N/A
USACE	Lake Umatilla and Lake Wallula Recreation Management Areas – John Day Lock and Dam Master Plan (USACE 1976) and McNary Shoreline Management Plan (USACE 2012)	No	No	None identified	N/A

3.1 Counties

3.1.1 *Morrow County, Oregon*

The Morrow County Comprehensive Plan (Morrow County 2013) was reviewed for designated scenic resources or sites. In the Natural Resources Element, under the heading “Scenic Views; Sites,” is the statement, “Addressed in plan (p. 69) but none identified.” No information on scenic views or sites is found in the indicated location. In the Goal 5 Resources section of the Plan is the statement, “Morrow County contains a variety of landscapes, many of which may be considered to be scenic. The County has not, however, designated any sites or areas as being particularly high in scenic-resources value.” Therefore, the Morrow County Comprehensive Plan does not identify any scenic resources as significant or important for inclusion in this exhibit.

3.1.2 *Umatilla County, Oregon*

The Umatilla County Comprehensive Plan (Umatilla County 2017) addresses the 14 statewide planning goals adopted by the State of Oregon. Chapter 8 of the plan addresses Goal 5, which is “To conserve open space and protect natural and scenic resources.” The plan states “Umatilla County has a number of outstanding scenic views and pleasant vistas” (p. 8-10). In response to the finding, the plan establishes a series of policies intended to protect scenic views in the county. In general, the policies state the need to address and mitigate adverse visual effects of development and discuss programmatic steps to address potential scenic conflicts that might be associated with proposed changes in land use. One of the policies states that Wallula Gap (a prominent physiographic feature along the Columbia River where it enters Oregon) has been recognized as a significant scenic resource, and the County shall enact special land use measures to protect this area (p. 8-12).

Umatilla County conducted an analysis of potentially important or significant scenic resources in an accompanying Comprehensive Plan Technical Report, last amended in 1984 (Umatilla County 1984). The County reviewed 32 known outstanding sites and views to support its Goal 5 compliance, described above. Of these 32 sites, 22 were deemed to be not important enough to be included in the inventory or were not under the jurisdiction of the County. Nine sites and vistas were classified as justifying limits to conflicting land uses; however, the County found that existing Comprehensive Plan designations and zoning already limit conflicts for those sites. While the Technical Report recommends the County adopt an additional policy to ensure special consideration of those nine areas, no such policy was subsequently adopted, and no mention of these areas was carried forward into the Comprehensive Plan’s protective policies. The Technical Report concludes that only one location, the Wallula Gap, is a “significant scenic area” and that, due to its importance, the resource site should be protected, and all conflicting uses prohibited. As described above, the Comprehensive Plan incorporated this conclusion into its policies to address Goal 5.

Based on the specific content of the plan and its supporting technical report, Nolin Hills Wind, LLC (the Applicant) concludes that Wallula Gap has been identified as an important or significant scenic resource. Wallula Gap is more than 20 miles from the Site Boundary, however, and is not within the Analysis Area for this exhibit. Therefore, there are no important or significant Umatilla County scenic resources within the Analysis Area.

3.1.3 Benton County, Washington

The 2017 update of the Benton County Comprehensive Plan was adopted in 2018; updates to the plan are scheduled to occur every 7 years (Benton County 2018), indicating that the next update could be expected in 2024. The plan includes chapters addressing Goals and Policies and the various plan elements (e.g., Land Use, Natural Resources, and Parks and Recreation). The topics covered in the Natural Resources and Parks and Recreation chapters do not include scenic resources. The plan establishes PL Goal 3 (p. 27) to “[c]onserve visually prominent naturally vegetated steep slopes and elevated ridges that define the Columbia Basin landscape and are uniquely a product of the ice age floods.” The corresponding policies include a statement that the County encourages public and/or private acquisition of the prominent ridges within the unincorporated areas of the County to preserve views, protect native habitat, and provide public access to these landscapes. Another policy states that the County should be open to a variety of means to protect the natural landforms and vegetative cover of the Rattlesnake uplift formation, specifically Rattlesnake, Red, Candy, and Badger mountains, and the Horse Heaven Hills. The plan content is somewhat ambiguous but could be considered to identify these mountains as important scenic resources.

The Analysis Area includes a small area in the southeastern part of Benton County. The Rattlesnake uplift features referenced above are not included within this portion of Benton County. The Applicant concludes that no features within the Benton County portion of the Analysis Area are identified as important or significant scenic resources for the purposes of this analysis.

3.2 Municipalities

3.2.1 City of Irrigon

Irrigon is an incorporated community located on the Columbia River in the northeastern part of Morrow County, with a population of approximately 1,975 residents (Portland State University 2017). The City of Irrigon developed a comprehensive plan as part of a technical report that was completed in 1978, with its most recent update in 2005 (City of Irrigon 2005). Chapter V of the plan addresses the Natural Environment, while Chapter VI addresses the Socio-Economic Environment; neither chapter includes topical coverage for scenic areas or resources. Chapter IV, Goals and Objectives, includes a goal (p. 16) to “[c]onserve open space and protect natural and scenic resources.” There are six policy statements corresponding to that goal, including two most directly related to scenic resources: “Identify open spaces, scenic and historical areas, and natural resources, which should be preserved from urban development,” and “Examine any publicly owned

lands including street rights-of-way for their potential open space use before their disposition.” There is no indication that any specific scenic areas have been identified by the City of Irrigon following the adoption of their comprehensive plan.

Comprehensive planning guidance and zoning are integrated into the City’s development code, which is documented as Title 10 of the Irrigon City Code (City of Irrigon 2017). The land use districts defined in Chapter 2 of the development code correspond to the comprehensive plan designations, and do not include any districts oriented to scenic resources. Chapter 3 of the development code establishes community design standards that apply to proposed land use actions; the standards include provisions that relate to the aesthetic aspects of development, but not to geographic areas or features for which aesthetic concerns have been identified.

Based on the specific content of the comprehensive plan and development code, the Applicant concludes that no features within the City of Irrigon have been identified as important scenic resources for the purposes of this analysis.

3.2.2 City of Umatilla

Umatilla is a small city with approximately 7,245 residents (Portland State University 2017) located on the Columbia River in the northwestern part of Umatilla County. The City of Umatilla Comprehensive Plan includes Chapter 5 titled “Natural Resources, Scenic and Historic Areas, and Open Spaces” (City of Umatilla 2013). The corresponding Goal 5 is to “protect and enhance through proper use and development the open spaces, scenic and historic areas, and natural resources of the area” (p. 21). There is a section on page 30 reserved for Scenic Areas; however, no scenic areas have been included. As the plan does not include any references to specific scenic areas or resources, the Applicant concludes the City of Umatilla has not identified any significant or important scenic resources for the purposes of this analysis.

3.2.3 City of Hermiston

Hermiston is a community of approximately 17,985 residents (Portland State University 2017) located along Interstate 84 (I-84) in the northwestern corner of Umatilla County. The City of Hermiston Comprehensive Plan and supporting technical report were adopted in 1984, and the plan is updated through amendments to the city development code (2018) and depicted on a Comprehensive Plan Map (2017). Chapter II of the plan, under the heading “Other Goal 5 Resources,” indicates that “[a]ccording to Oregon State Parks and Recreation Division, there are no wilderness areas, potential or approved Oregon wilderness trails, or state and federal wild/scenic waterways within the Hermiston UGB. Other Goal 5 resources, including outstanding scenic views/sites and indigenous energy resources, are discussed in the appropriate sections below” (City of Hermiston 1984). Subsequent content in Chapter II addresses air, noise, and water quality; natural hazards and development limitations; energy resources and conservation; and open space and recreation; however, it does not include specific information about scenic sites or views.

Chapter III of the Plan identifies policies for the respective topical areas. Under the heading E. Resources (Goals 5, 6, 7 and 13), Policy 7 (p. III-10) is stated as “The City of Hermiston will protect natural resources to the maximum degree possible.” The subsequent discussion of implementing actions references the Open Space designation applied to the 100-year floodplain, wetlands in the northeastern part of the city, and the Oregon State University Agricultural Experiment Station. A footnote related to Policy 7 states that “[f]or other Goal 5 resources, see Policy 8: Surface and Groundwater Resources, Policy 9: Aggregate Resources, Policy 10: Historic Resources, and Policy 16: Parks, Recreation and Open Space.” Policy 16 (p. III-18) indicates that Hermiston will acquire and develop additional parks and will preserve as open space city-owned land that possesses recreational, scenic, and other environmental qualities, or that is subject to natural hazards. However, no specific scenic sites or views are identified.

Based on the specific content of the comprehensive plan and development code, the Applicant concludes that no features within the City of Hermiston have been identified as important scenic resources for the purposes of this analysis.

3.2.4 City of Stanfield

Stanfield is an incorporated community with a population of approximately 2,145 residents (Portland State University 2017) located adjacent to I-84 in the northwestern part of Umatilla County. The City of Stanfield Comprehensive Plan was adopted in 1983 (City of Stanfield 2001). The technical report supporting the comprehensive plan was updated in 1984, and a zoning ordinance was adopted in the same year. The plan and technical report include 14 goals corresponding to the 14 statewide planning goals. Comprehensive planning guidance and zoning are integrated into the City of Stanfield Development Code (City of Stanfield 2003). The land use districts defined in Chapter 2 of the development code correspond to the comprehensive plan designations; they include an Open Space District, but do not include any districts oriented to scenic resources. Chapter 3 of the development code establishes design standards that include landscaping and screening provisions that relate to the aesthetic aspects of development.

Based on the specific content of the comprehensive plan and development code, the Applicant concludes that no features within the City of Stanfield have been identified as important scenic resources for the purposes of this analysis.

3.2.5 City of Echo

The City of Echo is a small community with a population of approximately 705 residents (Portland State University 2017) located just south of I-84 in northwest Umatilla County. The City of Echo Comprehensive Plan (City of Echo 2005) establishes goals and policies for a series of topical areas corresponding to the statewide planning goals. Section 7-1-5 of the plan states a policy for Open Spaces, Scenic and Historic Areas, and Natural areas to “conserve open space and protect natural scenic, historic, and cultural resources.” This is followed with a list of seven policies, none of which specify particular scenic resources. The city’s Zoning Administrative Regulations (City of Echo

2015) implement the goals and objectives of the comprehensive plan. The zoning regulations do not establish any scenic resource protection requirements or designate any scenic areas.

Based on the content of the comprehensive plan and zoning code, the Applicant concludes that no features within the City of Echo have been identified as important or significant scenic resources for the purposes of this analysis.

3.2.6 City of Pendleton

Pendleton is a city of approximately 16,890 residents (Portland State University 2017) located along I-84 near the center of Umatilla County, and is the county seat. The City of Pendleton completed a periodic update of its Comprehensive Plan in 2013 and adopted a Unified Development Code (UDC) in 2014, which is currently updated through 2017, to implement the Comprehensive Plan (City of Pendleton 2017). Chapter II of the Comprehensive Plan addresses Nature, and the Open Space section of that chapter includes a discussion of Scenic Areas. The scenic areas content indicates that the Umatilla River and its tributaries are the most significant scenic area in the city, and that any urban use that intrudes into the vegetation or alters the banks of the levee may conflict with the scenic beauty of the waterway. Correspondingly, the plan states that the city needs to have a permit process to review all development within a specific distance of the floodway to ensure the compatibility of any development along the river and protect and enhance the scenic values of the waterways. No additional scenic areas have been identified since the 2013 adoption of the comprehensive plan (pers. comm. George Cress, Pendleton City Planner, in email to Rachael Katz, Tetra Tech, August 13, 2018).

The UDC establishes the Umatilla River Subdistrict with provisions designed to promote “land uses compatible with the existing and potential open-space and recreational utilization of the river system, and to further the development of the Umatilla River Parkway” (p. 50). In addition, in 2010 the city passed Ordinance 3801 to adopt a River Quarter Enhancement Plan (City of Pendleton 2010), which is a regulating plan incorporated in the UDC. Article 2 of the River Quarter Enhancement Plan states the intent of the plan is “to facilitate growth which capitalizes on these amenities [unique potential as a mixed-use area] while maintaining the natural beauty and health of the Umatilla River” (p. 5). While the plan does not regulate any land outside of the River Quarter, it does include a regional level policy stating, “The region should retain its natural infrastructure and visual character derived from topography, woodlands, farmlands, rivers, riparian corridors and other natural features” (p.6).

Based on the specific content of the comprehensive plan, UDC, and Ordinance 3801, the Applicant concludes that the Umatilla River and its tributaries within the City of Pendleton have been identified as an important or significant scenic resource. Pendleton is located just within the 10-mile Analysis Area, and the Umatilla River is therefore addressed in this exhibit.

3.2.7 City of Pilot Rock

Pilot Rock is an incorporated community with a population of approximately 1,505 residents (Portland State University 2017) located near the center of Umatilla County. The City of Pilot Rock (1979) Comprehensive Plan addresses statewide Goal 5 concerning natural resources. The Goals and Policies section of the Plan (p. V-3) established a goal “[t]o conserve open space and protect natural, scenic and historic resources.” The first of eight policies defined in support of that goal is to “identify open spaces; scenic, cultural and historic areas; and natural resources which should be preserved from urban development.” The second policy is “[t]o distribute open space throughout the urban area to insure visual relief within the urban environment and to provide sufficient space for passive and active recreation.” Content elsewhere in the plan does not discuss or identify any specific scenic resources. The Natural Environment (Chapter VII) and Socioeconomic Environment (Chapter VIII) sections of the plan each address multiple topical areas, but scenic areas are not included in either chapter. A 2001 update of the plan includes the same content regarding Goal 5 resources (City of Pilot Rock 2001).

Based on the specific content of the comprehensive plan, the Applicant concludes that no features within the City of Pilot Rock have been identified as important scenic resources for the purposes of this analysis.

3.3 State

3.3.1 Oregon Department of Fish and Wildlife

The Power City Wildlife Area and Irrigon Wildlife Area are managed by ODFW through the Columbia Basin Wildlife Areas Management Plan (ODFW 2008). Located in northwest Umatilla County near or on the Columbia River, these areas play an important role in waterfowl migrations and resident upland game bird production (ODFW 2008). In addition, they are open for public recreation, including hunting, fishing, and wildlife viewing (ODFW 2008). The management plan is focused on objectives and strategies to protect, enhance, and manage wetland and upland habitats to benefit native wildlife and desired game species, as well as provide a variety of wildlife oriented recreational and educational opportunities (ODFW 2008). Scenic values are not discussed, and no specific scenic resources are identified by the management plan.

The Applicant concludes that ODFW does not identify any important or scenic resources in the Power City or Irrigon wildlife areas for the purposes of this analysis.

3.4 Tribes

There are no tribal lands located within the Analysis Area; therefore, this exhibit does not address any tribal land management plans. See Exhibit S for information regarding Historic, Cultural, and Archaeological Resources.

3.5 Federal

3.5.1 *Bureau of Land Management*

There is one isolated 320-acre parcel of land managed by the BLM located within the Analysis Area: the Echo Meadows site of the Oregon Trail Area of Critical Environmental Concern (ACEC). The ACEC site is also addressed as a protected area in Exhibit L. The location of Echo Meadows is shown on Figure R-1.

The Federal Land Policy and Management Act of 1976 requires BLM to protect the quality of scenic values on public lands (43 United States Code 1701). The BLM manages scenic resources on the federal lands under its jurisdiction through application of the Visual Resource Management (VRM) system (BLM 1986). BLM-administered lands in Morrow, Umatilla, Union, and Baker counties are within the Baker Resource Area of the Vale District; the current Resource Management Plan (RMP) for the Baker Resource Area was adopted in 1989 (BLM 1989). The RMP assigns the lands within the Baker area of the district to 14 geographic areas or planning units; the ACEC is within the Oregon Trail planning unit.

The RMP assigns VRM classifications to all BLM lands within its scope; lands are placed within VRM Classes I, II, III, or IV depending on their existing visual quality and the management objectives relative to the amount of visual change that would be allowed to occur within those lands. All lands within the Oregon Trail planning unit, including the Echo Meadows site, are assigned to VRM Class III.

The Applicant understands that the Oregon Department of Energy considers BLM-administered lands managed as VRM Class I and II to be important scenic resources, based on the level of visual resource protection afforded to those lands. However, in addition to its VRM classification, the Baker RMP also provides specific management direction for the Oregon Trail ACEC. This management direction calls for the area to be managed to “preserve the unique historic resource and visual qualities,” and states that “new uses incompatible with maintaining visual qualities or providing public interpretation will be excluded in a ½ mile corridor.” As the Site Boundary is approximately 0.2 mile from the southeast corner of the Echo Meadows site, the Applicant is including Echo Meadows as an important scenic resource for the purposes of this analysis.

3.5.2 *U.S. Fish and Wildlife Service*

Three National Wildlife Refuges (NWRs) are within the Analysis Area for the Project: Umatilla NWR, Cold Springs NWR, and McKay Creek NWR. These are also protected areas addressed in Exhibit L. The primary mission of the USFWS as manager of the NWR system is to provide valuable habitat for fish and wildlife. A Comprehensive Conservation Plan (CCP) was completed for the Umatilla NWR in 2007 (USFWS 2007). The area is popular with bird watchers, wildlife enthusiasts, and photographers. However, the CCP for the NWR does not prescribe management for visual resources. In addition, no CCPs have been completed to date or are identified as in-process for the Cold Springs and McKay Creek NWRs (USFWS 2018). Accordingly, the Applicant concludes that the

USFWS does not identify any scenic resources or values within the Analysis Area for the purposes of this analysis.

3.5.3 U.S. Army Corps of Engineers

The lands along the shorelines of Lake Umatilla and Lake Wallula are federal lands acquired as part of the John Day and McNary lock and dam projects, respectively, and are under the jurisdiction of USACE. Lake Umatilla is the result of the John Day Dam that impounds the Columbia River at river mile 216, and Lake Wallula is the result of the McNary Dam at river mile 292. A Mid-Columbia River Regional Master Plan, which will manage recreational, natural, and cultural resources for the John Day project (as well as Bonneville, The Dalles, and Willow Creek), is in development by USACE; a 90 percent draft master plan is available for review but a final plan has not yet been adopted (USACE 2019). The Draft Mid-Columbia River Regional Master Plan describes goals for infrastructure improvement, fire management, and recreation, but does not identify any scenic resources at Lake Umatilla for the John Day project. The John Day Lock and Dam Master Plan (USACE 1976), which remains in effect until the new regional plan is adopted, does not identify important scenic areas at Lake Umatilla for protection of views. The McNary Shoreline Management Plan (USACE 2012) governs private use of the public shoreline and water surface of Lake Wallula. Other public parks and boat launches in the area are leased to the state (e.g., Hat Rock State Park) and local municipalities with applicable rules. The Shoreline Management Plan does not identify any scenic resources or otherwise prescribe management related to the protection of scenic views.

Based on the available plans, the Applicant concludes that the USACE has not identified any scenic resources or values within the Analysis Area for the purposes of this analysis.

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

4.1 Loss of Vegetation or Alteration of Landscape – OAR 345-021-0010(1)(r)(C)(i)

OAR 345-021-0010(1)(r)(C) A description of significant potential adverse impacts to the scenic resources identified in (B), including, but not limited to, impacts such as:

(i) Loss of vegetation or alteration of the landscape as a result of construction or operation; and

A total of up to 2,035 acres will be permanently occupied by Project facilities, and up to 2,079 acres will be temporarily disturbed (e.g., laydown areas, temporary access roads) during construction. Vegetation clearing will be avoided to the extent practicable, and all areas temporarily disturbed will be restored and revegetated following completion of Project construction. The primary visual effects of the Project will be views of the wind turbines, and in some areas the 230-kV interconnection, as analyzed below in Section 4.2.

Because one of the two scenic areas identified above in Table R-1 would have views of the Project from a background distance of more than 5 miles (approximately 8 miles for the portion of the Site Boundary encompassing turbines and 12 miles for either transmission line option), the change in vegetation or landscape from the Project footprint would be difficult to discern. The closer scenic area, the Echo Meadows site of the Oregon Trail ACEC, is within foreground distance (less than 0.5 mile) of the transmission line Site Boundary, but over 6 miles (background distance) from the primary Site Boundary where turbines would be located (Figure R-1). The UEC transmission line option follows an existing road (Oregon Trail Road), with a parallel low-voltage distribution line, where it passes just south of Echo Meadows. Vegetation in the current view toward this route is primarily grassland and cropland, with limited shrub and tree cover in some locations. Vegetative conditions on the right-of-way for the Project 230-kV transmission line will not be distinguishable from the Echo Meadows site. For this reason, no significant visual impacts to scenic areas are expected from loss of vegetation or alteration of the landscape as a result of Project construction or operation.

4.2 Visual Impacts from Structures or Plumes – OAR 345-021-0010(1)(r)(C)(ii)

(ii) Visual impacts of facility structures or plumes;

Visual impacts of the Project are primarily related to views of the turbines and, to a lesser degree, other facilities, such as the 230-kV transmission line, solar array and battery energy storage system (BESS), site access roads, Operations and Maintenance (O&M) Building, and substations. The Project would not generate emissions plumes; therefore, there will be no impacts from plumes.

A zone of visual influence (ZVI) analysis, also known as a visibility or viewshed analysis, was performed using Environmental Systems Research Institute Geographic Information System software and a bare-earth 10-meter digital elevation model to identify those areas from which the Project's turbines and transmission line towers may be visible, and the amount of the Project potentially visible. Because the turbines are tall objects and are often sited on ridges to maximize the wind resource, the turbines are generally the most dominant visible feature compared to other Project facilities. To assess the potential visibility of the structures, a ZVI analysis was performed for the turbine layout assuming 100 percent maximum blade tip height (MBTH), which is 496 feet (Figure R-2). The ZVI analysis also addressed potential visibility of the 230-kV transmission lines; Figures R-3, R-4, and R-5 show the range of visibility for the UEC Cottonwood, BPA Stanfield, and internal transmission line routes, respectively. Similar to the O&M Building and substations, the proposed solar array and BESS would not represent significant visual structures within the Site Boundary in the context of taller transmission lines and substantially taller and more visible wind turbines. Therefore, while the potential effects are evaluated, additional ZVI analysis was not conducted for these Project components. Attachment R-1 provides a supplemental visual analysis for an alternate turbine model for the Project record.

It should be noted that this bare-earth modeling approach, which accounts for only the effects of terrain on visibility, results in a highly conservative assessment of potential visibility for several

reasons. A bare-earth analysis does not account for the effects of vegetation or buildings, which can in practice block or screen views in some places. In addition, in some areas where the analysis indicates Project structures would be visible, the only visible components might be the tips of the turbine blades at or near MBTH, which would likely be noticeable only at relatively close viewing distances. Finally, the model does not account for the effects of distance, lighting, weather, and other atmospheric attenuation factors that diminish visibility under actual field conditions.

Figures R-2 through R-5 show the areas from which the turbines and transmission line towers will likely be visible; for the turbines, the number of turbines potentially visible is indicated by color-coding on those figures.

Based on the ZVI results for Echo Meadows indicating that all of the Project turbines may be visible from portions of the site at a background distance, and transmission line structures in the foreground and middleground, a visual simulation was developed using the WindPRO software package (EMD 2019) to illustrate the view toward the Project from a key photo point (Figure R-6). Table R-2 provides the summary results of the ZVI and visual simulation from Echo Meadows, followed by an evaluation for each of the two important scenic resources in the Analysis Area.

Table R-2. Visual Impact Assessment Results

Jurisdiction¹	Name of Scenic Resource	Distance to Turbine Site Boundary	Number of Turbines Visible – 112 Total (min-max)²	Assessment Results
BLM	Echo Meadows Site, Oregon Trail ACEC	6.4	0 – 112	Low to Moderate Impact. ZVI analysis indicates good Project visibility; however, the site is closest to the transmission line Site Boundary, and turbines will be at a background distance of over 6 miles with highly variable visibility. Views of remnant Oregon Trail ruts from interpretive signs are to the north, looking away from the Project. Existing views toward the Project turbines and UEC Cottonwood transmission line route include a small distribution line, agricultural structures, and center-pivot agricultural irrigation systems. Existing views to the west toward the UEC transmission line include clearly visible wind turbines (Echo Windfarm). The photo simulation indicates that, where not screened by topography, the Project transmission line and turbines will introduce noticeable middleground and background features in the viewshed from Echo Meadows. Project facilities will create moderate contrast with the existing landscape, will be similar to current modifications to the natural landscape visible from the ACEC, and, given the primary view orientation for site users away from the Project, will not significantly impact the user experience.
City of Pendleton	Umatilla River	7.6	0 – 60	Negligible Impact. Viewshed analysis indicates limited, highly variable potential Project visibility due to topography. The background distance of 8.3+ miles to the closest turbines, vegetation, and urbanized setting will further limit potential Project viewpoints. Existing views include roadways, bridge and transmission line crossings, residential/commercial buildings, and agricultural fields. Scenic quality is focused locally and will not be significantly impacted by the Project.
1. Jurisdiction that identifies location as an important scenic resource. 2. Number range reflects minimum to maximum possible visibility from within the scenic area; actual visibility will depend on additional factors such as intervening vegetation, non-Project development, air quality, etc. Turbine layout includes 112 General Electric 3.03 MW wind turbines, with 100 percent MBTH of 496 feet.				

4.2.1 Bureau of Land Management

4.2.1.1 Oregon Trail Area of Critical Environmental Concern, Echo Meadows

The ZVI analysis indicates good Project visibility at the foreground viewing distance for the UEC Cottonwood transmission line (less than 0.5 mile), and highly variable Project visibility at the background viewing distance (6.4 miles or more) for the turbines. From this distance, users could potentially see 0 to 112 wind turbines, depending on their viewing location within the ACEC. Site users will likely see a substantial portion of the Project transmission line to the south of the Echo Meadows site; however, this would be from a middleground viewing distance (0.5 to 1 mile) because of where visitors are located within the site (Figure R-7; the foreground viewing distance is from the southeastern corner of Echo Meadows where there are no visitor facilities or trails). As noted earlier, the solar array and BESS will not be significant visual structures due to their comparatively low profile among far taller turbines and transmission line structures; if visible from Echo Meadows, the solar array and BESS would be in the distant background and would likely appear as a dark line or shadow on the ground.

This site receives fairly low levels of public use, with an estimated 850 visitors per year (pers. comm. Brian Woolf, BLM Vale District, Baker Office and Rachael Katz, Tetra Tech, August 6, 2018). Interpretive signs are located in a gazebo near the parking area at the site entrance, as well as from a viewing platform after visitors walk along 0.25 mile of paved trail and then follow a short side trail to the top of a low hill about halfway between the parking area and the Oregon Trail segment. Views of the remnant Oregon Trail ruts from the interpretive signs are to the north, looking away from the Project (Figure R-7). However, while standing near the interpretive signs, Project turbines could be in visitors' peripheral view if they look farther eastward along the Oregon Trail ruts, though still at a background distance where they would not be a dominant landscape feature.

When not focused on the Oregon Trail, visitors may be facing towards the Project (turbines and UEC Cottonwood transmission line) to view the landscape to the southeast, south, and southwest while standing at any interpretive sign, adjacent to the Oregon Trail, or hiking back to the parking area. Existing views toward the Project transmission line to the west/southwest include wind turbines that are clearly visible, and existing views toward Project turbines and the transmission line to the south/southeast include a small electric distribution line, agricultural structures, and multiple center-pivot agricultural irrigation systems.

To illustrate the view toward Project facilities, a photographic simulation was completed from the interpretive sign location at the top of the hill approximately halfway between the parking area and Oregon Trail segment noted above (Figure R-6 and R-7). This location was identified by the Oregon-California Trail Association (OCTA) in communication with the Applicant as a key viewpoint looking northwest to the Oregon Trail. This viewpoint was also chosen as a "worst case" view, because from the other key viewpoint identified by OCTA at the northern end of the hiking trail adjacent to the Oregon Trail, Project turbines will be nearly entirely screened by topography and low vegetation; only the tips of Project turbines will be potentially visible in ideal weather/lighting conditions, and

will not be noticeable to a casual observer. The simulation represents the view if visitors turn away from the Oregon Trail and toward the Project, to the southeast. As shown in Figure R-6, in clear weather conditions all 112 turbines will be visible in the viewshed, with decreasing clarity the farther from the viewpoint (the distance of turbines from the viewpoint ranges from approximately 7 to 18 miles). The UEC transmission line structures will be a notable feature in the near middleground (approximately 0.7-mile distance), with additional visible but less contrasting structures continuing in the background as the route leads back to the northern Project substation. Considered together, the simulation shows the Project will introduce new features easily seen by a casual observer that would create moderate contrast¹ with the existing landscape. The level of contrast, particularly from Project turbines, will be less pronounced in hazy and cloudy conditions versus the blue sky in the photographic simulation.

Overall, the Project will not generally be in view when visitors are oriented toward the remnant Oregon Trail ruts. Where not screened by topography, the Project will introduce new, moderately contrasting middleground and background features in the Echo Meadows viewshed. Project facilities will not dominate the landscape and will be similar to current modifications to the natural landscape seen from the ACEC (i.e., existing wind turbines and electrical infrastructure). For these reasons, and given the primary view orientation for site users away from the Project, the Project will not significantly impact the user experience at the Echo Meadows site.

4.2.2 City of Pendleton

4.2.2.1 Umatilla River

The visibility analysis indicates limited, highly variable potential Project visibility due to intervening topography and a background viewing distance of over 8 miles. From this distance, viewers could see 0 to 60 wind turbines on the horizon, depending on their location along the river within the city. Trees and other vegetation adjacent to the river, and structures in the urbanized setting, would further limit potential viewpoints of the Project. Existing views along the river looking toward the Project include roadways, bridge and transmission line crossings, residential and commercial buildings, and agricultural fields. Distant, occasional views of the Project would not feature prominently in the viewshed. The primary enjoyment of the Umatilla River within the city is as a local natural corridor within the urban setting, and not as a vantage point to view the surrounding region. For these reasons, the Project will not significantly impact the scenic quality of the Umatilla River within the City of Pendleton.

¹ Moderate contrast indicates that “the element contrast begins to attract attention and begins to dominate the characteristic landscape.” (BLM 1986). A visual element can also have “weak” contrast, indicating it is visible but does not attract attention, or “strong” contrast, which indicates the element demands attention, will not be overlooked, and is dominant in the landscape (BLM 1986).

5.0 Avoidance, Reduction, and Mitigation – OAR 345-021-0010(1)(r)(D)

OAR 345-021-0010(1)(r)(D) The measures the applicant proposes to avoid, reduce or otherwise mitigate any significant adverse impacts;

The following section discusses anticipated Project design, engineering, and related measures to avoid, reduce, or otherwise mitigate visual impacts from the Project, as described above.

5.1 Project Planning and Design Measures

To avoid and minimize visual impacts, the Applicant has sited the Project in a remote area of Umatilla County. Turbines will be painted with a grey, white, or off-white, low-reflectivity coating to minimize reflection and contrast with the sky; this reduces the visual impact of skylining and makes the turbines highly visible to daytime pilots. Support towers for the transmission lines will be either wood, which will largely blend with the surroundings, or steel, which will have a low-reflectivity coating. Electrical collector lines will be placed underground where possible. Lighting on the Project will be minimal. Turbine exterior lighting, as required by the FAA, will consist of red flashing lights placed at the end of turbine strings and approximately every 0.5 mile within the Project. Outdoor lighting at the Project substations, solar array and BESS, and the O&M Building will be kept to a minimum through the use of motion sensors and switches to reduce lighting to the minimum required for safety when not in use, and lighting will be directed downward and inward to prevent off-site glare.

Additional mitigation measures may include refinements to Project siting during final design, particularly the routing of access roads to reduce environmental and visual impacts, and right-of-way vegetation management measures, such as vegetation screening, both to be considered on a case-by-case basis.

5.2 Landscape Treatment Measures

Landscape treatment measures that are considered to reduce the potential visual impacts of the turbines and associated transmission lines typically involve construction or post-construction actions that can help to screen facilities from view or soften their appearance. These measures can include vegetation clearing practices used in construction, landscape plantings in specific locations following construction, and practices used in long-term operation and maintenance of the wind energy facilities.

Options for visual mitigation of wind turbine and transmission line tower construction are limited due to the height of the turbines and safety requirements that necessitate removal of vegetation. Notwithstanding such constraints, the Applicant will consider landscaping or vegetation management measures that have been identified as a potential means to reduce visual impacts from the Project, as outlined below. Similar to design measures, some landscape treatment measures may be specific to a visual concern for a certain portion of the Project, while others will be applied

on a Project-wide basis. Landscape treatment measures that have been suggested and would be incorporated into the Project are summarized as follows:

- The Applicant will develop a Revegetation Plan (Attachment P-4 in Exhibit P) that includes measures for rehabilitation of impacts related to vegetation clearing. Among other provisions in the plan, vegetation clearing and ground disturbance will be limited to the area necessary to safely and efficiently install the Project facilities.
- Survey crews will remove all stakes and flagging from the construction area following construction.
- Access roads and other areas of ground disturbance will be watered during construction, as needed, to avoid the generation of airborne dust.
- Vegetation screening will be considered on a case-by-case basis where it would be practical and effective in reducing the visibility of Project facilities.

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

OAR 345-021-0010(1)(r)(F) The applicant's proposed monitoring program, if any, for impacts to scenic resources.

Post-construction monitoring for visual impacts is not proposed. Unlike some other types of impacts, such as some potential impacts to biological resources, visual impacts typically do not change over time. Therefore, monitoring for visual impacts would not provide meaningful information.

7.0 Conclusion

The information provided above demonstrates that the design, construction, and operation of the Project will not result in significant adverse impacts to scenic resources and therefore complies with the scenic resource standard under OAR 345-022-0080.

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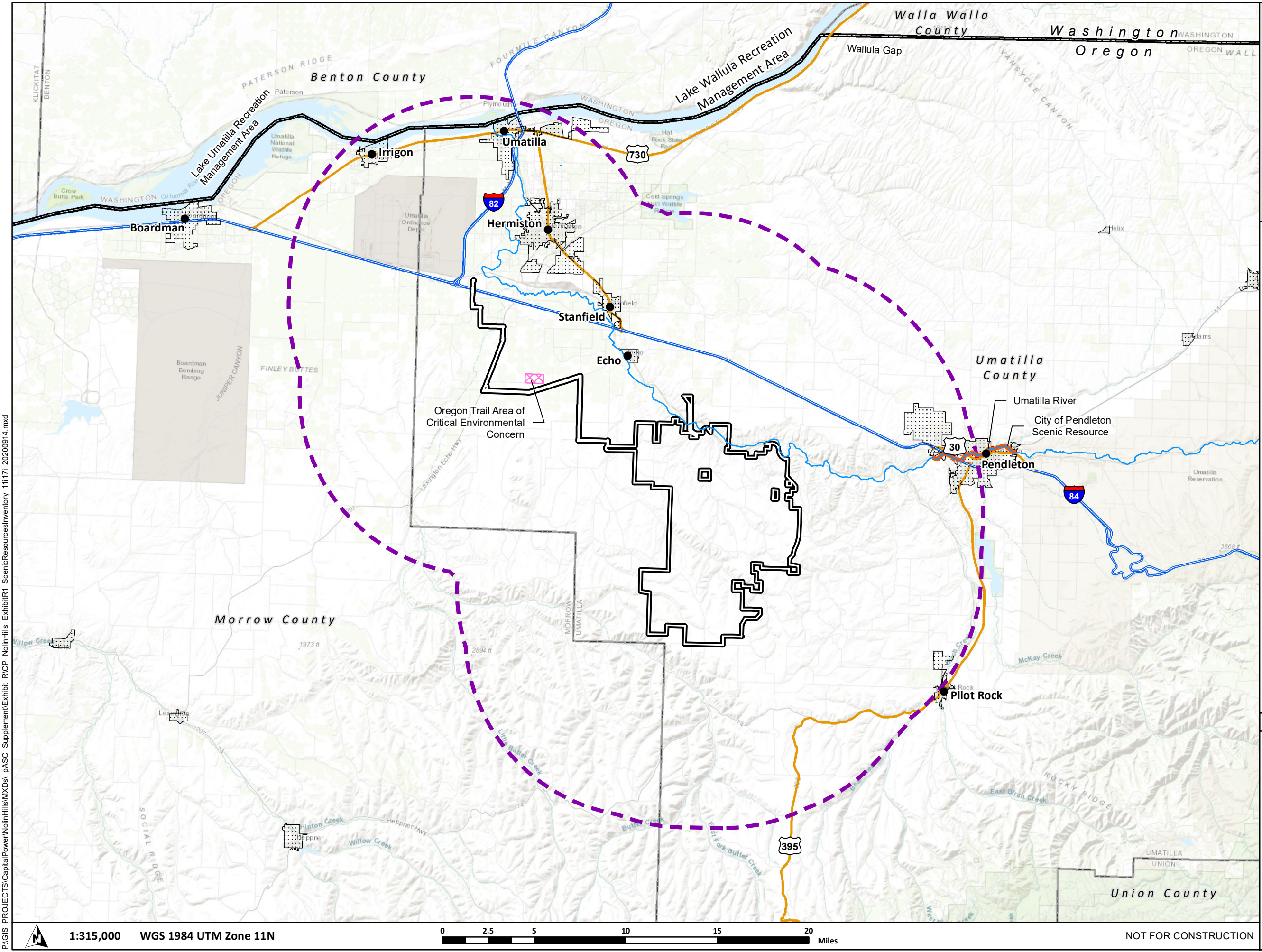
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Figures

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**Nolin Hills
Wind Power Project**

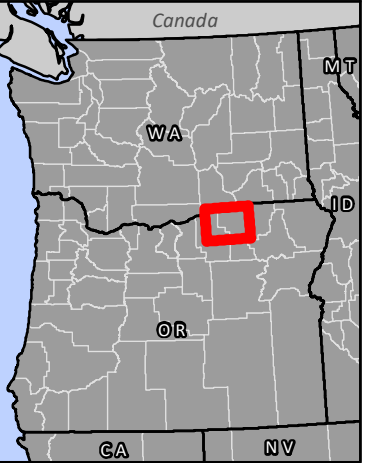
**Figure R-1
Scenic Resources Inventory**

UMATILLA COUNTY, OREGON

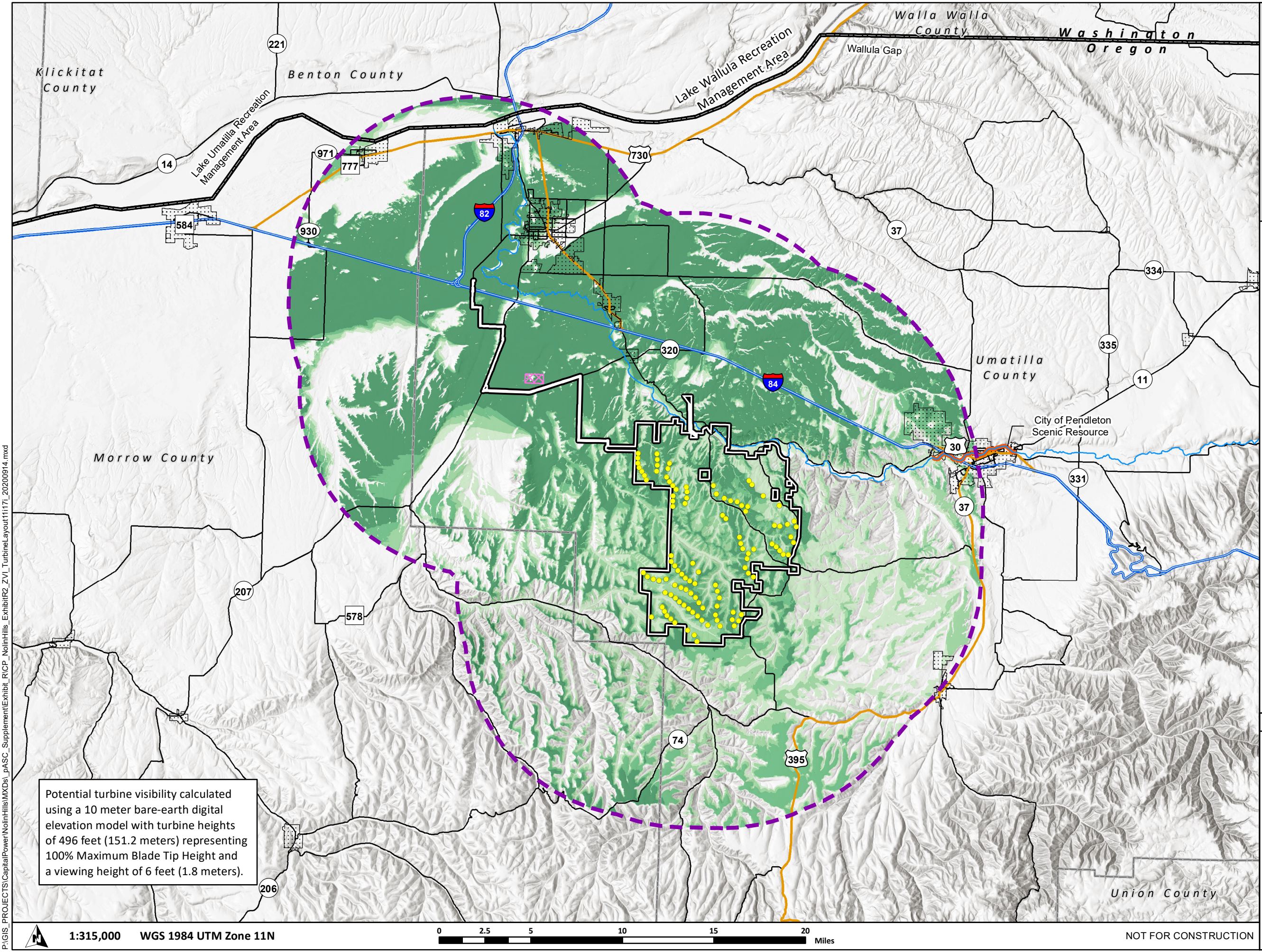
- Proposed Site Boundary
- Analysis Area (10-mile buffer)
- Umatilla River
- City of Pendleton Scenic Resource
- Area of Critical Environmental Concern (BLM)
- City/Town
- Interstate Highway
- Secondary Highway
- State Boundary
- County Boundary
- City Limit



RESPONSIBLE ENERGY FOR TOMORROW

Data Sources	Reference Map
Capital Power-Project Infrastructure; ESRI-Roads; Hillshade; Enterprise-County and State Boundaries	

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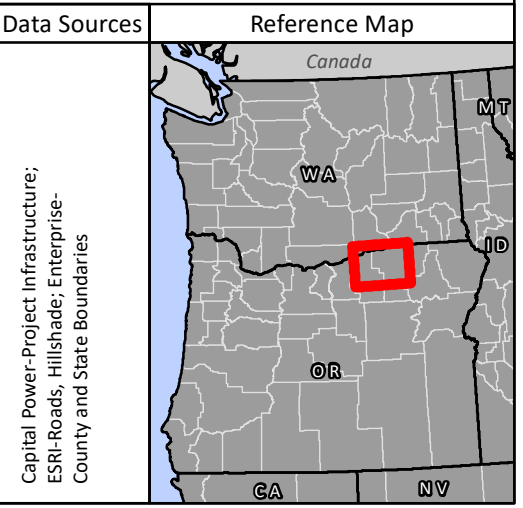


**Nolin Hills
Wind Power Project**

**Figure R-2
Zone of Visual Influence
for Turbine Layout
(112 GE 3.03MW Turbines)**

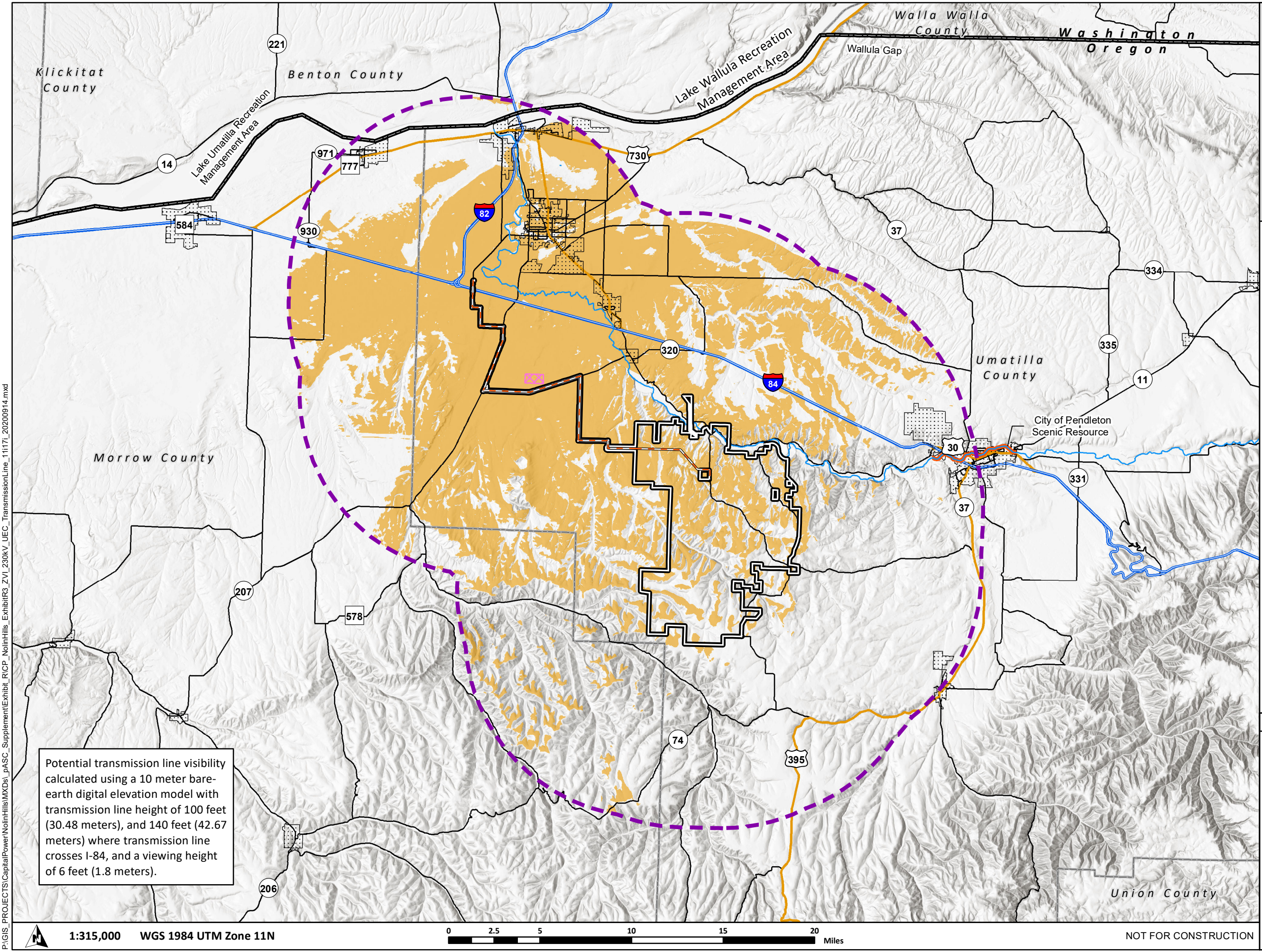
UMATILLA COUNTY, OREGON

- Proposed Site Boundary
 - Analysis Area (10-mile Buffer)
 - Proposed Turbine
 - Umatilla River
 - City of Pendleton Scenic Resource
 - Area of Critical Environmental Concern (BLM)
 - Interstate Highway
 - Secondary Highway
 - Secondary Road
 - State Boundary
 - County Boundary
 - City Limit
- Number of Turbines Potentially Visible
- 0
 - 1 - 30
 - 31 - 60
 - 61 - 90
 - 91 - 112



Potential turbine visibility calculated using a 10 meter bare-earth digital elevation model with turbine heights of 496 feet (151.2 meters) representing 100% Maximum Blade Tip Height and a viewing height of 6 feet (1.8 meters).

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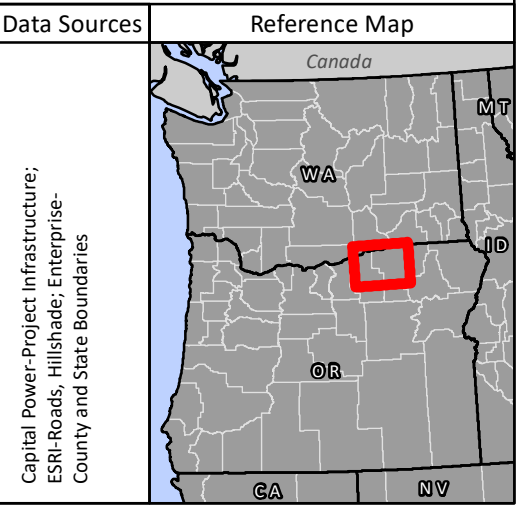


Nolin Hills Wind Power Project

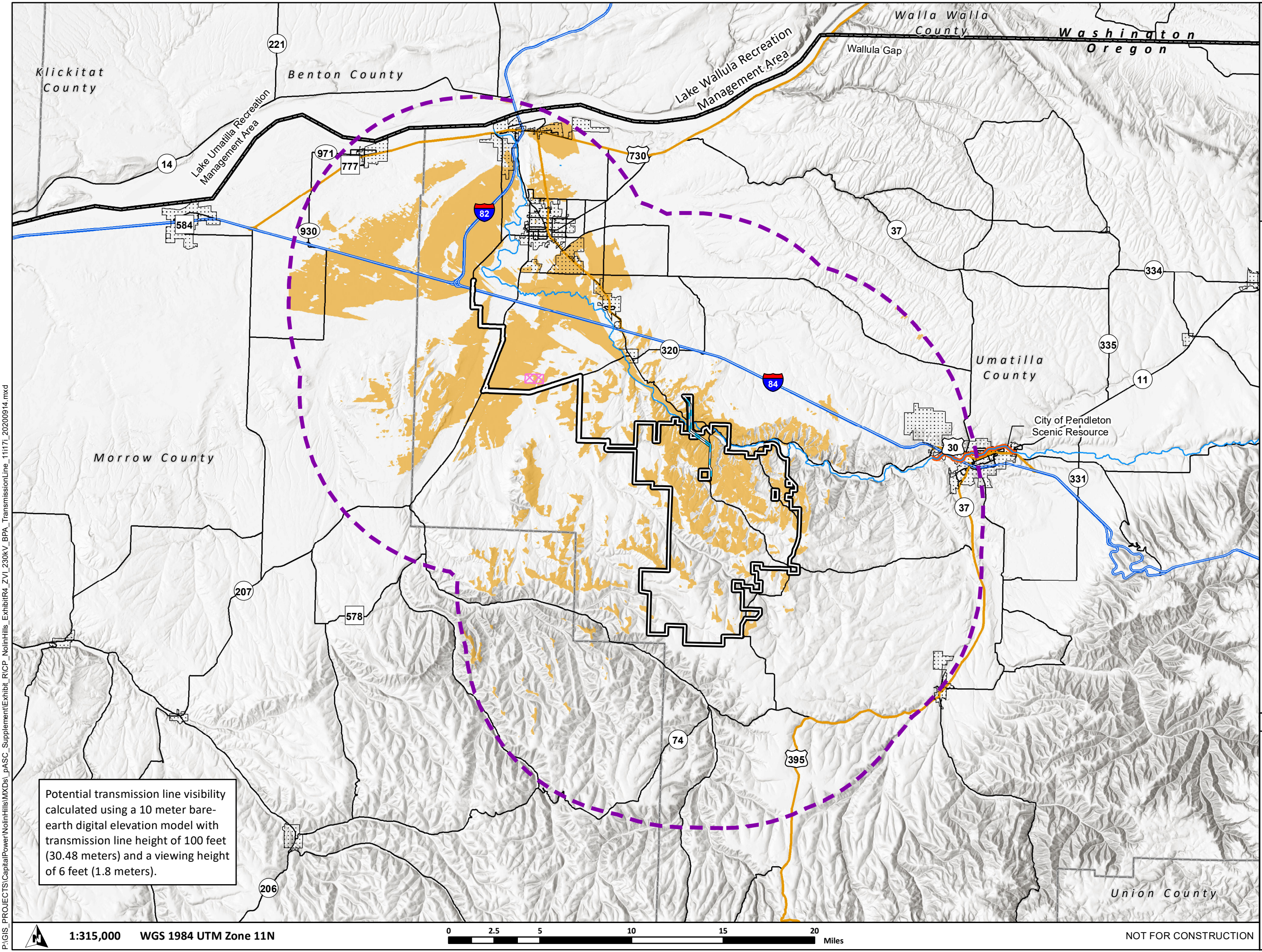
Figure R-3
Zone of Visual Influence
for the UEC Cottonwood
Transmission Line Route (230-kV)

UMATILLA COUNTY, OREGON

- Proposed Site Boundary
- Analysis Area (10-mile Buffer)
- Proposed UEC Transmission Line Route, 230-kV
- Transmission Line Not Visible
- Transmission Line Potentially Visible
- Umatilla River
- City of Pendleton Scenic Resource
- Area of Critical Environmental Concern (BLM)
- Interstate Highway
- Secondary Highway
- Secondary Road
- State Boundary
- County Boundary
- City Limit



Potential transmission line visibility calculated using a 10 meter bare-earth digital elevation model with transmission line height of 100 feet (30.48 meters), and 140 feet (42.67 meters) where transmission line crosses I-84, and a viewing height of 6 feet (1.8 meters).



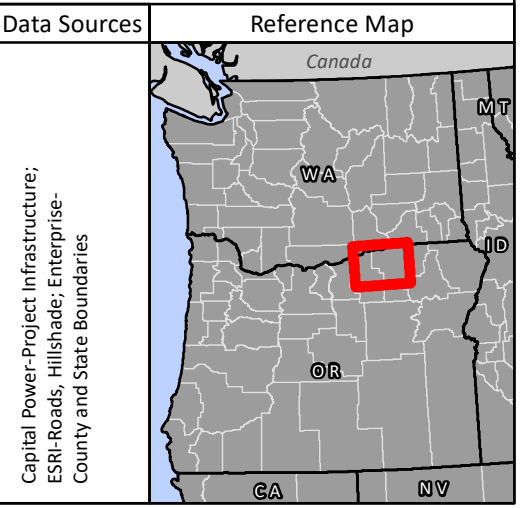
Potential transmission line visibility calculated using a 10 meter bare-earth digital elevation model with transmission line height of 100 feet (30.48 meters) and a viewing height of 6 feet (1.8 meters).

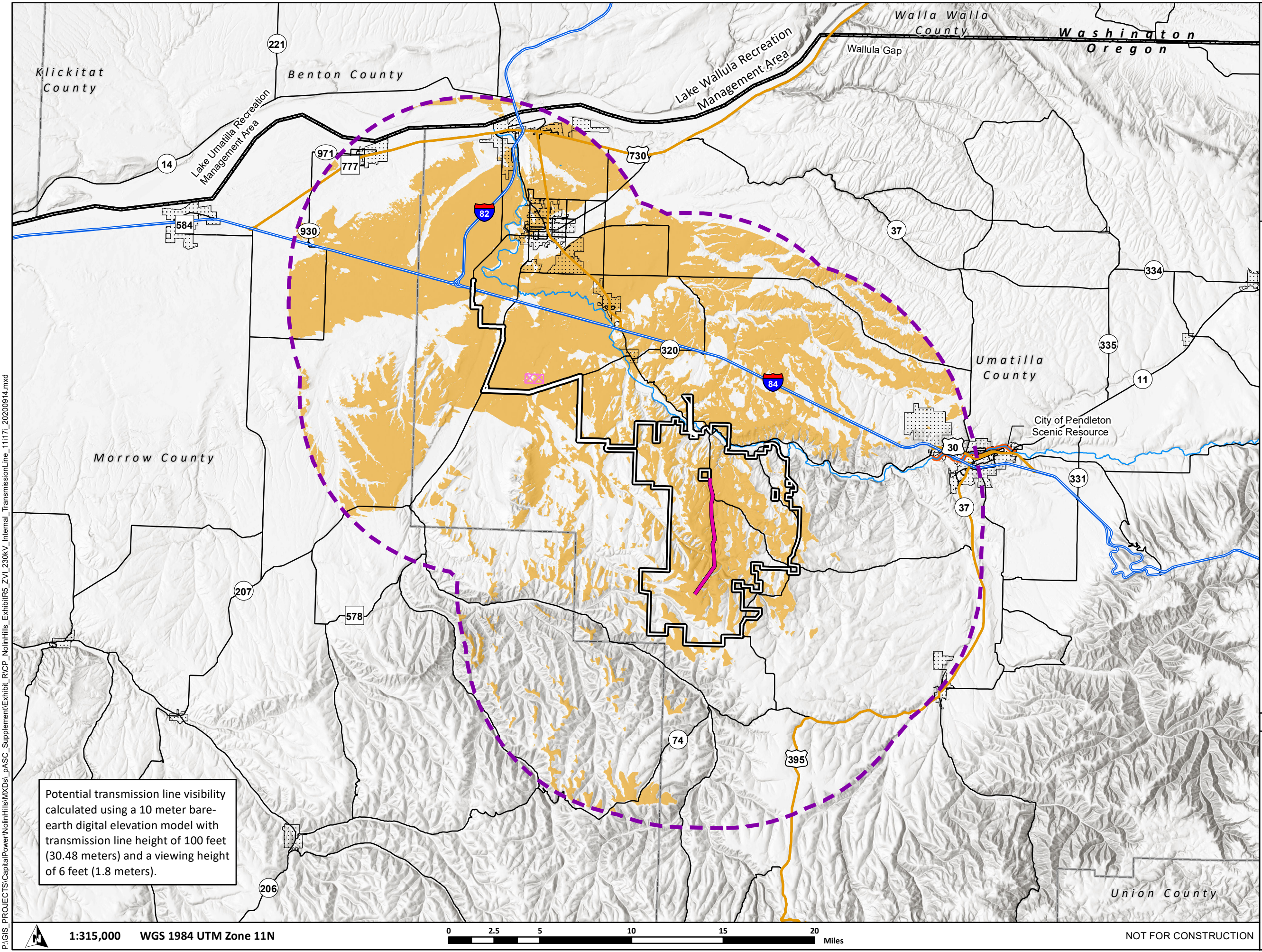
Nolin Hills Wind Power Project

Figure R-4 Zone of Visual Influence for the BPA Stanfield Transmission Line Route (230-kV)

UMATILLA COUNTY, OREGON

- Proposed Site Boundary
- Analysis Area (10-mile Buffer)
- Proposed BPA Stanfield Transmission Line Route, 230-kV
- Transmission Line Not Visible
- Transmission Line Potentially Visible
- Umatilla River
- City of Pendleton Scenic Resource
- Area of Critical Environmental Concern (BLM)
- Interstate Highway
- Secondary Highway
- Secondary Road
- State Boundary
- County Boundary
- City Limit





Potential transmission line visibility calculated using a 10 meter bare-earth digital elevation model with transmission line height of 100 feet (30.48 meters) and a viewing height of 6 feet (1.8 meters).

Nolin Hills Wind Power Project

Figure R-5
Zone of Visual Influence for the Internal Transmission Line Route (230-kV)

UMATILLA COUNTY, OREGON

Proposed Site Boundary

Analysis Area (10-mile Buffer)

Proposed Project Substation Connector, 230-kV

Transmission Line Not Visible

Transmission Line Potentially Visible

Umatilla River

City of Pendleton Scenic Resource

Area of Critical Environmental Concern (BLM)

Interstate Highway

Secondary Highway

Secondary Road

State Boundary

County Boundary

City Limit

RESPONSIBLE ENERGY FOR TOMORROW

Data Sources

Capital Power-Project Infrastructure;
ESRI-Roads, Hillshade; Enterprise-County and State Boundaries

Reference Map

1:315,000 WGS 1984 UTM Zone 11N

0 2.5 5 10 15 20 Miles

NOT FOR CONSTRUCTION

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Photo Simulation



Nolin Hills
Wind Power Project

Figure R-6
Echo Meadows
Photographic Simulation.

UMATILLA COUNTY, OREGON

Date of photograph: June 22, 2020
Time of photograph: 5:18 pm
Weather condition: Clear
Viewing direction: Southeast
Field of view: 40.6 degrees
(left to right: 112.7° to 153.3° SE)
Latitude: 45°43'22.555"N
Longitude: 119°18'2.992"W
Turbines within field of view: 116
Visible Turbines at tip height: 116
Visible Turbines at hub height: 116
Closest Turbine: 7.0 mi
Furthest Turbine: 17.7 mi
Closest distance to UEC 230-kV
transmission line: 0.7 mile

Existing Conditions



*Photograph is intended to be viewed
12 inches from viewer's eyes when
printed on 11x17 paper.*



Data Sources	Reference Map
Capital Power-Project Infrastructure; USDA-Aerial Imagery; ESR-Roads, State, County boundaries	

NOT FOR CONSTRUCTION

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Nolin Hills Wind Power Project

**Figure R-7
Echo Meadows
Visitor Facilities and Orientation**

UMATILLA COUNTY, OREGON

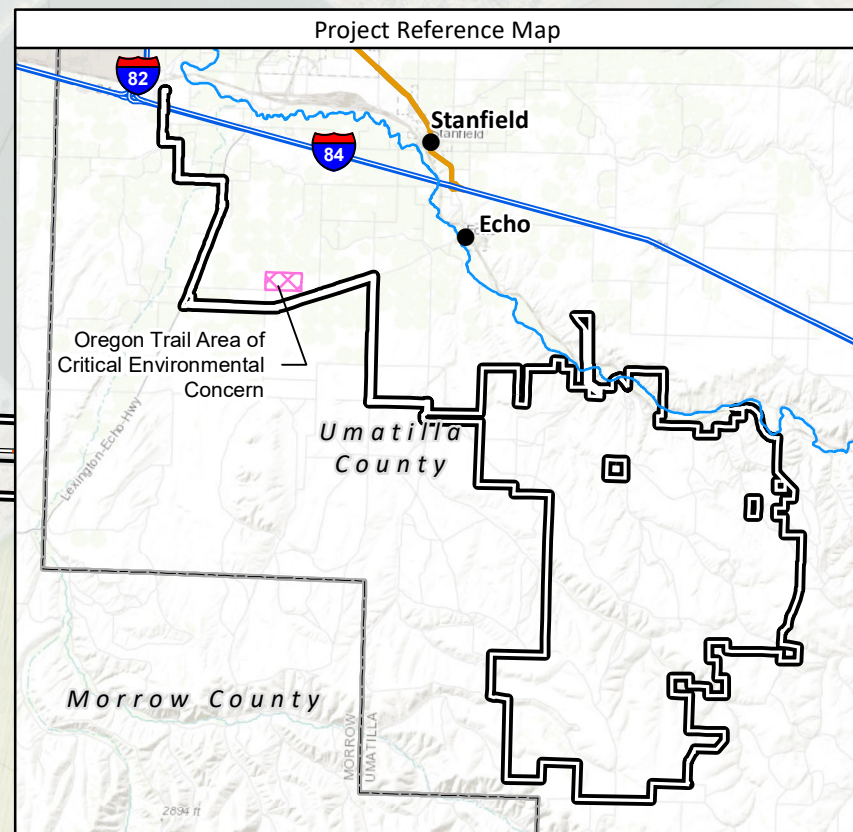
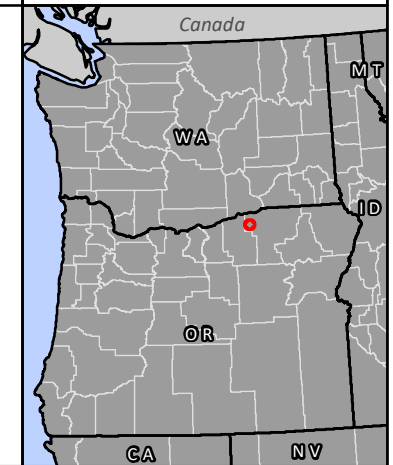
- Oregon Trail Area of Critical Environmental Concern (BLM)
- Historic Oregon Trail
- Proposed Site Boundary
- Proposed UEC Transmission Line Route, 230-kV
- Secondary Road
- Interpretive Site
- Parking
- Trailhead
- Access Road
- Hiking Trail
- Primary Orientation of Visitors
- Project Direction
- Visual Simulation Photo Point



Data Sources

Reference Map

Capital Power-Project Infrastructure;
USDA-Aerial Imagery; ESR-Roads,
State, County boundaries



1:12,000 WGS 1984 UTM Zone 11N

0 0.125 0.25 0.5 0.75 1 Miles

NOT FOR CONSTRUCTION

Attachment R-1: Supplemental Visual Analysis for Siemens-Gamesa 6-MW Turbines

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1.0 Introduction

During initial Project development, the Applicant analyzed impacts using two different turbine models, within the same approximate maximum generating capacity. This approach was intended to allow the Applicant to select the most appropriate turbine model available at the time the turbines are acquired, so long as the turbines selected result in no greater impact than allowed in the Site Certificate and satisfy all the pre-construction conditions of the Site Certificate. The two turbine models were the General Electric (GE) 3.03-megawatt (MW), as described in Exhibit B, and the Siemens-Gamesa 6-MW.

As a result of the Applicant's consultation with the Oregon Department of Aviation, the Application for Site Certificate (ASC) was revised to evaluate only the GE 3.03-MW turbine layout as the representative turbine model; thus, the final turbine model selected would have to result in impacts the same or less than the GE 3.03-MW layout. Following the issuance of a Site Certificate for the Project as proposed in the ASC, if the Applicant later determines a return to the Siemens-Gamesa 6-MW turbine model is warranted, a Request for Amendment would be developed and submitted to the Energy Facility Siting Council (EFSC or Council) for consideration.

Because visual analysis applicable to the 6-MW turbine option was already completed for the preliminary ASC, the Applicant is providing this attachment for the Council's record. The following sections summarize the key differences between the GE 3.03-MW and Siemens-Gamesa 6-MW turbine options, and how those differences affect the visual impact assessment for scenic resources, protected areas, and important recreational opportunities.

2.0 Siemens-Gamesa 6MW Turbine Option

Due to the higher energy output per turbine, the Siemens-Gamesa 6-MW layout would require only half the number of turbines as the GE 3.03-MW layout, up to 58 turbines located in the southern half of the Site Boundary. The representative turbine locations are shown on Figures R.1-1 and R.1-2.

The general turbine components (nacelle, blades, rotor, and tower) and construction methods for the Siemens-Gamesa 6-MW turbines would be the same or functionally equivalent to those described for the GE 3.03-MW turbines in Exhibit B. The primary difference between the two turbine models is in their dimensions, summarized in Table R.1-1. The 6-MW tower height would be 111 feet taller than the 3.03-MW turbines, an approximately 42 percent increase. The maximum blade tip height would be 160 feet taller, an approximately 32 percent increase. Rotor diameter for the 6-MW turbines would increase by 99 feet, approximately 22 percent greater than the 3.03-MW turbines.

Table R.1-3. Wind Turbine Model Characteristics

Turbine Model	Generating Capacity	Tower Height (feet)	Rotor Diameter (feet)	Total Maximum Blade Tip Height (feet)	Minimum Blade Tip Clearance (feet)	Total Maximum Number of Turbines
Siemens-Gamesa	6.0 MW	377	558	656	98	58
GE	3.03 MW	266	459	496	36.5	112

As with the GE 3.03-MW turbines, the Siemens-Gamesa 6-MW turbines would be marked and lighted according to Federal Aviation Administration (FAA) standards (FAA Advisory Circular 70/7460-1L), but no other lighting would be used on the turbines. FAA standards call for painting the turbines and towers white or light gray, making them visible to pilots from the air. Flashing red aviation lighting will be mounted atop turbines. Because the 6-MW turbines are greater than 499 feet in height, the FAA requires all turbines to have two lights placed on the nacelle (one on each side). Under current FAA standards, all of the lights would be programmed to flash in unison, allowing the entire Project to be perceived as a single unit by pilots flying at night. The specific location, operation, and type of aviation lighting system would be determined in consultation with FAA prior to operation of the Project.

3.0 Visual Impact Assessment

As the Site Boundary would not change, the Siemens-Gamesa 6-MW turbine layout would not add any scenic resources, protected areas, or important recreational opportunities to the respective analysis areas identified in Exhibits R, L, and T. In general, while the 6-MW turbines are larger and therefore more visible than the 3.03-MW turbines, because there are fewer total turbines located in only the southern half of the Site Boundary, the visual impact of the 6-MW layout to identified resources is similar or less than the 3.03-MW turbine layout.

The following provides more detailed analysis of the 6-MW layout for the identified visual resources, including results from the ZVI analyses (Figures R.1-1 and R.1-2); however, as it is the same as for the 3.03-MW layout, this attachment does not repeat discussion of methods and background information regarding identified resources found in Exhibits R, L, and T.

3.1 Scenic Resources

3.1.1 Oregon Trail Area of Critical Environmental Concern, Echo Meadows

The ZVI analysis for the 6-MW layout indicates highly variable Project turbine visibility at the background viewing distance from Echo Meadows. Depending on the viewing location, 0 to 58

turbines would be potentially visible (Figure R.1-1). This is a similar result to the 3.03-MW turbine layout, where 0 to 112 turbines would be potentially visible. However, all fifty-eight 6-MW turbine locations would be over 11 miles from the site, as compared to approximately 6.4 miles to the northern portion of the 3.03-MW layout. This increased distance would reduce the apparent contrast with the landscape, though turbines would still be visible in the far background where not screened by topography. Like the 3.03-MW layout, Project turbines would not generally be in view when visitors are oriented toward the remnant Oregon Trail ruts, and when facing the Project, the turbines would not dominate the landscape. Therefore, the 6-MW turbine layout would not have a significant adverse visual effect on the Echo Meadows site.

3.1.2 City of Pendleton – Umatilla River

The ZVI analysis indicates limited, highly variable potential visibility of the 6-MW turbine layout due to intervening topography and a background viewing distance of over 8 miles (approximately same distance as the 3.03-MW layout). A range of 0 to 30 turbines out of 58 total would potentially be visible, depending on the location along the river within the city (Figure R.1-1). This is the same percentage, approximately 52 percent, of turbines potentially visible as the 3.03-MW layout (where 0 to 60 turbines would be potentially visible). While roughly same distance would be between the river and each turbine layout, the narrower field of vision for the 6-MW layout (i.e., only southwest from the river while the 3.03-MW layout includes turbines directly west and slightly northwest) reduces the potential visibility of Project turbines. Trees and other vegetation adjacent to the river, as well as structures in the urbanized setting, would further limit potential viewpoints of the 6.0-MW turbine layout. The 6.0-MW turbine layout would not change the context that the primary enjoyment of the Umatilla River within the city is as a local natural corridor, and not as a vantage point to view the surrounding region. Therefore, the 6-MW turbine layout would not have a significant adverse visual effect on the Umatilla River within the City of Pendleton.

3.2 Protected Areas

As discussed in Exhibit L, the visual impact is negligible for most protected areas, primarily due to their distance of 6 to 20 miles from the Site Boundary (and over 20 miles for some protected areas to the portion of the Site Boundary encompassing the wind turbines, which would stay the same or increase with the 6-MW turbine layout). The 6-MW ZVI results show that this would remain true for that turbine option layout (Figure R.1-2). The potentially visible area created by the 6-MW turbine layout is slightly smaller than the 3.03-MW layout despite the increased height because of fewer turbine locations concentrated in the southern half of the Site Boundary.

Two protected areas, the Echo Meadows site of the Oregon Trail ACEC and the Hermiston Agricultural Research Center, were evaluated in further detail in Exhibit L due to their closer proximity to the UEC Cottonwood 230-kV transmission line route, which would not change with the 6-MW turbine option. The implications of the 6-MW turbine layout for Echo Meadows have been discussed above as it is one of the identified important scenic resources. For the Hermiston Agricultural Research Center, located just outside the City of Hermiston, the ZVI indicates unlikely

visibility of Project turbines as nearly the entire site falls in an area where the 6-MW turbines would be screened by topography (Figure B). If visible, the 6-MW turbines would be at a background distance of over 17 miles, creating no or weak contrast with the existing landscape that includes urban/industrial development, nearby highways, transmission lines, and existing wind turbines. Any potential background views of Project turbines would not compromise the purpose of the facility, which does not include any management or research direction related to scenic quality. Therefore, as with the 3.03-MW layout, the 6-MW turbine layout would not have a significant visual impact on the Hermiston Agricultural Research Center.

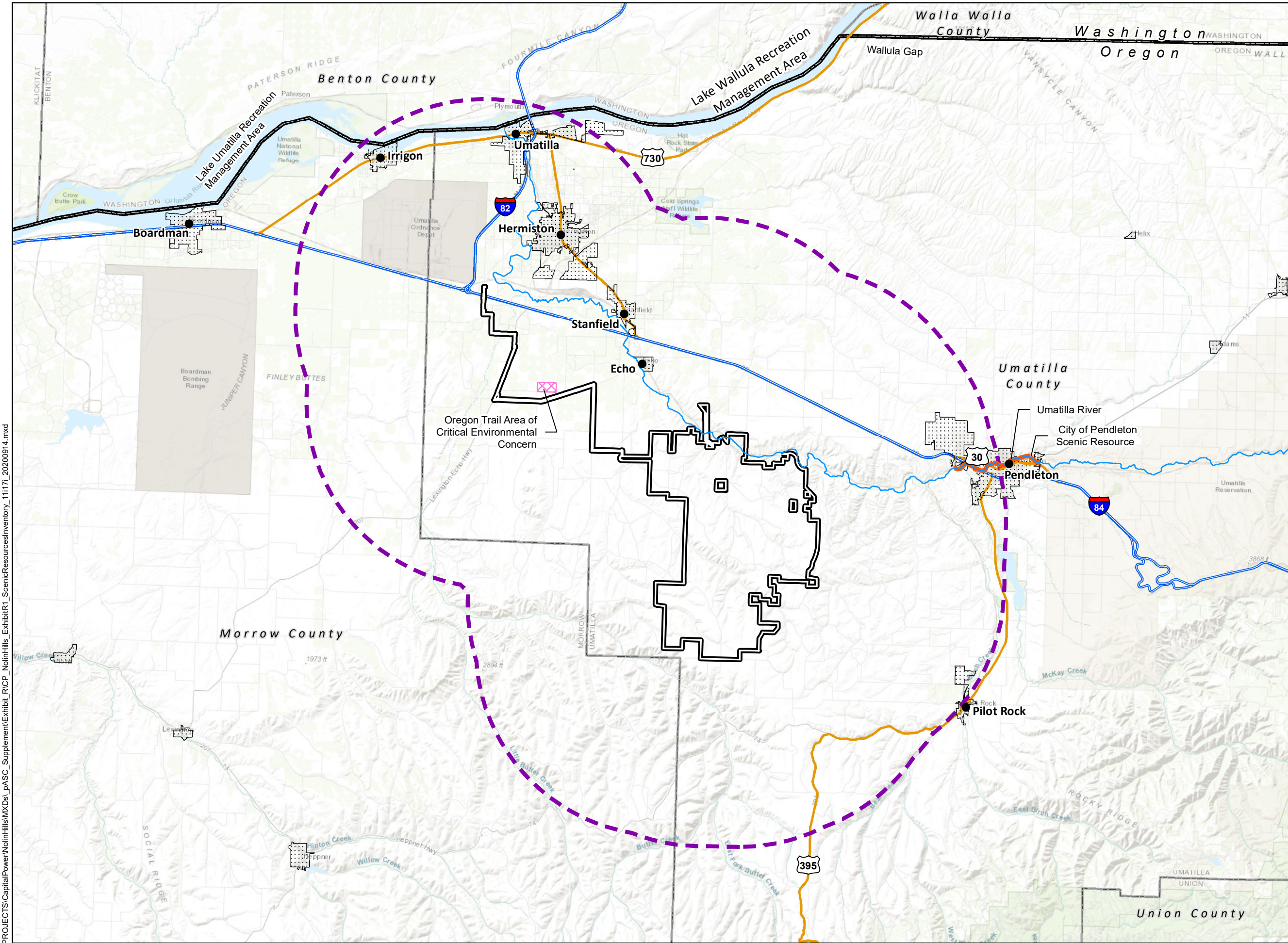
3.3 Important Recreational Opportunity

One important recreational opportunity was identified within the 5-mile recreation analysis area in Exhibit T, Fort Henrietta Park. As shown on Figure R.1-1, results of the bare-earth ZVI analysis indicate there would be potential views of all fifty-eight 6-MW turbine locations from the City of Echo, where Fort Henrietta Park is located. This is similar to the 3.03-MW result where all 112 turbines would be potentially visible. However, instead of over 6 miles to the nearest 3.03-MW turbine, all 6-MW turbines would be over 11 miles from the park. At such distances, the turbines would be more likely to fade into the background and would not create a new dominant feature in the landscape. Furthermore, surrounding commercial/residential development as well as tall vegetation within Fort Henrietta Park would likely screen potential views of the 6-MW turbines from many locations. For these reasons, no significant adverse visual impact from the 6-MW turbine layout is anticipated at Fort Henrietta Park.

4.0 Conclusion

The information provided above demonstrates that the Siemens-Gamesa 6-MW turbine model and representative layout would not result in significant adverse visual impacts to scenic resources, protected areas, or important recreational opportunities.

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Nolin Hills Wind Power Project

Figure R-1
Scenic Resources Inventory

UMATILLA COUNTY, OREGON

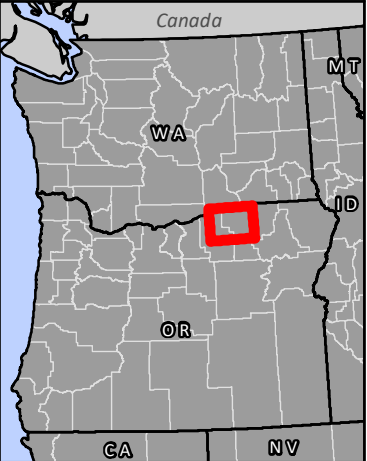
- Proposed Site Boundary
- Analysis Area (10-mile buffer)
- Umatilla River
- City of Pendleton Scenic Resource
- Area of Critical Environmental Concern (BLM)
- City/Town
- Interstate Highway
- Secondary Highway
- State Boundary
- County Boundary
- City Limit



Data Sources

Capital Power-Project Infrastructure;
ESRI-Roads; Hillshade; Enterprise-
County and State Boundaries

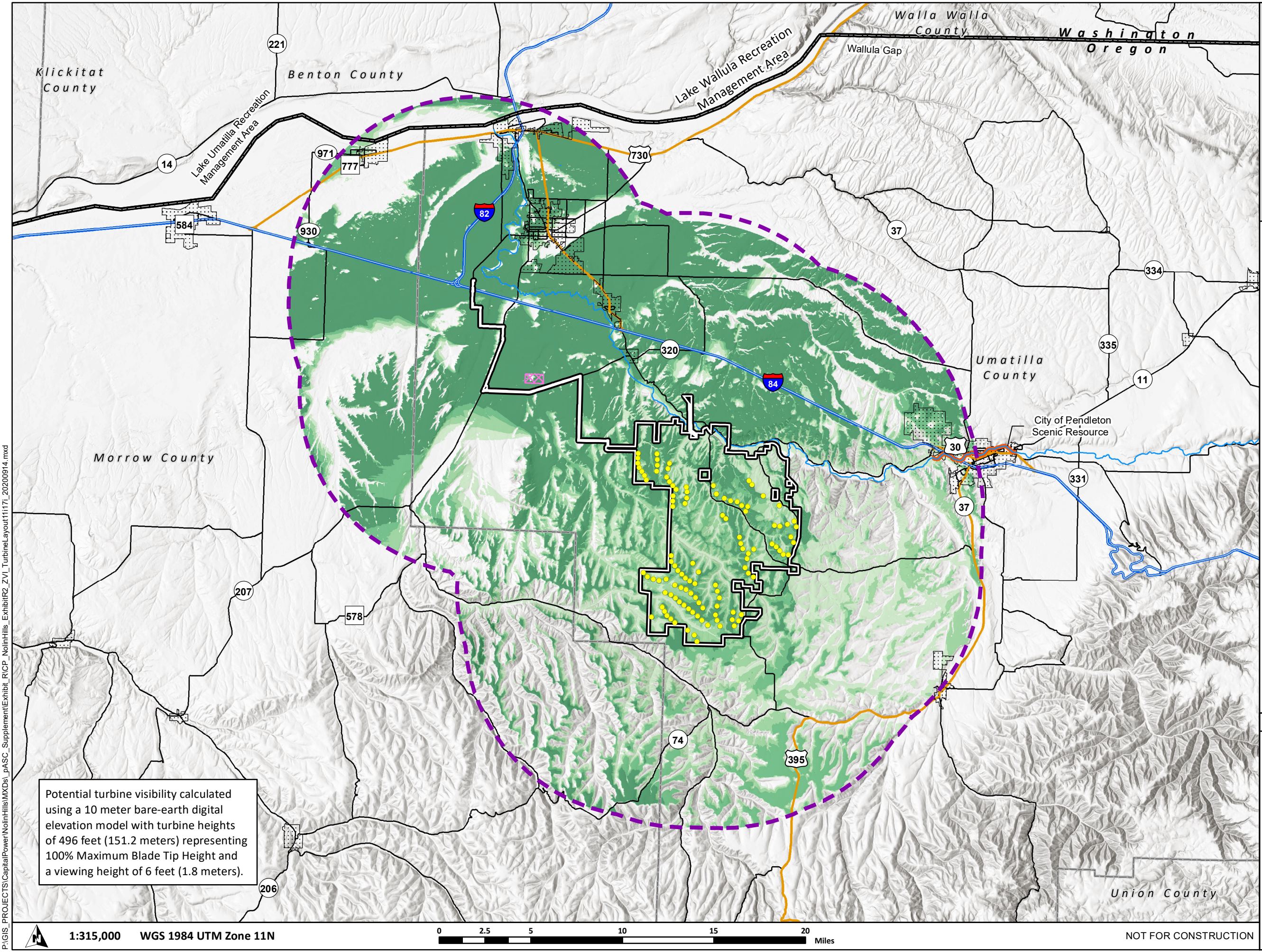
Reference Map



1:315,000 WGS 1984 UTM Zone 11N

0 2.5 5 10 15 20 Miles

NOT FOR CONSTRUCTION

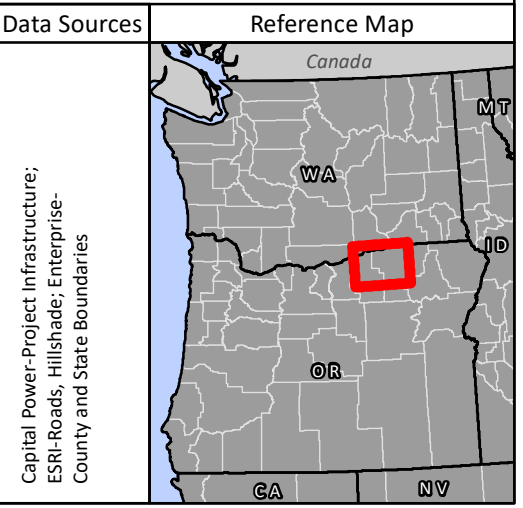


**Nolin Hills
Wind Power Project**

**Figure R-2
Zone of Visual Influence
for Turbine Layout
(112 GE 3.03MW Turbines)**

UMATILLA COUNTY, OREGON

- Proposed Site Boundary
 - Analysis Area (10-mile Buffer)
 - Proposed Turbine
 - Umatilla River
 - City of Pendleton Scenic Resource
 - Area of Critical Environmental Concern (BLM)
 - Interstate Highway
 - Secondary Highway
 - Secondary Road
 - State Boundary
 - County Boundary
 - City Limit
- Number of Turbines Potentially Visible
- 0
 - 1 - 30
 - 31 - 60
 - 61 - 90
 - 91 - 112



Potential turbine visibility calculated using a 10 meter bare-earth digital elevation model with turbine heights of 496 feet (151.2 meters) representing 100% Maximum Blade Tip Height and a viewing height of 6 feet (1.8 meters).

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