

# **Exhibit T**

## **Recreational Opportunities**

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**Biglow Canyon Wind Farm  
February 2025**

**Prepared for**



**Portland General Electric Company**

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## Acronyms and Abbreviations

AC	alternating current
ASC	Application for Site Certificate
BCWF or Existing Facility	Biglow Canyon Wind Farm
BESS	battery energy storage system
BIGL or Project Developer	BIGL bn, LLC
BLM	Bureau of Land Management
Certificate Holder or PGE	Portland General Electric Company
dBA	A-weight decibels
Council or EFSC	Oregon Energy Facility Siting Council
gen-tie	generation tie
I-84	Interstate 84
MW	megawatts
NPS	National Park Service
O&M	operations and maintenance
OAR	Oregon Administrative Rules
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
ONHT	Oregon National Historic Trail
OP	Observation Point (Glare Analysis)
OPRD	Oregon Parks and Recreation Department
OR-206	Oregon Route 206
PV	photovoltaic
RFA	Request for Amendment
Site Certificate	Site Certificate on Amendment 3
Solar Components	photovoltaic solar energy generation and battery storage
US-97	U.S. Highway 97
USACE	U.S. Army Corps of Engineers
ZVI	zone of visual influence



## 1.0 Introduction

The Portland General Electric Company (PGE or Certificate Holder) submits this Request for Amendment (RFA) 4 to the Site Certificate on Amendment 3, issued October 31, 2008 (Site Certificate) for the Biglow Canyon Wind Farm (BCWF or Existing Facility) to add photovoltaic (PV) solar energy generation and battery storage (Solar Components) to the operating BCWF.

BCWF, owned and operated by PGE, is located within an approved site boundary comprising approximately 25,000 acres, approximately 2.5 miles northeast of the town of Wasco in Sherman County, Oregon. The BCWF operates under the Site Certificate from the Oregon Energy Facility Siting Council (Council or EFSC) as administered by the Oregon Department of Energy (ODOE). BCWF currently consists of 217 wind turbines, with a maximum blade tip height of 445 feet, and a peak generating capacity of 450 megawatts (MW).

In RFA 4, PGE proposes to add up to 385 MW alternating current (AC) generating capacity from PV solar arrays and 375 MW in battery storage capacity. RFA 4 seeks to expand the BCWF site boundary to include the Solar Components in portions of the existing site boundary and in the proposed expanded site boundary (together, Solar Micrositing Area or RFA 4 Site Boundary<sup>1</sup>).

The Solar Micrositing Area is approximately 3,980 acres and provides a conservative estimate of the maximum area needed for development, micrositing, and temporary disturbances from the Solar Components during construction, rather than the anticipated disturbance footprint. Solar Components will include solar arrays, inverters, battery energy storage system facilities and their subcomponents (i.e., inverters), two collector substations, a total of approximately 3 miles of 230-kilovolt generation tie (gen-tie) transmission lines, medium voltage collector lines, operations and maintenance (O&M) structures, site access roads, internal roads, perimeter fencing, facility entry gates, and temporary laydown areas. The maximum generating capacity from the Solar Components will be 385 MW AC and construction may take place in phases.

PGE will own and operate the Solar Components as a part of the BCWF (together, Amended Facility or Facility), which, to date, have been developed by BIGL bn, LLC (BIGL or Project Developer). BIGL, in its capacity as the project developer, supports PGE in this RFA 4 and may construct and temporarily operate the Solar Components on behalf of PGE under a Build-Transfer Agreement.

Exhibit T provides the information required by Oregon Administrative Rules (OAR) 345-021-0010(1)(t) in support of RFA 4. The information summarized in this exhibit and described in RFA 4 demonstrate that the Facility, as proposed, can be designed, engineered, constructed, operated, and retired in a manner that satisfies the applicable Council standards. The proposed changes in RFA 4 do not alter the Certificate Holder's ability to comply with applicable Site Certificate Conditions and the approval standard in OAR 345-022-0100.

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<sup>1</sup> Note, as described in further detail in Section 4.1.1.2 of the RFA 4 Division 27 document, the Solar Micrositing Area is the equivalent of the RFA 4 Site Boundary.

## 2.0 Analysis Area

Consistent with OAR 345-027-0360(3), ODOE concurred with the Certificate Holder's use of a defined portion of the approved BCWF site boundary and the proposed expanded site boundary (i.e., Solar Micrositing Area/RFA 4 Site Boundary) to establish study area boundaries for RFA 4 under OAR 345-001-0010(35). The RFA 4 Site Boundary reflects the Solar Micrositing Area, and all study areas within the meaning of ORS 345-001-0010(35) are measured from the RFA 4 Site Boundary. In accordance with OAR 345-001-0010(35)(d), the analysis area for recreation areas is the area within and extending 5 miles from the Solar Micrositing Area<sup>2</sup> (Figure T-1).

## 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).*

**Response:** Based on the proposed amendments (including enlargement of the approved BCWF site boundary) to the Existing Facility in RFA 4, there are three new recreation areas located within the analysis area since the Final Order on RFA 3 was issued (see Table T-1);<sup>3</sup>no recreation areas except for the Oregon National Historic Trail (ONHT; i.e., alignment, as opposed to intact portion(s) of the ONHT) are located within or cross the Solar Micrositing Area. Table T-1 provides an inventory of the recreation areas within the analysis area. RFA 4 proposes expanding the site boundary, with much of the Solar Micrositing Area being contained within the approved BCWF site boundary; thus, the Solar Components are located at similar distances from most of the recreation areas previously identified in RFA 3. Therefore, the impacts are anticipated to be similar to or less than (due to the low profile of solar versus wind infrastructure) what was previously described in RFA 3 and approved in the Final Order on Amendment 3 (see Table T-1). Figure T-1 shows the location of the recreation opportunities identified in the analysis area in compliance with OAR 345-021-0010(1)(t)(E).

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<sup>2</sup> ODOE concurred with excluding the remaining BCWF site boundary that does not overlap with the Solar Micrositing Area from analysis in RFA 4 because no changes are proposed to any BCWF components in the remaining BCWF site boundary as part of RFA 4.

<sup>3</sup> Final Order on Request for Amendment 3, p. 27 (October 2008).

### 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 2024a, 2024b, 2024c, 2024d), Oregon Department of Fish and Wildlife (ODFW; ODFW 2022), U.S. Forest Service (USFS 2024a, 2024b), U.S. Geological Survey (USGS 2024), and Oregon Parks and Recreation Department (OPRD; OPRD 2020);
- 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, the Oregon Department of Transportation (ODOT), and county and city park departments (Sherman County 2024; ODFW 2024; ODOT 2024; OPRD 2024a, 2024b, 2024c, 2024d); 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 2024; Travel Oregon 2024).

### 3.2 Resource Descriptions

In general, recreation activities in the analysis area consist of water-related activities, hiking, camping, hunting, horseback riding, bicycling, photography, and sightseeing. These activities also occur in 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 contemplated in OAR 345-022-0100(2)'s factors. There are six identified recreational opportunities within the analysis area, three of which are new and were not previously reviewed by the Council as described in the Final Order on RFA 3.<sup>4,5</sup> All recreational areas except for the ONHT are not within and do not cross the Solar Micrositing Area as proposed by RFA 4.

Recreational opportunities within the analysis area are described below in order of federal, state, local, and private ownership/management. Table T-1 provides a summary of the recreational opportunities, and an assessment of the importance of each opportunity.

<sup>4</sup> Final Order on Request for Amendment 3, p. 27 (October 2008).

<sup>5</sup> As previously conducted and approved in the Final Order on Request for Amendment 3, all John Day River-related recreational resources are assessed as together (i.e., John Day Wild & Scenic River, John Day State Scenic Waterway, and associated parks including Albert Philippi Park and LePage Park) for the purposes of this analysis.

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Table T-1. Recreational Opportunities within the Analysis Area

Recreational Opportunity <div>Green shading indicates new recreation area since RFA3</div>	Responsible Entity	Distance to the Amended BCWF (miles)			Description	Size or Distance	Importance Factors					Important Recreation Resource
		RFA 4 Site Boundary	Solar Areas	Gen-tie Lines			Special Designation	Demand	Outstanding or Unusual Qualities	Rareness	Replaceability	
Federal												
Oregon National Historic Trail (ONHT; including the Barlow Road Cutoff Trail alignment)	National Park Service (NPS) and Oregon Historic Trails Advisory Committee	Crosses	0.4	Crosses	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. No intact sites/segments are within the analysis area, the closest of which are the McDonald Crossing/John Day River Crossing and Biggs Junction high-potential sites (intact and publicly accessible), located southeast of the analysis area (NPS 1999).	Approx. 424 miles total (in Oregon); Approx. 25 miles of trail segment(s) in analysis area	National Historic Trail	Low	Most trail segments destroyed by agricultural use; public access to these trail segments are restricted by private ownership.	Intact evidence of trail route – rare (outside the analysis area)	Irreplaceable (intact segments only, which are outside the analysis area)	Yes (intact segments only, which are outside the analysis area)
John Day River (Wild & Scenic River and State Scenic Waterway; associated parks including Albert Philippi Park and LePage Park)	Bureau of Land Management (BLM; Wild and Scenic River), Oregon Parks and Recreation Department (OPRD; State Scenic Waterway), U.S. Army Corps of Engineers (USACE; parks)	3.6	3.6	5.0	The John Day River within the analysis area is designated as a federal Wild and Scenic River, classified as a recreational river area, and a State Scenic Waterway. Primary recreational uses include hunting, fishing, sightseeing, horseback riding, hiking, camping, and whitewater rafting within the river canyon (BLM 2024a). The associated U.S. Army Corps of Engineer’s (USACE) Albert Philippi Park and LePage Park both offer river access and developed camping opportunities (Sherman County 2024).	Approx. 147 miles total; Approx. 3.5 miles in analysis area	Federal Wild and Scenic River (Recreational), State Scenic Waterway	Moderate to high (primarily in summer)	River rafting, kayaking, and fishing are exceedingly popular on the John Day River.	There are many attractive features of the river that has made it such a popular destination such as for rafting, reliable summer water flows and numerous fun and exciting rapids.	Irreplaceable	Yes
Giles L. French Park	USACE	4.8	4.9	5.7	The park is located along the Columbia River and has free primitive camping, bathrooms, boat ramp, dock and trails (Sherman County 2024).	Approx. 195 acres; Approx. 28 acres in analysis area	N/A	Moderate (primarily in summer and fall)	Developed park with camping and river access facilities.	One of several USACE parks in the analysis area/parks along the Columbia River or John Day River (all offering similar amenities).	Replaceable	No



Recreational Opportunity <div>Green shading indicates new recreation area since RFA3</div>	Responsible Entity	Distance to the Amended BCWF (miles)			Description	Size or Distance	Importance Factors					Important Recreation Resource
		RFA 4 Site Boundary	Solar Areas	Gen-tie Lines			Special Designation	Demand	Outstanding or Unusual Qualities	Rareness	Replaceability	
State												
Journey Through Time Scenic Byway (US-97)	Oregon Department of Transportation, Federal Highway Administration	2.5	2.5	4.6	Route starts south out of Biggs Junction along US-97 through the analysis area to Shaniko, where it turns east and eventually travels to Baker City. Primary recreational uses include sightseeing and road touring. There are no developed scenic overlooks or waysides along the byway in the analysis area. The route within the analysis area passes through agricultural land, near Oregon Trail segments, and existing wind farms (Travel Oregon 2024).	Approx. 286 miles total; Approx. 8.9 miles in analysis area	Oregon State Scenic Byway	Moderate to high	Route within the analysis area includes agricultural land, rolling hills, and wind farms. Entire route includes diverse scenery, historic towns, mountain ranges, and rivers; US-97 is one of several routes through similar eastern Oregon landscapes.	Relatively common travel route in the north-central Oregon region.	Irreplaceable	Yes
Local												
Depot Park	City of Wasco	2.4	2.3	4.0	The park is located off of OR-206 and has a play area, picnic tables, restrooms, covered areas, barbeque area, and a skatepark (Sherman County 2024). The site also allows biking and pets and hosts an explorable, retired Union Pacific railroad caboose.	Approx. 2 acres; Approx. 2 acres in analysis area	N/A	Low to moderate (primarily in summer and fall)	Developed park with a skatepark, close proximity to a state highway, and facilities and services available within an urbanized community.	One of two city parks.	Replaceable	No
Wasco City Park	City of Wasco	2.3	2.4	4.1	The park is located off of OR-206 and has picnic tables and a barbeque pit (Sherman County 2024).	Approx. 2 acres; Approx. 2 acres in analysis area	N/A	Low to moderate (primarily in summer and fall)	Park with close proximity to a state highway and facilities and services available within an urbanized community.	One of two city parks.	Replaceable	No

### **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 ONHT. The trail route passes through the center of the RFA 4 Site Boundary/southern gen-tie line, 0.4 miles from the solar areas, and the Barlow Road Cutoff Trail alignment is 2.7 miles south of the RFA 4 Site Boundary (see Table T-1 for specific distances to Amended BCWF infrastructure). Due to the rareness and historic importance of the ONHT, the resource is considered an important recreational resource. Note, as previously found by the Council, the portion of the ONHT that crosses through the RFA 4 Site Boundary/southern gen-tie line and analysis area is not considered to be intact (destroyed by agricultural practices and other development activities) and access is limited due to being predominately located on private property; the only accessible portions of the ONHT that were identified within the analysis area can only be accessed/viewed from county roads, none of which are considered to be intact.<sup>6</sup>

The John Day River is located 3.6 miles northeast of the RFA 4 Site Boundary, 3.6 miles northeast from the solar areas, and 5 miles northeast of both gen-tie lines, designated as both a federal Wild and Scenic River (managed by the BLM) and State Scenic Waterway (managed by the OPRD); associated parks along the River within the analysis area include the U.S. Army Corps of Engineers [USACE]-managed Albert Philippi Park and LePage Park. Due to the demand, rareness, and scenic importance of the River, the resource is considered an important recreational resource.

Lastly, the USACE-managed Giles L. French Park is located 4.8 miles northwest of the RFA 4 Site Boundary, 4.9 miles northwest from the solar areas, and 5.7 miles northwest of both gen-tie lines. Due to the availability of similar parks with comparable amenities within the analysis area, the resource is not considered to be an important recreational resource.

### **3.2.2 State**

A single state-managed resource is located within the analysis area, the Journey Through Time State Scenic Byway (U.S. Highway [US-97]). The Byway passes 2.5 miles west of the RFA 4 Site Boundary, 2.5 miles west from the solar areas, and 4.6 miles west of the southern gen-tie line. Due to the demand, outstanding qualities, and scenic importance of the Byway, the resource is considered an important recreational resource.

### **3.2.3 Local Governments and Special Districts**

The City of Wasco offers both Depot Park and Wasco City Park within the analysis area. The parks are located 2.4 and 2.3 miles southwest from the RFA 4 Site Boundary, 2.3 and 2.4 miles southwest from the solar areas, and 4.0 and 4.1 miles southwest from the southern gen-tie line, respectively.

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<sup>6</sup> Final Order on Application for a Site Certificate, p. 80-81 (June 2006).



Neither resource is considered to be important recreational resources due to the lack of rare/unique amenities.

### **3.2.4 Private**

No privately owned recreational opportunities were identified within the analysis area.

## **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 Solar Components.

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 re-created 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. Table 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, the ONHT, John Day River, and Journey Through Time Scenic Byway have been determined to be important for the purposes of this analysis. These resources are summarized in Table T-1 of this exhibit. The potential for impacts to these important recreation resources as a result of the proposed Solar Components is discussed in Section 4.

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

*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:*

*OAR 345-021-0010(1)(t)(C) An evaluation of the significance of the potential adverse impacts identified under paragraph (B);*

The potential effects to the three important recreational opportunities in the analysis area were studied to determine whether the design, construction, and operation of the Solar Components, 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.

### **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;*

A direct loss of opportunity occurs only where the Solar Components would physically disturb the ground located within the affected recreational resource area. The Solar Components will not directly impact any important recreation resource, for two of the three important recreational

opportunities are not within the RFA 4 Site Boundary. The remaining recreational opportunity, the ONHT, crosses the RFA 4 Site Boundary/southern gen-tie line; however, the Solar Components will be constructed on private property on which no intact trail segments have been identified and access is limited due to being located on private property, as confirmed in previous amendments<sup>7</sup>. Furthermore, the Solar Components will not affect existing locations where the historic trail alignments cross county roads, nor will Solar Components infrastructure be constructed over historic alignments

An indirect loss of opportunity could occur if 1) a recreational opportunity nearby the Solar Components 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 Solar Components were to alter the environment of a recreational opportunity through indirect effects that it substantially impacted the quality of the recreation experience at that site. For example, if the Solar Components 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.

With respect to the first type of indirect loss, indirect opportunity loss due to temporary closure for safety concerns is unlikely to occur due to two of the three important recreational opportunities being over 1 mile from the RFA 4 Site Boundary. The remaining recreational opportunity, the ONHT, crosses the RFA 4 Site Boundary/southern gen-tie line; however, the amended BCWF will be constructed on private property on which no intact trail segments have been identified and access is limited due to being located on private property; see description above. Note that construction of the Solar Components in general will last for up to 30 months to accommodate construction or weather delays.

Potential sources of the second type of indirect loss—environmental disturbance impacts to important recreational opportunities—include noise, traffic, and changes in visual quality associated with the Solar Components; the following sections analyze these three factors.

## **4.2 Noise Impacts – OAR 345-021-0010(1)(t)(B)(ii)**

### *(ii) Noise resulting from facility construction or operation;*

The Solar Components proposes no significant additional noise impacts to recreation areas from the Existing Facility. Exhibit Y provides an assessment of the existing acoustical environment and anticipated sound levels from the Solar Components; the methodology for noise modeling is detailed in that exhibit. Activities associated with construction of the proposed solar areas and related or supporting facilities would be similar to the construction noise already reviewed by Council for the Existing Facility.

Exhibit Y describes sound level thresholds derived from the Oregon Department of Environmental Quality noise regulations (OAR 340-035-0035), which are used to assess the significance of impacts

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<sup>7</sup> Final Order on Request for Amendment 3, p. 27 (October 2008).

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.” The three important recreation areas within the analysis area are not considered to be noise sensitive properties, aside from camping areas along the John Day River.

Based on the results of operations noise modeling, described in detail in Exhibit Y, operation of the Solar Components will not create new noise impacts to important recreation areas beyond those that were previously identified for the Existing Facility. As detailed in Exhibit Y, the solar modules will create no significant operational noise, and operational noise from primarily cooling equipment associated with the BESS and electrical equipment will be similar to operational noise already reviewed by the Council for the Existing Facility. Comprehensive Solar Components noise would attenuate to below 26 A-weighted decibels (dBA)<sup>8</sup>, or less than the background/ambient (nighttime) noise level, within approximately 2 miles from the RFA 4 Site Boundary. One important recreation area, the ONHT, is within 2 miles of the RFA 4 Site Boundary (crosses the RFA 4 Site Boundary/southern gen-tie line and approximately 0.4 mile from the solar areas). The remaining two important recreation areas are greater than 2 miles from the RFA 4 Site Boundary (i.e., John Day River and Journey Through Time Scenic Byway) and will not be affected by Solar Components operation noise.

Modeled worst-case Solar Components operational noise levels at the ONHT would be a maximum of 46 dBA, which is comparable to the noise level of a quiet rural residential area; however, this portion of the ONHT is not considered to be intact and access is limited due to being located on private property, as found in previous amendments. The closest portion of the ONHT that is both intact and publicly accessible, i.e., the McDonalds Crossing/John Day River Crossing high-potential site, is located outside of the analysis area (9 miles southeast of the RFA 4 Site Boundary) and is anticipated to receive less than 26 dBA during operations, comparable to the noise level of a quiet library. Therefore, this level of noise is unlikely to substantively diminish the experience at the ONHT. This resource is not considered to be noise sensitive property.

Noise from construction would similarly be less than 26 dBA within 26 miles from the RFA 4 Site Boundary (daytime ambient sound level) and potentially audible at all three important recreation areas. Pursuant to OAR 340-035-0035(5), noise from construction activities is exempt from the state noise standards. Construction activities associated with the amended BCWF have the potential for localized noise on a temporary basis as construction activities progress through certain locations within the RFA 4 Site Boundary. 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 three important recreation areas, the ONHT, John Day River, and Journey

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<sup>8</sup> Note that the 26 dBA value was selected as representative because OAR 340-035-0035(1)(b)(B)(iii)(I) allows for an assumed ambient sound level of 26 dBA for wind energy facilities. Site-specific ambient sound data was not collected for the amended BCWF, but 26 dBA is assumed to be a conservative estimate.

Through Time Scenic Byway, would peak at approximately 95 dBA, 43 dBA, and 46 dBA, respectively; these noise levels are comparable to a heavy truck (95 dBA) and a quiet rural residential area (43-46 dBA), respectively, and the remaining, more distant, important recreation areas are anticipated to experience diminished noise levels. These elevated noise levels will occur sporadically while Solar Components infrastructure such as the solar areas closest to the ONHT, John Day River, and Journey Through Time Scenic Byway are built. As construction progresses elsewhere in the Solar Components, noise levels will drop to background levels. Continued implementation of Site Certificate Condition 89 will help reduce construction noise impacts through the requirement of exhaust mufflers on combustion engine-powered equipment, confining the noisiest operation of heavy construction equipment to daylight hours, and establishment of a noise complaint response system; Site Certificate Conditions 90 and 91 (Noise Control Regulations) are not applicable to the amendments proposed by RFA 4 for they only apply to wind turbine construction. At this time, pending geotechnical investigation of the final layout, blasting is not anticipated to be required for Solar Components construction.

The Council previously found that the Existing Facility noise will not result in a significant adverse impact to important recreation areas<sup>9</sup> and the amendments in RFA 4 do not alter that conclusion.

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

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

Traffic impacts in general are addressed in greater detail in Exhibit U, including information on anticipated traffic levels and typical travel routes for the Solar Components.

Based on the analysis provided in Exhibit U, the primary transportation route used for construction of the Solar Components will be the same as what was already evaluated for the Existing Facility. The primary route for construction-related traffic will be Interstate 84 (I-84) to south on US-97 to Wasco, southeast on Oregon Route 206 (OR-206), east on either Klondike Road or the Old Wasco Heppner Highway, and then onto various County roads. The secondary route for strictly construction-related commuter traffic will be I-84 to south on Scott Canyon Road to either Herin Lane or Medler Lane; this route is not suitable for oversize/overweight traffic. All important recreation areas except the John Day River are accessed by roads anticipated to carry Solar Components-related truck traffic; the segment of the John Day River within the analysis area is not accessed by the Solar Components transportation routes aside from I-84.<sup>10</sup> Construction worker traffic may occur on roads providing access to these resources; however, construction worker traffic will be dispersed on multiple roads throughout the area, and the nominal level of worker traffic anticipated on roads other than I-84, US-97, and OR-206 will not adversely affect level of service on those roads (see Exhibit U).

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<sup>9</sup> Final Order on Request for Amendment 3, p. 27 (October 2008).

<sup>10</sup> Due to the average daily traffic volumes on this applicable segment of I-84 within the analysis area (i.e., four miles west of the John Day River to east of the mouth of the John Day River), Solar Components construction-related traffic (i.e., trucks, commuter vehicles) is not anticipated to affect the Level of Service on this portion of the interstate (see Exhibit U for further detail).

Timing patterns for construction-related traffic and recreational traffic to important recreation areas will likely differ substantially. Construction traffic will primarily be dispersed throughout the business work week and primarily during commuter hours, whereas peak recreational traffic will be greatest during the weekend. Additionally, no roads providing access to the ONHT and Journey Through Time Scenic Byway are expected to be closed during construction or operation of the Solar Components.

The Journey Through Time Scenic Byway is accessed from US-97. Similarly, the segment of the ONHT within the analysis area can be accessed from US-97 to OR-206, and from Scott Canyon Road to Medler Lane. As stated previously, the portion of the ONHT that crosses through the RFA 4 Site Boundary/southern gen-tie line is not considered to be intact (destroyed by agricultural practices and other development activities) and access is limited due to being located on private property, as found in previous amendments; the only accessible portions of the ONHT that were identified within the analysis area can only be accessed/viewed from county roads, none of which are considered to be intact. Additionally, the temporary construction-related traffic created on US-97 and OR-206 is anticipated to be inconsequential for they were constructed to design, safety, and load-bearing standards (see Exhibit U).

Temporary, short-term delays are most likely to occur only during deliveries of oversized loads, which will occur sporadically and will be accompanied by traffic control teams. Construction of the Solar Components in general will be short in duration (lasting up to 30 months) and thus any construction traffic impacts will be temporary.

Although there will be no significant traffic impacts to important recreation areas, the Certificate Holder will continue to implement Site Certificate Condition 79 which requires adhering to various traffic control measures. Site Certificate Condition 77 in turn requires the Certificate Holder to monitor roads for signs of degradation so that preconstruction conditions can be compared with conditions after construction has been completed; coordination with the County and ODOT will be required. Any damage or wear to county roads from Solar Components construction will be repaired and restored per Site Certificate Condition 78. Therefore, no significant adverse traffic impacts to important recreation areas are anticipated from construction of the Solar Components.

During operations, traffic would be minimal, as the Solar Components will permanently employ up to seven permanent personnel. Solar and BESS-related equipment will require periodic maintenance, but traffic associated with repair or maintenance visits will be low, and daily traffic generated by operation of the Solar Components is not expected to affect operations of any of the state or local county roads used to access the important recreation area within the analysis area.

The Council previously found that the construction and operational traffic will not be likely to result in significant adverse impacts to important recreation areas within the analysis area,<sup>11</sup> and the amendments in RFA 4 do not alter that conclusion.

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<sup>11</sup> Final Order on Request for Amendment 3, p. 27 (October 2008).

#### **4.4 Visual Impacts – 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;*

The inclusion of the additional solar modules and associated infrastructure at the Solar Components will result in a change to the existing viewshed, but this change will not result in a significant visual impact to the important recreation areas due to overall height of infrastructure, distance to the Solar Components, topographical screening, low impact to users, no specified management of scenic or visual qualities beyond the boundaries of each important recreation area, and presence of similar structures within the existing viewshed. To reduce visual impacts to important recreation areas, Site Certificate Condition 50 will continue to be implemented, which requires the usage of low-reflective finishes on the O&M building and substation and enforces signage restrictions. The O&M building will be designed and constructed to be consistent with the character of buildings in the surrounding area and painted in a neutral color, per Site Certificate Condition 51. Exterior nighttime lighting will continue to be restricted to security lighting at the O&M building and substation, and as necessary for repairs, emergencies, according to Site Certificate Condition 52.

The Solar Components will not generate any emissions plumes and so will not cause any visual impacts from air emissions. Potential visual impacts due to dust created during construction of the Solar Components will be largely prevented by following best management practices for dust control as detailed in Exhibit I.

##### **4.4.1 Visual Impact Assessment Methodology**

The potential for visual impacts from the Solar Components are primarily related to the components that will be the most prominent in terms of size and scale. The two most prominent components in terms of height off the ground and overall surface area include the solar areas and the 230-kilovolt gen-tie lines (both northern and southern). Thus, these two components were the main focus of the visual impact assessment.

A zone of visual influence (ZVI) analysis, also known as a viewshed analysis, was performed using Esri geographic information system software and a bare-earth 10-meter digital elevation model to identify those areas from which the solar areas and the gen-tie lines might be visible (Figures T-2 and T-3). The ZVI analysis assumed a maximum height of 15 feet for the solar modules and maximum heights of 160 feet for the gen-tie lines. All other components proposed with RFA 4 were deemed less visually impactful (due to height, being dispersed throughout the RFA 4 Site Boundary, or adjacent to taller infrastructure, etc.) and addressed by the assessment of the solar areas and gen-tie lines. A typical viewing height of 1.8 meters (6 feet) was assumed. Visibility of the two components was defined by visible or not visible, indicated by color coding (see Figures T-2 and T-3), and by proximity, i.e., foreground (less than 0.5 mile), middleground (0.5 to 5 miles), or background distances (more than 5 miles).

Based on these ZVI analyses, Visual Analysis Key Observation Points (OPs) were identified based on locations from which the Solar Components would potentially be visible and noticeable to the

casual observer (see Figure R-4 in Exhibit R). Thus, some of the important recreation areas are represented as OPs in the analysis of visual impacts in Exhibit R; these are noted below as applicable. Additionally, a glare analysis was also performed using the Sandia Laboratories Solar Glare Hazard Analysis Tool; See Exhibit R for the full methodology. The glare results are noted below as applicable to specific important recreation areas and OPs.

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. Finally, the model does not account for distance, lighting, weather, and atmospheric attenuation factors that diminish visibility under actual field conditions. The solar modules will be the most visible components within the solar areas (see RFA 4 Division 27 document for full description). The visibility of the solar modules within the solar areas will depend primarily on topographic or other view obstructions and the distance from the viewer to the solar areas. With a maximum height of 15 feet to the top edge of the solar module when fully tilted, the modules will not be visible from sites lower in elevation than the area on which the solar modules are constructed. From sites that are similar in elevation to the solar modules, viewers will see only a line on the horizon and not individual solar panels. Depending on the viewing distance, viewers at sites higher in elevation may have views of the modules, especially if the view direction is toward the angle at which the module is tilted toward the sun. To the extent practicable, reflectivity of solar modules will be minimized. Antireflective coating will be used to reduce glare, and the surface of the modules will have high transmittance to increase the amount of light reaching the photovoltaic cells. With these methods, the modules will be less reflective than a natural water body or a coated glass surface that is not antireflective.

#### ***4.4.2 Visual Impact Assessment Results***

Based on the results of the ZVI analysis, there is the potential for visibility of some portions of the Solar Components from all three important recreation areas in the analysis area (see Figures T-2 and T-3). The visibility of the solar areas and gen-tie lines are characterized as visible or not visible. The discussion below provides additional detail on the updated visual impact analysis that was conducted for RFA 4.

Potential visibility is one of several factors that comprise an assessment of visual impact to an important recreation area. 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 (see Exhibit R), either within the recreation area or outside of it.

Again, the proposed solar areas and gen-tie lines will potentially be visible from all three important recreation areas in the analysis area. Views of the Solar Components will be from a middleground viewing distances from both the John Day River and Journey Through Time Scenic Byway, where both the low-profile solar modules and gen-tie lines will occupy a limited portion of the total viewshed. Views of the Solar Components will be from foreground viewing distances from the



ONHT; however, none of these segments are considered to be intact and most are not accessible to the public (as discussed above). Existing views already include wind farms, transmission lines, industrial development, and agricultural irrigation equipment so the Solar Components will not introduce a new or unusual feature to the view. In addition, potential views of the Solar Components from all three important recreation areas will be partially to fully screened in some areas by terrain.

The associated visual impacts at the ONHT, John Day River, and Journey Through Time Scenic Byway were found to be similar to or less than those at the Existing Facility.<sup>12</sup> The following paragraphs provide a more in-depth visual impact assessment for these important recreation areas.

#### *4.4.2.1 Oregon National Historic Trail*

The Oregon Trail designation was intended to preserve the legacy of the westward immigration of settlers to the Oregon Territory, based on 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 identified “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.

The NPS (1999) management plan does not identify any high-potential trail segments or monuments within the analysis area. The ONHT segments within the analysis area are not intact and are predominately located on private land and thus are generally inaccessible except for trail locations that can be accessed/views from County roads, as confirmed in previous amendments. Additionally, as previously found by the Council, the portion of the ONHT that crosses through the RFA 4 Site Boundary/southern gen-tie line is not considered to be intact (destroyed by agricultural practices and other development activities).<sup>13</sup> Due to the restricted access and lack of intact trail within the analysis area, it is questionable whether these segments of the ONHT should be considered to be important resources for recreation; however, its federal protection status, irreplaceability, and historical importance qualify the ONHT as important for the purposes of this analysis.

The ONHT 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 these segments of the ONHT within the analysis area are 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. Existing roads are visible, much of the landscape is farmed and fenced, little of the tallgrass native

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<sup>12</sup> Final Order on Request for Amendment 3, p. 27 (October 2008).

<sup>13</sup> Final Order on Application for a Site Certificate, p. 80-81 (June 2006).

prairie remains, and existing wind turbines and transmission lines from other projects are visible in nearly every direction.

The overall visual impact from the solar areas and gen-tie lines on the ONHT will be negligible. The ZVI analysis demonstrates visibility of the solar areas and gen-tie lines along intermittent portions of the ONHT within the analysis area sometimes from a foreground viewing distance (see Figures T-2 and T-3). Views of both the solar areas and gen-tie lines are anticipated to be subordinate to the existing landscape due to existing wind and utility infrastructure in the viewshed, and partial topographical screening limiting Solar Components visibility in some areas of the analysis area (see Exhibit R, OPs 4, 12, and 13). No significant amounts of glare are predicted for these OPs; the simulation predicted PV arrays 3, 4, and 10 will result in minor amounts of green glare to select sections of Emigrant Springs Lane, Herin Lane (1 and 2), Medler Lane, N Klondike Road, Oehman Road, and Webfoot Road, and for various OPs including OP 4 (see Exhibit R for further discussion). Thus, the solar areas and gen-tie lines will not represent a new or unusual feature in the viewshed and will create—at most—weak additional contrast within the current visual context. As stated previously, the ONHT segments within the analysis area are mostly on private land and thus are not publicly accessible except for trail locations that can be accessed/views from County roads, and the portion RFA 4 Site Boundary/southern gen-tie line and analysis area is not considered to be intact. Additionally, the ONHT is not managed for scenic qualities outside of high-potential segments and sites, none of which are located within the analysis area. Therefore, due to intermittent topographical screening, existing views of other wind farms and utility infrastructure virtually in all directions from the ONHT, restricted access, and lack of scenic management, visual impacts from the Solar Components are anticipated to be negligible.

#### *4.4.2.2 John Day River Canyon*

The John Day River Canyon is inclusive of both the John Day Wild and Scenic River and the John Day River State Scenic Waterway (analyzed separately in Exhibit L); 3.5 miles of the 147-mile John Day River are within the analysis area. The John Day River Canyon is identified by the applicable federal management plan as well as the Sherman County Comprehensive Plan as an important scenic resource where significant adverse visual impacts should be avoided (BLM 1986, 2001; Sherman County 2007; see Exhibit R). The river corridor is popular for its diverse recreational opportunities including hunting, fishing, sightseeing, horseback riding, hiking, camping, and whitewater rafting within the river canyon, especially during the summer (BLM 2024a). The associated USACE Albert Philippi Park and LePage Park both offer river access and developed camping opportunities (Sherman County 2024).

The overall visual impact from the solar areas and gen-tie lines on the John Day River Canyon would be negligible. The ZVI analysis demonstrates only intermittent visibility of the solar areas and gen-tie lines along a small portion of the John Day River Canyon within the analysis area from a middleground viewing distance (see Figures T-2 and T-3); these views are confined to the upper ridges of the John Day River Canyon and the Solar Components will not be visible from within the canyon, where most of the recreational opportunities are concentrated. Views of both the solar

areas and gen-tie lines are anticipated to be intermittent and subordinate to the existing landscape due to existing wind and utility infrastructure in the viewshed, and topographical screening limiting Solar Components visibility. Thus, the solar areas and gen-tie lines will not represent a new or unusual feature in the viewshed and will create—at most—weak additional contrast within the current visual context. Therefore, due to distant proximity, topographical screening, and existing views of other wind farms and utility infrastructure from the John Day River Canyon, visual impacts from the Solar Components are anticipated to be negligible.

#### **4.4.2.3      *Journey Through Time Scenic Byway (US-97)***

The 286-mile Journey Through Time Scenic Byway starts at Biggs Junction along US-97 through the analysis area to Shaniko, where it turns east and eventually travels to Baker City. The Byway is assumed to be a heavily used route in the north-central Oregon region and is located 2.5 miles southwest of the RFA 4 Site Boundary; 8.9 miles of the Byway are within the analysis area. There are no developed scenic overlooks or waysides along the Byway within the analysis area; nevertheless, sightseeing and road touring are considered to be the primary recreational uses along the Byway. The route within the analysis area passes through agricultural land, near Oregon Trail segments, and existing wind farms (Travel Oregon 2024). The Byway is managed for scenic qualities (ODOT 1996, 2024; see Exhibit R).

The overall visual impact from the solar areas and gen-tie lines on the Journey Through Time Scenic Byway would be negligible. The ZVI analysis demonstrates only intermittent visibility of the solar areas and gen-tie lines along a small portion of the Byway within the analysis area from a middleground viewing distance (see Figures T-2 and T-3). Views of both the solar areas and gen-tie lines are anticipated to be intermittent and subordinate to the existing landscape due to existing wind and utility infrastructure in the viewshed, and topographical screening limiting Solar Components visibility (see Exhibit R, OPs 15, 16 and 18). No significant amounts of glare are predicted for these OPs; the simulation predicted PV arrays 3, 4, and 10 will result in minor amounts of green glare to select sections of Emigrant Springs Lane, Herin Lane (1 and 2), Medler Lane, N Klondike Road, Oehman Road, and Webfoot Road, and for various OPs including OPs 15 and 16 (see Exhibit R for further discussion). Thus, the solar areas and gen-tie lines will not represent a new or unusual feature in the viewshed and will create—at most—weak additional contrast within the current visual context. Therefore, due to the distant proximity, topographical screening, and existing views of other wind farms and utility infrastructure from the Journey Through Time Scenic Byway, visual impacts from the Solar Components are anticipated to be negligible.

### **4.5      Summary of Impacts**

The analysis area contains three important recreation areas. The Certificate Holder analyzed potential impacts to these areas and concluded as follows:

- **Direct or Indirect Loss.** The Solar Components have been designed to avoid direct loss to all important and identified recreational opportunities, and any indirect disturbance effects will not lead to an indirect loss of any important or identified recreational opportunities.

- **Noise.** Based on the results of the noise modeling presented in Exhibit Y, operational noise was determined to likely be less than 26 dBA at all but one important recreation area (i.e., the ONHT), which is consistent with a rural nighttime background ambient according to OAR 340-035-0035. The ONHT is not considered to be noise sensitive receptors under the Oregon Department of Environment Quality noise regulations. Construction noise may be audible at all three of the important recreation areas; however, construction noise would be short-term and intermittent, and would not be considered a significant impact to any important recreation area. Therefore, the amended BCWF will result in no significant difference in operational or construction noise at the three important recreation areas within the analysis area relative to the Existing Facility.
- **Traffic.** Construction and operations traffic for the Solar Components will not alter the previous analysis demonstrating that Existing Facility-related traffic would not be sufficiently high, nor located to significantly impact any important recreation area within the analysis area. Some short-term, intermittent, and temporary delays may be experienced during Solar Components construction by visitors; however, these would be temporary and traffic conditions would return to typical low levels following construction. Therefore, consistent with previous conclusions for the Existing Facility, there would be no significant impact to traffic resulting from the construction or operation of the Solar Components.
- **Visual.** The Solar Components will potentially be visible intermittently from all three important recreation areas within the analysis area (foreground to middleground views). However, due to the overall height of solar components, distance from the Solar Components, topographic obstructions, other features within view (i.e., wind turbines and other utility infrastructure), low impact to users, an overall lack of management direction applicable to scenic quality beyond the boundaries of the important recreation areas, and no significant amounts of glare, the Solar Components will not alter the Council's previous finding that the BCWF would not have a significant visual impact on any important recreation area.

## **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 in Section 4, the Solar Components will have no significant, direct adverse impact on any important recreational opportunity in the analysis area. Nor will any indirect disturbance effects associated with traffic, noise, or visual aspects of the Solar Components will 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 Solar Components will 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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Biglow Canyon  
Wind Farm Request  
for Amendment #4

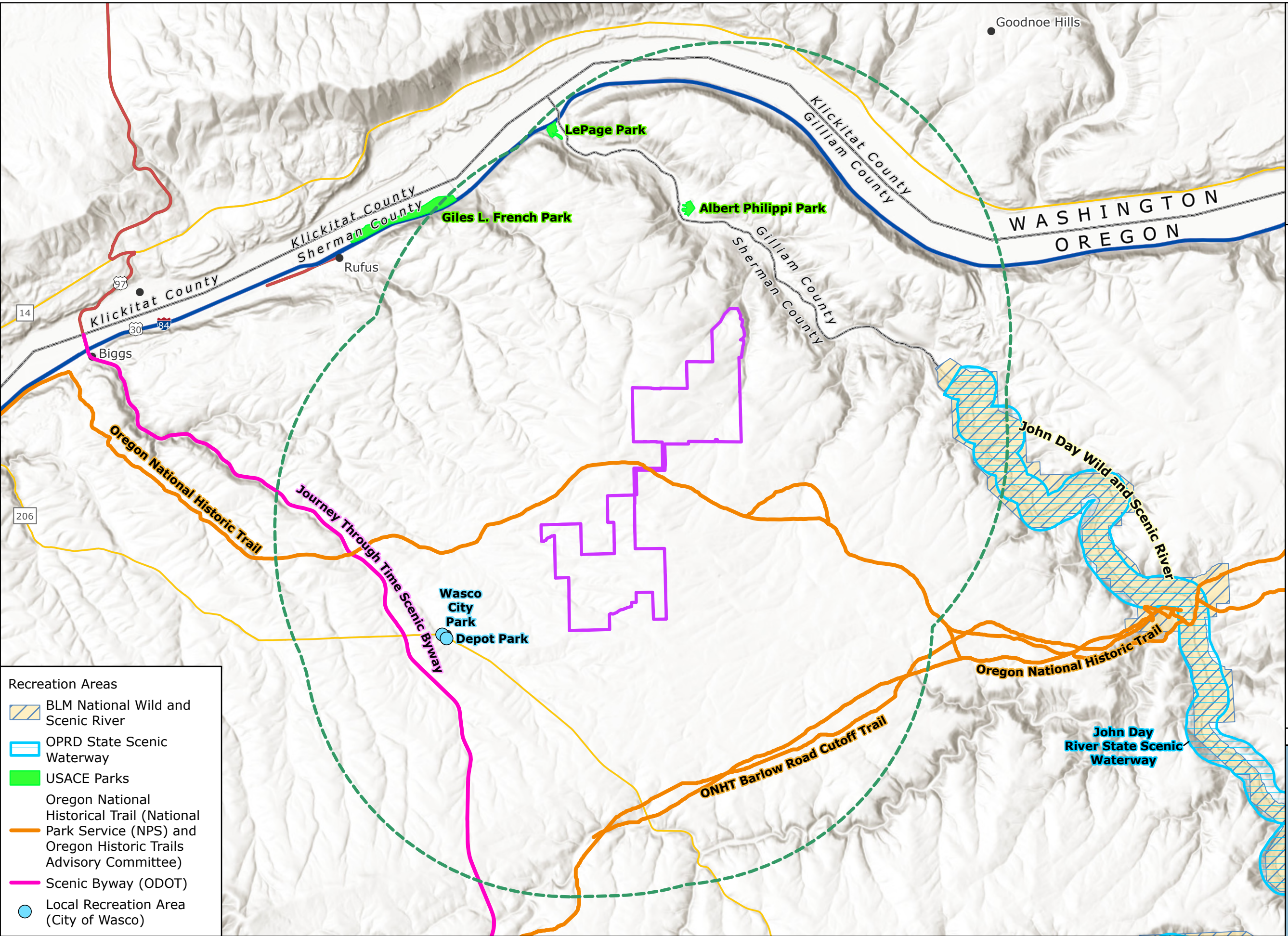
Figure T-1  
Recreation Areas  
within the Analysis Area

SHERMAN COUNTY, OR

- Solar Micrositing Area
- Recreation Areas Analysis Area (5-mile buffer)
- State Boundary
- County Boundary
- City/Town
- Interstate Highway
- US Highway
- State Highway



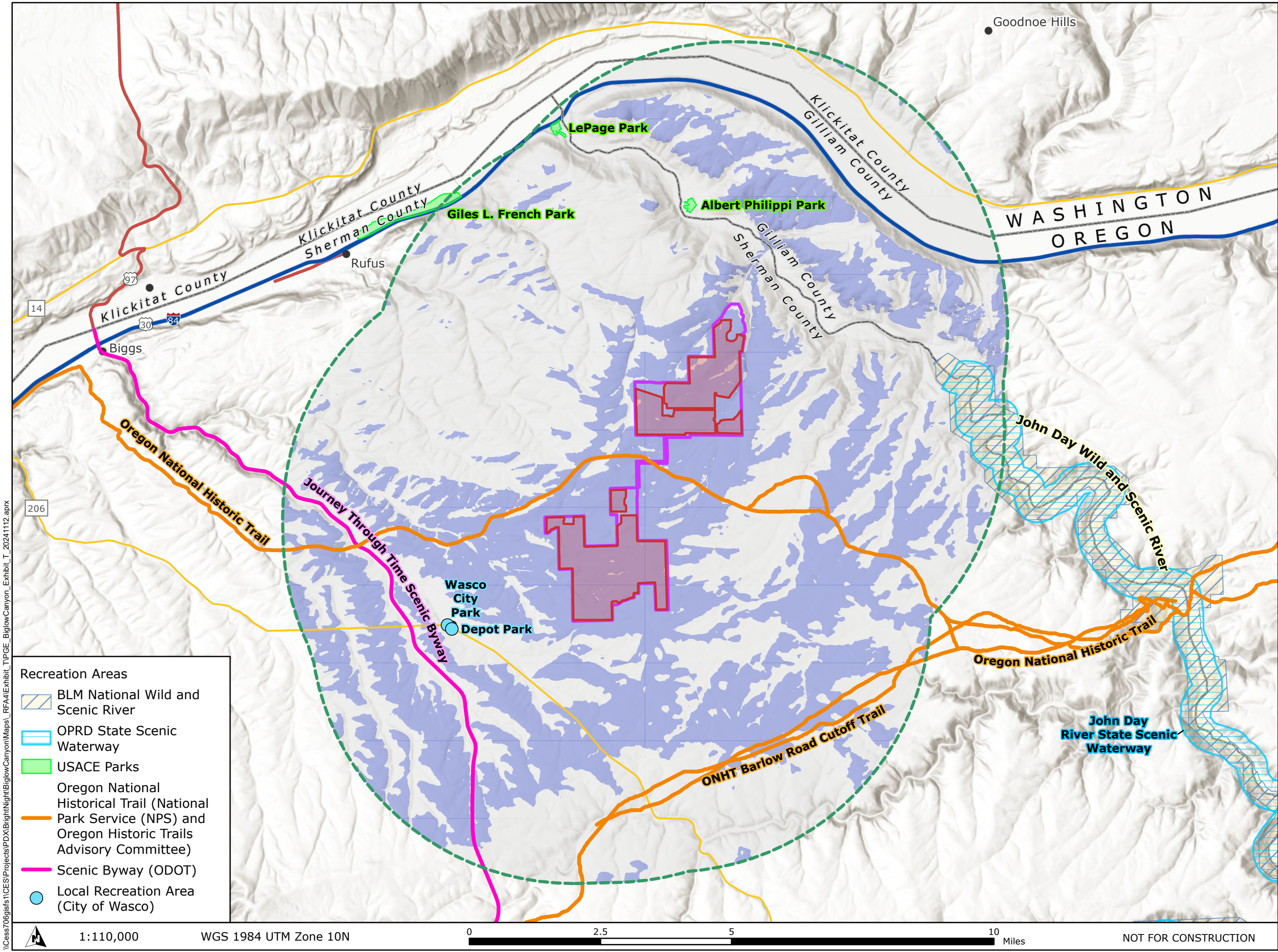
Reference Map



- Recreation Areas
- BLM National Wild and Scenic River
  - OPRD State Scenic Waterway
  - USACE Parks
  - Oregon National Historical Trail (National Park Service (NPS) and Oregon Historic Trails Advisory Committee)
  - Scenic Byway (ODOT)
  - Local Recreation Area (City of Wasco)



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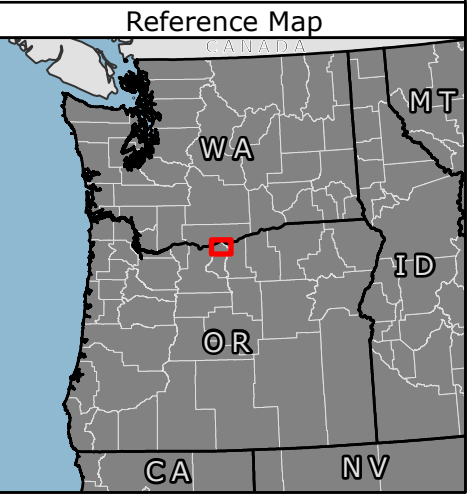
# Biglow Canyon Wind Farm Request for Amendment #4

## Figure T-2 ZVI Map, Solar Array

SHERMAN COUNTY, OR

- Solar Micrositing Area
- Recreation Areas Analysis Area (5-mile buffer)
- Fenceline
- State Boundary
- County Boundary
- City/Town
- Interstate Highway
- US Highway
- State Highway
- Viewshed\*
  - Solar Array Not Visible
  - Solar Array Potentially Visible

\*Potential solar array visibility calculated using a 10 meter bare-earth digital elevation model with panel heights of 15 feet (4.572 meters) and a viewing height of 6 feet (1.8 meters).



- ### Recreation Areas
- BLM National Wild and Scenic River
  - OPRD State Scenic Waterway
  - USACE Parks
  - Oregon National Historical Trail (National Park Service (NPS) and Oregon Historic Trails Advisory Committee)
  - Scenic Byway (ODOT)
  - Local Recreation Area (City of Wasco)



Biglow Canyon  
Wind Farm Request  
for Amendment #4

Figure T-3  
ZVI Map,  
Gen-tie Lines

SHERMAN COUNTY, OR

- Solar Micrositing Area
- Recreation Areas Analysis Area (5-mile buffer)
- State Boundary
- County Boundary
- City/Town
- Interstate Highway
- US Highway
- State Highway
- Northern Solar Area Gen-Tie Line (230 kV)
- Southern Solar Area Gen-Tie Line (230 kV)

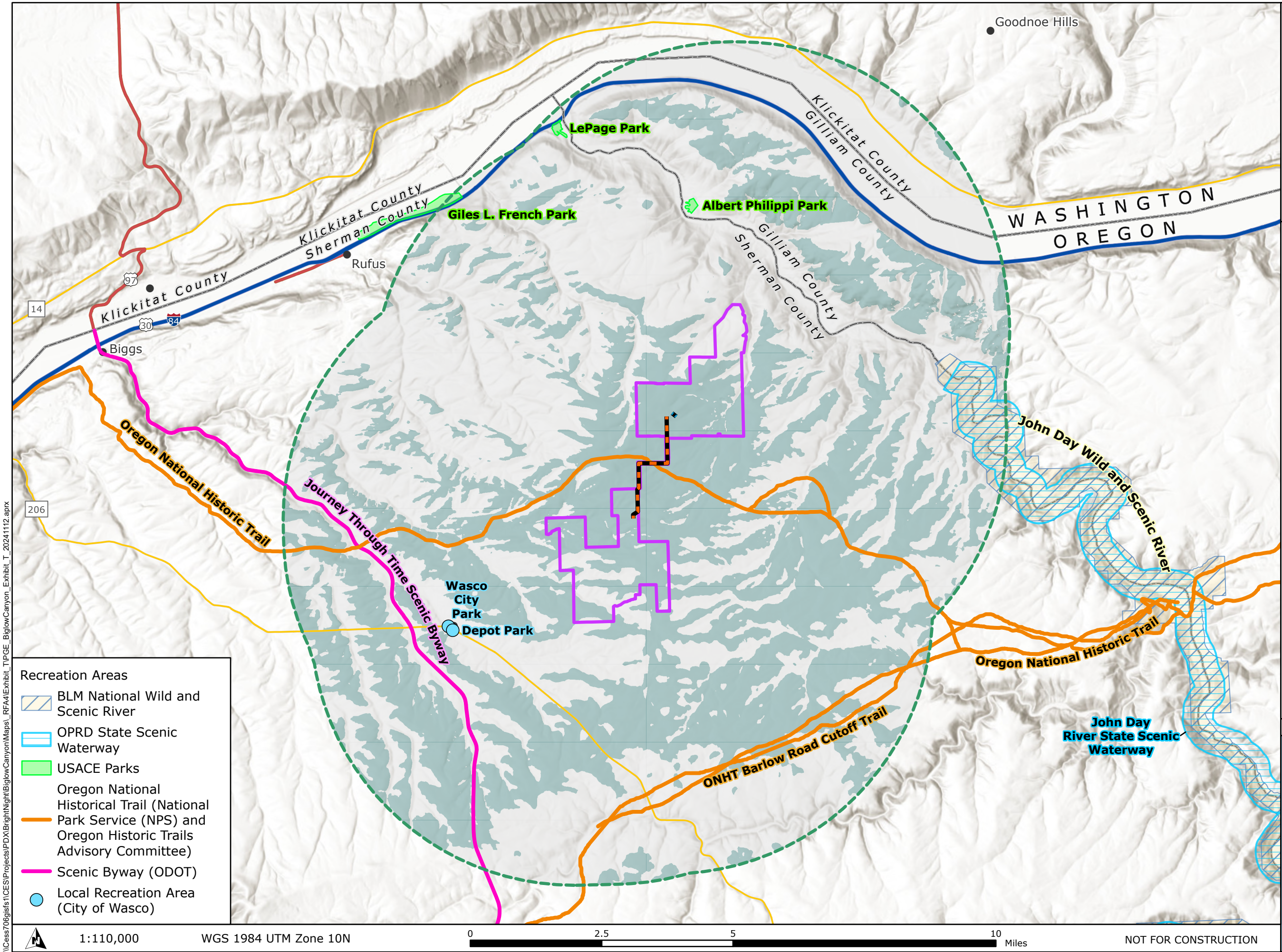
Viewshed\*

- Transmission Line Not Visible
- Transmission Line Potentially Visible

\*Potential transmission line visibility calculated using a 10 meter bare-earth digital elevation model with gen-tie structure heights of 160 feet (48.768 meters) and a viewing height of 6 feet (1.8 meters).



Reference Map



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