

# Exhibit T

## Recreation

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**Sunstone Solar Project**  
**May 2024**

**Prepared for**



**Sunstone Solar, LLC**

**Prepared by**



**Tetra Tech, Inc.**

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## Acronyms and Abbreviations

Applicant	Sunstone Solar, LLC, a subsidiary of Pine Gate Renewables, LLC
Facility	Sunstone Solar Project
kV	kilovolt
NPS	National Park Service
OAR	Oregon Administrative Rule
ONHT	Oregon National Historic Trail
OPRD	Oregon Parks and Recreation Department
OR	Oregon Route
ZVI	zone of visual influence

## 1.0 Introduction

Sunstone Solar, LLC, a subsidiary of Pine Gate Renewables, LLC (Applicant), proposes to construct and operate the Sunstone Solar Project (Facility), a solar energy generation facility and related or supporting facilities in Morrow County, Oregon. This Exhibit T was prepared to meet the submittal requirements in Oregon Administrative Rule (OAR) 345-021-0010(1)(t).

## 2.0 Analysis Area

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

In accordance with OAR 345-001-0010(35)(d) (and as defined in the Project Order), the analysis area for recreational opportunities is the area within and extending 5 miles from the site boundary (Figure T-1; ODOE 2022). The site boundary is defined in detail in Exhibits B and C and is shown on Figure T-1.

## 3.0 Recreational Opportunities in the Analysis Area

*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);*

### 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opportunities within the analysis area were identified through collection and review of existing published and unpublished information available from desktop research sources commonly used for recreation inventory efforts.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 2018), Oregon Department of Fish and Wildlife (ODFW 2021), United States Forest Service (USFS 2022a, USFS 2022b), United States Geological Survey (USGS 2020), and Oregon Parks and Recreation Department (OPRD; OPRD 2018);

- Land management agency planning documents;
- Comprehensive plans, park and recreation plans, and individual park master plans prepared by OPRD and by counties and municipal governments within the analysis area;
- Internet sites maintained by recreation provider agencies, including OPRD, ODFW, and county and city park departments (Morrow County 2022; ODFW 2022; OPRD 2022); and
- Internet sites maintained by various commercial entities, including sites providing general recreation and tourism information and sites applicable to specific private-sector recreation opportunities (Google Earth 2022; ORBIC 2020).

### **3.2 Resource Descriptions**

In general, recreation activities in the analysis area may consist of hiking, dispersed camping, bicycling, photography, game and bird hunting, 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 that is required by OAR 345-022-0100(2).

There are two identified recreational opportunities within the analysis area (Table T-1, Figure T-1). These are a portion of the Oregon National Historic Trail (ONHT) and the Oregon Trail Wells Spring Interpretive Site. Recreational opportunities within the analysis area are described below in order of federal, state, local, and private ownership/management.

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

Recreational Opportunity	Responsible Entity	Distance to the Site Boundary (miles)		Description	Size or Distance	Importance Factors					Important Recreation Resource?
		Transmission Line	Solar Array			Special Designation	Demand	Outstanding or Unusual Qualities	Rareness	Replaceability	
<b>Federal</b>											
Oregon National Historic Trail (ONHT) Segments/Sites	National Park Service (NPS) and Oregon Historic Trails Advisory Committee	1.8	1.7	The Oregon Trail was one of the main overland migration routes on the North American continent, leading from locations on the Missouri River to the Oregon Country. A high-potential <sup>1</sup> trail segment has been identified, extending from the eastern boundary of the Boardman Bombing Range westward to Immigrant Road (NPS 1999).	Approx. 2,000 miles total; Approx. 14.8 miles of high-potential trail segment in analysis area	National Historic Trail	Low	Most trail segments destroyed by agricultural use; interpretive information at the Oregon Trail Wells Spring Interpretive Site; public access to this high-potential trail segment restricted by federal and private ownership.	Intact evidence of trail route rare	Irreplaceable (intact segments only)	Yes
		5.1	4.1	The Oregon Trail Wells Spring Interpretive Site offers views of intact wagon ruts, a graveyard, and remains of a stage station along with informational signage (NPS 1999).	Approx. 0.5 acre; Approx. 0.5 acre in the analysis area	National Historic Trail interpretive site	Low	Interpretive signage with historical information but no other facilities; views of intact wagon ruts; appears to be located on private land.	Intact evidence of trail route rare	Irreplaceable	Yes
<p>1. 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. See Section 4.4.2.1 for additional background on this management designation.</p>											

### ***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 approximately 1.7 miles north of the site boundary. The Oregon Trail Wells Spring Interpretive Site is a high-potential site located within the analysis area. Due to their rareness and historic importance, the ONHT and Oregon Trail Wells Spring Interpretive Site are considered important recreational resources.

### ***3.2.2 State***

There are no lands owned or managed by the State of Oregon within the analysis area except for state highway rights-of-way, e.g., Oregon Route (OR) 207.

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

Morrow County, cities, and special districts do not provide any recreation opportunities within the analysis area.

### ***3.2.4 Private***

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

## **3.3 Importance Assessment**

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

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

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



2. *The degree of demand;*

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

3. *Outstanding or unusual qualities;*

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

4. *Availability or rareness; and*

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

5. *Irreplaceability or irretrievability of the opportunity.*

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

The assessment of the overall importance for each identified recreational opportunity occurred on a case-by-case basis. 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 and the potential for impacts are discussed in the following section.

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

- The high-potential segment of the ONHT and
- The one high-potential site, the Oregon Trail Wells Spring Interpretive Site.

## 4.0 Impact Assessment

*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 important recreational opportunities in the analysis area were studied to determine whether the Facility's design, construction, and operation, when taking into account mitigation, would be likely to result in any significant adverse impacts. The following sections summarize the types of potential adverse impacts evaluated and provide summaries of the analysis.

### 4.1 Direct or Indirect Loss of Recreational Opportunity

*OAR 345-021-0010(1)(t)(B)(i) Direct or indirect loss of a recreational opportunity as a result of facility construction or operation;*

For a direct loss of opportunity to occur, the Facility would need to physically disturb the ground located within the affected recreational resource area. The Facility will not directly impact any identified recreation resource as none of the recreational opportunities are within the site boundary.

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

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

### 4.2 Noise

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

Noise would be generated during both construction and operation of the Facility. Exhibit Y provides an assessment of the existing acoustical environment and anticipated Facility sound levels; the methodology for noise modeling is discussed in detail in that exhibit. 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 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.” None of the recreational resources within the analysis area are considered a noise-sensitive property.

Construction activities associated with the Facility have the potential for localized noise on a temporary basis as construction activities progress through certain locations within the site boundary. Noise could result from the use of heavy machinery, such as heavy trucks, bulldozers, graders, and cranes. Based on sound levels of the anticipated equipment for Facility construction, construction noise will attenuate to be indistinguishable from the background/ambient noise levels (including existing wind projects; less than 38 decibels) from a distance of approximately 10.2 miles from the site boundary. Both recreation areas are within 10.2 miles of the site boundary, and are projected to receive up to 37 decibels, at the loudest, at the southern borders of the recreation areas, i.e., the closest portion to the substations and battery energy storage system; this sound level is within the range of both daytime and nighttime projected background/ambient noise levels (i.e., less than 38 decibels) and thus will be affectively indistinguishable. Additionally, pursuant to OAR 340-035-0035(5), noise from construction activities is exempt from the state Noise Standards.

There will be no significant operational noise from the solar panels themselves. However, there will be some limited noise from associated facilities, including cooling equipment associated with the battery energy storage system and electrical equipment. Based on sound levels of the anticipated equipment for Facility operation, operational noise will attenuate to be indistinguishable from the background/ambient noise levels (including existing wind projects; less than 38 decibels) starting from outside the site boundary. All recreation areas are located outside of the site boundary, where noise from the Facility will be effectively indistinguishable from both daytime and nighttime projected background/ambient sound levels. Table T-2 (in Section 4.5) provides a summary of operational noise levels from the solar facilities at recreation areas within the analysis area. Thus, because of the low elevation of noise-emitting components of the Facility infrastructure and because of their distance from the recreation areas, construction and operation of the solar arrays will not have a significant noise impact.

### 4.3 Traffic

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

OAR 345-021-0010(1)(t) requires consideration of impacts to recreational resources from Facility-related traffic that could occur during construction or operation. Exhibit U provides information on construction traffic levels and typical travel routes for Facility truck and construction worker traffic. Based on the analysis provided in Exhibit U, traffic resulting from construction of the Facility will not result in significant impacts. Therefore, the construction traffic is not anticipated to result in a reduction of level of service on any roads that provide access to the important recreational resources identified in this Exhibit. However, some roads near some recreational opportunities will experience higher traffic levels during construction, and visitor travel to some areas may be

disrupted or delayed for brief periods due to delivery of Facility materials or construction equipment. Delays are most likely to occur only during deliveries of oversized loads, which will occur sporadically and will be accompanied by traffic control teams. These impacts will be intermittent and temporary, and traffic levels will return to normal following construction. The only recreation site for which a temporary traffic impact is likely is the Oregon Trail Wells Spring Interpretive Site because it is accessed by roads that will also carry Facility construction traffic (i.e., OR-207 and Bombing Range Road).

Access to the Oregon Trail Wells Spring Interpretive Site from the east could involve travel on OR-207 and/or Bombing Range Road; both of these will carry Facility construction traffic. The Oregon Trail Wells Spring Interpretive Site can also be accessed from the west, via routes that will not carry Facility construction traffic, for example, from OR-74 via Immigrant Lane. Therefore, visitors to the Oregon Trail Wells Spring Interpretive Site will be able to use an alternative route that will not be affected by Facility construction traffic.

Timing patterns for construction-related traffic and recreational traffic 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 recreation areas are expected to be closed during construction or operation of the Facility. Therefore, the affected local roads will continue to function at a high level of service. The heaviest use of local minor roads in the vicinity of the Oregon Trail Wells Spring Interpretive Site will be limited to approximately 21 months (length of a single construction phase) or less while the northern end of the Facility is constructed. Due to the low visitor numbers to the Oregon Trail Wells Spring Interpretive Site, the likelihood of significant delays for visitors is very low.

The remaining important and identified recreation resource (i.e., the high-potential ONHT segment) is accessed primarily by roads that is not anticipated to carry substantial amounts of Facility construction traffic (i.e., trucks and commuter traffic) and is therefore unlikely to experience any traffic impacts. Aside from the small area surrounding the Oregon Trail Wells Spring Interpretive Site, the remainder of the high-potential ONHT segment is located within the Boardman Bombing Range and is inaccessible to the public (restricted by federal and private ownership), and thus traffic impacts are not anticipated. Again, temporary, short-term delays are most likely to occur only during deliveries of oversized loads such as electrical infrastructure components, which will occur sporadically and will be accompanied by traffic control teams.

Although there will be no significant traffic impacts, given the potential minor temporary impact of construction traffic on visitors to important recreational opportunities, the Applicant plans to construct the Facility in phases and will develop a Construction Traffic Management Plan as part of the Road Use Agreement in consultation with the Morrow County Road Department. Note that no traffic impacts on recreational opportunities were identified during construction of the nearby Wheatridge Renewable Energy Facilities (including wind turbine infrastructure), which would have had more construction traffic than this Facility, including slow-moving trucks, on the same

roadways. Therefore, no significant adverse traffic impacts to recreational opportunities areas are anticipated from construction of the Facility.

The operational phase of the Facility will affect recreational opportunities only to the extent that operation and maintenance activities generate significant amounts of traffic. Typical operational traffic will be minimal, as the Facility is anticipated to permanently employ only approximately 10 permanent on-site employees (including vegetation maintenance, panel and electrical maintenance, and all other related activities). Workers are assumed to reside in the Boardman, Hermiston/Stanfield, or Lexington/Ione areas, with approximately 3 workers coming daily from each of these areas. Larger amounts of traffic will be generated only if Facility components will need significant repairs or replacement. In that event, some roads will experience higher traffic levels, and visitor travel to some areas may be disrupted or delayed for brief periods during delivery of materials or equipment. However, these impacts will be rare, intermittent, and temporary, and will not represent significant adverse impacts to any recreational resource in the area.

#### **4.4 Visual**

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

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

Visual impacts of the Facility are primarily related to views of the solar arrays, aboveground transmission lines, and to a lesser degree (due to being collocated or dispersed amongst taller Facility infrastructure), other facilities such as the access roads, operations and maintenance buildings, substations, battery energy storage systems, and temporary construction areas. Evaluation of potential visual impacts to recreational opportunities echoes the methodology described in Exhibit L. The Facility will not generate any emissions plumes, so it will not cause any visual impacts from air emissions. Potential visual impacts due to dust created during construction will be mitigated by following best management practices for dust control as detailed in Exhibit I and Exhibit O. Visual impacts of the Facility are primarily related to potential views of the solar panels.

In evaluating the visual impacts, the Applicant first determined whether the Facility would potentially be visible from each recreation resource area using digital bare-earth terrain modeling. The analysis began with a zone of visual influence (ZVI) analysis (also known as a viewshed or visibility analysis), using Esri ArcGIS software, to identify the areas from which the Facility solar arrays and transmission lines might be visible.

To assess the potential visibility of the structures, the ZVI analysis was performed for the solar arrays and the transmission lines (Figure T-2). The analysis assumed a maximum height of 15 feet for the solar arrays. Additionally, a maximum height of 180 feet was assumed for the 230-kilovolt (kV) transmission lines. All other Facility infrastructure was deemed less visually impactful (due to

height, being dispersed throughout the site boundary or adjacent to taller infrastructure, etc.) and addressed by the assessment of the solar array and transmission line infrastructure. A viewing height of 1.8 meters (6 feet) was assumed. Visibility of Facility infrastructure was defined by visible or not visible, indicated by color coding (see Exhibit L, Figure L-2), and by proximity, i.e., foreground (less than 0.5 mile), middleground (0.5 to 5 miles), or background distances (more than 5 miles).

It should be noted that this “bare-earth” modeling approach, based only on the effects of terrain on visibility, results in a highly conservative assessment of potential visibility. The model does not account for distance, lighting, weather, and atmospheric attenuation factors that diminish visibility under actual field conditions. A bare-earth analysis also does not account for the effects of vegetation or buildings, which will in practice block or screen views in some places.

The solar array components are described in further detail in Exhibit B. The solar panels will be the most visible components of the solar arrays and will consist of solar module strings, mounted on single-axis tracker systems. The visibility of the solar arrays will depend primarily on topographic or other view obstructions and the distance from the viewer to the solar arrays. In general, with a maximum height of 15 feet, the arrays will not be visible from sites lower in elevation than the area on which the array is constructed. From sites that are similar in elevation to the arrays, 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 panels, especially if the view direction is toward the angle at which the panel is tilted toward the sun. To the extent practicable, reflectivity of the solar arrays will be minimized. Antireflective coating will be used to reduce glare and the surface of the panels will have high transmittance to increase the amount of light reaching the photovoltaic cells. With these methods, the panels 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***

The results of the ZVI analysis are presented on Figure T-2 and Table T-2 (in Section 4.5). Because of the low profile of the solar arrays and the terrain conditions in the area, the solar arrays will be blocked from view at some locations within the analysis area; Locations of potential visibility of any part of the solar arrays are concentrated in the central part of the analysis area, extending north and south of the site boundary. Patches of potential visibility are also located at greater distances to the Facility, except to the west/southwest where the solar arrays will be largely blocked from view by the terrain.

The ZVI analysis demonstrates that the solar arrays and transmission lines will not be visible from the Oregon Trail Wells Spring Interpretive Site due to intervening topography. There would be potential middleground visibility of some portions of the Facility’s solar panels and transmission lines from some locations along the ONHT within the Boardman Bombing Range. Therefore, expected visual conditions for the ONHT in this part of the analysis area are discussed in Section 4.4.2.1.

Potential visibility is but one of several factors that comprise an assessment of visual impact to a recreation resource. Other factors to consider include the existing visual context, particularly other sources of visual contrast present within the view; the likely number and nature of visitors to a recreation area; and whether there is any management direction related to preservation of scenic quality, either within the recreation area or outside of it. Table T-2 provides a summary of the visual impact assessment for the two important recreation resources in the analysis area. Table T-2 also considers the visibility of the 230-kV transmission lines for the Facility.

#### 4.4.2.1 *Oregon National Historic Trail*

Congress designated the route of the Oregon Trail as a National Historic Trail in 1978, and the Oregon Historic Trails Advisory Committee was created to provide public input and advice to the NPS on management of historic trails in Oregon. The National Historic Trail designation applies to a general, primary route (and two specified branches) extending approximately 2,000 miles from Independence, Missouri, to Oregon City, Oregon. The Oregon Trail designation was intended to preserve the legacy of the westward immigration of settlers to the Oregon Territory, based on 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 provided for the identification of “high-potential sites and segments” along these routes, using specified criteria for historic significance, the presence of visible historic remnants, scenic quality, and relative freedom from intrusion. High-potential segments are portions of a trail route that afford high-quality recreational experiences in areas that have greater than average scenic values or afford the opportunity to vicariously share the experience of the original trail users, while high-potential sites are specific locations with similar attributes. Each site or segment must have the potential to interpret the trail’s historical significance and to provide opportunities for high-quality recreation.

The NPS (1999) management plan identifies a 12-mile Boardman Segment of the ONHT in Morrow County as a high-potential trail segment. This trail segment extends from the eastern edge of the Boardman Bombing Range in a southwest direction to Immigrant Lane and then parallels to road to the western edge of the range and continues to the west. Physical evidence of the trail, i.e., wagon ruts, is still present in much of this 12-mile corridor. However, approximately 7 miles of this segment are within the Boardman Bombing Range and inaccessible to the public except for a small area surrounding the Oregon Trail Wells Spring Interpretive Site; the remainder of the high-potential segment is on private lands to the west of the Bombing Range (most of which is managed by The Nature Conservancy as part of the Boardman Conservation Area) and is also not open to the public. Due to the restricted access to this high-potential trail segment, it is questionable whether this should be considered an important resource for recreation; however, its federal protection status, irreplaceability, and historical importance qualify it as important for the purposes of this analysis.

The overall visual impact of an energy facility on the ONHT would be negligible because there are virtually no viewers to be affected and the existing viewshed contains wind turbines, transmission lines, and other industrial infrastructure. The visibility analysis for the Facility solar arrays and

transmission lines demonstrates potential visibility along limited portions of the high-potential ONHT segment within the Boardman Bombing Range, which is not accessible to the public. The subject portion of the trail follows a northeast-southwest orientation and is located to the northwest of the Oregon Trail Wells Spring Interpretive Site. Given that the distance from the closest point to the site boundary is a middleground distance of approximately 1.7 miles, and the associated solar array and transmission lines are at middleground distances of at least 1.7 miles and 1.8 miles away, respectively, it is questionable whether any of the solar arrays or transmission lines would be noticeable to a viewer. If a part of the Facility were visible, the visual impact would be negligible because this portion of the high-potential trail segment is not accessible to viewers and existing wind turbines and other industrial infrastructure would dominate any visual contrast that might be created by the solar facility or associated transmission lines; Most notably, the existing Umatilla Electric Cooperative transmission line is closer to the ONHT than the proposed Facility transmission lines, further supporting that the Facility will have a negligible impact on the existing viewshed. Furthermore, most of the high-potential trail segment is within the Boardman Bombing Range and is off-limits to the public, except for a small area surrounding the Oregon Trail Wells Spring Interpretive Site that is not within an area of potential visibility.

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 this segment of the ONHT is located (NPS 1999). Although the relatively undeveloped viewshed is said to provide an experience that enables visitors to relate to the emigrants, the viewshed is no longer in the nearly pristine condition that it was during the emigrants' time. The road is evident, much of the landscape is farmed and fenced, little of the tallgrass native prairie remains and the turbines of existing wind farms are visible to the south and southwest. The Facility solar arrays and transmission lines would be visible to the south and would not intervene in views northward to the remaining evidence of the Trail. The remaining evidence of the ONHT within this trail segment would not be disturbed by the Facility, allowing visitors to continue their enjoyment of the site's history.

#### **4.5 Summary of Impacts**

The Facility has been designed to avoid direct loss to all important and identified recreational opportunities (see Table T-2), and indirect disturbance effects will not lead to an indirect loss of any important or identified recreational opportunity. Due to their low visual profile, the solar arrays will have minimal, if any, visibility from any of the important recreational opportunities within the analysis area. Similarly, due to their background distance from recreation sites and context within an existing modified landscape that includes wind turbines as well as other electrical infrastructure, the Facility's associated transmission lines will create minimal, if any, visible contrast from important recreational opportunities in the analysis area.

The identified recreation resources will experience virtually no impact from the Facility. They are located where they will be minimally or negligibly affected by Facility traffic; they are too far away to hear operational noise; and they already have the turbines of existing wind farms and utility



infrastructure in view and will have limited or no views of the Facility that will adversely affect the visitor experience. The ONHT high potential segment and the Oregon Trail Wells Spring Interpretive Site will not receive Facility operational noise beyond what is heard as background noise. Facility solar arrays and transmission lines may be visible from limited portions of the ONHT segment, and would not be visible from the Oregon Trail Wells Spring Interpretive Site. Only the Oregon Trail Wells Spring Interpretive Site has the potential to experience some minor traffic impacts during construction. Traffic impacts for this site will be limited to potential delays accessing the site rather than traffic at the site; any potential traffic impacts will be temporary and intermittent during construction, and unlikely to affect the level of use at this site.

**Table T-2. Summary of Impacts to Important Recreational Opportunities**

Recreational Opportunity	Direct or Indirect Loss of Opportunity?	Operational Noise Analysis Results	Potential Traffic Impacts	Potential Visual Impacts
Oregon Trail high potential segment	No	No audible noise, indistinguishable from existing background/ambient noise	Negligible	Viewshed analysis indicates potential visibility of solar arrays and transmission lines along limited portions of the trail route within the Boardman Bombing Range, at a middleground distance of 1.7 miles and 1.8 miles, respectively, or more; the transmission lines would introduce weak contrast with negligible impact; due to restricted access, no viewers are expected to be present, resulting in no overall visual impact; no conflict with management direction.
Oregon Trail Wells Spring Interpretive Site	No	No audible noise, indistinguishable from existing background/ambient noise	Negligible to minor; potential short-term, intermittent access delays during construction, which would not create a significant adverse impact	Viewshed analysis indicates no potential visibility of solar arrays or transmission lines (middleground distance of 4.1 miles and background distance of 5.1 miles, respectively); no conflict with management direction.

## 5.0 Mitigation

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

As described Section 4, the Facility will have no significant, direct adverse impact on any important recreational opportunity in the analysis area. Indirect disturbance effects associated with traffic, noise, or visual aspects of the Facility will not lead to an indirect loss of any important or identified recreational opportunity. Consequently, no mitigation measures are proposed to avoid, reduce, or otherwise mitigate significant adverse impacts.

## 6.0 Monitoring of Impacts

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

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

## 7.0 Submittal Requirements and Approval Standards

### 7.1 Submittal Requirements

**Table T-3. Submittal Requirements Matrix**

Requirement	Location
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:	-
(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;	Section 3.0
(B) A description of any potential adverse impacts to the important opportunities identified in paragraph (A) including, but not limited to:	Section 4.0
(i) Direct or indirect loss of a recreational opportunity as a result of facility construction or operation;	Section 4.1
(ii) Noise resulting from facility construction or operation;	Section 4.2
(iii) Increased traffic resulting from facility construction or operation;	Section 4.3
(iv) Visual impacts of facility structures or plumes, including, but not limited to, changes in landscape character or quality;	Section 4.4

Requirement	Location
(C) An evaluation of the significance of the potential adverse impacts identified under paragraph (B);	Section 4.0
(D) A description of any measures the applicant proposes to avoid, reduce or otherwise mitigate the significant adverse impacts identified in paragraph (B);	Section 5.0
(E) A map of the analysis area showing the locations of important recreational opportunities identified in paragraph (A); and	Section 2.0, Figure T-1
(F) The applicant’s proposed monitoring program, if any, for impacts to important recreational opportunities.	Section 6.0

## 7.2 Approval Standards

**Table T-4. Approval Standard**

Requirement	Location
<b>OAR 345-022-0100 Recreation</b>	
(1) To issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities.	Section 4.0
(2) The Council must consider the following factors in judging the importance of a recreational opportunity: (a) Any special designation or management of the location; (b) The degree of demand; (c) Outstanding or unusual qualities; (d) Availability or rareness; (e) Irreplaceability or irretrievability of the opportunity.	Table T-1
(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). In issuing such a site certificate, the Council may impose conditions of approval to minimize the potential significant adverse impacts from the design, construction, and operation of the facility on important recreational opportunities.	N/A
(4) The Council must apply the version of this rule adopted under Administrative Order EFSC 1-2002, filed and effective April 3, 2002, to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 before the effective date of this rule. Nothing in this section waives the obligations of the certificate holder and Council to abide by local ordinances, state law, and other rules of the Council for the construction and operation of energy facilities in effect on the date the site certificate or amended site certificate is executed.	N/A

## 8.0 References

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- USFS. 2022b. National Wild and Scenic Rivers. Available online at:  
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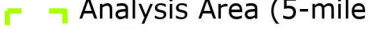



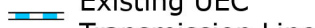



# Figures



# Sunstone Solar Project

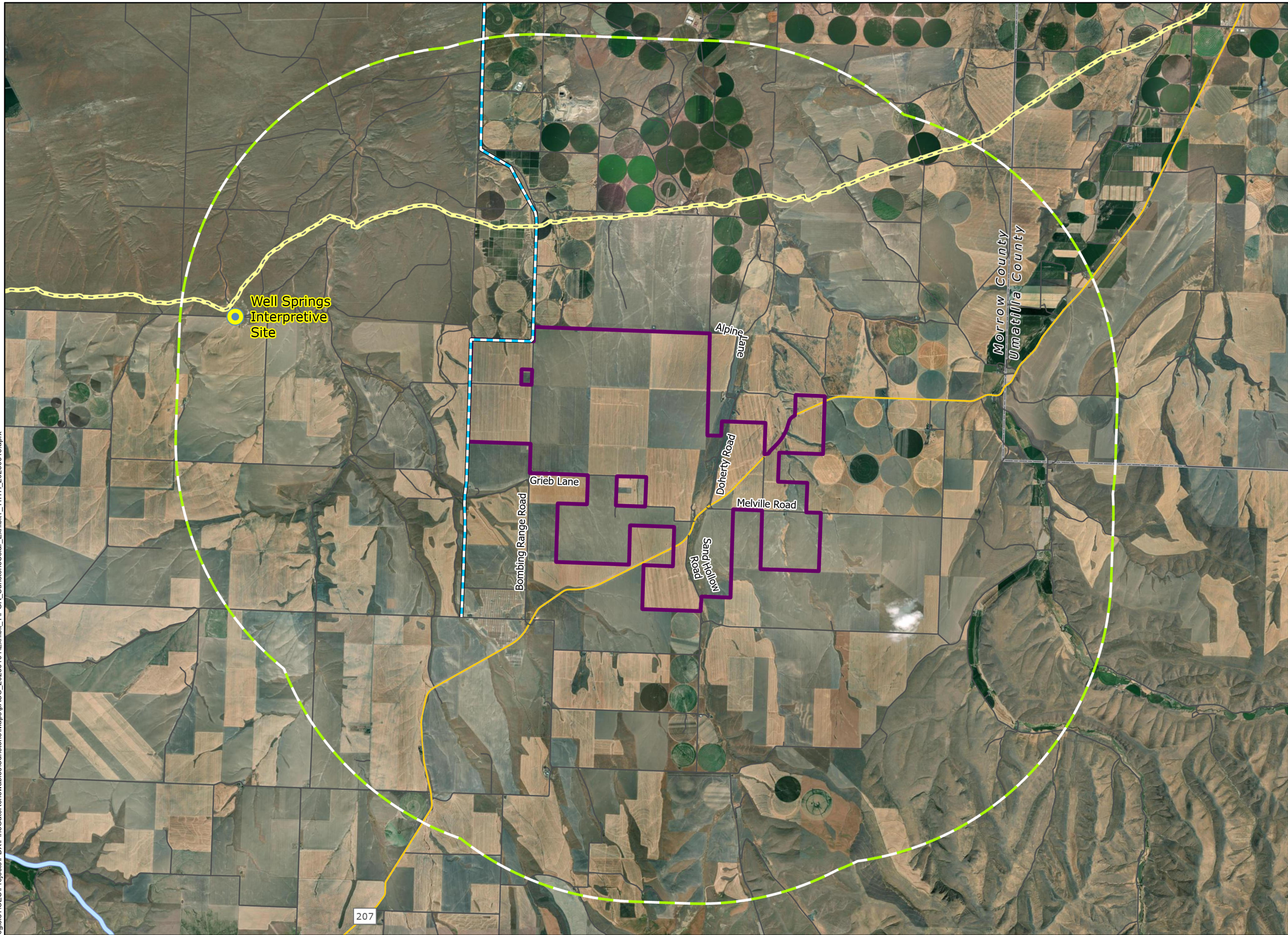
**Figure T-1  
Recreation Areas within  
the Analysis Area**

MORROW COUNTY, OR

-  Site Boundary
-  Analysis Area (5-mile Buffer)
-  County Boundary
-  State Highway
-  Local Roads
-  Existing UEC Transmission Line
-  National Register Historic Place
-  Historic Oregon Trail
-  Blue Mountain Scenic Byway



Reference Map

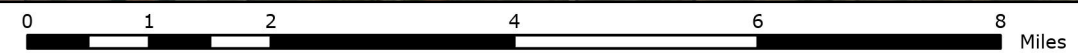


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1:100,000

WGS 1984 UTM Zone 11N












NOT FOR CONSTRUCTION



# Sunstone Solar Project

## Figure T-2.1 Viewshed Analysis for Transmission/ Collector Lines

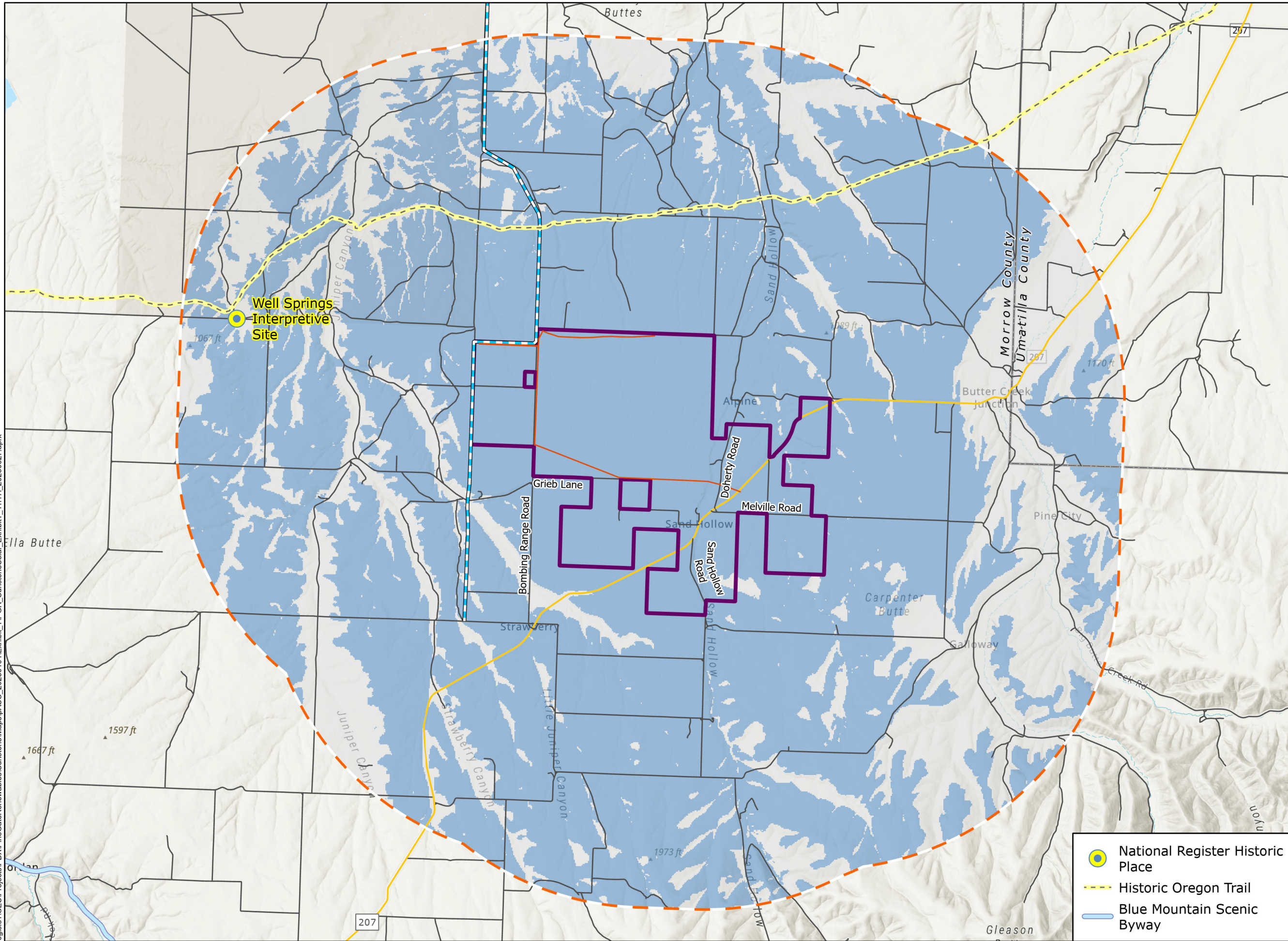
MORROW COUNTY, OR



-  Site Boundary
-  Analysis Area (5-mile Buffer)
-  Overhead Transmission Line
-  County Boundary
-  State Highway
-  Local Roads
-  Existing UEC Transmission Line
- Viewshed Results**
-  Transmission/Collector Lines Not Visible
-  Transmission/Collector Lines Potentially Visible

\*Potential transmission line visibility calculated using a 30 meter bare-earth digital elevation model with turbine heights of 180 feet (54.86 meters) and a viewing height of 6 feet (1.8 meters).



### Reference Map



-  National Register Historic Place
-  Historic Oregon Trail
-  Blue Mountain Scenic Byway










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# Sunstone Solar Project

## Figure T-2.2 Viewshed Analysis for Solar Array

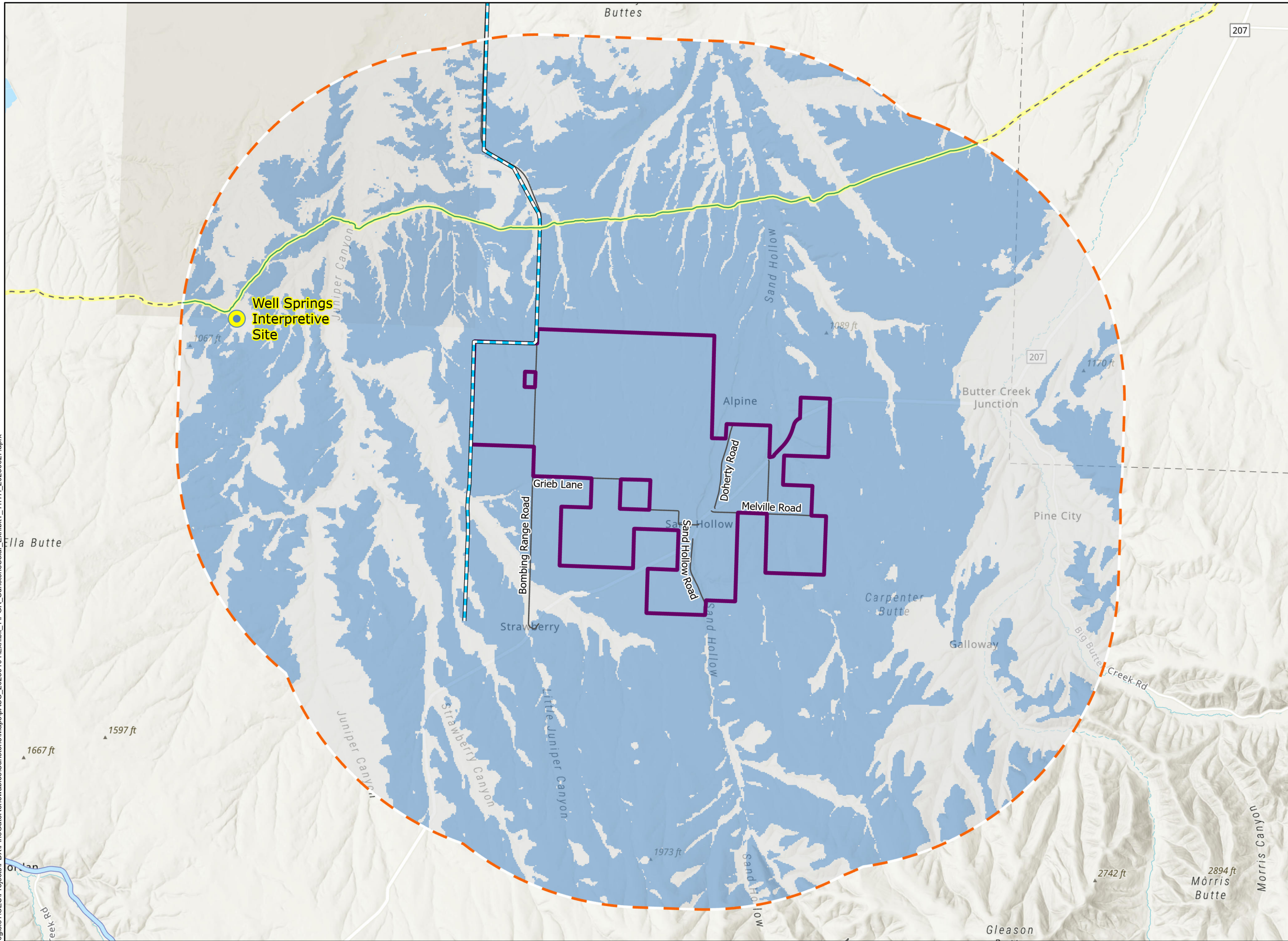
MORROW COUNTY, OR

-  Site Boundary
  -  Analysis Area (5-mile Buffer)
  -  Local Roads
  -  Existing UEC Transmission Line
  -  National Register Historic Place
  -  Historic Oregon Trail
  -  Blue Mountain Scenic Byway
- Viewshed Results**
-  Solar Array Not Visible
  -  Solar Array Potentially Visible

\*Potential solar array visibility calculated using a 30 meter bare-earth digital elevation model with a maximum solar panel height of 15 feet (4.57 meters) and a viewing height of 6 feet (1.8 meters).



### Reference Map



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