

# EXHIBIT T – Application for Site Certificate

## RECREATION

OAR 345-021-0010(1)(t)

### REVIEWER CHECKLIST

(t) Exhibit 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:

Rule Sections	Section	✓
(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.	T.2	
(B) A description of any significant potential adverse impacts to the important opportunities identified in (A) including, but not limited to:  (i) Direct or indirect loss of a recreational opportunity as a result of facility construction or operation.  (ii) Noise resulting from facility construction or operation.  (iii) Increased traffic resulting from facility construction or operation.  (iv) Visual impacts of facility structures or plumes.	T.3	
(C) A description of any measures the applicant proposes to avoid, reduce or otherwise mitigate the significant adverse impacts identified in (B).	NA	
(D) A map of the analysis area showing the locations of important recreational opportunities identified in (A).	T.5	
(E) The applicant’s proposed monitoring program, if any, for impacts to important recreational opportunities.	NA	



**EXHIBIT T – Application for Site Certificate**

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## T.1 INTRODUCTION

Obsidian Solar Center LLC (Applicant) proposes to construct the Obsidian Solar Center (Facility) in Lake County, Oregon, with an alternating current generating capacity of up to 400 megawatts. Refer to Exhibit B for Facility layout information and Exhibit C for Facility location information.

Exhibit T addresses the potential impacts of the proposed Facility on important recreational resources within the analysis area, which the Project Order defines as the area within the site boundary (as defined in Exhibit B) and 5 miles from the site boundary. This exhibit provides the information required by Oregon Administrative Rules (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.*

### Executive Summary

The analysis provided in this exhibit describes how the design, construction, and operation of the Facility, are not likely to result in significant adverse impacts on recreational areas. Applicant identified two resources in the analysis area for consideration as potentially having important recreational opportunities using the factors included in OAR 345-022-0100(1) and determined that one of them qualifies: the Devil's Garden Lava Bed Area of Critical Environmental Concern (ACEC)/Wilderness Study Area (WSA), located approximately 4.0 miles north of the site boundary. As described below, the impacts on important recreational opportunities from the Facility within the analysis area will be less than significant.

Applicant does not propose any specific conditions of approval pertaining to recreational opportunities for the Site Certificate.

## T.2 DESCRIPTION OF RECREATIONAL OPPORTUNITIES

**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.*

Response: Applicant used the Oregon Parks and Recreation Department website (OPRD 2018), Bureau of Land Management's (BLM's) Lakeview Resource Management Plan (RMP) (BLM 2003), and Public Lands Interpretive Association website (PLIA 2018) to review and assess the importance of recreational opportunities in the analysis area. No recreational opportunities identified as important by the OPRD (2018) or Public Land Interpretive Association (2018) occur within the analysis area. The Lakeview RMP designates much of the Christmas Valley and some nearby areas (over 800,000 acres) as the North Lake Special Recreation Management Area

(SRMA) BLM 2003). Per the BLM, SRMAs are designated to provide for recreational opportunities such as developing trailheads for hikers, off-road vehicle users, and mountain bikers (BLM n.d.[a]). Based on the descriptions provided in the RMP, BLM's designation of SRMA is more a management directive than an indicator of importance of recreational opportunities. The North Lake SRMA emphasizes, but is not limited to, OHV use, wilderness therapy schools, hunting, and nature viewing. Management of the North Lake SRMA is focused on protecting resource values within the area while also providing quality recreational opportunities (BLM 2003). There is no indication that the North Lake SRMA as a whole is considered an important recreational opportunity.

Applicant identified the following two recreational resources in the analysis area and assessed their potential for being considered important recreational opportunities (refer also to Table T-1):

- Devil's Garden Lava Bed ACEC/WSA, located approximately 4.0 miles north of the site boundary; and
- Connley Hills ACEC/Research Natural Area (RNA), located approximately 5.3 miles to the west of the site boundary.

Devil's Garden Lava Bed ACEC/WSA and Connley Hills ACEC/RNA are part of the BLM-designated North Lake SRMA (BLM 2003) and are located within the analysis area. As described in more detail below, Applicant determined that the Devil's Garden Lava Bed ACEC/WSA has important recreational opportunities, but that the Connley Hills ACEC/RNA does not. The Lakeview RMP does not explicitly describe recreational opportunities in the North Lake SRMA as important.

To determine whether the two identified recreational opportunities within the analysis area are important, Applicant conducted an assessment based on the factors listed in OAR 345-022-0100(1). This rule specifies the following factors in judging the importance of recreational opportunities: a) any special designation or management of the location; b) the degree of demand; c) outstanding or unusual qualities; d) availability or rareness; and e) irreplaceability or irretrievability of the opportunity. The five factors were balanced and an overall assessment of importance was conducted for each recreational opportunity (Table T-1).

**Table T-1 Analysis of Potential Important Recreational Opportunities within the Analysis Area**

Recreational Opportunity	Distance and Direction from Site Boundary <sup>(a)</sup>	Importance Factors					
		Special Designation/ Management	Degree of Demand	Outstanding/ Unusual Recreational Quality	Availability/ Rareness	Irreplaceability/ Irretrievability	Considered Important per OAR 345-022-0100 factors?
Devil's Garden Lava Bed	4.0 miles to north	Area of Critical Environmental Concern/ Wilderness Study Area by BLM	Low	Off-highway vehicle use; day use; Derrick Cave lava tube and other lava tubes within the ACEC.	Recreational opportunities are somewhat common in the area.	Relatively irreplaceable	Yes
Connley Hills	5.3 miles to southwest	ACEC/RNA by BLM	Low	Off-highway vehicle use; day use.	Recreational opportunities are somewhat common in the area.	Replaceable	No

Note:

<sup>(a)</sup> Approximate distance from the closest point of the recreational opportunity/resource to the closest point of the site boundary.

Key:

ACEC = Area of Critical Environmental Concern

BLM = Bureau of Land Management

OAR = Oregon Administrative Rules

RNA = Research Natural Area

### **T.2.1 Devil's Garden Lava Bed ACEC/WSA**

The Devil's Garden Lava Bed ACEC/WSA is located approximately 4.0 miles to the north of the site boundary. However, only a very small portion of this ACEC/WSA is within the 5-mile analysis area (see Figure T-1). The Devil's Garden Lava Bed is a historic basaltic lava field of the Newberry volcano (USGS n.d.). This resource is described by the BLM as having extremely rugged terrain due to geologically recent lava flows. There are a number of lava tubes within Devil's Garden, the largest of which is known as Derrick's Cave and is listed on the BLM recreation web map as a day use and hiking area (BLM n.d.[b]). Derrick's cave is located approximately 12.5 miles north of the site boundary, and therefore 7.5 miles beyond the analysis area. Devil's Garden Lava Bed ACEC/WSA offers off-highway vehicle (OHV) use and general day use, including hiking to and into Derrick Cave (BLM 2003). OHV use is permitted on designated roads and trails within the ACEC/WSA, though all roads are closed between December 1 and March 31 due to mule deer winter range restrictions. Day use is permitted within the ACEC/WSA, but not overnight camping. Boulderling and climbing are not explicitly prohibited in Devil's Garden Lava Bed ACEC/WSA.

Based on the unique geologic formations (i.e., lava fields and lava tubes; specifically, Derrick Cave) within this recreational resource, this recreational opportunity is deemed relatively irreplaceable; therefore, it is analyzed as an important recreational opportunity in this exhibit.

### **T.2.2 Connley Hills ACEC/RNA**

Connley Hills ACEC/RNA is located approximately 5.3 miles to the southwest of the site boundary. This resource was established as an ACEC/RNA due to its historical and cultural significance and its botanical and ecological values—specifically, as an important representation of four different native plant communities, including ones dominated by mixtures of western juniper (*Juniperus occidentalis*), big sagebrush (*Artemisia tridentata*), bluebunch wheatgrass (*Agropyron spicatum*), and Idaho fescue (*Festuca idahoensis*) (BLM 2000). This ACEC/RNA includes the Connley Hills, a small, low elevation mountain range located southwest of the Facility site. Per the Lakeview RMP (BLM 2003), this resource offers OHV use and general day use. Although the Connley Hills provide a change in elevation and vegetation from the surrounding area, there are similar small mountain ranges in the area that offer similar recreational opportunities and, therefore, this recreational opportunity is not considered important and is not further analyzed in this exhibit.

## **T.3 POTENTIAL IMPACTS**

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

Response:



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

Applicant will not construct or operate the Facility within or near the identified important recreational opportunity (i.e., Devil's Garden Lava Bed ACEC/WSA). Therefore, construction of the Facility will not result in direct loss of recreational opportunity within these resources, including day use, public OHV use, and nature viewing. Devil's Garden Lava Bed ACEC/WSA is located 4.0 miles from the closest portion of the site boundary; loss of recreational opportunity is not anticipated based on the distance from the Facility.

As discussed further below, construction and operation of the Facility may affect important recreational opportunities due to potential noise, traffic, or visual impacts; however, Applicant does not expect these potential impacts to be significant or result in indirect loss of recreational opportunities on Devil's Garden Lava Bed ACEC/WSA. Refer to discussions of potential noise, traffic, and visual impacts below for further details.

- (ii) *Noise resulting from facility construction or operation.*

Noise produced during the construction of the Facility will be temporary and short term, and limited to relatively small portions of the Facility site at any given time, as construction will primarily be concentrated on 60-acre areas at a time. Construction noise may impact hunting or nature viewing temporarily in small, isolated areas. Noise produced primarily by inverters and transformers, which will be set back at least 500 feet from the site boundary, during operation could also potentially impact recreational opportunities, such as hunting and nature viewing on nearby BLM lands; however, based on the findings presented in Exhibit X, these noise impacts will not be significant.

Given the relatively large distance to the Devil's Garden Lava Bed ACEC/WSA (4 miles away), the sound levels at important recreational opportunities in the analysis area expected during operation of the Facility (refer to Exhibit X) are anticipated to be low or negligible. The noise levels at Devil's Garden Lava Bed ACEC/WSA are expected to be comparable to the existing noise levels in this area. Therefore, there will be no significant impacts on important recreational opportunities in the analysis area from operation of the Facility. While construction noise is exempt from Oregon Department of Environmental Quality rules, noise from construction is not expected to result in a significant adverse impact on important recreational areas, which are all 4 miles away, or farther, under the standard. Refer to Exhibit X for more information regarding expected noise levels.

- (iii) *Increased traffic resulting from facility construction or operation.*

Traffic in the analysis area will temporarily increase during construction of the Facility due to materials deliveries and personnel accessing the Facility site. During average, non-peak construction periods, the site is expected to employ between 60 and 120 workers daily. During

peak construction periods, the site is expected to employ an average of up to 150 workers daily. Peak construction is expected to occur during year two of construction. Based on a carpool factor of 1.25 persons per vehicle, approximately 96 two-way (or 192 one-way) passenger vehicle trips will be made to the site per day during non-peak construction periods. During peak construction periods, when up to 150 workers per are expected, approximately 120 two-way (or 240 one-way) vehicle trips will be made to the site per day. In addition, 20 to 40 truckloads per day are expected for delivery of materials, such as photovoltaic solar panels, racks, and posts for panels. Based on a 10-hour work day, this will result in an average of two to four deliveries per hour, or an average of 60 one-way delivery truck trips (30 in and 30 out of the Facility) per day.

Devil's Garden Lava Bed ACEC/WSA is located 1.75 miles north of the nearest identified Facility access route: County Road 5-12/5-12A (the primary access route to Facility Area A). The main attraction within Devil's Garden ACEC is Derrick Cave, which is located over 10 miles north of the portions of County Road 5-12/5-12A that Facility workers will use for access. Visitors to Devil's Garden Lava Bed ACEC/WSA and Facility personnel will both use State Route-31, Fort Rock Road, and a portion of County Road 5-12 to reach their destinations. As described in the Traffic Safety Assessment (Exhibit U, Appendix U-1), the expected increases in traffic are well within the operating capacities of these roads. Facility personnel will not make planned use of the 10-mile section of County Road 5-12 north to Derrick Cave. The traffic increases will largely be temporary, during the construction phase. In addition, there is no indication that this recreational opportunity is in a heavily visited destination. Therefore, the Facility will not have significant adverse impacts on visitor access to the recreational opportunities in this ACEC/WSA.

Six to ten full-time employees will be employed for operation and maintenance of the Facility. The additional vehicle trips due to operation employees accessing the Facility will be minimal and will not cause significant traffic impacts on the Devil's Garden Lava Bed ACEC/WSA.

*(iv) Visual impacts of facility structures or plumes.*

The Devil's Garden Lava Bed ACEC/WSA is located 4.0 miles to the north of the site boundary (Figure T-1). As mentioned in Section T.2.2, the main attraction at Devil's Garden Lava Bed ACEC is hiking to and into Derrick Cave, a large lava tube located in the far northeastern portion of the ACEC/WSA, approximately 12.5 miles north of the site boundary and 7.5 miles beyond the 5-mile analysis area. There are a number of other lava tube/caves within the ACEC/WSA, but Derrick Cave is the largest and most well-known. The large size of the ACEC, diverse vegetation within the ACEC, and the rugged lava field topography of the ACEC/WSA are the main attraction for visitors to this area (BLM n.d.[c]).

Based on the viewshed analysis provided in Exhibit L (Figure L-2), the Facility is in the line of site from about 20 percent of this ACEC/WSA, including a small portion that lies within the analysis area, and the area of Derrick Cave, and may therefore be visible from these parts of the

ACEC/WSA. However, at a minimum distance of 4 miles separation from the southern portion of this ACEC/WSA, the Facility is likely to appear only as a dark line on the horizon. Further, because the main attraction in this ACEC/WSA is Derrick Cave, most visitors to the ACEC/WSA will be about 12.5 miles north of the Facility (and 7.5 miles beyond the analysis area) and are unlikely to notice it or discern it. Therefore, visual impacts on recreational opportunities within this resource due to Facility structures or plumes will be low to negligible. For a description of the methods and assumptions of the viewshed analysis, refer to Exhibit L, Section L.4.5.

#### **T.4 PROPOSED MEASURES**

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

Response: Devil's Garden Lava Beds ACEC/WSA is located 4.0 miles from the site boundary. Based on this distance, and the other factors described above, the Facility will not cause significant adverse impacts on important recreational opportunities within this resource.

#### **T.5 MAP OF RECREATIONAL OPPORTUNITIES**

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

Response: Figure T-1 depicts the locations of important recreational opportunities in the analysis area. The entire analysis area are located within BLM's North Lake SRMA, the boundary of which is not included on the map.

#### **T.6 PROPOSED MONITORING**

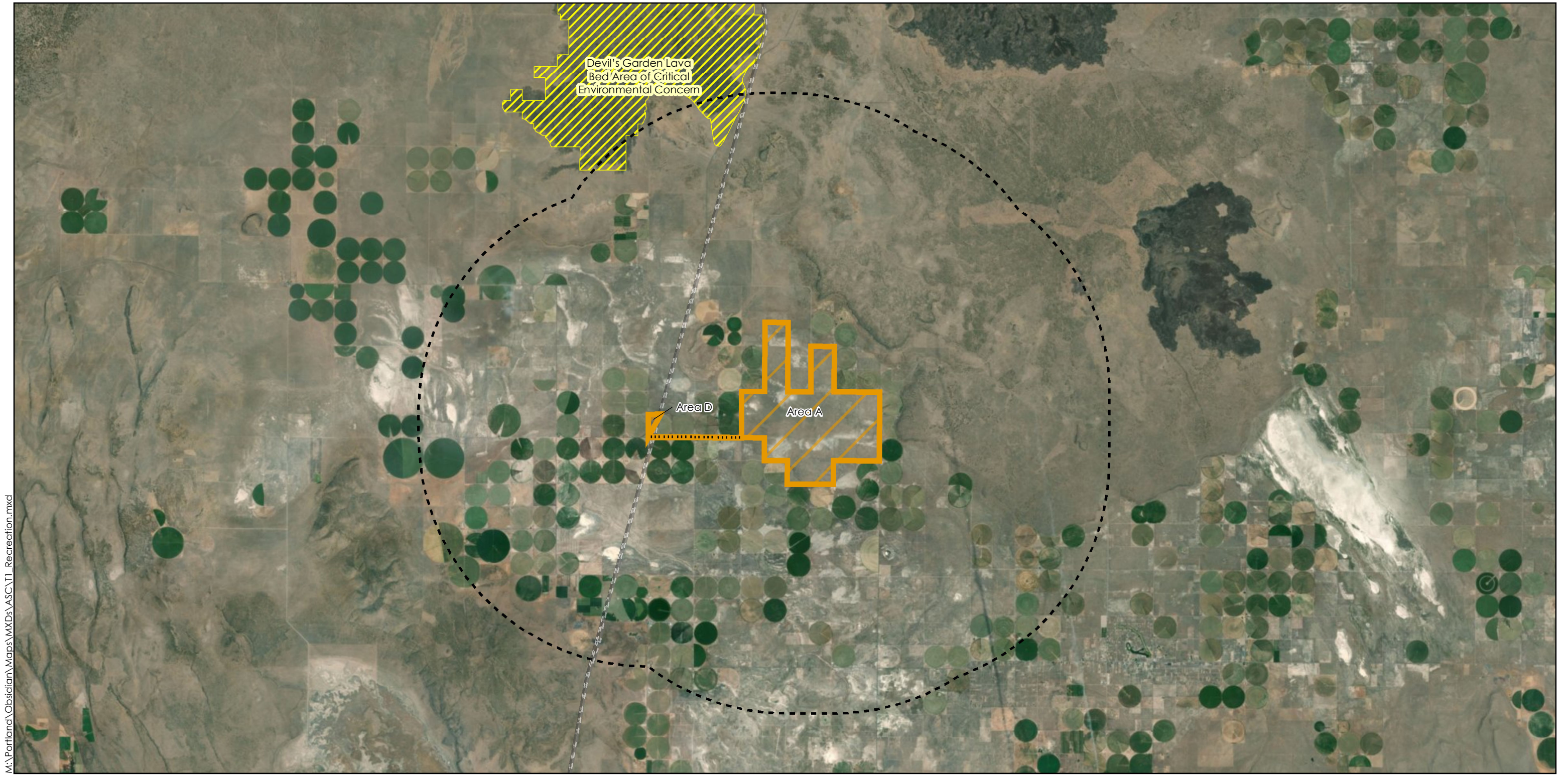
**OAR 345-021-0010(1)(t)(E)** *The applicant's proposed monitoring program, if any, for impacts to important recreational opportunities.*

Response: Significant adverse impacts on important recreational opportunities in the analysis area associated with construction or operation of the Facility will not occur; therefore, Applicant does not propose a monitoring program.

## T.7 REFERENCES

- BLM (Bureau of Land Management). 2000. *Areas of Critical Environmental Concern Nomination Analysis Report for the Lakeview Resource Area – Resource Management Plan*. Lakeview District, Lakeview, Oregon. Accessed August 20, 2018. [https://www.blm.gov/or/districts/lakeview/plans/files/ACEC\\_nomination.pdf](https://www.blm.gov/or/districts/lakeview/plans/files/ACEC_nomination.pdf)
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- Site Boundary
- 5-mile Analysis Area
- Important Recreational Opportunity
- Gen-tie Transmission Line
- Bonneville Power Administration Transmission Line (500kV)
- PGE Transmission Line (500kV)

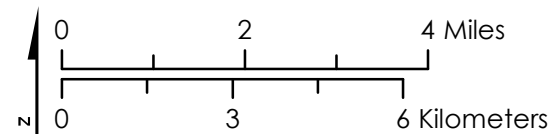


Figure T-1  
Important Recreational Opportunities

**Obsidian Solar Center**

October 2019

Obsidian Solar Center LLC



