

EXHIBIT Q – Application for Site Certificate

THREATENED AND ENDANGERED SPECIES

OAR 345-021-0010(q)

REVIEWER CHECKLIST

(q) Exhibit Q. Information about threatened and endangered plant and animal species that may be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0070. The applicant shall include:

Rule Sections	Section	✓
(A) Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2) and ORS 564.105(2) that may be affected by the proposed facility.	Q.2	
(B) For each species identified under (A), a description of the nature, extent, locations and timing of its occurrence in the analysis area and how the facility might adversely affect it.	NA	
(C) For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact.	NA	
(D) For each plant species identified under (A), a description of how the proposed facility, including any mitigation measures, complies with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3).	NA	
(E) For each plant species identified under paragraph (A), if the Oregon Department of Agriculture has not adopted a protection and conservation program under ORS 564.105(3), a description of significant potential impacts of the proposed facility on the continued existence of the species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species.	NA	
(F) For each animal species identified under (A), a description of significant potential impacts of the proposed facility on the continued existence of such species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species.	NA	
(G) The applicant’s proposed monitoring program, if any, for impacts to threatened and endangered species.	NA	

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Q.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. Please refer to Exhibit B for Facility layout information and Exhibit C for Facility location information.

Exhibit Q addresses the potential impacts of the proposed Facility on threatened and endangered plant and animal species within the analysis area, which the Project Order defines as the area within the site boundary and 5 miles from the site boundary. This exhibit provides the information required by Oregon Administrative Rules (OAR) 345-021-0010(1)(q): *Information about threatened and endangered plant and animal species that may be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0070.*

Executive Summary

The evidence presented in this exhibit demonstrates that plant and animal species designated as threatened or endangered in the State of Oregon do not occur within the analysis area. As such, Applicant does not propose any specific conditions of approval pertaining to threatened and endangered species for the Site Certificate.

Q.2 STATE THREATENED AND ENDANGERED SPECIES IN THE ANALYSIS AREA

OAR 345-021-0010(q)(A) *Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2) and ORS 564.105(2) that may be affected by the proposed facility.*

Response:

Fish and Wildlife Species

The Oregon Department of Fish and Wildlife (ODFW) Compass (ODFW 2016a) was used to identify state threatened and endangered fish and wildlife species that may occur in the analysis area, which for purposes of this exhibit is the Facility site boundary plus 5 miles. Compass is an online data and planning tool in which one of the features is the Oregon Conservation Strategy (OCS) Reporting Tool. The OCS Reporting Tool affords users the ability to map their project area and receive a downloadable report of OCS Strategy Species, including state threatened and endangered fish and wildlife species, that have been observed or are possible in that project area (ODFW 2016a, 2016b). Species occurrence data were also obtained from the Oregon

Biodiversity Information Center (ORBIC 2018). The Compass (ODFW 2016a) and ORBIC (2018) data indicated that no state threatened or endangered fish or wildlife species potentially occur within the analysis area, which was confirmed by ODFW (Muir 2018a, 2018b).

According to the United States Fish and Wildlife Service Information for Planning and Consultation tool, the shortnose sucker (*Chamistes brevirostris*) is the only federally listed fish or wildlife species potentially occurring within the analysis area (USFWS n.d.). However, this endangered fish's known range in Oregon is limited to Klamath Basin in southern Klamath County and southwestern Lake County (USFWS 2008). In addition, there is no suitable habitat, i.e., lakes and associated tributaries or streams, for this species in the analysis area. Therefore, no federally threatened or endangered fish and wildlife species potentially occur within the analysis area.

Plant Species

The Oregon Department of Agriculture (ODA) website was used to identify state-listed threatened or endangered plant species that potentially occur within the analysis area. The ODA website provides a list of threatened or endangered species for each county (ODA n.d.[a]). The Lake County list provided by ODA (n.d.[a]), which consists of five species, was compared to the species' distribution and habitat information that ODA (n.d.[b]) also provides. Table Q-1 presents ODA's Lake County species list and their habitat information. Based on the distribution and habitat information, the analysis area does not contain suitable habitat for the species listed in Table Q-1, except for Bogg's Lake hedge hyssop (*Gratiola heterosepala*); however, only one occurrence of that species has been recorded in Oregon, near the California border in Lake County (ODA n.d.[b]). In addition, ORBIC (2018) and Oregon Flora Project (2017) do not report any occurrences of the species listed in Table Q-1 within the analysis area. Based on known records and habitat information, state threatened and endangered plant species are not likely to occur in the analysis area.

No federally threatened or endangered plant species potentially occur within the analysis area (USFWS n.d.).

Table Q-1 State-listed Plants in Lake County and Their Preferred Habitats

Common Name	Latin Name	State Status	Habitat	Potential to Occur
Pumice grape-fern	<i>Botrychium pumicola</i>	Threatened	Rocky rims and ridges in alpine areas; Montane areas within frost pockets or comparable areas.	None – No suitable habitat
Crosby’s buckwheat	<i>Eriogonum crosbyae</i>	Threatened	Light-colored tuffaceous sandstone substrates, typically on rounded, gentle slopes, in southeastern Lake County.	None – No suitable habitat/out of range
Bogg’s Lake hedge hyssop	<i>Gratiola heterosepala</i>	Threatened	Seasonal wetlands in open juniper and sagebrush.	None – No suitable habitat/out of range
Grimy ivesia	<i>Ivesia rhypara</i> var. <i>rhypara</i>	Endangered	Light-colored ash-tuff or on outcrops of volcanic ash deposited with riverbed gravels.	None – No suitable habitat
Oregon semaphore grass	<i>Pleuropogon oregonus</i>	Threatened	Obligate wetland species occurring in wet meadows and marshlands in areas of slow-moving water.	None – No suitable habitat

Sources: ODA n.d.[a], n.d.[b].

Q.3 THREATENED AND ENDANGERED SPECIES OCCURRENCE IN THE ANALYSIS AREA AND POTENTIAL IMPACTS BY THE AMENDED FACILITIES

OAR 345-021-0010(1)(q)(B) For each species identified under (A), a description of the nature, extent, locations and timing of its occurrence in the analysis area and how the facility might adversely affect it.

Response: No state-listed threatened or endangered species are likely to occur within the analysis area (refer to Section Q.2); therefore, there will be no adverse impacts associated with the construction and operation of the Facility.

Q.4 PROPOSED AVOIDANCE OR MINIMIZATION MEASURES

OAR 345-021-0010(1)(q)(C) *For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact.*

Response: No state-listed threatened or endangered species are likely to occur within the analysis area (refer to Section Q.2); therefore, Applicant does not propose measures to avoid or reduce adverse impacts.

Q.5 COMPLIANCE WITH PROTECTION AND CONSERVATION PROGRAM FOR LISTED PLANTS

OAR 345-021-0010(1)(q)(D) *For each plant species identified under (A), a description of how the proposed facility, including any mitigation measures, complies with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3).*

Response: No state-listed threatened or endangered plant species are likely to occur within the analysis area (refer to Section Q.2); therefore, the Facility will comply with the protection and conservation program, if any, adopted by the ODA.

Q.6 IMPACTS ON SURVIVAL OR RECOVERY OF LISTED PLANTS

OAR 345-021-0010(1)(q)(E) *For each plant species identified under paragraph (A), if the Oregon Department of Agriculture has not adopted a protection and conservation program under ORS 564.105(3), a description of significant potential impacts of the proposed facility on the continued existence of the species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species.*

Response: No state-listed threatened or endangered plant species are likely to occur within the analysis area (refer to Section Q.2); therefore, the Facility will not affect the continued existence or reduce the likelihood of survival or recovery of any listed plant species.

Q.7 IMPACTS ON SURVIVAL OR RECOVERY OF LISTED ANIMALS

OAR 345-021-0010(1)(q)(F) *For each animal species identified under (A), a description of significant potential impacts of the proposed facility on the continued existence of such species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species.*

Response: No state-listed threatened or endangered animal species are likely to occur within the analysis area (refer to Section Q.2); therefore, the Facility will not affect the continued existence or reduce the likelihood of survival or recovery of any listed animal species.

Q.8 MONITORING PROGRAM

OAR 345-021-0010(1)(q)(G) *The applicant's proposed monitoring program, if any, for impacts to threatened and endangered species.*

Response: No state-listed threatened or endangered species are likely to occur within the analysis area (refer to Section Q.2); therefore, Applicant does not propose a monitoring program for listed species.

Q.9 REFERENCES

Muir, J. 2018a. Personal Communication. District Wildlife Biologist, Lake District, Oregon Department of Fish and Wildlife. Telephone conference with Ecology and Environment, Inc.; Obsidian Solar Center LLC; Oregon Department of Fish and Wildlife; and Oregon Department of Energy. February 27, 2018. Information relayed to Don Wardwell and Ilja Nieuwenhuizen, Ecology and Environment, Inc., Portland, Oregon.

_____. 2018b. Comments on the Notice of Intent to Apply for a Site Certificate for Obsidian Solar Center LLC. Letter sent to Kellen Tardaewether, Oregon Department of Energy. March 16, 2018.

ODA (Oregon Department of Agriculture). n.d.[a]. "Oregon Listed Plants by County." Lake County. Accessed October 10, 2019. <http://www.oregon.gov/ODA/programs/PlantConservation/Pages/ListedPlants.aspx>.

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