

EXHIBIT Q

THREATENED AND ENDANGERED SPECIES

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:

(A) Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2), ORS 564.105(2) or 16 USC § 1533 that may be affected by the proposed facility.

(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.

(C) For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact.

(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).

(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.

(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.

(G) The applicant's proposed monitoring program, if any, for impacts to threatened and endangered species.

In its First Amended Project Order dated July 12, 2011, the Department expanded upon the requirements of Exhibit Q as follows:

All paragraphs apply.

Threatened and Endangered Species

The threatened and endangered species analysis area for the Saddle Butte Wind Park straddles the Gilliam – Morrow County line and lies entirely within these two counties (Figure Q-1) and within the Columbia Basin ecoregion. The majority of the site itself is currently cultivated for dryland wheat. Only 11% of the site has not been disturbed by current or previous agricultural

practices. Much of the analysis area is devoted to agricultural use, with dryland wheat predominating in the southern two thirds of the analysis area, cattle and sheep grazing in the northern portion, and small areas of irrigated agriculture scattered throughout. Willow Creek passes to the east of the site within the analysis area, and Eightmile Creek to the west. Water flow in Willow Creek where it passes through the analysis area is generally low by the end of summer and sometimes entirely absent. Eightmile Creek for most of its length carries water only during stormwater runoff events. A spring in Eightmile Creek approximately one mile above the junction with Willow Creek produces a trickle of water in that portion of the creek.

To determine listed plant and animal species that might occur within the analysis area and its vicinity, all animal species listed as endangered or threatened by Oregon or by the federal government that currently or historically occurred within the Columbia Basin ecoregion were tabulated. The April 2012 Oregon Department of Fish and Wildlife animal species list,¹ the undated Oregon Department of Agriculture plant species list,² and the current U. S. Fish and Wildlife Service list of plant and animal species³ were used to generate the table, and the 2010 Oregon Biodiversity Information Center plant and animal databases⁴ was used to determine occurrence within the Columbia Basin ecoregion.

Common Name	Scientific Name	Status ¹	
		Federal	State
Mammals			
Canada lynx	<i>Lynx canadensis</i>	T	
Gray wolf	<i>Canis lupis</i>	E	E
Grizzly bear	<i>Ursus arctos horribilis</i>	T	
Pigmy rabbit	<i>Brachylagus idahoensis</i>	E	
Washington ground squirrel	<i>Spermophilus washingtoni</i>		E
Wolverine	<i>Gulo gulo</i>		T
Fish			
Bull trout	<i>Salvelinus confluentus</i>	T	
Steelhead, Middle Columbia River ESU, summer run	<i>Oncorhynchus mykiss</i>	T	
Steelhead, Middle Columbia River ESU, winter run	<i>Oncorhynchus mykiss</i>	T	
Vascular Plants			
Laurence's milk-vetch	<i>Astragalus collinus</i> var. <i>laurentii</i>		T
Northern wormwood	<i>Artemisia campestris</i> var. <i>wormskjoldii</i>		E
Tygh Valley milk-vetch	<i>Astragalus tyghensis</i>		T

1. Status

E: Listed as endangered

T: Listed as threatened

¹ http://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_candidate_list.asp

² <http://www.oregon.gov/ODA/PLANT/CONSERVATION/Pages/statelist.aspx>

³ http://ecos.fws.gov/tess_public/pub/stateListingAndOccurrenceIndividual.jsp?state=OR

⁴ <http://orbic.pdx.edu/rte-species.html>

Species Accounts

Canada Lynx (*Lynx Canadensis*)

The Canada lynx has a federal listing of Threatened but is not an Oregon special status species. The species is known to occur in Morrow County. Most current sightings of the Canada lynx in Oregon are in the Cascade Range and the Blue Mountains. Given the species' reliance on coniferous or mixed forests, it is unlikely that the current or historic range in Morrow County includes the analysis area. Although use of the Columbia Basin ecoregion is listed for the species, it is most likely that the lynx occurs in the portion of the Basin adjacent to the Blue Mountain ecoregion in southern Morrow County. The Canada lynx is not expected to occur within the analysis area at any time of the year, and the facility will not adversely affect individual lynx or the species.

Gray Wolf (*Canis lupus*)

The gray wolf has a federal and an Oregon listing of Endangered. The historic distribution of the gray wolf includes Gilliam and Morrow Counties, although no records were located of current detections of wolves in either county. The wolf has been federally delisted in the eastern portion of Oregon due to the success of an introduced experimental population in Idaho. No member of the introduced population is currently known to be present in the analysis area; however, gray wolves are currently present east of the analysis area and could appear within it in the near future. Should the wolves expand into the analysis area, they could be present throughout the year. Potential adverse impacts to individuals of the species are facility-related vehicle strikes, disturbance, habitat loss, degradation of air or water quality and wildfires.

Grizzly Bear (*Ursus arctos horribilis*)

The grizzly bear has a federal listing of Threatened. It is not an Oregon special status species. The historic distribution of the grizzly bear includes Gilliam and Morrow Counties. There are no current detections in either Morrow or Gilliam County or in Oregon and it is considered to have been extirpated from the state. The analysis area is not within a current grizzly bear recovery zone,⁵ and the closest recovery zones are the North Cascade zone in Washington and the Bitterroot zone in Idaho. The North Cascade population is estimated at 10 – 20 bears and the Bitterroot population lower than this. Grizzly bears hibernate for 4 to 6 months during the winter, and do not migrate. Expansion of occupied habitat occurs through dispersion of juveniles. The low population levels and distance from the analysis area at which the closest bear populations are found suggest that grizzly bear will not expand into the analysis area within the foreseeable future. Should bears expand into the analysis area they would be present all year. Potential adverse impacts to individuals of the species are facility-related vehicle strikes, disturbance, habitat loss, degradation of air or water quality and wildfires.

Pigmy Rabbit (*Brachylagus idahoensis*)

The Columbia Basin distinct population segment (DPS) of the pigmy rabbit has a federal listing of Endangered. The broader species is an Oregon sensitive species classified as Vulnerable. Members of the DPS only occur in Washington and are not currently present within the analysis area. The broader species is found in the southeast quadrant of Oregon and has not occurred historically or currently in Gilliam or Morrow County. Pigmy rabbits from the Columbia Basin

⁵ http://ecos.fws.gov/docs/five_year_review/doc3847.review_August%202011.pdf

DPS and from the broader species are not expected to occur within the analysis area at any time of the year, and the facility will not adversely affect individual rabbits or the species.

Washington Ground Squirrel (*Spermophilus washingtoni*)

The Washington ground squirrel is a federal candidate for listing and has an Oregon listing of Endangered. It is also an Oregon strategy species. The historic and current distribution of the Washington ground squirrel includes Gilliam and Morrow Counties and they are known to be present within the analysis area. The squirrels are not known to be currently present within the site boundary, although nearby colonies could have expanded into the site since the site was surveyed for them (Attachment P-2). A non-migratory species, any present on the facility site would be present year-round. The squirrels estivate for much of the year, and are present above ground in significant numbers generally between February and June.

Although associated with sagebrush-grasslands, of particular importance to the species' range is soil type. The squirrel occupies burrow systems requiring deep soils with high silt contents. Except in areas too steep to cultivate, the soils in the proposed facility site are primarily occupied by dryland wheat and previously plowed land either in the Conservation Reserve Program (CRP) or fallow. Washington ground squirrel burrows are not compatible with agricultural cultivation. The increase in agricultural use of the species' historic range is one the primary reasons posited for its decline. Potential adverse impacts to individual squirrels are facility-related vehicle strikes, disturbance, habitat loss, degradation of air or water quality and wildfires. Potential impact to the species is limited to soil disturbance.

Wolverine (*Gulo gulo*)

The wolverine has an Oregon listing of Threatened and is a Candidate for federal listing. In Oregon, the species is limited to high-elevation alpine regions. Although shown as occurring within the Columbia Basin ecoregion, the species is not known to occur currently or historically within Gilliam or Morrow County. The wolverine is not expected to occur within the analysis area at any time of the year, and the facility will not adversely affect individual wolverines or the species.

Bull Trout (*Salvelinus confluentus*)

The bull trout has a federal listing of Threatened and is an Oregon strategy species. Bull trout may be migratory or resident. Migratory forms overwinter in large water bodies and spawn in streams or creeks, while resident bull trout remain in the same stream or creek year round. Willow Creek is the only waterway within the analysis area that could plausibly support bull trout. Their presence in Willow Creek is unlikely due to their requirement for cold water. During low water portions of the year, Willow Creek is expected to be too warm. If the bull trout is present in Willow Creek, potential adverse impacts to individuals of the species are facility-related disturbance, habitat loss, degradation of air or water quality and wildfires.

Steelhead (*Oncorhynchus mykiss*)

The Middle Columbia River evolutionary significant unit (ESU) winter and summer steelhead runs have federal listings of Threatened; summer run steelhead are rated as an Oregon species of concern – Critical. Both steelhead runs are Oregon strategy species. Willow Creek is included in the Middle Columbia ESU, and is the only waterway within the analysis area that could plausibly

support steelhead. The National Oceanic and Atmospheric Administration considers steelhead to have been extirpated from Willow Creek⁶ and no steelhead are expected to currently occur within the analysis area. Should Willow Creek undergo significant stream restoration efforts and the species recover sufficiently to allow steelhead to occur in Willow Creek, potential adverse impacts to individuals of the species are facility-related disturbance, habitat loss, degradation of air or water quality and wildfires.

Laurence's Milk-vetch (*Astragalus collinus* var. *laurentii*)

Laurence's milk-vetch is listed by Oregon as Threatened and it is an Oregon strategy species. It is a federal species of concern. There is no Oregon protection and conservation program established for this species. The historic or current distribution of Laurence's milk-vetch includes both Morrow and Gilliam Counties and there has been a report of the plant within or near the analysis area. Habitats in which the plant can occur include basaltic grassland, sagebrush desert, and dry slopes. The plant is a perennial; if it occurs within the analysis area it would be present year-round. Nearly all recent (post-1980) known occurrences of Laurence's milk-vetch are considerably south and east of the facility site⁷ beyond Heppner and outside of the analysis area. The plant is generally found at elevations above 2,000 ft.⁸ Primary threats to Laurence's milkvetch are roadside herbicide spraying and livestock grazing. Potential adverse impacts to individuals of the species are facility-related vehicle strikes, soil disturbance, herbicide use, degradation of air or water quality and wildfires.

Northern Wormwood (*Artemisia campestris* var. *wormskjoldii*)

Northern wormwood is listed by Oregon as Endangered and is an Oregon strategy species. It is a candidate for federal listing. The Oregon Department of Agriculture has established a program to reintroduce the species by transplanting greenhouse-grown plants into state-managed sites. The plant is a biennial or perennial, so if it occurred within the analysis area it would be present year-round. It is restricted to rocky or sandy areas on the banks of the Columbia River, which is north of the analysis area. Although the species occurs in the Columbia Basin ecoregion, it has not occurred historically or currently in Morrow or Gilliam County. It is believed that except for planted specimens the species has been extirpated from the state.⁹ The analysis area does not encompass any riverside areas appropriate for establishment of the plant, and the facility will not affect reintroduction efforts. Northern wormwood is not expected to occur within the analysis area at any time of the year, and the facility will not adversely affect individual plants or the species.

Tygh Valley Milk-vetch (*Astragalus tyghensis*)

Tygh Valley milk-vetch is listed by Oregon as Threatened and is an Oregon strategy species. It has no federal special status. There is no Oregon protection and conservation program established for this species. The plant is a perennial so if it occurred within the analysis area it would be present year-round. Although it occurs in the Columbia Basin ecoregion, it is primarily

⁶http://www.dfw.state.or.us/fish/CRP/docs/mid_columbia_river/2_NOAA%20MC%20DPS%20Recovery%20Plan_110410.pdf

⁷ Kagan J.S., R. Morgan and K. Blakeley (September 2000). Umatilla and Willow Creek Basin Assessment for Shrub Steppe, Grasslands, and Riparian Wildlife Habitats. EPA Regional Geographic Initiative.

⁸ http://www.oregon.gov/ODA/PLANT/CONSERVATION/pages/profile_ascola.aspx

⁹ http://www.oregon.gov/ODA/PLANT/CONSERVATION/pages/profile_arcawo.aspx

found in and around the Tygh Valley in an area of approximately 84 square miles near the confluence of the White River and the Deschutes River.¹⁰ Although it occurs within the Columbia Basin ecoregion, it has not occurred historically or currently in Morrow or Gilliam County. Tygh Valley milk-vetch is not expected to occur within the analysis area at any time of the year, and the facility will not adversely affect individual plants or the species.

Adverse impacts

Adverse impacts to threatened and endangered plant and animal species from construction, operation or decommissioning of the proposed facility include vehicle strikes, disturbance, habitat loss, degradation of air or water quality, wildfires, soil disturbance and herbicide use. The majority of these impacts will largely be confined to individual plants or animals within the site boundary and its immediately vicinity. Wildfire and adverse impacts to air or water quality could extend well into the analysis area but rarely beyond.

Some adverse impacts, such as vehicle strikes, could cause the immediate death of the affected plant or animal or cause sufficient impairment to result in death later. Impacts from habitat loss or disturbance may cause displacement of animal species, possibly into habitat less suited for their survival leading to increased mortality. Prey species displacement can cause subsequent displacement of species that depend upon them, or can reduce fitness of remaining predator species. Death of individual animals can also cause the subsequent loss of dependent young.

Specific adverse impacts and mitigation measures are described, below. Please see Exhibit P for a more extensive discussion of these adverse impacts, for Applicant's proposed Site Certificate Conditions, and Applicant's proposed Wildlife Monitoring and Mitigation Plan, Habitat Mitigation Plan and Revegetation Plan.

Vehicle strikes

Terrestrial animals risk strikes from vehicles traveling on and off roadways. The risk to plant species is limited to vehicles traveling off road. Fish are at risk from strikes where vehicles cross Willow Creek using fords. None of the public roads in the analysis area cross Willow Creek via ford, and all off-site facility traffic relies on public roadways. Due to the low number of vehicles used during operations and the relatively short duration of construction and decommissioning, adverse impacts may affect individual plants or animals but are not expected to cause a substantial impact to any of the species discussed. Mitigation for vehicle strikes includes establishment and enforcement of on-site construction and operations speed limits, restriction of off-road construction vehicle and equipment travel to designated disturbance corridors, and a prohibition on off-road travel during operations except for emergencies, during replacement of turbine rotors or nacelles and for access to the transmission line.

Disturbance

Noise during construction or decommissioning is expected to be the predominant source of disturbance to wildlife. Additionally, the presence of facility staff and vehicular activity, the presence of structures such as the turbines, exterior lighting, and the motion and noise of the turbine blades or nacelles could be sources of wildlife disturbance. Disturbance could cause

¹⁰ http://www.oregon.gov/ODA/PLANT/CONSERVATION/pages/profile_asty.aspx

displacement of wildlife from nesting, burrowing, breeding or foraging sites and cause redistribution of prey species, but would not impact plants. No threatened or endangered predator species currently occur within the analysis area or are likely to occur prior to the end of facility construction. Disturbance impacts to predators through displacement of prey species may occur during decommissioning.

Disturbance caused by decommissioning of the facility is anticipated to be equivalent to construction disturbance. Disturbance is a potential adverse impact to all terrestrial animals discussed in the species accounts present within the site boundary and near vicinity. Fish species are not at risk, as no construction activity will take place within or close to Willow Creek.

Mitigation for disturbance includes the requirement for construction equipment to have exhaust mufflers installed and to confine the noisiest construction operations to daylight hours. Lighting will be minimized, and where necessary it will be down-shielded. The proposed restriction on construction activity within 1,000 of Category 1 Washington ground squirrel habitat while the squirrels are awake will provide an additional reduction of disturbance for that species.

Habitat Loss

For this discussion, habitat loss focuses on a reduction of habitat quantity by soil disturbance, rather than on loss of habitat quality. Adverse impacts to wildlife may include reduction of foraging, courting and breeding habitat and reduction in the population of prey species. Habitat loss is a potential adverse impact to all terrestrial wildlife and plant species discussed. Fish species are not at risk from habitat loss, as no construction activity will take place within or close to Willow Creek.

Applicant proposes to mitigate for habitat loss by minimizing the number of acres permanently and temporary disturbed, maximizing placement of the facility footprint into habitats that have already been disturbed, revegetation of the temporary footprint, and by establishment of a habitat mitigation area. Applicant proposes to avoid any ground disturbance in all Category 1 habitat, to avoid removal of all trees greater than 3 feet in height, and to prohibit siting of O & M buildings, substations and staging areas in Category 1 or 2 habitat.

Air Quality

Other than dust, wind facilities do not emit a significant quantity of air pollutants. Airborne dust can cause adverse respiratory impacts to terrestrial wildlife, and dust deposition can reduce photosynthesis or transpiration in plant species. The effect of dust on aquatic species is limited to its impact on water quality, discussed below.

Mitigation for dust-related degradation of air quality includes water applications or mulch to disturbed ground during construction, graveling of permanent roadways, and imposition of construction and operation speed limits.

Water Quality

Adverse impacts to surface water quality can be caused by transport of particulate material and chemical contaminants from a facility into receiving waters or wetlands during construction or operation. Adverse impacts to groundwater can occur if chemicals spilled on the soil surface

leach to the water table. Degradation of water quality, from particulate material or chemical contaminants, can adversely impact plants or fish living in the water and any wildlife drinking it. These impacts can include wildlife displacement and wildlife or plant injury or death.

Applicant proposes to mitigate adverse impacts to the quality of stormwater runoff by establishing an erosion and sediment control plan during construction, to be maintained during operations. Applicant also proposes to institute procedures for spill prevention and proper spill cleanup for chemicals kept on the site.

Wildfires

Wildfires can directly cause injury or death to wildlife and plants, and can lead to additional adverse impacts through habitat loss, increased water- and windborne soil erosion, degradation of air and water quality and wildlife displacement.

Applicant proposes to mitigate for facility-caused fires by equipping facility vehicles with fire extinguishers and shovels, training facility personnel in fire avoidance and response, minimizing off-road travel during both construction and operations, and establishing a construction and operations fire plan for the facility. In Applicant's experience, graveled turbine access roads serve as effective firebreaks and speed the access of response vehicles to fires. Construction of graveled access roads should also be considered an element of wildfire risk mitigation.

Soil Disturbance

This discussion of soil disturbance focuses on construction activities within the site boundary that could have adverse impacts specific to Washington ground squirrels and Laurence's milk-vetch, rather than providing a general discussion of vegetation or habitat loss caused by soil disturbance. Most animals can relocate in order to avoid areas where soil is being disturbed by construction activities. During much of the year, Washington ground squirrels estivate and are essentially immobile. Deep disturbance of soil occupied by an estivating squirrel colony could kill a significant proportion of the colony members, as could installing a portion of the facility's permanent footprint above a colony. Laurence's milk-vetch is the only threatened or endangered plant species that potentially occurs within the site boundary where ground-disturbing activity will occur. Temporary or permanent disturbance of soil in areas in which Laurence's milk-vetch occur can kill or damage the plants.

In Oregon, Washington ground squirrels are limited to three counties, among them Gilliam and Morrow. A significant percentage of Oregon's Washington ground squirrels reside within the analysis area. Laurence's milk-vetch occurs in four Oregon counties, which include Gilliam and Morrow. It is unlikely that the analysis area includes a significant proportion of the Oregon Laurence's milk-vetch population due to the species' preference for higher elevations.

Applicant proposes to mitigate for impacts to these species from soil disturbance by performing surveys for these two species in all suitable areas of the site in which soil disturbance may occur. If any Washington ground squirrel burrows or Laurence's milk-vetch plants are found, Applicant proposes to avoid permanent or temporary disturbance of the area these species occupy plus a suitable buffer.

Herbicide Use

Herbicides will regularly be used for weed control in the permanent facility footprint during operations, and will be used in some areas during post-construction revegetation. Any adverse impact from herbicide use is thus confined to site boundary and its immediate vicinity, and these impacts are generally limited to plants. Of the described threatened and endangered plants described, only Laurence's milk-vetch has the potential to occur within the site boundary and immediate vicinity. Direct herbicide application or spray drift could injure or kill individual milk-vetch plants.

Applicant proposes to mitigate adverse impacts from herbicide use by performing surveys for Laurence's milk-vetch in all suitable areas of the site in which soil disturbance may occur, and by avoiding spraying herbicides within the area occupied by Laurence's milk vetch plus a suitable buffer. Applicant also proposes to follow the Saddle Butte Wind Park's proposed revegetation and weed control plans, which will limit impacts to non-target plant species.

Critical Habitat

There are no federal- or Oregon-designated areas of critical habitat within the site boundary and none known in the analysis area. Willow Creek is a waterway designated as critical habitat for the bull trout or steelhead. Within the analysis area are two habitat types designated by Oregon as Strategy Habitats: Grasslands and Sagebrush steppe within the Columbia Basin ecoregion. Within the site boundary, undisturbed grassland and sage steppe totals approximately 1,283 acres, 11% of the total site acreage. Approximately 50 acres would be disturbed in the worst-case facility layout and 21 acres in the typical layout. The permanent footprint would occupy 2 or 5 acres of these habitats in the typical and worst-case layouts, respectively.

Undisturbed deep soils suitable for construction of Washington ground squirrel burrows within the analysis area could be considered critical to the species. Within the site boundary these soils have largely been converted to agricultural use. Undisturbed areas within the site are largely confined to ravines and steep hillsides, many of which are rocky and not suited for squirrels or agriculture. Searches for the squirrel prior to commencement of construction will ensure that no occupied areas are disturbed. While Laurence's milk-vetch may occur within the analysis area, its prevalence at higher elevations indicates that habitats within the analysis area are less suitable and thus not critical to the species. Searches prior to commencement of construction will help ensure no individual plants are removed. The remaining plant and animal species do not occur within the analysis area, and therefore Applicant does not consider the habitat within the analysis area critical to them.

Species-level impacts

Canada lynx

The Canada lynx is not known to occur within the facility site boundary or within the analysis area. No potential adverse impacts from the facility are expected to occur in areas used by the lynx. No adverse impacts to individual members of the species are expected, and therefore Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Gray wolf

The gray wolf is not known to currently occur within the facility site boundary or within the analysis area, but wolves are likely to occur within the analysis area and possibly within the site boundary during the life of the project. Should they appear within the site boundary, adverse impacts to individuals of the species could occur. With mitigation, impacts to individuals would be rare and would not affect a significant portion of the breeding population. Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Grizzly bear

The grizzly bear is not known to currently occur within the facility site boundary or within the analysis area, but bears could occur within the analysis area and possibly within the site boundary during the life of the project. Should they appear within the site boundary, adverse impacts to individuals of the species could occur. With mitigation, impacts to individuals would be rare and would not affect a significant portion of the breeding population. Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Pigmy rabbit

The pigmy rabbit is not known to occur within the facility site boundary or within the analysis area. No potential adverse impacts from the facility are expected to occur in areas used by the rabbit. No adverse impacts to individual members of the species are expected, and therefore Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Washington ground squirrel

The Washington ground squirrel is known to occur within the analysis area. The squirrel has not been found within the site boundary but may expand into the site before construction commences. Should squirrels appear within the site boundary, adverse impacts to individuals of the species could occur. With mitigation, impacts to individuals are expected to be rare and will not affect a significant portion of the breeding population. Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Wolverine

The wolverine is not known to occur within the facility site boundary or within the analysis area. No potential adverse impacts from the facility are expected to occur in areas used by the wolverine. No adverse impacts to individual members of the species are expected, and therefore Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Bull trout

The bull trout does not occur within the site boundary and is unlikely to occur within the analysis area as Willow Creek is not suitable for use by the species. If bull trout were to appear within Willow Creek, adverse impacts to individuals could occur. With mitigation, impacts to individuals would be rare or absent and would not affect a significant portion of the breeding

population. Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Steelhead

Steelhead do not occur within the site boundary and are unlikely to currently occur within the analysis area as they are considered extirpated from Willow Creek. If steelhead were to appear within Willow Creek, adverse impacts to individuals could occur. With mitigation, impacts to individuals would be rare or absent and would not affect a significant portion of the breeding population. Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Laurence's milk-vetch

Laurence's milk-vetch may occur within the site boundary and analysis area. Should it appear within the site boundary, adverse impacts to individual plants of the species could occur. With mitigation, impacts to individual plants should be rare or absent and will not affect a significant portion of the population. Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Northern wormwood

Northern wormwood is not known to occur within the facility site boundary or within the analysis area. No potential adverse impacts from the facility are expected to occur in areas in which northern wormwood occurs. No adverse impacts to individual plants of the species are expected, and therefore Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Tygh Valley milk-vetch

Tygh Valley milk-vetch is not known to occur within the facility site boundary or within the analysis area. No potential adverse impacts from the facility are expected to occur in areas in which Tygh Valley milk-vetch occurs. No adverse impacts to individual plants of the species are expected, and therefore Applicant concludes that the proposed facility is not likely to cause a significant reduction in the survival or recovery of the species.

Figure Q-1

