

EXHIBIT I
LAND USE STANDARD

A statement indicating whether the applicant intends to satisfy the Council's land use standard, OAR 345-022-0030, by obtaining local land use approval under ORS 469.504(1)(a) or by seeking a Council determination under ORS 469.504(1)(b).

Statement

Applicant intends to satisfy the Energy Facility Siting Council's land use standard by seeking a Council determination under ORS 469.504(1)(b).

EXHIBIT J ENVIRONMENTAL IMPACTS

Identification of significant potential environmental impacts of construction and operation of the proposed facility on the study areas, including those impacts affecting air quality, surface and ground water quality and availability, wildlife and wildlife habitat, threatened and endangered plant and animal species, historic, cultural and archaeological resources, scenic and aesthetic areas, recreation, and land use.

Air Quality

During construction of the proposed facility, particulate matter (dust) may be released into the air. Water will be used to control construction dust, which is not expected to exceed the dust generated by present agricultural practices.

Because project roads will be graveled, and the facility produces no emissions, no air quality impact is anticipated during facility operation.

Surface & Ground Water Quality and Availability

Construction and operations water usage is estimated in Exhibit L. Because construction water requirements can be estimated and because construction water is required for a limited time period, the carrying ability of water sources can be evaluated and supplemented as necessary. Water use during facility operation will be insignificant.

Aquatic Contracting has completed a Wetland and Waters Delineation survey of the area within and adjacent to the site boundary. The report presenting the results of this survey is being prepared and will be submitted to the Oregon Department of State Lands. The Report will be included in Applicant's Application for a Site Certificate. While the Report is not yet published, its contents informed Applicant's responses within this Exhibit, as well as the map found on page G-6.

No facility construction will take place in the vicinity of any surface water. No surface waters, no waters of the United States nor of the State were located within the site boundary.

During facility construction, storm water runoff is the only potential water pollutant. The topography and drainage patterns within the site boundary are themselves an impediment to runoff, however, Applicant will employ erosion control devices to eliminate any surface flows.

The operation of the facility will have no impact on surface and ground water quality.

Significant Potential Environmental Impacts Affecting Wildlife

Significant potential impact to wildlife species from wind facility development in eastern Oregon is generally limited to impacts affecting significant species. Large-scale habitat loss or wildlife

death, which could significantly affect healthy and abundant wildlife species, has not been associated with wind facilities in the Pacific Northwest.

To identify significant species, Federal- or Oregon-listed threatened or endangered species, species that are candidates for Federal or Oregon listing, Federal species of concern, Oregon sensitive species, and species classified as rare by the Oregon Natural Heritage Program were considered.

The current (July 2009) U.S. Fish and Wildlife Service (USFW) Threatened and Endangered Species System list of threatened and endangered species in Oregon,¹ the July 2009 Oregon Fish and Wildlife Office of the USFW list of threatened, endangered, proposed and candidate species and species of concern which may occur within Gilliam and Morrow Counties,² the current Oregon Department of Fish and Wildlife (ODFW) list of threatened, endangered and candidate fish and wildlife species³ and the 2008 list of sensitive species,⁴ the 2007 Oregon Natural Heritage Information Center (ORNHIC) Oregon rare, threatened and endangered plant and animal data⁵ and the ORNHIC May 2009 data updates⁶ were obtained. The Saddle Butte Wind Park study area is entirely within the Columbia Plateau ecoregion in Gilliam and Morrow Counties. The ORNHIC databases were used to eliminate species in the ODFW lists that have no records of occurrence in Gilliam or Morrow County. The databases were also used to eliminate species from the ODFW and USFW lists that had no record of occurrence within the Columbia Plateau ecoregion. The remaining species are shown in Table 1.

Significant mammals

Four of the 13 mammals in Table 1 do not currently occur within the site boundary. The grizzly bear and desert bighorn sheep, although historically occurring in Gilliam and Morrow Counties, have been extirpated from the state. Records of sightings of the Canada Lynx have been limited to the Blue Mountains and the John Day River canyon,⁷ both outside of the study area. The gray wolf is known to occur adjacent to the Idaho border outside of the study area, and the species has been delisted in the eastern third of Oregon. Six of the mammals are bats, and the remaining three are the Washington ground squirrel and black- and white-tailed jackrabbits. The bats may occur within the site as residents or during migration. Searches for the Washington ground squirrel and black- white-tailed jackrabbits within the site boundary and a 1000 ft buffer took place in spring 2009. No active Washington ground squirrel colonies were found within the site boundary, although four sites showed indication of possible previous occupation (Attachment J-1). A previously known colony in the proposed habitat replacement parcel for the Shepherds Flat Wind Farm is within the 1000 ft search buffer. Additional colonies are known to occur within the study area outside of the site boundary and search buffer. No jackrabbits were observed in the searches, nor were any observed in the portions of the Shepherds Flat Wind Farm within the study area when that facility site was searched in spring 2007.⁸ Incidental to avian point counts,

¹ http://ecos.fws.gov/tess_public/pub/stateListingAndOccurrenceIndividual.jsp?state=OR

² <http://www.fws.gov/oregonfwo/Species/Lists/default.asp>

³ http://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_candidate_list.asp

⁴ http://www.dfw.state.or.us/wildlife/diversity/species/docs/SSL_by_category.pdf

⁵ http://oregonstate.edu/ornhic/data_download.html

⁶ <http://oregonstate.edu/ornhic/publications.html>

⁷ <http://www.fws.gov/oregonfwo/Species/Data/CanadaLynx/>

⁸ Application for a Site Certificate for the Shepherds Flat Wind Farm supplemental information, Attachment P-5a

one black-tailed jackrabbit was observed outside of the site boundary but within the study area, and one white-tailed jackrabbit was observed within the site boundary.

Significant birds

Twenty-five bird species are included in Table 1. Many are expected or known to be permanent or seasonal residents on the site or within the study area. Several, such as the bald eagle, Barrow's goldeneye, bufflehead, mountain quail, northern goshawk, and yellow-breasted chat may occasionally occur within the study area but are expected to be rare visitors to the site. During spring 2009, searches for burrowing owls found none within the project site and a 1,000-foot buffer, nor were any observed during avian point-counts.

During avian point counts on the Saddle Butte Wind Park site, only six of the twenty-five significant birds in Table 1 were observed: the ferruginous hawk, loggerhead shrike, long-billed curlew, merlin, Swainson's hawk and western meadowlark. A pair of merlins, sighted incidentally rather than during point counts, was observed throughout the spring survey period near an outbuilding on the facility site. No nest could be located. The merlin, considered by ORNHIC to have been extirpated in Oregon, was also observed during avian point counts on the Shepherds Flat Wind Farm site.⁹ Several loggerhead shrike and long-billed curlew were incidentally observed in the study area, on and off of the facility site.

The Saddle Butte use rates for the ferruginous hawk, long-billed curlew, merlin, Swainson's hawk and western meadowlark are lower than those of the southern, agricultural, portion of Shepherds Flat. The loggerhead shrike use rate is higher for Saddle Butte than for Shepherds Flat in the fall but lower in the spring (Table 2). The Saddle Butte raptor use rate is identical to that of the total Shepherds Flat site in the fall but somewhat lower in spring. The Saddle Butte raptor use rate is very close to the average use rate of seven regional wind facility sites for which data are available (Table 3).

Eight occupied raptor nests were found on the facility site or in its vicinity. One, a Swainson's hawk nest (SWHA) is within the site boundary (page G-18). Two nests are outside of the site boundary but within the study area – one SWHA and one red-tailed hawk (RTHA). The remaining five nests are all RTHA and outside of the study area.

Significant reptiles and amphibians

The Columbia River is not within the study area, although portions of Willow creek are within the study area from Horseshoe Bend southeast for approximately three miles. At the time of this writing, a wetland and waters survey of the majority of the facility site had been completed.¹⁰ After the initial survey, a 250-acre parcel was added to the site boundary; the survey results for this parcel are not yet available. In the Application for a Site Certificate, potential amphibian species' use of the site will be based on the final survey results.

Of the five reptiles and amphibians in Table 1, only the northern sagebrush lizard is likely to be found within the site boundary; the remaining species require aquatic resources. The painted turtle, northern leopard frog, western toad and Woodhouse's toad may occur within and near

⁹ Application for a Site Certificate for the Shepherds Flat Wind Farm, Attachment P-1

¹⁰ Wetland and Waters Delineation Report, Saddle Butte Wind Park (in preparation)

Willow Creek. The one small seep found within the site boundary is classified as a palustrine emergent wetland (PEM1Y). It is unlikely this wetland could support any of these four species. The painted turtle and northern leopard frog do not venture far from water and would not be found within the site boundary. Both toads can travel through drier areas. However, due to the distance of the site from Willow Creek and the elevation difference between the creek and the site, it is unlikely the toads would occur within the site boundary even if they were present in the creek.

Significant fish

The inland Columbia redband trout, margined sculpin, Pacific lamprey, steelhead and western brook lamprey may occur in Willow Creek within the study area. None of these species will occur within the site boundary due to the absence of appropriate aquatic habitat.

Significant insects

The three insects listed in Table 1 require aquatic habitat, and the onsite wetland identified in the initial wetland and waters survey is inadequate to support them. The Columbia River tiger beetle has been extirpated from the state. Willow Creek may provide suitable habitat for Lynn's clubtail dragonfly and the three-banded juga. Only the dragonfly would be found at any distance from the creek. Due to the distance of the site from the creek and the elevation change from the creek to the site, it is unlikely the dragonfly would occur within the site boundary even if it were present in the creek. In the Application for a Site Certificate, potential aquatic insect species' use of the site will be based on the final survey results.

Potential impacts to animals

Wildfires caused by construction activities or facility vehicles could result in injury or death of individual animal unable to escape from the path of the fire, and could damage nests and burrows. Wildfires could affect on- and offsite species. Habitat loss from the temporary and permanent facility footprint or from facility-related wildfires may reduce resources important for food, shelter, dens or nests. Dust production from construction activity or facility vehicles could reduce air quality on and off the site, potentially causing adverse health effects to individual animals.

Impacts to runoff water quality or drainage alteration from facility construction or operation could adversely impact off-site aquatic species. Hazardous material spills could result in adverse health effects or death of on- and offsite animals. Any animals that might occur within the site boundary could be injured or killed if struck by construction or facility vehicles. Bats and birds could collide with wind turbine towers or blades, resulting in injury or death. Bats and birds may also be injured or killed by striking overhead power lines or guy wires.

The presence of tall structures (e.g. wind turbines) can result in avoidance of an area by sensitive species such as sage grouse. Construction noise, increased activity on the site from the presence of operational personnel and vehicles, equipment and machinery noise, and an increase of lighting within the site boundary could disturb animals or their prey. This could cause nest or den abandonment. Depending on the season of disturbance, nest or den abandonment could cause loss of eggs or young. Disturbance could cause displacement of some species, and some species may move if their prey species are displaced.

Significant Potential Environmental Impacts Affecting Wildlife Habitat

Loss of habitat from the temporary and permanent footprint of the facility will cause loss of habitat quantity. Construction- or operation-related wildfires, hazardous material spills, impacts to runoff water quality and dust production can all adversely impact individual plants and habitat quantity and quality. Only the footprint impacts can be quantified.

Saddle Butte Wind Park Habitat maps (pages G-11 – G-17) show the facility site's identified habitat categories and subtypes, as well as the typical layout of facility components. Native (undisturbed) habitat was classified as either Category 1 or 2, and together they comprise approximately 12% of the facility site (Table 4). Previously cultivated areas, much of it in the Conservation Reserve Program, were classified as Category 3 and comprise approximately 18% of the site. The remaining 70% of the site is occupied by dryland wheat, roads and structures, which were classified as Category 6.

The permanent and temporary footprints affect 0.6% and 1.9%, respectively, of the total facility site. There is no permanent or temporary impact to Category 1 habitat from the typical layout. The permanent and temporary footprints affect 0.3% and 1%, respectively, of the facility site's Category 2 habitat.

The calculation of disturbance impacts in Table 4 addresses only components within the current Saddle Butte Wind Park site. The collector or transmission lines placed within the Shepherds Flat Wind Farm site are not included, nor are the short segments of new road connecting Saddle Butte Wind Park strings to Shepherds Flat Wind Farm roads. The permanent Saddle Butte footprint within Shepherds Flat is 1.0 acre and the temporary footprint is 3.7 acres. The footprint of these components will be completely addressed when the portions of the Shepherd Flat Wind Farm included in the Saddle Butte Wind Park site are finalized.

Significant Potential Environmental Impacts Affecting Threatened and Endangered Plant Species

The portions of the facility currently dedicated to farming, roads and structures do not contain threatened, endangered or rare plants. It is unlikely that previously cultivated areas currently contain threatened, endangered or rare plants, as they are still dominated by the species initially seeded. The remaining 12% of the facility site that has not been disturbed has a wider variety of native plants. The resources identified in footnotes 1 – 6, as well as the current Oregon Department of Agriculture list of endangered, threatened and candidate plant species,¹¹ provided 16 significant vascular plant species and two mosses potentially occurring within Gilliam or Morrow County within the Columbia Plateau ecoregion (Table 1).

The only listed plant species is Laurence's milk-vetch (Oregon listing of threatened). The closest known occurrences of members of this species are more than 20 miles southeast of the facility site at higher elevation, in the vicinity of Heppner, OR. In Oregon, the species is found at

¹¹ <http://www.oregon.gov/ODA/PLANT/CONSERVATION/statelist.shtml>

altitudes above 1970 feet.¹² The highest elevation within the Saddle Butte Wind Park and study area is 1600 feet. Elevations in the Saddle Butte Wind Park study area are unsuitable for Lawrence's milk-vetch and it is not expected to occur.

Of the remaining plant species in Table 1, gray cryptantha and Robinson's onion have been extirpated from Oregon. Habitat required by creamy stickseed, Columbia bladderpod, dotted smartweed, hepatic monkeyflower, salt heliotrope, and sessile mousetail does not occur within the site boundary but does occur within the study area. Habitat required by disappearing monkeyflower and porcupine sedge is limited to one wetland within the site boundary and habitat along Willow Creek in the study area. In the Application for a Site Certificate, potential wetland species' use of the site will be based on the final wetland and waters survey results.

Suitable habitat for Columbia milk-vetch, dwarf evening primrose, stalk-podded milk-vetch, Watson's desert parsley and the two mosses occurs within the site boundary and the study area. Although Snake River goldenweed is included as a USFW species of concern that may occur in Morrow County, both ORHNIC and a research report from the Institute for Applied Ecology for the Bureau of Land Management¹³ limit its Oregon occurrences to Baker and Malheur Counties. It is not expected to occur in the study area. During the initial wetland and waters survey, plants at 27 plots within and near the facility site were identified, including those in the wetland identified within the site boundary. None of the plants listed in Table 1 was found.

No significant environmental impacts affecting threatened and endangered plant species will arise from construction or operation of the facility, as these species are absent from the facility site and study area. Potential impacts that could affect the remaining fifteen plants and two mosses in Table 1 are identical to the impacts described as potentially affecting wildlife habitat, above.

Significant Potential Environmental Impacts Affecting Threatened and Endangered Animal Species

Federal and/or Oregon listed threatened and endangered animal species include the Canada lynx, gray wolf, grizzly bear, Washington ground squirrel, bald eagle and steelhead (Table 1). As described under Significant Potential Environmental Impacts Affecting Wildlife, above, the Canada lynx, gray wolf and grizzly bear do not currently occur within the site boundary or study area. The bald eagle may be a rare visitor to the site. The Washington ground squirrel is currently absent from within the site boundary but occurs within the study area, and the steelhead may occur in Willow Creek, within the study area but outside of the site boundary. Significant potential environmental impacts that could affect threatened and endangered animal species are identical to those described for wildlife in general, above.

¹² Croft, L.K., W.R. Owen and J.S. Shelly (1977). Interior Columbia Basin Ecosystem Management Project Analysis of Vascular Plants. Interior Columbia Basin Ecosystem Management Project, U.S. Forest Service.

¹³ <http://www.appliedeco.org/reports/haplopappus-radiatus-grazing-and-climate-study01final.pdf>

Historical, Cultural and Archaeological Resources

Presumed routes of the Oregon Trail are adjacent to, or pass through, areas within the site boundary of the Saddle Butte Wind Park. These presumed routes have been studied, and Applicant herewith incorporates those findings and recommendations.

Applicant's Application for a Site Certificate will contain an independent cultural resources overview of the site, with particular emphasis on early historic-period homesteads. While this overview will not ignore the possibility of prehistoric resources, Applicant's consultants note that both the absence of water and distance from the Columbia River decrease the likelihood of prehistoric use of the site. Before facility construction, all turbine string, road and other project or construction-related disturbance areas will be surveyed for evidence of archeological and historic resources. All significant resources will be avoided.

Scenic and Aesthetic Areas

The project site is comprised of agricultural land, primarily used for non-irrigated farming. There are few residences in the surrounding vicinity, and most households pursue agricultural activities. Few trees, shrubs or geological features of scenic or aesthetic character are within the site, and the location of turbine strings, roads or other facility components will not result in their removal.

Visual

The primary visual impact of the facility will be from fugitive dust during construction and the presence of wind turbines during operation.

Dust plumes from agricultural cultivation and harvesting are common within the study area, as are plumes caused by traffic on unimproved roads during agricultural activities. During construction, the application of water to disturbed surfaces will control dust emissions. The project's visual impact from dust is expected to be minor and temporary.

The facility's wind turbines will be visible from many locations, and whether they enhance or detract from the esthetic or scenic characteristics of the landscape is a matter of personal taste. Those who find the austere nature of the site's dryland wheat fields appealing may consider wind turbines a modernistic, industrial, intrusion. Others find contemporary wind turbines a graceful addition to the rural landscape and travel to wind power facilities in order to view them.

It is important to acknowledge that the study area includes five, sub-jurisdictional, operating wind facilities (three in Gilliam County and two in Morrow County). These facilities were not imposed from some distant agency...they were approved after local hearings, and their approval subjected, and continues to subject, local commissioners to local public will.

The Blue Mountain Scenic Highway (Oregon Route 74) runs through the study area along the Willow Creek Valley to the east of the facility site. Saddle Butte Wind Park turbines will be visible from the highway, as are those of the operating Willow Creek Wind facility.

Turbines will be visible to the southwest, north, and east of the Bureau of Land Management's (BLM) Oregon Trail Interpretive Center (described below within the "Recreation" heading). To the extent that visitors to the Center, itself located on a paved County road, wish to imagine the Oregon Trail as it might have been, Applicant expects that the sight of facility turbines will be unwelcome. Turbines located in Washington State are already visible from this location.

Earl Snell Memorial Park, located in the City of Arlington, is within the study area. Due to topography and the intervening presence of other, operating wind facilities, Applicant believes that its facility's turbines will not be visible from the Earl Snell Memorial Park. Applicant notes, however, that the City of Arlington is now framed with operating wind turbines, and that Columbia Hills Manor, an Arlington non-profit organized to provide senior living and care in the Arlington area, has incorporated wind turbines into its letterhead.

A visual impact analysis will be included in Applicant's Site Certificate Application.

Noise

Occupied residences are the only sensitive noise receptors in the area surrounding the facility site. While predicted noise level will vary depending on turbine model and final facility layout, the facility will be designed to comply with OAR 340-35-0035. A facility noise analysis will be included in Applicant's Site Certificate Application.

Recreation

The proposed facility is located on privately-owned agricultural property. There are no recreational opportunities within the site itself. The five mile study area is largely characterized by privately-owned land which is posted against trespass. No parks or resorts are located within the study area.

Two parcels of public land, managed by the BLM, are located within the study area. Both of these parcels, the Horne Butte ACEC and the Oregon Trail Interpretive Center, are identified in the map on page G-5.

Access to the Horne Butte ACEC is difficult, and the area is rarely visited by the public. Neither facility construction nor operation will impact public access to the ACEC, and no ACEC land will be disturbed.

The Oregon Trail Interpretive Center is an unmanned kiosk located on Fourmile Road. During facility construction, there will be increased traffic passing by the kiosk and this traffic may distract visitors. No such traffic distraction is anticipated during facility operation; however, the facility's turbines will be visible.

Land Use

The proposed facility and its associated study area are located on land designated by Morrow and Gilliam Counties as Exclusive Farm Use. As discussed below in "Soils," no high-value farmland soils are found within the facility site boundary.

Of the 14,798, acre site, 10,262 acres are cultivated and planted in dryland wheat. During facility construction, crops in some fields will be disturbed; and the permanent facility footprint will eliminate 69 acres from production. The facility layout has been designed to minimize field fragmentation and other potential impacts to farming operations.

Soils

Soil maps and tables may be found in Exhibit G. OAR 660-033-0130(37) requires justification when proposing to site wind facility components on high-value farmland soils.

No high-value farmland soils are located within the facility site boundary. Specifically: No prime, unique, Class I or Class II soils occur within the site boundary; no “specified perennials” are grown within the site boundary; no part of the site is in the Willamette Valley, west of the summit of the Coast Range, or west of U.S. Highway 101; no changes in soil designation have been requested by any landowner; no land within the site boundary is irrigated; no land within the site boundary is within the boundaries of an irrigation district, drainage district, water control district, or diking district; finally, the site boundary contains no land planted in wine grapes, nor is the site located within the Southern Oregon viticultural area, the Umpqua Valley viticultural area, the Willamette Valley viticultural area, the Columbia Gorge viticultural area, the Rogue Valley viticultural area, the Columbia Valley viticultural area, the Walla Walla Valley viticultural area or the Snake River Valley viticultural area.

Table 1: List of significant animals and plants

Common Name	Scientific Name	Federal Status ¹	State Status ¹	Heritage List ¹
Mammals				
Black-tailed jackrabbit	<i>Lepus californicus</i>			4
Canada lynx	<i>Lynx canadensis</i>	T		2
Desert bighorn sheep	<i>Ovis canadensis</i>			4
Gray wolf	<i>Canis lupis</i>	E	E	2
Grizzly bear	<i>Ursus arctos horribilis</i>	T		2-ex
Long-eared myotis bat	<i>Myotis evotis</i>	SoC		4
Pallid bat	<i>Antrozous pallidus pacificus</i>	SoC	S-V	2
Silver-haired bat	<i>Lasionycteris noctivagans</i>	SoC	S-V	4
Spotted bat	<i>Euderma maculatum</i>	SoC	S-V	2
Washington ground squirrel	<i>Spermophilus washingtoni</i>	C	E	1
Western small-footed myotis	<i>Myotis ciliolabrum</i>	SoC		4
White-tailed jackrabbit	<i>Lepus townsendii</i>		S-V	3
Yuma myotis bat	<i>Myotis yumanensis</i>	SoC		4
Birds				
American peregrine falcon	<i>Falco peregrinus anatum</i>		S-V	2
Arctic peregrin falcon	<i>Falco peregrinus tundris</i>		S-V	not listed
Bald eagle	<i>Haliaeetus leucocephalus</i>		T	4
Barrow's goldeneye	<i>Bucephala islandica</i>			4
Black-throated sparrow	<i>Amphispiza bilineata</i>			4
Bufflehead	<i>Bucephala albeola</i>			2
Columbian sharp-tailed grouse	<i>Tympanuchus phasianellus columbiamus</i>		S-C	2
Common nighthawk	<i>Chordeiles minor</i>			4
Ferruginous hawk	<i>Buteo regalis</i>	SoC	S-C	4
Forster's tern	<i>Sterna forsteri</i>			4
Grasshopper sparrow	<i>Ammodramus savannarum</i>		S-V	2
Greater sage grouse	<i>Centrocercus urophasianus</i>	SoC	S-V	2
Lewis' woodpecker	<i>Melanerpes lewis</i>	SoC	S-C	2

Common Name	Scientific Name	Federal Status¹	State Status¹	Heritage List¹
Loggerhead shrike	<i>Lanius ludovicianis</i>		S-V	4
Long-billed curlew	<i>Numenius americanus</i>		S-V	4
Merlin	<i>Falco columbarius</i>			2-ex
Mountain quail	<i>Oreortyx pictus</i>	SoC		4
Northern goshawk	<i>Accipiter gentilis</i>	SoC	S-V	4
Sage sparrow	<i>Amphispiza belli</i>		S-C	4
Swainson's hawk	<i>Buteo swainsoni</i>		S-V	4
Western bluebird	<i>Sialia mexicana</i>			4
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	SoC	S-C	4
Western meadowlark	<i>Sturnella neglecta</i>			4
Willow flycatcher	<i>Empidonax traillii</i>	SoC	S-V	4
Yellow-breasted chat	<i>Icteria virens</i>	SoC		4
Reptiles / Amphibians				
Northern leopard frog	<i>Rana pipiens</i>		S-C	2
Northern sagebrush lizard	<i>Sceloporus graciosus graciosus</i>	SoC	S-V	4
Painted turtle	<i>Chrysemys picta</i>		S-C	2
Western toad	<i>Bufo boreas</i>		S-V	4
Woodhouse's toad	<i>Bufo woodhousii</i>			2
Fish				
Inland Columbia redband trout	<i>Oncorhynchus mykiss gairdneri</i>		S-V	4
Margined sculpin	<i>Cottus marginatus</i>	SoC		4
Pacific lamprey	<i>Lampetra tridentata</i>	SoC	S-V	4
Steelhead	<i>Oncorhynchus mykiss</i>	T	S-C	1
Western brook lamprey	<i>Lampetra richardsoni</i>		S-V	4
Insects				
Columbia River tiger beetle	<i>Ciindela columbica</i>			1-ex
Lynn's clubtail dragonfly	<i>Gomphus lynnae</i>	SoC		3
Three-banded juga	<i>Juga sp. 7</i>			1
Plants				
Columbia bladderpod	<i>Lesquerella douglasii</i>			3

Common Name	Scientific Name	Federal Status ¹	State Status ¹	Heritage List ¹
Columbia milk-vetch	<i>Astragalus succumbens</i>			4
Creamy stickseed	<i>Hackelia diffusa</i> var. <i>cottonii</i>			4
Disappearing monkeyflower	<i>Mimulus evanescens</i>	SoC	C	1
Dotted smartweed	<i>Polygonum punctatum</i>			3
Dwarf evening primrose	<i>Camissonia pygmaea</i>	SoC	C	1
Gray cryptantha	<i>Cryptantha leucophaea</i>			2-ex
Hepatic monkeyflower	<i>Mimulus jungermannoides</i>		C	4
Laurence's milk-vetch	<i>Astragalus collinus</i> var. <i>laurentii</i>	SoC	T	1
Porcupine sedge	<i>Carex hystericina</i>			4
Robinson's onion	<i>Allium robinsonii</i>	SoC		2-ex
Salt heliotrope	<i>Heliotropium curassavicum</i>			2
Sessile mousetail	<i>Myosurus sessilis</i>	SoC	C	1
Snake River goldenweed	<i>Pyrrcoma radiata</i>	SoC		1
Stalked-pod milk-vetch	<i>Astragalus sclerocarpus</i>			3
Watson's desert-parsley	<i>Lomatium watsonii</i>			2
Mosses				
Moss	<i>Aloina bifrons</i>			2
Moss	<i>Bryoerythrophyllum columbianum</i>			2

1. **E:** listed as endangered
- T:** listed as threatened
- C:** candidate for listing as threatened or endangered
- SoC:** federal species of concern
- S-C:** Oregon sensitive species – critical
- S-V:** Oregon sensitive species – vulnerable
- 1:** ORNHIC listed as threatened with extinction or presumed to be extinct
- 2:** ORNHIC listed as threatened with extirpation or presumed to be extirpated from Oregon
- 3:** ORNHIC listed as species for which more information is needed, but may be threatened or endangered
- 4:** ORNHIC listed as a species of conservation concern
- ex:** ORNHIC assessed as extirpated in Oregon

Table 2: Saddle Butte Wind Park site use by sensitive avian species

Species	Fall				Spring			
	SBWP		SFS ¹		SBWP		SFS	
	Use ²	FREQ ³	Use	Freq	Use	Freq	Use	Freq
Ferruginous hawk	0.000	0.0%	0.000	0.0%	0.018	1.8%	0.042	4.2%
Loggerhead shrike	0.014	1.4%	0.013	0.6%	0.006	0.6%	0.042	4.2%
Long-billed curlew	0.000	0.0%	0.000	0.0%	0.094	5.8%	0.125	9.7%
Merlin	0.000	0.0%	0.019	1.3%	0.006	0.6%	0.014	1.4%
Swainson's hawk	0.000	0.0%	0.369	10.6%	0.164	13.5%	0.194	13.9%
Western meadowlark	0.157	11.4%	0.181	9.4%	0.058	5.3%	0.556	41.7%

1. SFS: The southern portion of the Shepherds Flat Wind Farm

2. Use: mean number of group members observed per survey

3. Freq: percent of surveys in which a member of the group was observed

Table 3: Raptor use rates in regional wind facilities¹⁴

Project	Spring Use	Fall Use
Saddle Butte (OR)	0.444	0.400
Shepherds Flat (OR)	0.444	0.553
Nine Canyon (WA)	0.354	0.156
Zintel Canyon (WA)	0.194	0.700
Stateline/Vansycle (OR/WA)	0.524	0.260
Condon (OR)	0.528	0.293
Klondike I (OR)	0.468	0.386
Average	0.422	0.393

¹⁴ Data other than that for Saddle Butte and Shepherds Flat taken from Erickson W., G. Johnson, D. Young, D. Strickland, R. Good, M. Bourassa, K. Bay and K. Sternka (2002). *Synthesis and Comparison of Baseline Avian and Bat Use, Raptor Nesting and Mortality Information from Proposed and Existing Wind Developments*, prepared for Bonneville Power Administration.

Table 4: Disturbance impacts for individual habitat categories and subtypes

Category and subtype	Site total (acres)	Typical disturbance (acres)	
		Permanent	Temporary
1 Raptor nest	0.017	0.000	0.000
1 Wetland	0.034	0.000	0.000
2 Grassland	1167.091	1.875	7.787
2 Raptor nest	0.181	0.000	0.000
2 Rock and sand	4.509	0.183	0.375
2 Shrub steppe – sage	641.553	4.313	12.010
3 Grassland	2064.598	15.745	40.809
3 Shrub steppe – rabbitbrush	595.318	3.477	12.718
6 Dryland wheat	10243.140	68.399	202.694
6 Road and parking	46.208	0.000	0.000
6 Structures	35.827	0.353	4.513
Total	14798.476	94.345	280.906

EXHIBIT K COMMUNITY IMPACTS

Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of communities in the study area to provide the services listed in OAR 345-022-0110.

Community Services

The study area is largely rural and includes the Oregon communities of Arlington and Ione, as well as Roosevelt, Washington.

Roosevelt is across the Columbia River from the proposed facility. The closest bridge, at Biggs, is approximately 40 miles from the facility, making the round trip to Roosevelt approximately 75 miles. The proposed facility is expected to have no impact on Roosevelt.

Utilities

Facility electricity, water, sewage, waste management, and telephone services will be largely self-provided during both construction and operation of the proposed facility. No adverse impact to Arlington's or Ione's ability to provide utility services is expected.

Sewers and Sewage Treatment

The Public Works Department of the City of Arlington provides sewers and sewage treatment to the establishments and residents of the City. The Saddle Butte Wind Park is not located within the City and the facility will require neither sewers nor sewage treatment services from the Arlington Public Works Department.

Applicant believes that the only potential for adverse impacts to the Public Works Department would arise in the case of a significant increase in the population of Arlington. During construction, the maximum resident and transient (less than one week) population increase is expected to be 250 people with no attendant families, and (due to project proximity and the availability of motels) most are expected to lodge in the cities of Arlington and Boardman (which is outside the study area). These two cities contain sufficient temporarily lodging facilities, for which sewers and sewage treatment is already provided. Therefore, Applicant believes that it is unlikely that there will be any adverse impact to any providers of sewers and sewage treatment during construction of the proposed facility.

During operation, the facility will employ approximately 25 people. Applicant expects that some of these employees already reside in the study area. Applicant believes that it is likely that those recruited from outside the area will settle throughout the study area, rather than in Arlington or Ione alone. Applicant also believes that the majority of those settling in either Arlington or Ione will purchase or rent from existing housing stocks, for which sewers and sewage treatment is already provided. Therefore, Applicant believes that it is unlikely that there will be any adverse impact to sewage treatment services.

Water

The Public Works Department of the City of Arlington provides water to the establishments and residents of the City. The Saddle Butte Wind Park is not located within the City and the facility will not receive water service from the Arlington Public Works Department.

Applicant believes that the only potential for adverse impacts to the Public Works Department would arise in the case of a significant increase in the population of Arlington. As discussed above, a significant population increase is unlikely, and therefore, it is unlikely that there will be any adverse impact to water services during construction or operation of the proposed facility.

Storm Water Drainage

The Public Works Department of the City of Arlington provides storm water drainage to the establishments and residents of the City. The Saddle Butte Wind Park is not located within the City and the facility will not receive storm water drainage service from the Arlington Public Works Department.

Applicant believes that the only potential for adverse impacts to would arise in the case of a significant increase in the population of Arlington. As discussed above, a significant population increase is unlikely, and therefore, it is unlikely that there will be any adverse impact to storm water drainage services during construction or operation of the proposed facility.

Solid Waste Management

Solid waste management services are provided for the establishments and residents of the City of Arlington. The Saddle Butte Wind Farm is not located within the City and the facility will not receive solid waste management services from the City.

Applicant believes that the only potential for adverse impacts to providers of solid waste management services would arise in the case of a significant increase in the population of Arlington. As discussed above, a significant population increase is unlikely, and therefore, it is unlikely that there will be any adverse impact to solid waste management services during construction or operation of the proposed facility.

Housing

Housing stocks (both temporary and permanent) within the project area are:

<u>City/County</u>	<u>Units*</u>	<u>Vacancy Rate*</u>
City of Arlington, OR	278	18.0%
City of Condon, OR	422	15.4%
Gilliam County, OR	1,043	21.5%
City of Boardman, OR	948	9.2%
City Of Ione, OR	139	10.1%

<u>City/County</u>	<u>Units*</u>	<u>Vacancy Rate*</u>
City of Lexington, OR	114	5.3%
Morrow County, OR	4,276	11.7%

* US Census Bureau, 2000

During construction, the maximum resident and transient (less than one week) population increase is expected to be 250 people with no attendant families, and (due to project proximity and motel density) most are expected to lodge in the cities of Arlington and Boardman (which is outside the study area). The two cities contain sufficient temporarily lodging facilities, however Applicant believes that there may be a short-term impact on the availability and price of temporary housing (rentals, motels and RV parks).

Arlington, in particular, has been at the center of wind facility construction for the past several years and has accommodated construction personnel for similar sized facilities.

During operation, the facility will employ approximately 25 people. Applicant expects that some of these employees already reside in the analysis area. Applicant believes that it is likely that those recruited from outside the area will settle throughout the study area, and that the majority of those resettling will purchase or rent from existing housing stocks which are sufficient. Therefore, Applicant believes that it is unlikely that there will be any adverse impact on housing stocks.

Traffic Safety

The proposed facility is located in Gilliam and Morrow Counties, and is served by and crossed by roads maintained by the Gilliam and Morrow County Road Departments. Applicant expects that during facility construction, these county roads (Fourmile Canyon Road, Palmateer Lane, McNab Lane) will be used heavily by construction, delivery and personal vehicles. However, these roads receive very little regular traffic (two or three vehicles per day). Applicant therefore believes it is unlikely that there will be any adverse impact to the ability of the Gilliam and Morrow County Road Departments to provide for traffic safety during construction of the proposed facility. For the same reason, Applicant believes it is unlikely that there will be any adverse impact on the ability of the Gilliam and Morrow County Road Departments to provide for traffic safety during operation of the proposed facility.

Applicant believes that most facility components will be delivered to the project area via Interstate 84, and that most vehicles will exit I-84 at the City of Arlington. Arlington will experience increased traffic throughout the construction period, and will experience traffic disruption during the delivery of heavy equipment, cranes, tower sections, nacelles and blades.

Applicant will mitigate against any adverse impact to the ability of the City of Arlington Road Department to provide for traffic safety during facility construction by:

- Notifying the Road Department and County Sheriff in advance of disruptive deliveries;
- Notifying City residents in advance of disruptive deliveries; and
- Employing flaggers at all affected intersections.

Applicant expects no significant increase in traffic in the City of Arlington during facility operation, and therefore believes it is unlikely that there will be any adverse impact on the ability of the City of Arlington Road Department to provide for traffic safety during operation of the proposed facility.

Police and Fire Protection

Police

The proposed facility lies within the service areas of the Gilliam and Morrow County Sheriff Departments. Impacts to the departments during construction might include:

- An increase in traffic violations
- An increase in after-hours rowdiness
- Thefts and/or vandalism at the construction site

Applicant will mitigate against any adverse impact to the ability of the Gilliam and Morrow County Sheriff Departments to provide for police protection during facility construction by:

- Including good-citizen/no-tolerance language in its contractors and subcontractors agreements; and
- Employing private site-security as appropriate

During operation, the possibility of thefts and or vandalism will persist at the facility site. Applicant will mitigate against any adverse impact to the ability of the Gilliam and Morrow County Sheriff Departments to provide for police protection during facility operation by employing private site-security as appropriate.

Therefore, no significant adverse impacts to police protection services is anticipated.

Fire Protection

The proposed facility lies within the North Gilliam County Rural Fire Protection District and the Morrow County Rural Fire District.

Wildfires are of great concern in the general project area. These fires are generally controlled by creating bare-ground fire breaks as water supplies and tankers are limited. Applicant believes that during facility construction and operation the abilities of the North Gilliam County Rural Fire Protection District and the Morrow County Rural Fire District to provide fire protection services will be enhanced for the following reasons:

- Establishment of project roads that serve as fire-breaks
- Presence of additional fire-fighting personnel
- Presence of earthmoving equipment
- Presence of water trucks
- Installation of a 20,000 water tank

No adverse impact to fire protection services during facility construction or operation is anticipated.

Health Care

No health care services providers are located within the study area. Pioneer Memorial Hospital in Heppner is a 60 minute drive from Arlington, the Moro Medical Clinic is a 52 minute drive, and the Umatilla Medical Clinic a 51 minute drive. Residents of the area surrounding the proposed project often receive health care services in Portland (2 hours 14 minutes), The Dalles (55 minutes), and the Washington Tri-Cities (1 hour 21 minutes).

Because no significant population increase is predicted during facility construction or operation (discussed above), and because health care services are secured from throughout the larger region, no adverse impacts to health care services providers is anticipated during facility construction or operation.

Schools

Personnel employed during the construction of facility are not likely to relocate with school-age children. Therefore, no adverse impact to school services in either Arlington or Ione is anticipated during facility construction.

Applicant believes that those operating personnel recruited from outside the region will settle throughout both Gilliam and Morrow Counties. Because no significant increase in population is expected (discussed above) Applicant does not believe that facility operation will adversely impact the ability of any school services providers to provide school services. To the contrary, the schools in both Arlington and Ione are threatened by declining enrollment (and therefore funds). Additional school-age children will benefit the local schools.

EXHIBIT L
WATER REQUIREMENTS

Information about anticipated water use during construction and operation of the proposed facility, including:

(A) A description of each source of water and the applicant's estimate of the amount of water the facility will need from each source;

(B) If a new water right is required, the approximate location of the points of diversion and the estimated quantity of water to be taken at each point;

(C) For operation, the source of cooling water and the estimated consumptive use of cooling water, based on annual average conditions.

Anticipated Water Use

During construction approximately 38 million gallons of water will be required for road construction, concrete, and dust suppression:

<i>Water Use (gallons)</i>	
Roads and dust suppression	34,200,000
Foundations (maximum size)	<u>3,420,000</u>
Construction water use	37,620,000

Water will be supplied from an identified off-site well with appropriate short-term commercial water rights.

Water use during operation will be limited to the sanitary facilities and other incidental uses at the field workshop. No blade washing is anticipated.

Applicant proposes establishing a new well at the workshop site. Applicant's experience at similar facilities shows that 20 gallons per day per employee will be required, an amount equaling 500 gallons per day.

Applicant also proposes a 20,000 gallon water tank for the field workshop, to be used for fire fighting and as a backup for the well. This tank can be filled without exceeding water usage of 5,000 gallons per day.

Applicant confirms that water use will not exceed 5,000 gallons per day during facility operation and therefore no new water right is needed.

No cooling water is required.

EXHIBIT M
CARBON DIOXIDE EMISSIONS

If the proposed facility would emit carbon dioxide, an estimate of the gross rate of carbon dioxide emissions, a table listing all the factors that form the basis for calculating the estimate, and a statement of the means by which the applicant intends to comply with the applicable carbon dioxide emissions standard under OAR 345-024-560, OAR 345-024-600, or OAR 345-024-630.

The proposed facility will not emit carbon dioxide; therefore, the provisions of this section are not applicable.

**EXHIBIT N
OTHER APPLICABLE LAWS**

Identification, by legal citation, of all state statutes and administrative rules and local government ordinances containing standards or criteria that the proposed facility must meet for the Council to issue a site certificate, other than statutes, rules and ordinances identified in Exhibit E, and identification of the agencies administering those statutes, administrative rules and ordinances. The applicant shall analyze and describe any problems the applicant foresees in satisfying the requirements of any such statute, rule or ordinance.

NOISE

LEGAL CITATION

AGENCY

OAR 340-35-0035
OAR 340-035-0110

Energy Facility Siting Council
Oregon Department of Energy
625 Marion Street, NE
Salem, OR 97301

Facility components will be sited to satisfy the requirements of the noise rule. Applicant foresees no impediment to satisfying the requirements.

FISH AND WILDLIFE HABITAT MITIGATION

LEGAL CITATION

AGENCY

OAR 635-415-0000

Oregon Department of Fish & Wildlife
3406 Cherry Avenue NE
Salem, OR 97303

The majority of the habit impact of the proposed facility is to cultivated land (Category 6). Applicant foresees no impediment to mitigating for habitat impacts.

STATEWIDE PLANNING GOALS

LEGAL CITATION

AGENCY

Goal 3

Energy Facility Siting Council
Oregon Department of Energy
625 Marion Street, NE
Salem, OR 97301

Because the facility will preclude more than 20 acres from use as a commercial agricultural enterprise, an exception to Goal 3 is required. Applicant foresees no impediment to justifying a Goal 3 exception.

HIGH VALUE FARMLAND

LEGAL CITATION	AGENCY
OAR 660-033-0130(37)	Energy Facility Siting Council Oregon Department of Energy 625 Marion Street, NE Salem, OR 97301

No components of the facility will be sited on high value farmland. Therefore, the restrictions set forth in this rule do not apply.

GILLIAM COUNTY ORDINANCES

LEGAL CITATION	AGENCY
GCZO Article 4 GCZO Article 7	Gilliam County Planning Department PO Box 427 Condon, OR 97823

These Gilliam County ordinances provide the substantive criteria for compliance with land use restrictions. Save for the need for a Goal 3 exception (listed above), Applicant foresees no impediment to satisfying these substantive criteria.

MORROW COUNTY ORDINANCES

LEGAL CITATION	AGENCY
MCZO Article 3 MCZO Article 6	Morrow County Planning Department PO Box 40 Irrigon, OR 97844

These Morrow County ordinances provide the substantive criteria for compliance with land use restrictions. Save for the need for a Goal 3 exception (listed above), Applicant foresees no impediment to satisfying these substantive criteria.

MORROW COUNTY COMPREHENSIVE PLAN

LEGAL CITATION	AGENCY
Agricultural Policies 1 and 4 Energy Conservation Policies 3, 9 and 10	Morrow County Planning Department PO Box 40 Irrigon, OR 97844

These sections of the Morrow County Plan provide substantive criteria for compliance with land use restrictions. Save for the need for a Goal 3 exception (listed above), Applicant foresees no impediment to satisfying these substantive criteria.

EXHIBIT O
SITE CERTIFICATION SCHEDULE

A schedule stating when the applicant expects to submit an application for a site certificate.

Proposed Schedule

Notice of Intent	August 4, 2009
Project Order	November 1, 2009
Application for a Site Certificate	December 1, 2009