

EXHIBIT J

WETLANDS

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

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APPENDIX

J-1 WETLAND DELINEATION	
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J.1 INTRODUCTION

OAR 345-021-0010(1)(j) *Information based on literature and field study, as appropriate, about significant potential impacts of the proposed facility on wetlands that are within state jurisdiction under ORS Chapter 196, including:*

Response: A wetland delineation was conducted that included a review of background resources as well as an on-site investigation (Appendix J-1). The wetland delineation covered the area occupied by a 50-foot buffer around the project site boundary. This area constitutes the wetland analysis area. Wetlands and other waters of the state identified within the wetland analysis area were overlain with proposed project features to determine the potential for project impacts. Results of this analysis are provided below.

J.2 EFFECT ON WATERS OF THE STATE AND WETLANDS DELINEATION REPORT

OAR-345-021-0010(1)(j)(A) *A determination, as defined in OAR 141-090-0020, of whether construction or operation of the proposed facility would affect any waters of the state, including wetlands, and, if so, a wetland delineation report, as defined in OAR 141-090-0020, describing how those waters would be affected;*

Response: Based on the wetland delineation results, no impacts to wetlands and other waters of the state are anticipated as a result of the proposed project. Three locations within the site boundary were noted as having wetlands or other waters of the state; however, potential impacts will be avoided through appropriate siting and construction techniques. All three locations are associated with a discontinuous ephemeral or intermittent drainage that runs from west to east within the vicinity of Klondike Lane, eventually running underneath Klondike Lane via a bridge crossing near the locale of Webfoot.

Two of the potential impact locations occur where the underground collector system will cross the drainage channel discussed above. Impacts will be avoided by boring under the channel. The third potential impact location occurs where the aboveground collector line crosses the drainage channel and an associated wetland. This impact will be avoided by siting the collector line towers outside of the drainage channel and wetland.

A wetland delineation was conducted for the proposed project and is provided in Appendix J-1.

J.3 MAP OF WETLANDS UNDER STATE JURISDICTION

OAR-345-021-0010 (1)(j)(B) *A wetland map, as defined in OAR 141-090-0020, showing the location of any wetlands under state jurisdiction on or near the site and the source of the water for the wetlands, including any wetlands identified in the Statewide Wetland Inventory of the Division of State Lands;*

Response: A wetland delineation was conducted for the proposed project and is provided in Appendix J-1. The report includes a map of wetlands and other waters of the state mapped within the wetland analysis area.

J.4 DESCRIPTION OF EACH WETLAND IDENTIFIED

OAR 345-021-0010(1)(j)(C) *A description of each wetland identified in (A);*

Response: The wetland delineation resulted in the identification of one wetland and one other water of the State as occurring within the wetland analysis area. These features are described below. The wetland delineation, with accompanying data sheets for each wetland or upland data plot, is attached as Appendix J-1.

J.4.1 Other Water of the State

One drainage feature (water of the state) was identified within the wetland analysis area. This feature runs from west to east within the vicinity of Klondike Lane, eventually running underneath Klondike Lane via a bridge crossing near the locale of Webfoot. This feature flows either intermittently (i.e. for only a portion of the year) or ephemerally (i.e. only once every several years) and eventually drains to the Grass Valley drainage. No water was observed in the channel during the site visits, with the exception of some entering the channel just downgradient of the Klondike Lane bridge near Webfoot. This flow was observed to be coming from piped inputs from an adjacent residential property. Overall, the drainage feature contained a discontinuous, defined to poorly defined channel, with some sections having been eliminated as a result of agricultural activities. Invasive upland herbaceous species cover up to 55 percent of the channel bottom, with bare rock or soil covering the remainder.

J.4.2 Wetland

The delineated wetland is an emergent wetland located in a depressional area adjacent to the drainage channel discussed above. The Cowardin wetland class is palustrine emergent, seasonally saturated (PEMY); the hydrogeomorphic class is riverine flow-through. The plant community was comprised of both hydrophytic and non-hydrophytic herbaceous species, with hydrophytic species dominating. Dominant species included basin wildrye (*Elymus cinereus*) and bedstraw (*Galium aparine*). Signs of wetland hydrology included wetland drainage patterns and water stained vegetation.

J.5 SIGNIFICANT POTENTIAL IMPACTS TO WETLANDS

OAR 345-021-0010(1)(j)(D) *A description of significant potential impact to each wetland, if any, including the nature and amount of material the applicant would remove from or place in each wetland and the specific locations where the applicant would remove or fill that material;*

Response: No impacts to wetlands or other waters of the state will occur as a result of the proposed project. As described in Section J.2, siting and appropriate construction techniques eliminate all potential impacts.

J.6 EVIDENCE THAT FILL AND REMOVAL PERMITS CAN BE ISSUED

OAR 345-021-0010(1)(j)(E) *Evidence that all required fill and removal permits of the Oregon Division of State Lands can be issued to the proposed facility in compliance with ORS 196.800 et seq., including:*

- (i) *A discussion and evaluation of the factors listed in ORS 196.825 and OAR chapter 141 division 85; and*

Response: The project will not result in impacts (i.e. removal or fill) to wetlands and other waters of the State. Therefore, a fill and removal permit is not needed from the Oregon Department of State Lands.

- (ii) *A description of the steps the applicant proposes to mitigate impacts to wetlands;*

Response: Mitigation is not warranted or proposed because no impact to wetlands or other waters of the State will result from the proposed project.

J.7 MONITORING PROGRAM, IF ANY, FOR IMPACTS TO WETLANDS

OAR 345-021-0010(1)(j)(F) *The applicant's proposed monitoring program, if any, for impacts to wetlands.*

Response: Monitoring is not warranted or proposed because no impact to wetlands or other waters of the State will result from the proposed project.

APPENDIX J-1

Wetland Delineation

Wetland Delineation Report

Klondike III Wind Project

Prepared for:

Klondike Wind Power III LLC

Prepared by:

David Evans and Associates, Inc.

March 2005

Wetland Delineation Report

Klondike III Wind Project

Prepared for:

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March 2005

PREFACE

David Evans and Associates, Inc. (DEA) prepared this wetland delineation report for Klondike Wind Power III, LLC. The findings of this report are based upon information gathered during the field investigation and upon DEA's understanding of state and federal law relating to the regulation of wetland areas. DEA staff used the *U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual* (Environmental Laboratory 1987) in completing the wetland delineation.

The wetland boundaries and classifications described in this document represent the best professional judgment of DEA staff. The decisions were based on the circumstances and site conditions at the time of the field investigation. Final verification of this wetland delineation is to be made as part of the Oregon Energy Facility Siting Council process.

This report documents the investigation, best professional judgment and conclusions of the investigator. It should be considered a Preliminary Jurisdictional Determination until it has been reviewed and approved by the Oregon Energy Facility Siting Council as part of the energy facility siting process.

EXECUTIVE SUMMARY

David Evans and Associates, Inc. (DEA) conducted a wetland delineation on January 25 and 26, 2005 for the Klondike III Wind Power Project being pursued by Klondike Wind Power III LLC (Klondike III). The Klondike III project site is located in rural, northeast Sherman County (Figure 1). It is roughly one mile west of the John Day River, at its closest, approximately three miles south of the Columbia River, and twelve miles east of the Deschutes River. Grass Valley, which contains an intermittent tributary to the John Day River, extends along the southern edge of the project site. The project site is located approximately four miles east of Wasco, Oregon.

Wetland delineation results found that, in general, the wetland analysis area consists almost entirely of upland areas under agricultural production, and to a lesser extent, upland plant communities. Only one drainage feature, containing both a wetland and other waters of the state and U.S., was identified. This feature runs from west to east within the vicinity of Klondike Lane, eventually running underneath Klondike Lane via a bridge crossing near the town of Webfoot. This feature appears to flow intermittently and eventually drains to the Grass Valley drainage.

Topography within the project vicinity is typified by gently rolling to level ground located along a high plateau. Areas of steep slopes are confined to portions of the northeast and southern margins of the project vicinity. These areas drop rapidly from the high and relatively level plateau down to the Grass Valley and several unnamed intermittent tributaries of the John Day River. Elevations along the plateau, within the project vicinity, range between approximately 1,250 feet to 1,500 feet. Elevations within the project vicinity drop to roughly 1,000 feet in portions of the Grass Valley.

The vast majority of the project site is under dry land wheat production. Very little acreage of native plant communities remain within the project site, occurring predominantly along the plateau margins and steep side slopes of Grass Valley. These communities consist of sagebrush (*Artemisia tridentata*) and rabbit brush (*Chrysothamnus* sp.), dominated shrublands and native bunchgrass grasslands, each with varying degrees of invasive species present. Agricultural areas that are enrolled under the Conservation Reserve Program (CRP) are located throughout the project site, occurring as narrow strips in previously plowed drainageways, and as large blocks in other areas. CRP areas have been planted with a mix of native and non-native bunch grasses with the primary intent of increasing wildlife habitat in the area.

Wetland areas were delineated according to the Level 2 Routine On-Site Method described in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). This method requires an area to possess a prevalence of hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances, positive indicators of each of these three parameters must be

present for an area to satisfy the criteria for jurisdictional wetlands. Areas of relatively low disturbance, such as CRP areas, were considered to have normal circumstances. In instances where a site has been substantially disturbed and one or more parameter is not measurable, then the wetland delineation may rely solely on the remaining measurable parameter(s). Such circumstances are referred to as atypical situations. Areas within the wetland analysis area consisting of cultivated wheat were considered to be atypical situations. In these instances, only soil conditions and wetland hydrology indicators were used to determine if an area should be classified as a jurisdictional wetland.

Wetlands or other waters of the U.S. are under the jurisdiction of either the U.S. Army Corps of Engineers (USACE) or the Oregon Department of State Lands (DSL). These agencies authorize permits involving removal and fill activities in jurisdictional wetlands. DSL requires a Removal/Fill Permit when the total removal or fill in a water of the state, including wetlands, is equal to or exceeds 50 cubic yards. In essential salmonid habitat (ESH), a permit is required for any fill amount. No areas within the wetland analysis area are mapped as essential salmonid habitat by DSL.

USACE administers Section 404 of the Clean Water Act, which regulates the discharge of fill materials into waters of the U.S., including wetlands. USACE issues Nationwide or Individual permits depending on the amount of impact to wetland resources and the purpose for which the discharge of fill materials is proposed.

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1 INTRODUCTION

David Evans and Associates, Inc. (DEA) conducted a wetland delineation on January 25 and 26, 2005 for the Klondike III Wind Power Project being pursued by Klondike Wind Power III LLC (Klondike III). The Klondike III project site is located in rural, northeast Sherman County (Figure 1). It is roughly one mile west of the John Day River, at its closest, approximately three miles south of the Columbia River, and twelve miles east of the Deschutes River. Grass Valley, which contains an intermittent tributary to the John Day River, extends along the southern edge of the project site. The project site is located approximately four miles east of Wasco, Oregon, in the following Township, Range, and Sections:

- Township 1 North, Range 17 East, Sections 13, and 23 through 26
- Township 1 North, Range 18 East, Sections 1 through 5, 7 through 24, and 28 through 30
- Township 1 North, Range 19 East, Sections 6 through 8, and 17
- Township 2 North, Range 18 East, Sections 27 through 29, and 32 through 36

The purpose of this delineation is to determine the current presence, location, and size of federal and state jurisdictional wetlands and other “waters of the U.S.” Once verified by the appropriate agencies, this wetland delineation will allow Klondike III to accurately understand specific impacts to waters of the U.S. and/or waters of the state, including wetlands associated with the proposed project.

2 PROJECT DESCRIPTION

Klondike III proposes to construct an approximately 273 megawatt (MW) wind generation project in Sherman County, Oregon (Figure 2). The proposed project is located on lands adjacent to the Klondike I (24 MW) and Klondike II (75 MW) wind generating projects. The project is expected to provide up to 273 MW of capacity and approximately 91 average megawatts (aMW) of energy. The project will be constructed on privately owned land and will be connected to the regional transmission grid at Bonneville Power Administration’s (BPA) Klondike Schoolhouse Substation.

All project facilities will be located on private agricultural land upon which the applicant has negotiated long-term wind energy leases with the landowners. The wind energy leases allow for the applicant to permit, construct, and operate wind energy facilities for a defined period. In exchange, the landowners receive compensation from the applicant. The terms of the wind energy lease allow landowners to continue their farming operations in and around the wind turbine

generators and other facilities where farming activities would not impact the operation and maintenance of the wind generation equipment.

It is anticipated that project construction will begin in the second quarter of 2006 with a completion of construction by the fourth quarter of 2006. It is expected that commissioning and commercial operation of the facility will be complete by the end of December 2006.

Additional substation equipment will be constructed to accommodate and step up the additional power entering the grid. The facilities will conform to all applicable Oregon and BPA regulations and standards, as required.

3 SITE BOUNDARY AND WETLAND ANALYSIS AREA

3.1 SITE BOUNDARY

The “site boundary” for the Proposed Klondike III Wind Power Project includes all areas of proposed permanent and temporary construction and other ground disturbing activities that would result from the project (Figure 2). The site boundary was derived using the following protocols:

- 30 foot buffer on each side of the centerline for the following project elements: proposed new roads, existing roads requiring upgrade, underground collector system (within road prism and not within road prism), and aboveground collector line.
- 150 foot buffer around the center point of all turbine towers.
- Actual footprint (i.e. no buffer) of all proposed laydown areas, new substations, and habitat mitigation areas.

3.2 WETLAND ANALYSIS AREA

The wetland analysis area was derived from the site boundary. The wetland analysis area consists of the area enclosed by a 50-foot buffer around the site boundary, including the area inside the site boundary itself (Figure 2). This wetland delineation covers all of the area within the wetland analysis area.

4 SITE DESCRIPTION

Located on the eastern side of the Cascade Mountains, the project site predominantly exhibits the continental climate of the Intermountain Region – extreme temperatures and low rainfall (Orr, et al., 1992). However, the Columbia River Gorge provides a passageway for the normal eastward migration of ocean-conditioned air masses from the Pacific. These currents usually lead to shorter hot or cool periods than those typical of the Intermountain Region. For the period 1971 to 2000, mean minimum

and maximum temperatures for the month of January, the coldest month of the year, were 24.7°F and 38.3°F respectively (Oregon Climate Center 2005). For the month of August, the warmest month of the year, mean minimum and maximum temperatures were 52.6°F and 81.8°F respectively. However, temperature extremes are known to range from -16°F to 106°F. Most of the annual rainfall in Sherman County occurs between November and February, reflecting the strong influence of marine air masses entering from the Pacific Ocean. Mean monthly rainfall (measured 1971 – 2000 at Moro, Oregon) ranges from 0.31 inches in July to 1.57 inches in January. Between 1910 and 1995, mean total annual precipitation was 11.76 inches in Wasco, Oregon.

Sherman County is on the Deschutes-Columbia Plateau, a lava-floored plain that has experienced uplifting. This is predominantly a volcanic province sloping gently northward to the Columbia River. Topography within the project site is typified by gently rolling to level ground located along the high plateau. Areas of steep slopes are confined to portions of the northeast and southern margins of the project site and vicinity. These areas drop rapidly from the high and relatively level plateau down to the Grass Valley and several unnamed intermittent tributaries of the John Day River. Elevations along the plateau, within the project area, range between approximately 1,250 feet to 1,500 feet. Elevations within the project vicinity drop to roughly 1,000 feet in portions of Grass Valley.

The vast majority of the project site is under dry land wheat production. Very little acreage of native plant communities remain, occurring predominantly along the plateau margins and steep side slopes of the Grass Valley. These communities consist of sagebrush (*Artemisia tridentata*) and rabbit brush (*Chrysothamnus* sp.), dominated shrublands and native bunchgrass grasslands, each with varying degrees of invasive species present. Agricultural areas that are enrolled under the Conservation Reserve Program (CRP) are located throughout the project site, occurring as narrow strips in previously plowed drainageways, and as large blocks in other areas. CRP areas have been planted with a mix of native and non-native bunch grasses with the primary intent of increasing wildlife habitat in the area.

5 METHODS

5.1 PRELIMINARY RESOURCE REVIEW

Reference materials were reviewed prior to the field investigation to provide information regarding the possible presence of wetlands, water features, hydric soils, wetland hydrology and site topography. The materials reviewed included:

- Precipitation data for Pendleton, Oregon (Oregon Climate Service, 2005)
- Wasco, Oregon, 7.5 minute Quadrangle, U.S. Geological Survey (USGS 1987)
- Klondike, Oregon, 7.5 minute Quadrangle, U.S. Geological Survey (USGS 1971)

- McDonald, Oregon, 7.5 minute Quadrangle, U.S. Geological Survey (USGS 1975)
- Wasco, Oregon, National Wetlands Inventory (NWI) 7.5 minute quadrangle maps, U.S. Fish and Wildlife Service (USFWS 1981)
- Klondike, Oregon, National Wetlands Inventory (NWI) 7.5 minute quadrangle maps, U.S. Fish and Wildlife Service (USFWS 1981)
- McDonald, Oregon, National Wetlands Inventory (NWI) 7.5 minute quadrangle maps, U.S. Fish and Wildlife Service (USFWS 1981)
- On-line Soil Survey of Sherman County Area, Oregon, U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS), (USDA 2005)

5.2 FIELD METHODS

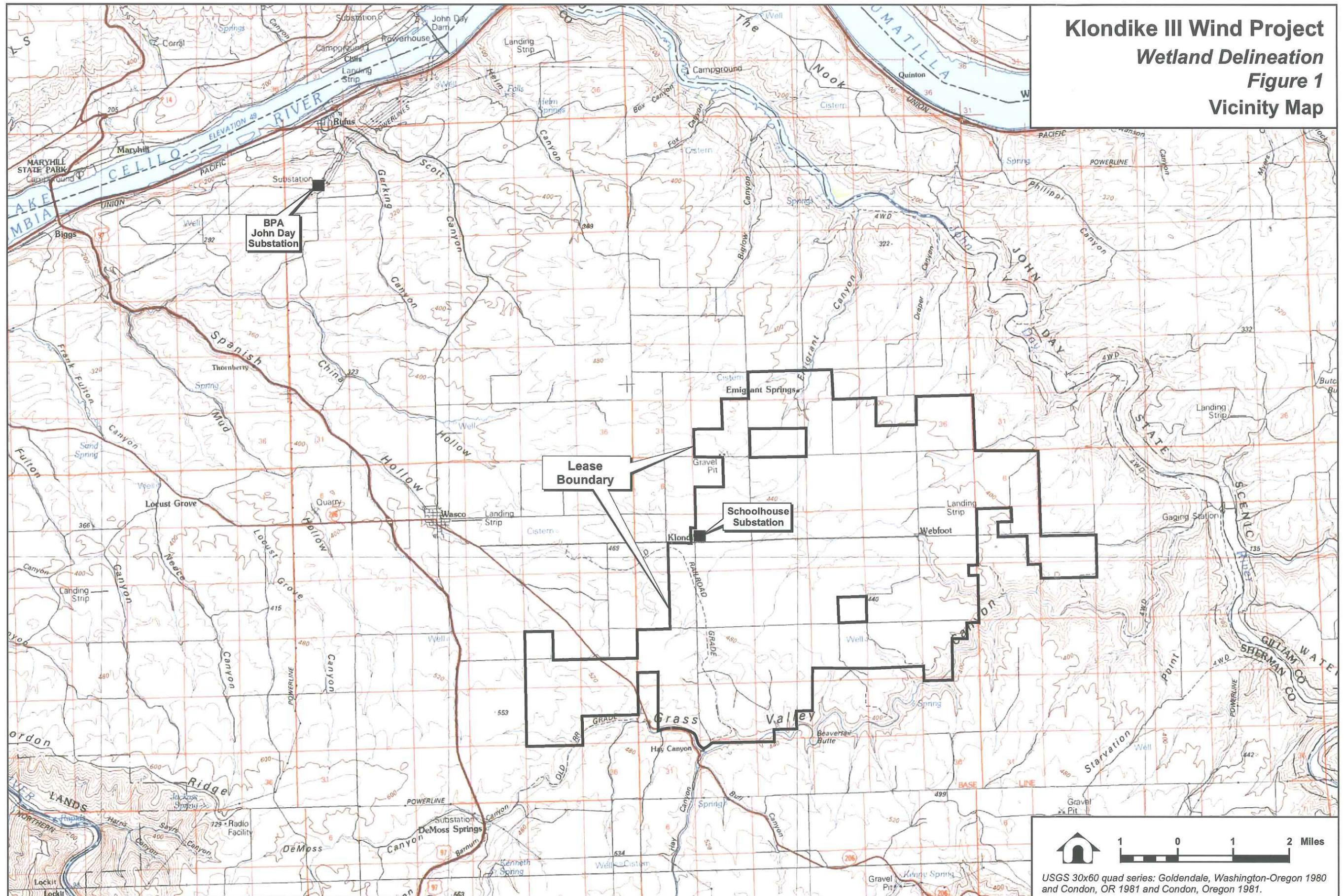
Wetland areas were delineated according to the Level 2 Routine On-Site Method described in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). This method requires an area to possess a prevalence of hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances, positive indicators of each of these three parameters must be present for an area to satisfy the criteria for jurisdictional wetlands. Areas of relatively low disturbance, such as CRP areas, were considered to have normal circumstances.

In instances where a site has been substantially disturbed and one or more parameter is not measurable, then the wetland delineation may rely solely on the remaining measurable parameter(s). Such circumstances are referred to as atypical situations. Areas within the wetland analysis area consisting of cultivated wheat were considered to be atypical situations. Although vegetative cover data was recorded for these areas, only soil conditions and wetland hydrology indicators were used to determine if an area should be classified as a jurisdictional wetland.

5.2.1 Hydrology

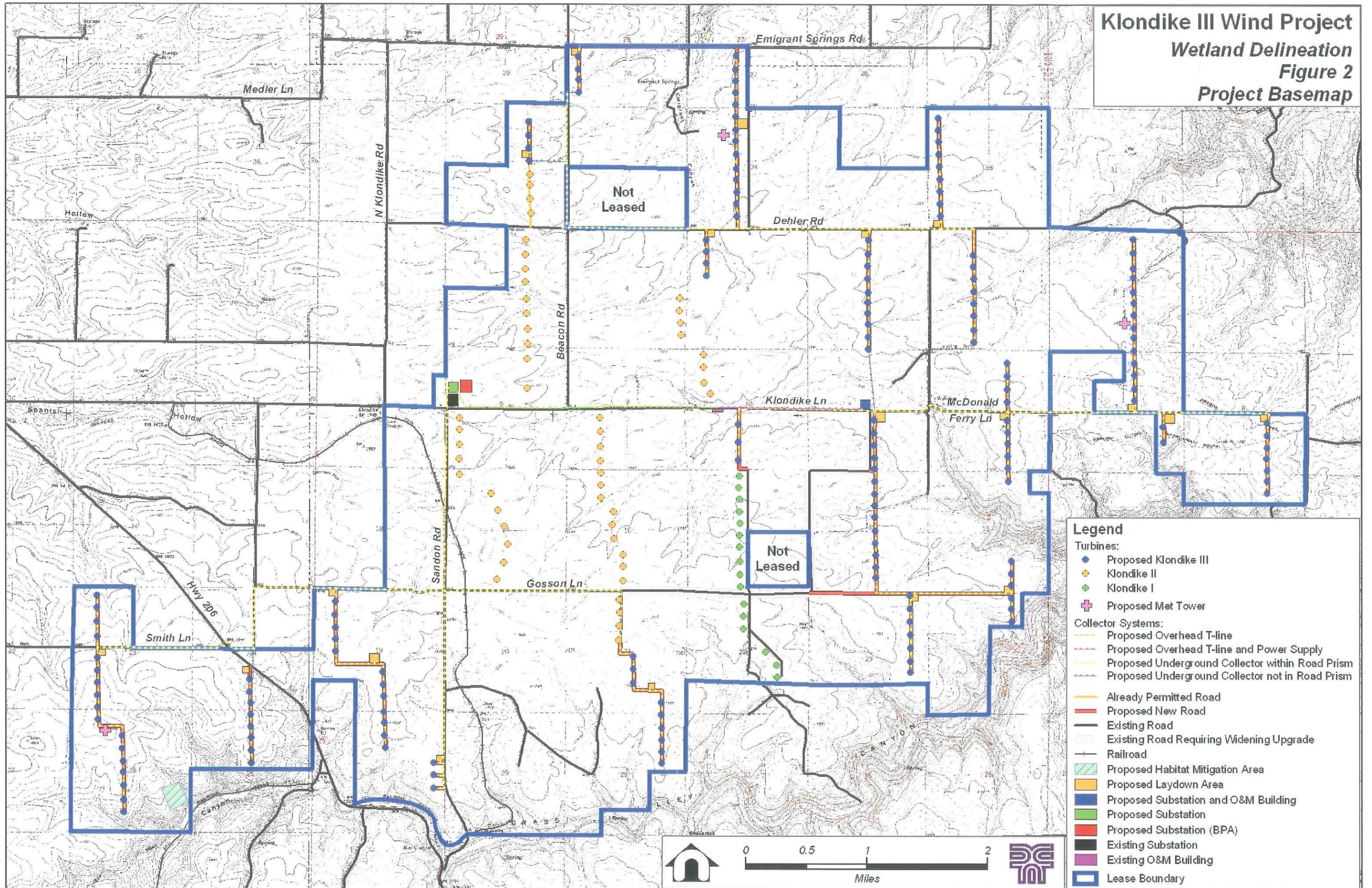
Water is the critical, driving factor in wetland formation. For the purpose of delineating wetlands, an area is considered to possess wetland hydrology when the soil is saturated to the surface for a sufficient period of time during the growing season to develop anaerobic conditions. The USDA Natural Resource Conservation Service WETS Table database for Sherman County (USDA 2005) identifies the growing season for Moro, Oregon as occurring from April 19 to October 15. Saturation to the surface must occur for a minimum of 9 consecutive days (5 percent [%]) during the growing season, but more likely for 22 consecutive days (12.5%) of the 178-day growing season for this area (USDA 2005), for wetland hydrology to occur (Environmental Laboratory 1987).

Klondike III Wind Project Wetland Delineation Figure 1 Vicinity Map



USGS 30x60 quad series: Goldendale, Washington-Oregon 1980 and Condon, OR 1981 and Condon, Oregon 1981.

Klondike III Wind Project
Wetland Delineation
Figure 2
Project Basemap



Legend

Turbines:

- Proposed Klondike III
- Klondike II
- Klondike I
- ⊕ Proposed Met Tower

Collector Systems:

- Proposed Overhead T-line
- Proposed Overhead T-line and Power Supply
- Proposed Underground Collector within Road Prism
- Proposed Underground Collector not in Road Prism

— Already Permitted Road

— Proposed New Road

— Existing Road

— Existing Road Requiring Widening Upgrade

— Railroad

▨ Proposed Habitat Mitigation Area

▨ Proposed Laydown Area

▨ Proposed Substation and O&M Building

▨ Proposed Substation

▨ Proposed Substation (BPA)

▨ Existing Substation

▨ Existing O&M Building

▭ Lease Boundary



Field indicators of wetland hydrology are divided into two categories: primary and secondary. Primary indicators include visual observation of inundation or saturation within 12 inches of the surface during the growing season, evidence of wetland drainage patterns, drift lines, sediment deposits, and water marks on woody vegetation or other fixed objects such as fence posts. Secondary field indicators include the presence of oxidized rhizospheres (rust-colored channels around living roots or along old roots) in the upper 12 inches, water-stained vegetation, morphological plant adaptations, and local soil survey data. At each sample plot, the surrounding area was examined for the presence of primary and secondary indicators of wetland hydrology. Data on hydrology is best collected during the early growing season because primary field indicators can be used. Later in the season, as is the case for this delineation, a combination of primary and secondary indicators can be used.

5.2.2 Soils

The project site was examined for the presence of hydric soils. Hydric soils are soils which are saturated, flooded, or ponded long enough (usually a week or more) during the growing season to develop anaerobic conditions in the upper part (Environmental Laboratory 1987). Typical field indicators of hydric conditions include organic layers (hyptic epipidons), gleying (gray soil colors), and low soil chromas (intensity of the soil hue) with or without redoximorphic features (mottles). Indicators of hydric soil formation in sandy soils include organic streaking and a high organic content in the surface layer. Low soil chroma and mottles are indicators of reduced soil conditions caused by anaerobic, wet environments. Mottles indicate a fluctuating water table. The *Soil Survey of Umatilla County Area, Oregon* (USDA 1988) was consulted prior to fieldwork to determine if hydric soils were mapped in the analysis area.

Soil pits were dug to a depth of 16 inches, when not hindered by the presence of hardpan. Soil was analyzed for color using the *Munsell Soil Color Chart* (Munsell Color 1990). Soil color is based on hue, value, and chroma. Prescribed methods require a colorimetric determination immediately below the "A" horizon, or 10 inches, whichever is less.

5.2.3 Vegetation

USFWS has classified vegetation according to its frequency of occurrence in wetlands (USFWS 1988). Many plant species have been given wetland indicator status of either obligate wetland (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), or upland (UPL) based on their probabilities for occurring in wetlands. For each of the three facultative plant indicator categories, the Region 9 list uses a plus (+) sign to denote the affinity of a particular species for a slightly more hydrophytic habitat. Similarly, a minus (-) sign indicates a plant species

with a preference for a less hydrophytic habitat. Table 1 provides the definitions of plant indicators used to determine wetland status.

Table 1. Plant Indicators Used to Determine Wetland Status

Indicator Symbol	Indicator Status	Definition
OBL	Obligate	Species that occur almost always (estimated probability >99%) in wetlands under natural conditions.
FACW	Facultative wetland	Species that occur in wetlands (estimated probability 67 to 99%), but occasionally are found in non-wetlands.
FAC	Facultative	Species that are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%).
FACU	Facultative upland	Species that usually occur in non-wetlands (estimated probability 67-99%), but occasionally are found in wetlands.
UPL	Upland	Species that occur almost always in non-wetlands under normal conditions (estimated probability >99%).
NI	No indicator	Species for which insufficient information was available to determine an indicator status.

Source: National List of Plant Species that Occur in Wetlands: Northwest (Region 9) (USFWS 1988).

In accordance with the USACE 1987 Manual, vegetation plots were established in areas supporting a single plant community. Plant species observed were identified using *The Flora of the Pacific Northwest* (Hitchcock and Cronquist 1973) and assigned their indicator status using the *National List of Plant Species that Occur in Wetlands, Northwest - Region 9* (USFWS 1988) and the 1993 supplement (USACE 1993). Percent cover of each plant species was visually estimated. Plots with a 5-foot radius were used to estimate percent cover of herbaceous vegetation. The same plot was enlarged to a 30-foot radius to estimate percent cover of shrubs, saplings, vines, and trees. Plot sizes were adjusted in size and shape, as necessary, to encompass only one plant community.

Dominant species were determined for each of the three vegetative strata found on site (herb, sapling/shrub, and tree) using percent area cover. There were no woody vine strata present. The dominant species in each of the three strata are determined separately. The species within each strata are ranked in descending order of estimated percent cover. The species that provide the most cover are totaled until 50% of the total coverage is exceeded; these are considered dominant species. If any additional species comprise at least 20% of the total coverage in each stratum, they are also considered dominant species. When more than 50% of the dominant species have wetland indicators of OBL, FACW, or FAC (excluding FAC-), the area is considered to support hydrophytic (wetland) vegetation.

5.2.4 Plot Location, Boundary Determination, and Mapping Accuracy

Due to the arid and well-drained nature of the site, few areas would be expected to contain wetlands or other waters of the state and/or U.S. Although the entire wetland analysis area was reviewed for the presence of these features, this delineation took a focused approach when determining sample plot locations. Ravine bottoms, depressions, and other areas that could potentially collect water were purposely sampled, as these areas would have the highest probability of containing waters of the state or wetlands. Specifically, sample plots were placed in areas mapped as wetlands by the NWI and areas mapped as intermittent or perennial drainages by the USGS. These areas had the highest probability of containing wetlands or other waters of the state, and U.S. Data sheets were completed at each sample plot, which document the vegetation, soils and hydrology.

Areas in which wetland hydrology, hydric soils, and hydrophytic vegetation were all present were considered wetlands. In areas experiencing atypical situations, only the combined presence of hydric soils and hydrophytic vegetation were required to delineate an area as jurisdictional wetland. Areas in which a defined channel was present, regardless of presence of flowing water, were considered to be other waters of the state and/or U.S. Areas where such features may have existed in the past, but have since been plowed through and no channel exists were not delineated as other waters of the state and/or U.S.

Wetland plot locations and potential crossings of jurisdictional waters were collected using a Trimble GeoExplorer Global Positioning System (GPS) receiver. Post processing of GPS data was used to increase the accuracy of collected data. Accuracy of the GPS collected data is estimated at plus or minus three feet.

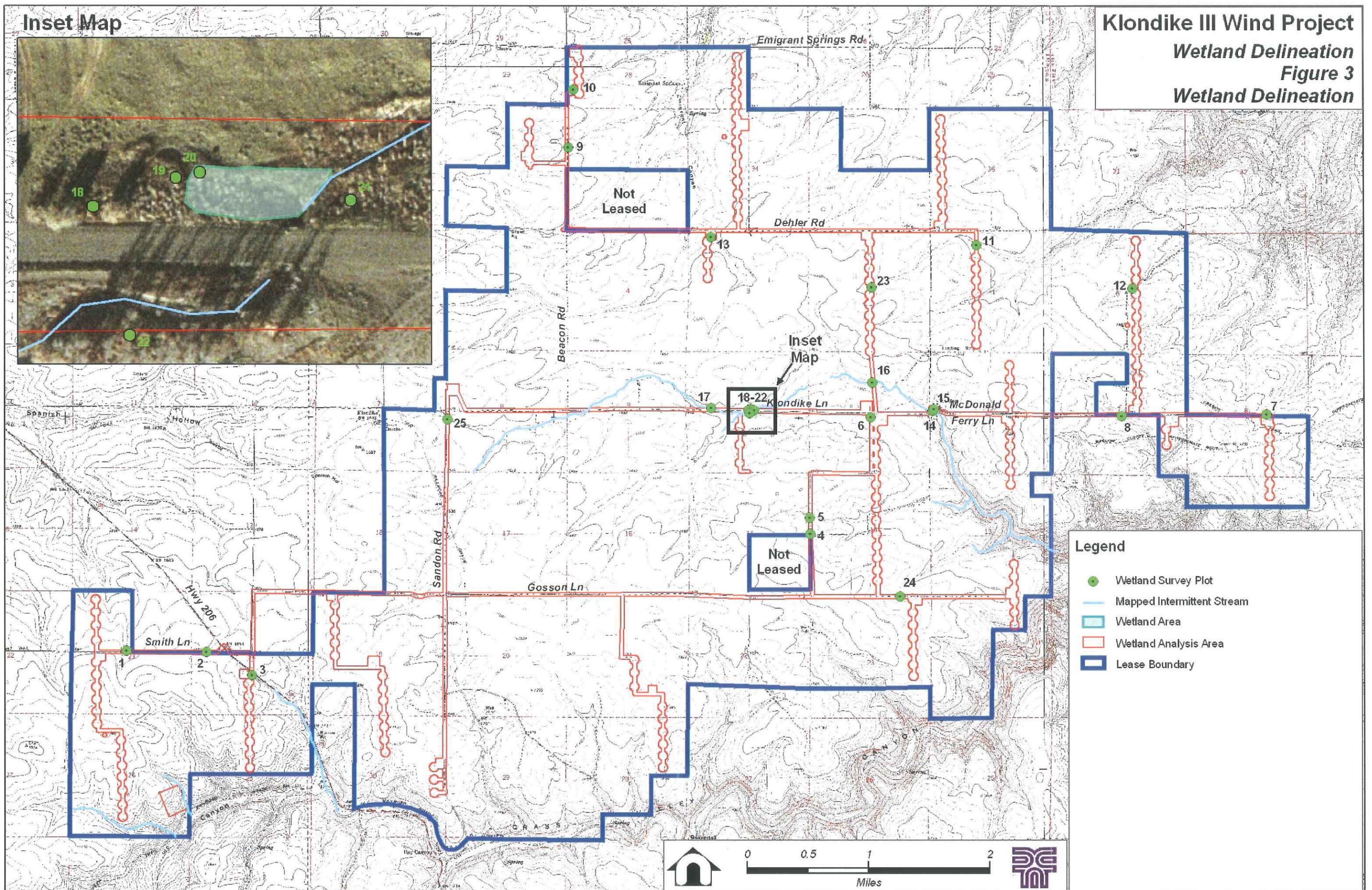
6 RESULTS

Wetland delineation results are graphically displayed on Figures 3 through 5. Text description of the delineation results follows thereafter.

Inset Map



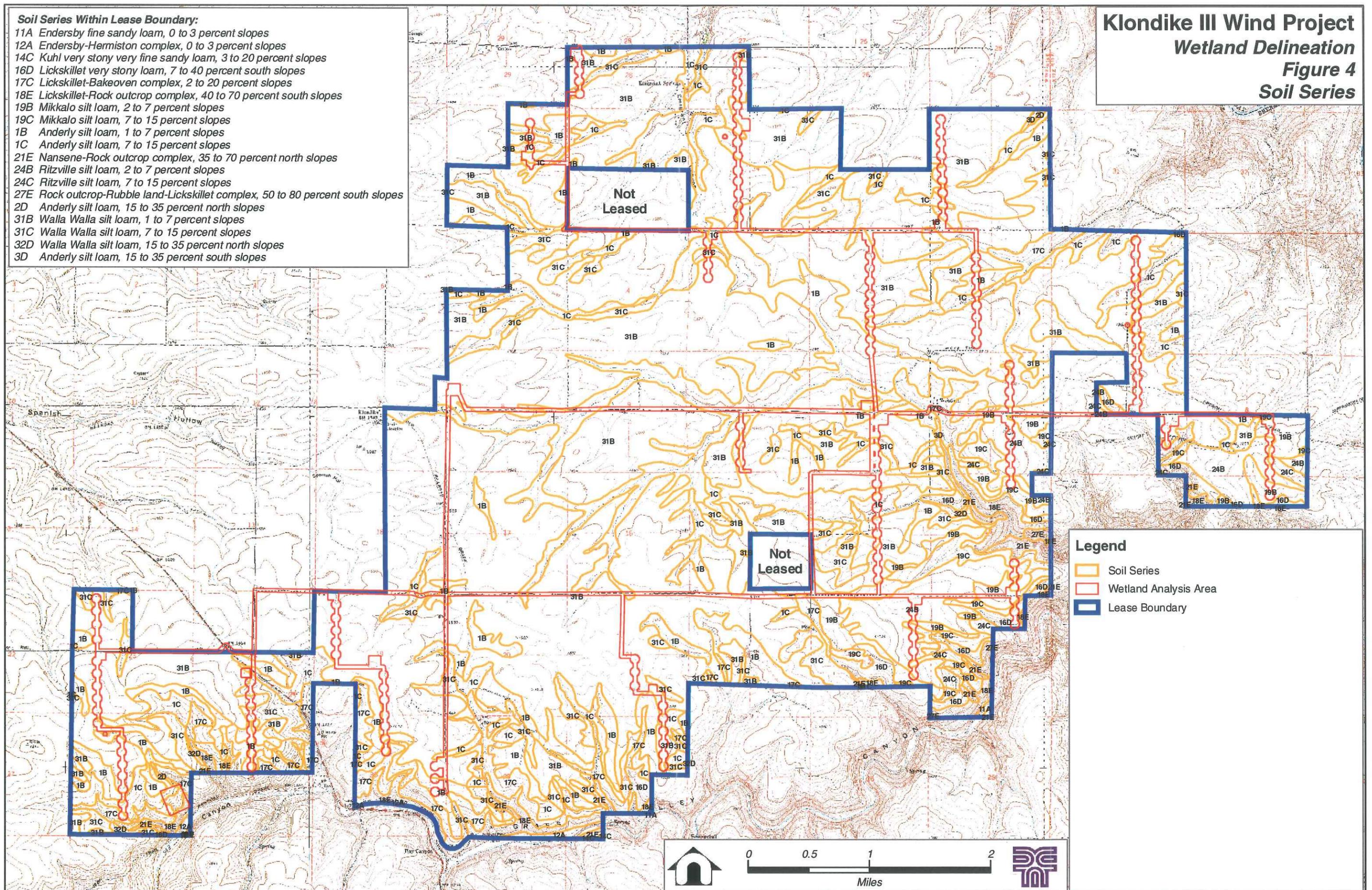
**Klondike III Wind Project
Wetland Delineation
Figure 3
Wetland Delineation**



**Klondike III Wind Project
Wetland Delineation
Figure 4
Soil Series**

Soil Series Within Lease Boundary:

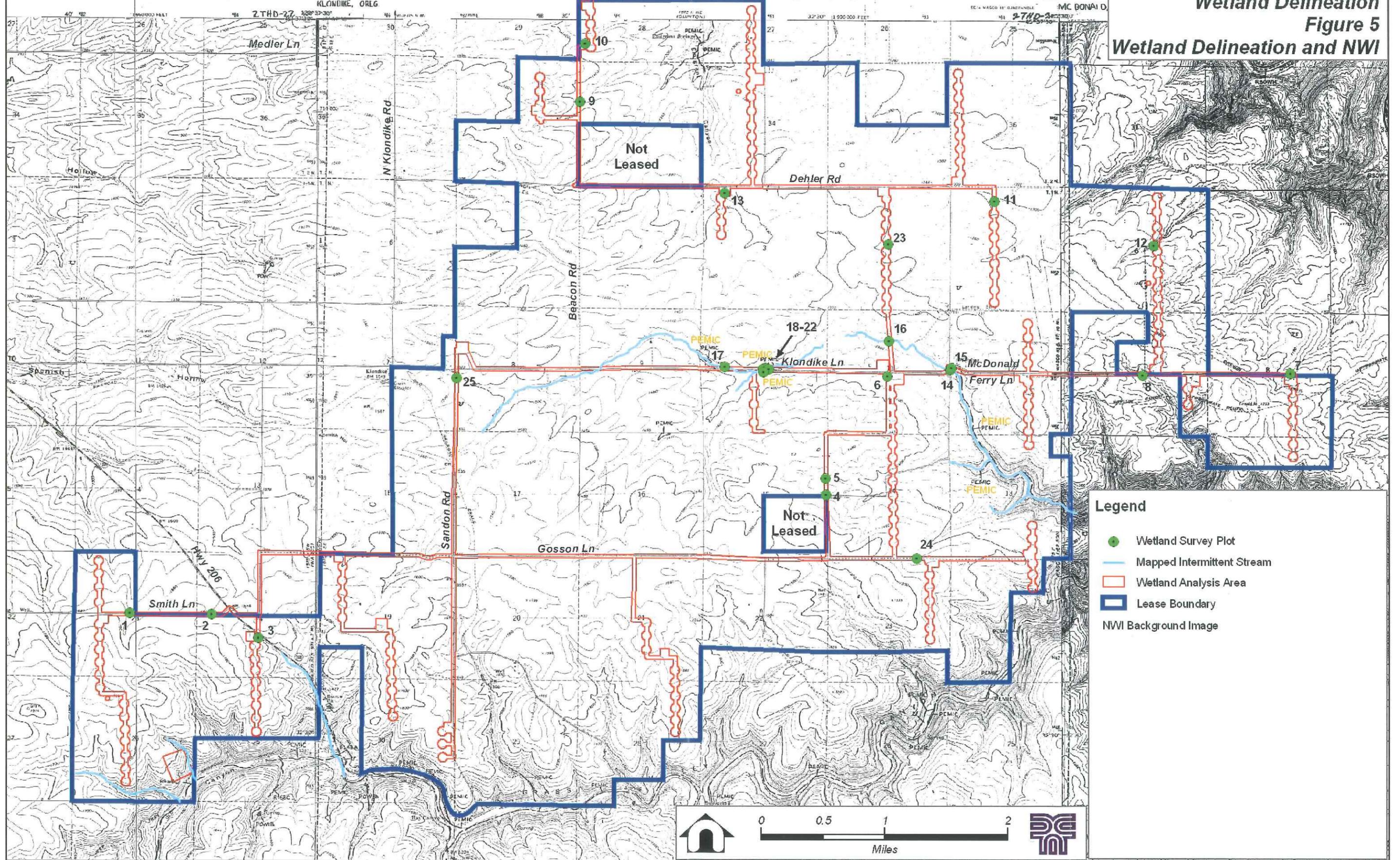
- 11A Endersby fine sandy loam, 0 to 3 percent slopes
- 12A Endersby-Hermiston complex, 0 to 3 percent slopes
- 14C Kuhl very stony very fine sandy loam, 3 to 20 percent slopes
- 16D Lickskillet very stony loam, 7 to 40 percent south slopes
- 17C Lickskillet-Bakeoven complex, 2 to 20 percent slopes
- 18E Lickskillet-Rock outcrop complex, 40 to 70 percent south slopes
- 19B Mikkalo silt loam, 2 to 7 percent slopes
- 19C Mikkalo silt loam, 7 to 15 percent slopes
- 1B Anderly silt loam, 1 to 7 percent slopes
- 1C Anderly silt loam, 7 to 15 percent slopes
- 21E Nansene-Rock outcrop complex, 35 to 70 percent north slopes
- 24B Ritzville silt loam, 2 to 7 percent slopes
- 24C Ritzville silt loam, 7 to 15 percent slopes
- 27E Rock outcrop-Rubble land-Lickskillet complex, 50 to 80 percent south slopes
- 2D Anderly silt loam, 15 to 35 percent north slopes
- 31B Walla Walla silt loam, 1 to 7 percent slopes
- 31C Walla Walla silt loam, 7 to 15 percent slopes
- 32D Walla Walla silt loam, 15 to 35 percent north slopes
- 3D Anderly silt loam, 15 to 35 percent south slopes



Legend

- Soil Series
- Wetland Analysis Area
- Lease Boundary





Legend

- Wetland Survey Plot
- Mapped Intermittent Stream
- Wetland Analysis Area
- Lease Boundary
- NWI Background Image



6.1 PRELIMINARY RESOURCE REVIEW

6.1.1 Precipitation Record

Table 2 provides precipitation data for the day of the site visits (January 25 and 26, 2005), as well as the 14 days prior to each visit. Total precipitation recorded between January 11 and 26, 2005 was 0.23 inches. Historical average rainfall for this same period is 0.77 inches (based on historic data from 1928 through 2002, as retrieved from Oregon Climate Center web site, 2005). Significant snow accumulation, approximately 10 inches, was noted the week prior to the site visit and is not captured by the Pendleton data. This snow pack melted off several days prior to the site visit during a warming trend and would have contributed to site hydrology in a manner not readily observable by just looking at the precipitation data.

Table 2. January 25 and 26, 2005 (including 14 days prior) Daily Precipitation Measurements for Pendleton, Oregon (in inches, precipitation as snowfall noted in italics but measurement provided as water equivalent in inches)

Jan 11	Jan 12	Jan 13	Jan 14	Jan 15	Jan 16	Jan 17
Trace	0.00	0.00	<i>Trace</i>	0.14	0.01	0.02
Jan 18	Jan 19	Jan 20	Jan 21	Jan 22	Jan 23	Jan 24
0.01	0.00	0.00	0.00	0.00	0.00	Trace
Jan 25	Jan 26	Total				
0.02	0.03	0.23				

Source: Oregon Climate Service website, 2005

6.1.2 Wetland Inventory Maps

The NWI shows three palustrine emergent, persistent, seasonal wetlands (PEMIC) mapped within the wetland analysis area. All three features are mapped in close proximity to Klondike Lane and are associated with a drainage feature that appears on the USGS quadrangle map. The USGS mapped drainage feature runs from west to east within the vicinity of Klondike Lane, eventually running underneath Klondike Lane via a bridge crossing near the vicinity of Webfoot. It then heads south-southeast out of the wetland analysis area and towards Grass Valley. This drainage feature does not show up on the NWI map within the wetland analysis area; however, it is mapped as a palustrine emergent, persistent, seasonal wetland down gradient of Webfoot, just outside of the wetland analysis area.

No other wetlands or waterways are mapped by the NWI as occurring within the wetland analysis area (Figure 4). None of the intermittent drainages that appear on

the USGS quad maps within the wetland analysis area are mapped as wetlands or watercourses by the NWI.

6.1.3 Soils

Figure 3 shows soil types within the wetland analysis area, as mapped by the County soil survey. Table 3 provides a list of soils mapped by the Soil Survey of Sherman County Area (USDA 1988) that occur within the wetland analysis area and overall project area. There are no hydric soils mapped within the wetland analysis area or the greater project area.

Table 3. Soils mapped by Soil Survey of Sherman County Area that occur within the wetland analysis area.

Soil Series	Hydric Status	Hydric Inclusions
1B - Anderly silt loam, 1 to 7 percent slopes	Non-hydric	None
1C - Anderly silt loam, 7 to 15 percent slopes	Non-hydric	None
2D - Anderly silt loam, 15 to 35 percent south slopes	Non-hydric	None
11A - Endersby fine sandy loam, 0 to 3 percent slopes	Non-hydric	Riverwash
12A - Endersby-Hermiston complex, 0 to 3 percent slopes	Non-hydric	Riverwash
14C - Kuhl very stony very fine sandy loam, 3 to 20 percent slopes	Non-hydric	None
16D - Licksillet very stony loam, 7 to 40 percent south slopes	Non-hydric	None
17C - Licksillet-Bakeoven complex, 2 to 20 percent slopes	Non-hydric	None
18C - Licksillet-Rock outcrop complex, 40 to 70 percent south slopes	Non-hydric	None
19B - Mikkalo silt loam, 2 to 7 percent slopes	Non-hydric	None
19C - Mikkalo silt loam, 7 to 15 percent slopes	Non-hydric	None
21E - Nansene-Rock outcrop complex, 35 to 70 percent north slopes	Non-hydric	None
24B - Ritzville silt loam, 2 to 7 percent slopes	Non-hydric	None
24C - Ritzville silt loam, 7 to 15 percent slopes	Non-hydric	None
27E - Rock outcrop-Rubble land-Licksillet complex, 50 to 80 percent south slopes	Non-hydric	None
31B - Walla Walla silt loam, 1 to 7 percent slopes	Non-hydric	None
31C - Walla Walla silt loam, 7 to 15 percent slopes	Non-hydric	None
32D - Walla Walla silt loam, 15 to 35 percent north slopes	Non-hydric	None
34B - Wato very fine sandy loam, 3 to 7 percent slopes	Non-hydric	None
34C - Wato very fine sandy loam, 7 to 15 percent slopes	Non-hydric	None

6.2 FIELD RESULTS

Site visits were conducted on January 25 and 26, 2005. Ravine bottoms, depressions, and other areas that could potentially collect water were purposely sampled, as these areas would have the highest probability of containing waters of the state or wetlands. A total of 25 sample plots were conducted.

6.2.1 Vegetation

Five general plant communities were identified within the wetland analysis area. These were as follows:

- Cultivated Wheat (*Triticum aestivum*) Community
- CRP Community
- Upland Grass (non-CRP) Community
- Upland Shrub (non-CRP) Community
- Emergent Wetland (non-CRP) Community

All communities, with the exception of the emergent wetland community, were considered to be non-hydrophytic plant communities. As would be expected, the cultivated wheat community was dominated by cultivated wheat. These areas were considered to fall under the atypical situation category and so the plant community parameter was not factored in when determining wetland status for these areas. Only soils and hydrology were used. Nonetheless, no area containing the cultivated wheat community was delineated as wetland.

6.2.1.1 CRP Community

The CRP community consisted of planted bunch grasses, as well as more weedy species. Sage and rabbitbrush were occasionally found within this community, but not at high enough percentages to be considered dominant species. Table 4 provides a listing of dominant plant species found within the CRP community. This community was considered to be non-hydrophytic.

Table 4. CRP Community

Common Name	Scientific Name	Indicator Status
Intermediate wheatgrass	<i>Agropyron intermedium</i>	NOL
Tumble mustard	<i>Sisymbrium altissimum</i>	Facu-
Russian thistle	<i>Salsola kali</i>	UPL

6.2.1.2 Upland Grass (Non-CRP) Community

The upland grass community was primarily found along the banks and channel bottom of the drainage that runs in close proximity to Klondike Lane. This community was comprised primarily of non-native upland weedy species. Table 5 provides a listing of dominant plant species found within the upland grass community. This community was considered to be non-hydrophytic.

Table 5. Upland Grass (Non-CRP) Community

Common Name	Scientific Name	Indicator Status
Bulbous bluegrass	<i>Poa bulbosa</i>	FAC
Redstem stork's bill	<i>Erodium cicutarium</i>	NOL
Basin wildrye	<i>Elymus cinereus</i>	FAC
Cheat grass	<i>Bromus tectorum</i>	NOL
Cultivated wheat	<i>Triticum aestivum</i>	NOL

6.2.1.3 Upland Shrub (Non-CRP) Community

The upland shrub community was identified in a few small patches primarily along the banks of the drainage that runs in close proximity to Klondike Lane. This community was comprised of a mix of native and non-native shrub and herbaceous species. Table 6 provides a listing of dominant plant species found within the upland shrub community. This community was considered to be non-hydrophytic.

Table 6. Upland Shrub (Non-CRP) Community

Common Name	Scientific Name	Indicator Status
Big sagebrush	<i>Artemisia tridentata</i>	NOL
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	NOL
Russian thistle	<i>Salsola kali</i>	UPL
Russian olive	<i>Elaeagnus angustifolia</i>	FAC
Tall tumbled mustard	<i>Sisymbrium altissimum</i>	FACU-
Black locust	<i>Robinia pseudoacacia</i>	FACU
Sandberg bluegrass	<i>Poa secunda</i>	NOL
Bulbous bluegrass	<i>Poa bulbosa</i>	FAC
Cheat grass	<i>Bromus tectorum</i>	NOL
Basin wildrye	<i>Elymus cinereus</i>	FAC
Prickly lettuce	<i>Lactuca serriola</i>	FACU
Cultivated wheat	<i>Triticum aestivum</i>	NOL
Bedstraw	<i>Galium aparine</i>	FAC

6.2.1.4 Emergent Wetland (Non-CRP) Community

The emergent wetland community was identified at one location (Plot 20), in a depressional area adjacent to the banks of the drainage that runs in close proximity to Klondike Lane. This community was comprised of both hydrophytic and non-hydrophytic herbaceous species, with hydrophytic species dominating. Table 7 provides a listing of dominant plant species found within the emergent wetland community. This community was considered to be hydrophytic.

Table 7. Emergent Wetland (Non-CRP) Community

Common Name	Scientific Name	Indicator Status
Basin wildrye	<i>Elymus cinereus</i>	FAC
Bedstraw	<i>Galium aparine</i>	FAC

6.2.2 Soils

Soils were relatively homogeneous throughout the wetland analysis area. Hydric soils were only identified in one location (Plot 20).

The typical soil profile consisted of dark brown (10YR 3/3) silt loam from 0 to 16 inches depth, with no mottles or other indicators of hydric soils present. This profile was observed throughout most of the wetland analysis area. These soils were determined to be non-hydric.

In several areas where channels have been plowed through and no longer exist, as well as in sections of remnant channels, soils ranged from a brown (10YR 4/3) silt loam to a very dark brown (10YR 2/2) silt loam. No mottles or other indicators of hydric soils were present in these locations. These soils were determined to be non-hydric.

Plot 20 was the only location in which hydric soils were identified. These soils consisted of a dark brown (10YR 3/3) silt loam from 0 to 8 inches depth, with no mottles. From 8 to 16 inches, the soil profile consisted of a very dark grayish-brown (10YR 3/2) silt loam with few medium distinct dark reddish-brown (5YR 3/4) mottles.

6.2.3 Hydrology

In general, field observations of wetland hydrology were absent from the entire wetland analysis area, with the exception of one drainage feature that runs from west to east within the vicinity of Klondike Lane, eventually running underneath Klondike Lane via a bridge crossing near Webfoot. This feature either flows intermittently (i.e.

for only a portion of the year) or ephemeral (i.e. only once every several years) and eventually drains to the Grass Valley drainage. No water was observed in the channel during the site visits, with the exception of some entering the channel just downgradient of the Klondike Lane bridge near Webfoot. This flow was observed to be coming from piped inputs from an adjacent residential property. Overall, the drainage feature contained a discontinuous defined to poorly defined channel, with some sections having been eliminated as a result of agricultural activities. In addition to the channel, one wetland was identified along this drainage (Plot 20). Evidence of wetland hydrology at Plot 20 included drainage patterns in wetlands and water stained leaves.

With the exception of the drainage discussed above, all other drainages mapped on the USGS quadrangle maps that occur within the wetland analysis area have been plowed through and no channel exists. Other indicators of wetland hydrology are also absent in these areas.

7 DISCUSSION

7.1 SUMMARY OF FINDINGS

In general, the wetland analysis area consists almost entirely of areas under agricultural production, with a lesser extent of upland plant communities. The exception is one drainage feature, containing both a wetland and other waters of the state and U.S., which was identified within the wetland analysis area. This feature runs from west to east within the vicinity of Klondike Lane, eventually running underneath Klondike Lane via a bridge crossing near Webfoot. This feature appears to flow intermittently or ephemeral and eventually drains to the Grass Valley drainage.

No other wetlands or waterways were identified within the wetland analysis area. With the exception of the drainage discussed above, all other drainages mapped on the USGS quadrangle maps that occur within the wetland analysis area have been plowed through and no channel exists.

The delineated wetland occurs approximately in the same location as one of the wetlands mapped on the NWI. The remaining wetlands mapped by the NWI either fell outside of the wetland analysis area or were not present based on field verification.

8 REGULATORY REQUIREMENTS AND IMPLICATIONS

Federal, state and local governmental regulations control activities in and near wetlands and other water bodies. Therefore, the wetland analysis was undertaken to determine the location and extent of wetlands within the proposed project site (wetland analysis area specifically) that may be regulated. This analysis is intended to

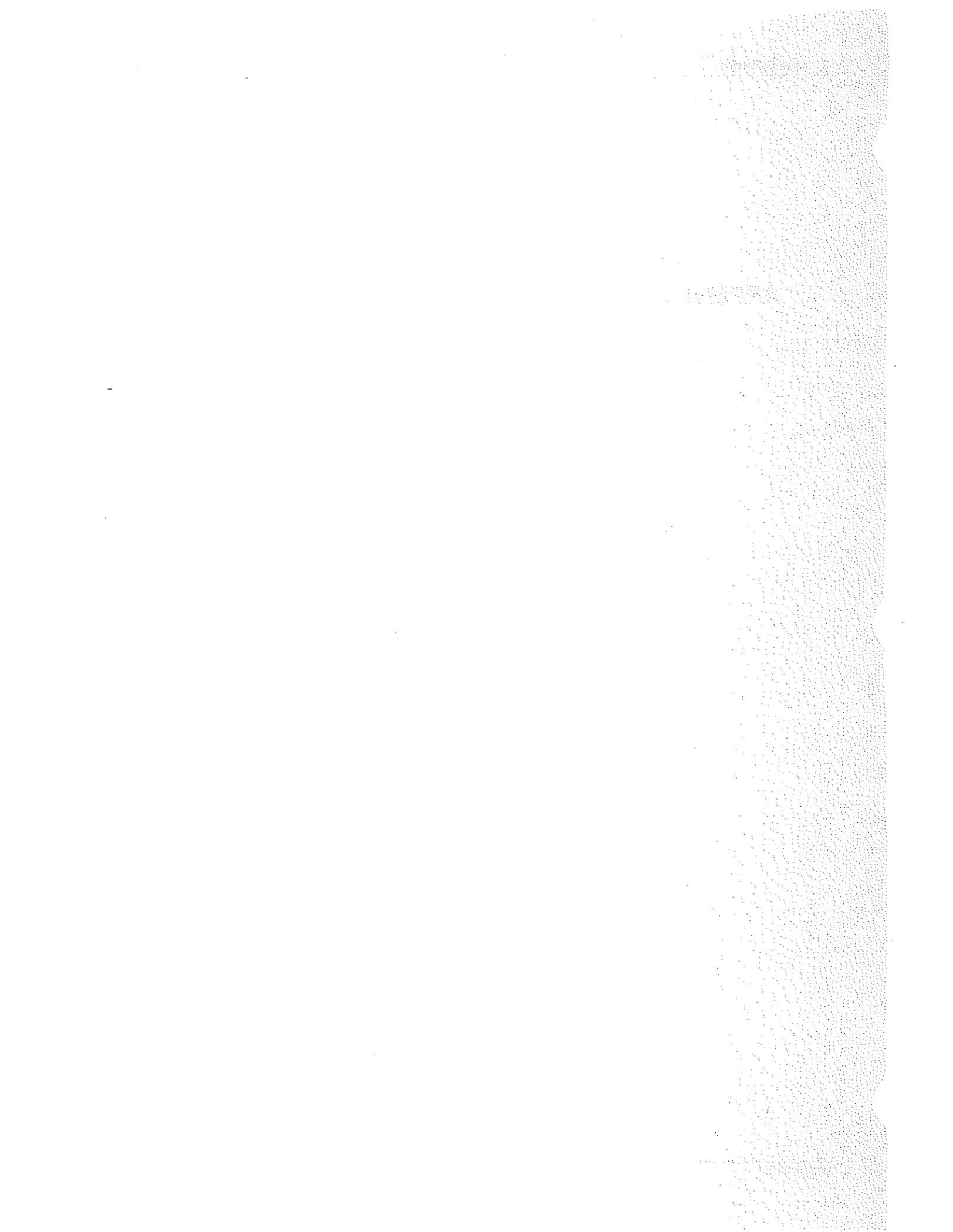
facilitate review of project plans by Klondike III and the appropriate regulatory authorities in conjunction with any applicable permit applications.

This report documents the investigation, best professional judgment, and conclusions of the investigator. It should be considered a Preliminary Jurisdictional Determination until it has been reviewed and approved by the Oregon Energy Facility Siting Council as part of the energy facility siting process.

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APPENDIX 1 - WETLAND DELINEATION DATA FORMS



DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	1

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Agropyron intermedium	NOL	97	
2	<input type="checkbox"/>					2	<input type="checkbox"/>	Lactuca serriola	FACU	3	
3	<input type="checkbox"/>					3	<input type="checkbox"/>				
4	<input type="checkbox"/>					4	<input type="checkbox"/>				
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input checked="" type="checkbox"/>	Salsola kali		UPL	10	7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
5	<input type="checkbox"/>					Total Herb Cover				100	
Total Sap/Shrub Cover:					10	% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0	

Remarks: CRP strip bordered by cultivated wheat fields.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Walla Walla silt loam, 7 to 15 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: Plot is located in area of CRP mapped as intermittent drainage on USGS quad map; however, area has previously been plowed through and no channel exists.			

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	2

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%	
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL 80	
2	<input type="checkbox"/>			2	<input type="checkbox"/>			
3	<input type="checkbox"/>			3	<input type="checkbox"/>			
4	<input type="checkbox"/>			4	<input type="checkbox"/>			
Total Tree Cover:				5	<input type="checkbox"/>			
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>			
1	<input type="checkbox"/>			7	<input type="checkbox"/>			
2	<input type="checkbox"/>			8	<input type="checkbox"/>			
3	<input type="checkbox"/>			9	<input type="checkbox"/>			
4	<input type="checkbox"/>			10	<input type="checkbox"/>			
				Total Herb Cover			80	
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0

Remarks: Located in a cultivated wheat field. 20 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Walla Walla silt loam, 1 to 7 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.			

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	3

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	10	
2	<input type="checkbox"/>					2	<input type="checkbox"/>				
3	<input type="checkbox"/>					3	<input type="checkbox"/>				
4	<input type="checkbox"/>					4	<input type="checkbox"/>				
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>					7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
5	<input type="checkbox"/>					Total Herb Cover				10	
Total Sap/Shrub Cover:						% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0	

Remarks: Located in a cultivated wheat field. 90 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)	
Remarks: No indicators of wetland hydrology present.	

SOILS

Map Unit Name (series and Phase): Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	4

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL 40
2	<input type="checkbox"/>			2	<input type="checkbox"/>		
3	<input type="checkbox"/>			3	<input type="checkbox"/>		
4	<input type="checkbox"/>			4	<input type="checkbox"/>		
Total Tree Cover:				5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>		
1	<input type="checkbox"/>			7	<input type="checkbox"/>		
2	<input type="checkbox"/>			8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
5	<input type="checkbox"/>			Total Herb Cover			40
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			
				0			

Remarks: Located in a cultivated wheat field. 60 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks: No indicators of wetland hydrology present.	

SOILS

Map Unit Name (series and Phase): <u>Walla Walla silt loam, 7 to 15 percent slopes</u>	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	5

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%	
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	40
2	<input type="checkbox"/>			2	<input type="checkbox"/>			
3	<input type="checkbox"/>			3	<input type="checkbox"/>			
4	<input type="checkbox"/>			4	<input type="checkbox"/>			
Total Tree Cover:				5	<input type="checkbox"/>			
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>			
1	<input type="checkbox"/>			7	<input type="checkbox"/>			
2	<input type="checkbox"/>			8	<input type="checkbox"/>			
3	<input type="checkbox"/>			9	<input type="checkbox"/>			
4	<input type="checkbox"/>			10	<input type="checkbox"/>			
				Total Herb Cover			40	
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0

Remarks: Located in a cultivated wheat field. 60 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	a Wetland?	
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.			

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	6

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL 40
2	<input type="checkbox"/>			2	<input type="checkbox"/>		
3	<input type="checkbox"/>			3	<input type="checkbox"/>		
4	<input type="checkbox"/>			4	<input type="checkbox"/>		
Total Tree Cover:				5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>		
1	<input type="checkbox"/>			7	<input type="checkbox"/>		
2	<input type="checkbox"/>			8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
				Total Herb Cover			40
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			
				0			

Remarks: Located in a cultivated wheat field. 60 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	a Wetland?	
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	7

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/> Agropyron intermedium	NOL	80
2	<input type="checkbox"/>			2	<input type="checkbox"/> Bromus tectorum	NOL	10
3	<input type="checkbox"/>			3	<input type="checkbox"/> Lactuca serriola	FACU	2
4	<input type="checkbox"/>			4	<input type="checkbox"/>		
Total Tree Cover:				5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>		
1	<input checked="" type="checkbox"/> Sisymbrium altissimum		10	7	<input type="checkbox"/>		
2	<input type="checkbox"/>			8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
5	<input type="checkbox"/>			Total Herb Cover		92	
Total Sap/Shrub Cover:			10	% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			0

Remarks: CRP field.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Mikkalo silt loam, 7 to 15 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	a Wetland?	
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: Plot is located in area of CRP mapped as intermittent drainage on USGS quad map; however, area has previously been plowed through and no channel exists.			

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	8

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	30	
2	<input type="checkbox"/>					2	<input type="checkbox"/>	Bromus tectorum	NOL	5	
3	<input type="checkbox"/>					3	<input type="checkbox"/>				
4	<input type="checkbox"/>					4	<input type="checkbox"/>				
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input checked="" type="checkbox"/>	Salsola kali		UPL	20	7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
5	<input type="checkbox"/>					Total Herb Cover				35	
Total Sap/Shrub Cover:					20	% of Dom. Species =OBL, FACW or FAC (excluding FAC-):					0

Remarks: Located in corner of cultivated wheat field. 45 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks: No indicators of wetland hydrology present. Sediment deposits derived from adjacent dirt roadway runoff were noted but not considered to be an indicator of wetland hydrology.		

SOILS

Map Unit Name (series and Phase):	Nansene-Rock outcrop complex, 35 to 70 percent slopes	Drainage Class: Well drained			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Plowed field.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.			

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	9

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%	
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Agropyron intermedium	NOL	85
2	<input type="checkbox"/>			2	<input type="checkbox"/>	Lactuca serriola	FACU	10
3	<input type="checkbox"/>			3	<input type="checkbox"/>			
4	<input type="checkbox"/>			4	<input type="checkbox"/>			
Total Tree Cover:				5	<input type="checkbox"/>			
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>			
1	<input type="checkbox"/>			7	<input type="checkbox"/>			
2	<input type="checkbox"/>			8	<input type="checkbox"/>			
3	<input type="checkbox"/>			9	<input type="checkbox"/>			
4	<input type="checkbox"/>			10	<input type="checkbox"/>			
				Total Herb Cover				95
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0

Remarks: Located in a narrow strip of CRP land bordered by cultivated wheat fields. 5 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)		
Remarks: No indicators of wetland hydrology present. There is a culvert under the adjacent road; however, no channel exists upslope or downslope of the culvert. Some sediment deposits noted; however, not considered an indicator of wetland hydrology. Short pulses of runoff likely occur through this area during storm events, but not of sufficient duration to cause wetland hydrology.		

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		
Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 10		10YR 3/3	None	None	Loam
10 - 12		10YR 3/2	None	None	Loam
12 - 16		10YR 4/3	None	None	Silt
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Previously plowed CRP strip.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	a Wetland?	
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through in the past and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2006
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	10

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%	
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/> Agropyron intermedium	NOL	90	
2	<input type="checkbox"/>			2	<input type="checkbox"/> Bromus tectorum	UPL	20	
3	<input type="checkbox"/>			3	<input type="checkbox"/> Sisymbrium altissimum	FACU-	3	
4	<input type="checkbox"/>			4	<input type="checkbox"/> Lactuca serriola	FACU	2	
Total Tree Cover:				5	<input type="checkbox"/>			
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>			
1	<input type="checkbox"/>			7	<input type="checkbox"/>			
2	<input type="checkbox"/>			8	<input type="checkbox"/>			
3	<input type="checkbox"/>			9	<input type="checkbox"/>			
4	<input type="checkbox"/>			10	<input type="checkbox"/>			
				Total Herb Cover		115		
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0

Remarks: Located in a narrow strip of CRP land in draw bottom, bordered by cultivated wheat fields.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Walla Walla silt loam, 7 to 15 percent slopes	Drainage Class: Well drained
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 10		10YR 3/3	None	None	Loam
10 - 12		10YR 3/2	None	None	Loam
12 - 16		10YR 4/3	None	None	Silt

Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
Remarks: No indicators of hydric soils. Previously plowed CRP strip.		

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through in the past and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	11

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL 40
2	<input type="checkbox"/>			2	<input type="checkbox"/>		
3	<input type="checkbox"/>			3	<input type="checkbox"/>		
4	<input type="checkbox"/>			4	<input type="checkbox"/>		
Total Tree Cover:				5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>		
1	<input type="checkbox"/>			7	<input type="checkbox"/>		
2	<input type="checkbox"/>			8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
5	<input type="checkbox"/>			Total Herb Cover			40
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			0

Remarks: Located in a cultivated wheat field. 60 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (in.) Depth to Free Water in Pit: none (in.) Depth to Saturated Soil: >16 (in.)	

Remarks: No indicators of wetland hydrology present.

SOILS

Map Unit Name (series and Phase): Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam

Hydric Soil Indicators:	<input type="checkbox"/> Redox Features (w/in 10")	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histosol	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Concretions (w/in 3", >2mm)	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)
<input type="checkbox"/> Aquic Moisture Regime		

Remarks: No indicators of hydric soils. Plowed field.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	January 25, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus and Ethan Rosenthal	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	12

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X	Indicator	%	Herb Stratum-Dominant Sp. marked w/ X	Indicator	%
1 <input type="checkbox"/>			1 <input checked="" type="checkbox"/> Agropyron intermedium	NOL	85
2 <input type="checkbox"/>			2 <input type="checkbox"/> Agropyron cristatum	NOL	5
3 <input type="checkbox"/>			3 <input type="checkbox"/> Bromus tectorum	UPL	5
4 <input type="checkbox"/>			4 <input type="checkbox"/> Sisymbrium altissimum	FACU-	5
Total Tree Cover:			5 <input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X	Indicator	%	6 <input type="checkbox"/>		
1 <input type="checkbox"/>			7 <input type="checkbox"/>		
2 <input type="checkbox"/>			8 <input type="checkbox"/>		
3 <input type="checkbox"/>			9 <input type="checkbox"/>		
4 <input type="checkbox"/>			10 <input type="checkbox"/>		
5 <input type="checkbox"/>			Total Herb Cover		100
Total Sap/Shrub Cover:			% of Dom. Species =OBL, FACW or FAC (excluding FAC-):		0

Remarks: Located in well established CRP field in draw bottom.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase): Anderly silt loam, 7 to 15 percent slopes	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils. Previously plowed CRP land.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is this Sampling Point Within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Hydric Soils Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through in the past and no channel exists.					

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	13

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	70	
2	<input type="checkbox"/>					2	<input type="checkbox"/>	Bromus tectorum	NOL	10	
3	<input type="checkbox"/>					3	<input type="checkbox"/>				
4	<input type="checkbox"/>					4	<input type="checkbox"/>				
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>					7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
5	<input type="checkbox"/>					Total Herb Cover				80	
Total Sap/Shrub Cover:						% of Dom. Species =OBL, FACW or FAC (excluding FAC-):					0

Remarks: 20 percent bare soil.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)	

Remarks: No indicators of wetland hydrology present.

SOILS

Map Unit Name (series and Phase): Walla Walla silt loam, 1 to 7 percent slopes	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam

Hydric Soil Indicators:					
<input type="checkbox"/> Histosol	<input type="checkbox"/> Redox Features (w/in 10")	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions (w/in 3", >2mm)	<input type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)			

Remarks: No indicators of hydric soils. Plowed field.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	14

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Poa secunda	NOL 40
2	<input type="checkbox"/>			2	<input checked="" type="checkbox"/>	Poa bulbosa	FAC 40
3	<input type="checkbox"/>			3	<input type="checkbox"/>	Knapweed sp.	NOL 10
4	<input type="checkbox"/>			4	<input type="checkbox"/>	Bromus tectorum	NOL 10
Total Tree Cover:				5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>		
1	<input checked="" type="checkbox"/>	Artemisia tridentata	NOL 10	7	<input type="checkbox"/>		
2	<input checked="" type="checkbox"/>	Ericameria nauseosa	NOL 10	8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
5	<input type="checkbox"/>			Total Herb Cover			100
Total Sap/Shrub Cover:			20	% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			25

Remarks: Plot lies just upslope of an intermittent stream in very rocky soil

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (in.) Depth to Free Water in Pit: none (in.) Depth to Saturated Soil: >16 (in.)		
Remarks: No indicators of wetland hydrology present.		

SOILS

Map Unit Name (series and Phase):	Lickskillet-Bakeoven complex, 2 to 20 % slopes	Drainage Class: Well drained			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Gravelly silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks:			

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	15

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X			Indicator	%	Herb Stratum-Dominant Sp. marked w/ X			Indicator	%	
1	<input type="checkbox"/>				1	<input checked="" type="checkbox"/>	Poa bulbosa	FAC	25	
2	<input type="checkbox"/>				2	<input checked="" type="checkbox"/>	Erodium cicutarium	NOL	15	
3	<input type="checkbox"/>				3	<input type="checkbox"/>	Unk Grass	UNK	10	
4	<input type="checkbox"/>				4	<input type="checkbox"/>	Juncus effusus	FACW	5	
Total Tree Cover:					5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X			Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>				7	<input type="checkbox"/>				
2	<input type="checkbox"/>				8	<input type="checkbox"/>				
3	<input type="checkbox"/>				9	<input type="checkbox"/>				
4	<input type="checkbox"/>				10	<input type="checkbox"/>				
5	<input type="checkbox"/>				Total Herb Cover			55		
Total Sap/Shrub Cover:				0	% of Dom. Species = OBL, FACW or FAC (excluding FAC-):				50	

Remarks: Plot lies within an intermittent stream in very rocky soil in a grazed pasture. Banks are somewhat incised and are 1-2 feet high, and channel is 3-5 feet in width. Bare ground and rocks=45% of plot. Plot lies below OHW mark. Channel dry at time of survey, except for input from grey water from adjacent residence.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks:	

SOILS

Map Unit Name (series and Phase): Lickskillet-Bakeoven complex, 2 to 20 % slopes	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/2	None	None	Gravelly silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime					
<input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils					
<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks:

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	16

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X	Indicator	%	Herb Stratum-Dominant Sp. marked w/ X	Indicator	%	
1 <input type="checkbox"/>			1 <input checked="" type="checkbox"/> Bromus tectorum	NOL	10	
2 <input type="checkbox"/>			2 <input type="checkbox"/>			
3 <input type="checkbox"/>			3 <input type="checkbox"/>			
4 <input type="checkbox"/>			4 <input type="checkbox"/>			
Total Tree Cover:			5 <input type="checkbox"/>			
Sap/Shrub Stratum-Dom. Sp. marked w/ X	Indicator	%	6 <input type="checkbox"/>			
1 <input checked="" type="checkbox"/> Salsola kali	UPL	5	7 <input type="checkbox"/>			
2 <input type="checkbox"/>			8 <input type="checkbox"/>			
3 <input type="checkbox"/>			9 <input type="checkbox"/>			
4 <input type="checkbox"/>			10 <input type="checkbox"/>			
5 <input type="checkbox"/>			Total Herb Cover		10	
Total Sap/Shrub Cover:		5	% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			0

Remarks: Plot lies within a narrow channel between agricultural areas. 85 percent bare soil and small gravel.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks:		

SOILS

Map Unit Name (series and Phase): Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 8		10YR 2/2	None	None	Silt loam
8+					Shovel refusal in gravel
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map.			

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	17

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Bromus tectorum	NOL	70	
2	<input type="checkbox"/>					2	<input type="checkbox"/>	Lactuca serriola	FACU	10	
3	<input type="checkbox"/>					3	<input type="checkbox"/>	Triticum aestivum	NOL	5	
4	<input type="checkbox"/>					4	<input type="checkbox"/>	Conyza canadensis	FACU	5	
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input checked="" type="checkbox"/>	Salsola kali		UPL	20	7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
5	<input type="checkbox"/>					Total Herb Cover					90
Total Sap/Shrub Cover:					20	% of Dom. Species = OBL, FACW or FAC (excluding FAC-):					0

Remarks: Plot lies within an area delineated as wetland in 2004 during winter (non-growing season) when water levels were high and vegetation absent. Plot and boundary flags visible, and no wetland was found in mapped location. The bench had not been disturbed in the past year and was occupied by upland weeds.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		

Remarks:

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 2/2	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					

Remarks: No indicators of hydric soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area that may have been mapped as PEMC on NWI map, although mapped wetland may be outside the 150' study area, since no evidence of wetlands was found.

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	18

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Herb Stratum-Dominant Sp. marked w/ X				
	Indicator	%		Indicator	%			
1	<input type="checkbox"/>		1	<input checked="" type="checkbox"/>	Elymus cinereus	FAC	35	
2	<input type="checkbox"/>		2	<input checked="" type="checkbox"/>	Bromus tectorum	NOL	35	
3	<input type="checkbox"/>		3	<input type="checkbox"/>	Galium aparine	FAC	10	
4	<input type="checkbox"/>		4	<input type="checkbox"/>	Lactuca serriola	FACU	15	
Total Tree Cover:				5	<input type="checkbox"/>			
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Total Herb Cover				
	Indicator	%						
1	<input checked="" type="checkbox"/>	Elaeagnus angustifolia	FAC	30				95
2	<input checked="" type="checkbox"/>	Sisymbrium altissimum	FACU-	20				
3	<input type="checkbox"/>							
4	<input type="checkbox"/>							
5	<input type="checkbox"/>							
Total Sap/Shrub Cover:				50	% of Dom. Species = OBL, FACW or FAC (excluding FAC-):			50

Remarks: Plot lies within a russian olive grove in an area mapped as PEMIC wetland on the NWI. The area receives hydrology from adjacent slopes, but soils are well-drained and groundwater does not appear to persist close to the surface into the growing season. Intermittent stream to east of plot and to south across road is highly incised (3-5 feet) and may have caused a reduction in water levels over time.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks:	

SOILS

Map Unit Name (series and Phase): <u>Anderly silt loam, 1 to 7 percent slopes</u>	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks:			

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	19

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Elymus cinereus	FAC	30	
2	<input type="checkbox"/>					2	<input checked="" type="checkbox"/>	Bromus tectorum	NOL	30	
3	<input type="checkbox"/>					3	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	40	
4	<input type="checkbox"/>					4	<input type="checkbox"/>	Lactuca serriola	FACU	10	
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>					7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
						Total Herb Cover				110	
Total Sap/Shrub Cover:						% of Dom. Species = OBL, FACW or FAC (excluding FAC-):				33	

Remarks: Plot lies adjacent to a small wetland. The area receives hydrology from adjacent slopes, but soils are well-drained and groundwater does not appear to persist close to the surface into the growing season. Intermittent stream to east of plot and to south across road is highly incised (3-5 feet) and may have caused a reduction in water levels over time.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (in.) Depth to Free Water in Pit: none (in.) Depth to Saturated Soil: >16 (in.)		
Remarks:		

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class: Well drained			
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks:

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	20

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/> Elymus cinereus	FAC	35
2	<input type="checkbox"/>			2	<input checked="" type="checkbox"/> Galium aparine	FAC	25
3	<input type="checkbox"/>			3	<input checked="" type="checkbox"/> Lactuca serriola	FACU	20
4	<input type="checkbox"/>			4	<input checked="" type="checkbox"/> Juncus bufonius	FACW	20
Total Tree Cover:				5	<input type="checkbox"/> Rumex crispus	FAC+	10
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/> Bromus tectorum	NOL	10
1	<input type="checkbox"/>			7	<input type="checkbox"/>		
2	<input type="checkbox"/>			8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
5	<input type="checkbox"/>			Total Herb Cover			110
Total Sap/Shrub Cover:				% of Dom. Species = OBL, FACW or FAC (excluding FAC-):			75

Remarks: Plot lies within a small depressional wetland connected to the east to an ntermittent stream to the east. The area receives hydrology from flooding and runoff from adjacent slopes.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Welland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		

Remarks: Water-stained vegetation in plot.

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 3/3	None	None	Silt loam
8-16		10YR 3/2	5YR 3/4	Few/ med/ distinct	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					

Remarks: No indicators of hydric soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Hydric Soils Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Remarks:

DATA FORM- ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	21

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X			Indicator	%	Herb Stratum-Dominant Sp. marked w/ X			Indicator	%	
1	<input type="checkbox"/>				1	<input checked="" type="checkbox"/>	Elymus cinereus	FAC	30	
2	<input type="checkbox"/>				2	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	40	
3	<input type="checkbox"/>				3	<input type="checkbox"/>	Bromus tectorum	NOL	20	
4	<input type="checkbox"/>				4	<input type="checkbox"/>	Lactuca serriola	FACU	20	
Total Tree Cover:					5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X			Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>				7	<input type="checkbox"/>				
2	<input type="checkbox"/>				8	<input type="checkbox"/>				
3	<input type="checkbox"/>				9	<input type="checkbox"/>				
4	<input type="checkbox"/>				10	<input type="checkbox"/>				
5	<input type="checkbox"/>				Total Herb Cover				110	
Total Sap/Shrub Cover:					% of Dom. Species =OBL, FACW or FAC (excluding FAC-):					50

Remarks: Plot lies adjacent to a channel at the same elevation as Plot 19. The area receives hydrology from adjacent slopes, but soils are well-drained and groundwater does not appear to persist close to the surface into the growing season. Intermittent stream to east of plot and to south across road is highly incised (3-5 feet) and may have caused a reduction in water levels over time.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (In.) Depth to Free Water in Pit: none (In.) Depth to Saturated Soil: >16 (In.)		
Remarks:		

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks:			

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	22

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Herb Stratum-Dominant Sp. marked w/ X			
	Indicator	%		Indicator	%		
1	<input checked="" type="checkbox"/> FACU	50	1	<input checked="" type="checkbox"/> FAC	40	Robinia pseudoacacia	Galium aparine
2	<input type="checkbox"/>		2	<input checked="" type="checkbox"/> NOL	20		Triticum aestivum
3	<input type="checkbox"/>		3	<input checked="" type="checkbox"/> FACU	20		Lactuca serriola
4	<input type="checkbox"/>		4	<input type="checkbox"/>			
Total Tree Cover:			50	5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Total Herb Cover			
	Indicator	%					
1	<input type="checkbox"/>		6				
2	<input type="checkbox"/>		7				
3	<input type="checkbox"/>		8				
4	<input type="checkbox"/>		9				
5	<input type="checkbox"/>		10				
Total Sap/Shrub Cover:						80	
Total Sap/Shrub Cover:						% of Dom. Species =OBL, FACW or FAC (excluding FAC-): 25	

Remarks: Plot lies adjacent to a intermittent stream channel that is greatly incised (3-5 feet), cutting it off from sheet flow or rising stormwater inputs. Groundwater does not appear to persist close to the surface into the growing season.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Remarks:		

SOILS

Map Unit Name (series and Phase): <u>Anderly silt loam, 1 to 7 percent slopes</u>	Drainage Class: Well drained				
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>				
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					
Remarks: No indicators of hydric soils.					

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks:			

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	23

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X		Indicator	%	Herb Stratum-Dominant Sp. marked w/ X		Indicator	%
1	<input type="checkbox"/>			1	<input checked="" type="checkbox"/>	Triticum aestivum	60
2	<input type="checkbox"/>			2	<input type="checkbox"/>		
3	<input type="checkbox"/>			3	<input type="checkbox"/>		
4	<input type="checkbox"/>			4	<input type="checkbox"/>		
Total Tree Cover:				5	<input type="checkbox"/>		
Sap/Shrub Stratum-Dom. Sp. marked w/ X		Indicator	%	6	<input type="checkbox"/>		
1	<input type="checkbox"/>			7	<input type="checkbox"/>		
2	<input type="checkbox"/>			8	<input type="checkbox"/>		
3	<input type="checkbox"/>			9	<input type="checkbox"/>		
4	<input type="checkbox"/>			10	<input type="checkbox"/>		
				Total Herb Cover			60
Total Sap/Shrub Cover:				% of Dom. Species =OBL, FACW or FAC (excluding FAC-):			0

Remarks: 40 percent bare soil in agricultural field.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)	

Remarks: No indicators of wetland hydrology present.

SOILS

Map Unit Name (series and Phase):		Walla Walla silt loam, 1 to 7 percent slopes		Drainage Class: Well drained	
Taxonomy (Subgroup):				Field Observations Confirm Mapped Type? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc:
0 - 16		10YR 3/3	None	None	Silt loam
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)					

Remarks: No indicators of hydric soils. Plowed field.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	24

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	60	
2	<input type="checkbox"/>					2	<input type="checkbox"/>				
3	<input type="checkbox"/>					3	<input type="checkbox"/>				
4	<input type="checkbox"/>					4	<input type="checkbox"/>				
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>					7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
5	<input type="checkbox"/>					Total Herb Cover				70	
Total Sap/Shrub Cover:						% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0	

Remarks: 30 percent bare soil in agricultural field.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available Field Observations: Depth of Surface Water: <u>none</u> (In.) Depth to Free Water in Pit: <u>none</u> (In.) Depth to Saturated Soil: <u>>16</u> (In.)	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
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Remarks: No indicators of wetland hydrology present.

SOILS

Map Unit Name (series and Phase): Mikkalo silt loam, 2 to 7 percent slopes	Drainage Class: Well drained
Taxonomy (Subgroup):	Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol	<input type="checkbox"/> Redox Features (w/in 10")	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Concretions (w/in 3", >2mm)	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (explain in remarks)

Remarks: No indicators of hydric soils. Plowed field.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			
Hydric Soils Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			

Remarks: Plot is located in area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

DATA FORM- ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

Project Site:	Proposed Klondike III Wind Power Project	Date:	March 3, 2005
Applicant/Owner:	Klondike Wind Power III, LLC	County:	Sherman
Investigator:	Phil Rickus	State:	Oregon
Do Normal Circumstances exist on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Transect ID:	
Is Area a Potential Problem Area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Plot ID:	25

VEGETATION

Tree Stratum-Dominant Sp. marked w/ X				Indicator	%	Herb Stratum-Dominant Sp. marked w/ X				Indicator	%
1	<input type="checkbox"/>					1	<input checked="" type="checkbox"/>	Triticum aestivum	NOL	80	
2	<input type="checkbox"/>					2	<input type="checkbox"/>				
3	<input type="checkbox"/>					3	<input type="checkbox"/>				
4	<input type="checkbox"/>					4	<input type="checkbox"/>				
Total Tree Cover:						5	<input type="checkbox"/>				
Sap/Shrub Stratum-Dom. Sp. marked w/ X				Indicator	%	6	<input type="checkbox"/>				
1	<input type="checkbox"/>					7	<input type="checkbox"/>				
2	<input type="checkbox"/>					8	<input type="checkbox"/>				
3	<input type="checkbox"/>					9	<input type="checkbox"/>				
4	<input type="checkbox"/>					10	<input type="checkbox"/>				
						Total Herb Cover				80	
Total Sap/Shrub Cover:						% of Dom. Species =OBL, FACW or FAC (excluding FAC-):				0	

Remarks: Located in a cultivated wheat field. 20 percent bare soil. Plot lies in a very shallow swale area.

HYDROLOGY

<input type="checkbox"/> Recorded Data (describe in Remarks) <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No recorded data available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain in remarks)
Field Observations: Depth of Surface Water: none (in.) Depth to Free Water in Pit: none (in.) Depth to Saturated Soil: >16 (in.)		

Remarks: No indicators of wetland hydrology present.

SOILS

Map Unit Name (series and Phase):	Anderly silt loam, 1 to 7 percent slopes	Drainage Class:	Well drained		
Taxonomy (Subgroup):		Field Observations Confirm Mapped Type?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0 - 16		10YR 3/3	None	None	Silt loam

Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Redox Features (w/in 10") <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions (w/in 3", >2mm) <input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Other (explain in remarks)
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Remarks: No indicators of hydric soils. Plowed field.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is this Sampling Point Within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soils Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Remarks: Plot is located in the upper portion of an area mapped as intermittent drainage on USGS quad map; however, area has been plowed through and no channel exists.

EXHIBIT K

LAND USE

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

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APPENDICES

- K-1 LAND USE ANALYSIS AREA – MAP
- K-2 FARMLAND TECHNICAL MEMORANDUM

K.1 INTRODUCTION AND LAND USE REVIEW PATH

OAR 345-021-0010(1)(k) *Information about the proposed facility's compliance with the statewide planning goals adopted by the Land Conservation and Development Commission, providing evidence to support a finding by the Council as required by OAR 345-022-0030. The applicant shall state whether the applicant elects to address the Council's land use standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a Council determination under ORS 469.504(1)(b). An applicant may elect different processes for an energy facility and a related or supporting facility but may not otherwise combine the two processes. Notwithstanding OAR 345-021-0090(2), once the applicant has made an election, the applicant may not amend the application to make a different election. In this subsection, "affected (sic) local government" means a local government that has land use jurisdiction over any part of the proposed site of the facility.*

Response: To issue a site certificate, the Oregon Energy Facility Siting Council (Council) must find that the proposed facility complies with the statewide land use planning goals (goals) adopted by the Land Conservation and Development Commission (LCDC). OAR 345-022-0030(1). The Applicant hereby elects to seek a Council determination of compliance with the Council's land use standard under ORS 469.504(1)(b). Under ORS 469.504(1)(b)(A)-(C), the application complies with the Council's land use standard if the Council determines that:

1. *The proposed facility complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted, and with any Land Conservation and Development Commission administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3);*
2. *For an energy facility or a related or supporting facility that must be evaluated against the applicable substantive criteria pursuant to subsection (5) of this section, that the proposed facility does not comply with one or more of the applicable substantive criteria but does otherwise comply with the applicable statewide planning goals, or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section; or*
3. *For a facility that the council elects to evaluate against the statewide planning goals pursuant to subsection (5) of this section, that the proposed facility complies with the applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.*

Pursuant to ORS 469.504(1)(B)(A) above, this Exhibit K demonstrates that the facility complies with the applicable substantive criteria from the Sherman County (County) acknowledged comprehensive plan and land use ordinances, with applicable LCDC administrative rules and goals, and with any land use statutes directly applicable to the facility. Pursuant to ORS 469.504(1)(b)(B) above, this Exhibit K also demonstrates that

an exception to statewide planning goal 3, agriculture, is justified under ORS 469.504(2).

K.2 LAND USE ANALYSIS AREA AND MAP

OAR 345-021-0010(1)(k)(A) *Include a map showing the comprehensive plan designations and land use zones of the facility site, all areas that may be temporarily disturbed by any activity related to the design, construction and operation of the proposed facility and property adjacent to the site.*

Response: Figure K-1 is a map that shows the facility’s location, the Sherman County Comprehensive Plan (“SCCP” or “Comprehensive Plan”) designations and County land use zone of the facility site, all areas of the site that may be temporarily disturbed during the design, construction or operation of the proposed facility, property adjacent to the site, and a half-mile study corridor around all of the proposed facilities.

K.3 ENERGY FACILITY AND RELATED OR SUPPORTING FACILITIES

The Klondike III project is a wind energy facility with a peak electric generating capacity of approximately 273 megawatts (MW) and an average electric generating capacity of approximately 91 MW. The project site is located in Sherman County approximately 4 miles east of Wasco, Oregon, on private land that has been leased by Klondike III to develop the project. The project will consist of: (i) 165 turbines with an installed peak generating capacity of either 1.5 MW or 1.65 MW per turbine, and associated turbine towers, turbine pads and related equipment; (ii) underground collector lines with a capacity of 34.5 kV to transmit electric power generated by the wind turbines to two collector substations located within the project boundary; (iii) two collector substations; (iv) an operations and maintenance (O&M) facility to serve the Klondike III project; (v) an above ground 230 kV collector line to transmit power between the collector substation near Webfoot and the point of interconnection with the Bonneville Power Administration’s (BPA’s) facilities at BPA’s Klondike Schoolhouse substation; and (vi) new access roads. Independent of and separate from these project elements, BPA will construct a new BPA Klondike Schoolhouse substation within the project site and a new 230kV transmission line from the BPA Klondike Schoolhouse substation to BPA’s John Day substation. Neither of these BPA facilities are related or supporting facilities of the project. The project component map is provided at Appendix C-2.

The project site consists of relatively level privately owned agricultural land, primarily in dry land wheat production. Farming operations will continue directly adjacent to the turbines and access roads. The turbines and related or supporting facilities will be sited in a manner that minimizes disruption to existing farm operations. The project will preclude farming on approximately 70 acres of farmland. The following table shows the loss of agricultural land during the life of the project caused by each project component:

Turbines/turbine towers/turbine pads:	<u>8.0</u>
Underground collector lines not in roads (3’+ deep):	<u>0.0</u>
Klondike III O&M facility and substations:	<u>8.0</u>

New access roads and upgrades/associated underground collector lines:	<u>54.6</u>
Above ground collector line/met towers:	<u>0.0</u>
TOTAL:	<u>70.6</u>

The project components are described individually below.

1. Energy Facility

As is noted above, the energy facility will consist of 165 turbines with an installed peak generating capacity of either 1.5 MW or 1.65 MW per turbine, associated turbine towers, turbine pads and related equipment. See Exhibit B for detailed information about the components and dimensions of the turbines. Each turbine will be mounted on a tapered monopole supported by a reinforced concrete foundation.

2. Related or Supporting Facilities

a. Collector Lines

Turbines will be linked by underground and above ground collector lines devoted solely to transmitting electrical energy generated by the project to the project's substations and, in turn, to BPA's Klondike Schoolhouse substation. The BPA Klondike Schoolhouse substation will be the project's point of interconnection with the BPA power grid. From BPA's Klondike Schoolhouse substation, power generated by the project will be transmitted on a new 230 kV BPA transmission line to BPA's John Day substation near Rufus, Oregon. The BPA Klondike Schoolhouse substation and new BPA transmission line are BPA system upgrades that will be used by other energy projects. Thus, they are not related or supporting facilities (See Appendix BB-1).

b. Access Roads

To the extent possible, existing roads will be used by the project to minimize the need to construct new roads. Project construction vehicles and vehicles of project employees will travel to and from the site on existing federal, state, and local highways and roads.

Project workers will access some of the project construction areas via existing roads. Other construction areas will be accessed via new private roads. Approximately nineteen (19) miles of new private roads will be constructed within the project site. The new roads will be 20-foot wide gravel roads. An additional 10 feet on each side of the new road alignments will be disturbed during road construction. These road construction areas will be restored to their prior condition once the roads are built. The existing and new access roads that will be used by the project are related or supporting facilities of the project. The location of the existing and proposed new access roads is shown on the project component map at Appendix C-2. To the extent reasonably possible, the proposed new access roads will be located adjacent to the turbine towers. These roads will provide

Klondike III with access to the turbines and related or supporting facilities, and will provide area farmers with improved, all-weather roads to access their fields.

A final transportation plan describing these routes will be submitted to the County prior to the commencement of project construction.

c. New Operations and Maintenance (O&M) Building

An Operations and Maintenance (O&M) building will be constructed for the Klondike III project. An on-site well, from which the project will draw less than 5,000 gallons of water per day, and an on-site subsurface sewage disposal system to serve the new O&M building will be located adjacent to the new O&M building. Power for the new O&M building will be supplied by the Wasco Electric Cooperative on an above ground low voltage line that will run from the existing O&M building.

d. Temporary Staging Areas

During the construction of the project, nineteen (19) temporary staging areas will be used to store substation components, tower sections, nacelles, other wind turbine components, construction supplies and other equipment. These staging areas will also be used for parking by construction personnel. There will be a 2-acre staging area adjacent to each proposed turbine string, and four 4-acre staging areas throughout the project area. The staging areas will be surfaced with crushed gravel.

Before finalizing the location of the staging areas, Klondike III will discuss the proposed locations of these temporary areas with involved landowners to help mitigate any adverse impacts to farmland. After the project is constructed, the staging areas will be removed and restored to wheat or native grasses.

e. New Collector Substations

Two new collector substations will be built to serve the project. One will be located next to the new O&M building. The other will be located immediately adjacent to the new BPA Klondike Schoolhouse substation. Each substation will receive and transmit power from the Klondike III project.

3. New BPA Transmission Line and Substation Are Not Related or Supporting Facilities

The BPA Klondike Schoolhouse substation and new 230kV transmission line are not related or supporting facilities of the project. These facilities are being sited and built by BPA as upgrades to the BPA transmission system, and would be sited and built regardless of the development of the Klondike III project. In addition, neither is a related or supporting facility because neither is being proposed by the applicant (See definition of “related or supporting facility” at ORS 469.300(24)).

K.4 COUNCIL DETERMINATION ON LAND USE

OAD 345-021-0010(1)(k)(C) *If the applicant elects to obtain a Council determination on land use:*

- a. *Identify the affected local government(s);*

Response: The facility will be sited solely in Sherman County, which is the affected local government.

- b. *Identify the applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and that are in effect on the date the application is submitted and describe how the proposed facility complies with those criteria;*

Response: The proposed facility and all related or supporting facilities will be located within the Exclusive Farm Use (F-1) base zone (EFU zone). See Figure K-1. The Natural Hazards Combining District (Combining District) associated with Grass Canyon extends slightly into an area south of Webfoot. The project would not be built on any identified hazard area so the Combining District does not apply. See also Exhibit H, which indicates that, based on review of local geology, there are no mapped faults on the project site, and the risk of ground rupture due to fault displacement in the project vicinity is low. In addition, rock is present at shallow depths, and the groundwater table is deep. Considering these site conditions, the potential for earthquake-induced landslides, lateral spreading, liquefaction and settlement/subsidence at the site are low. Moreover, Exhibit H also concludes that non-seismic geologic hazards, including slope instability and landslides, are not geologic hazards that will impact the project due to site conditions. The facility complies with the applicable review criteria set forth in the SCCP and in the County Zoning Ordinance (SCZO or Zoning Ordinance) in the manner described below.

- c. *Identify all Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3) and describe how the proposed facility complies with those rules, goals and statutes.*

Response: Except as discussed herein, the acknowledged Comprehensive Plan and Zoning Ordinance incorporate all of the LCDC administrative rules, goals and statutes that are applicable to the project.

- d. *If the proposed facility might not comply with all applicable substantive criteria, identify the applicable statewide planning goals and describe how the proposed facility complies with those goals.*

Response: As is described below, the project complies with all of the applicable substantive criteria and, thus, the application does not directly apply the statewide planning goals to the project.

- e. *If the proposed facility might not comply with all applicable substantive criteria or applicable statewide planning goals, describe why an exception to any applicable statewide planning goal is justified, providing evidence to support all findings by the Council required under ORS 469.504(2).*

Response: The project complies with all of the applicable substantive criteria and applicable goals, except that Klondike III proposes an exception to goal 3 because the project will occupy more than 20 acres of non-high value farm land. Klondike III provides evidence herein that justifies the exception.

K.5 ZONING ORDINANCE CRITERIA

1. SCZO Section 3.1.3—Conditional Uses Permitted in County EFU Zone

SZCO Section 3.1.3(e) and (f), respectively, allow commercial utility facilities and transportation improvements to be developed in the EFU zone as conditional uses. Specifically, these sections provide as follows:

2. *Conditional Uses Permitted. In an F-1 zone the following uses are permitted when authorized in accordance with the requirements of Article 5 of this Ordinance and this Section:*

** * **

(e) Operations conducted for the following uses:

** * **

17) Commercial utility facilities.

** * **

(f) Transportation Improvement.

*1) Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are (1) not improvements designated in the Transportation System Plan; or (2) not designed and constructed as part of a subdivision or planned development subject to site plan and/or conditional use review. Transportation projects shall comply with the Transportation System Plan and applicable standards, and shall address the following criteria. * * **

A. The project is designed to be compatible with existing land use and social patterns including noise generation, safety, and zoning.

B. The project is designed to minimize unavoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.

C. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other

design features.

D. The project includes provision for bicycle and pedestrian circulations as consistent with the comprehensive plan and other requirements of this ordinance.

* * *

Response:

A. Commercial Utility Facilities. Klondike III proposes development of the turbine facilities and the following related or supporting facilities: (i) underground collector lines with a capacity of 34.5 kV to transmit electric power generated by the wind turbines to two collector substations located within the project boundary, (ii) two collector substations, (iii) an O&M facility to serve the Klondike III project, (iv) an above ground 230 kV collector line to transmit power between the collector substation near Webfoot and the BPA Klondike Schoolhouse substation, and (v) new access roads. All of these facilities will be located on land zoned EFU by the County. With the exception of the new access roads, which will be used by Klondike III personnel and by farmers in the area, all of these related or supporting facilities will be used exclusively by the project. For the following reasons, these related or supporting facilities are conditionally permitted by the County as “commercial utility facilities.”

SCZO 3.1.3(e)(17) allows “commercial utility facilities” located on EFU zoned land to be permitted as conditional uses. This section appears to implement ORS 215.283(2)(g), which provides that “commercial utility facilities for the purpose of generating power for public use by sale” are conditionally permitted on EFU land in Oregon subject to ORS 215.296. The requirements of ORS 215.296 are discussed later in this Exhibit K.

In prior cases before the Council, a related or supporting facility has been determined to be a part of a facility evaluated under ORS 215.283(2)(g) based on its not having an independent utility. The proposed turbine facilities and related or supporting facilities, other than the proposed new access roads, will not be used by others or made available to others for use. These facilities are necessary, accessory components of the generation and transmission of electricity by the project, and have no independent utility beyond their use in connection with the proposed energy generating facilities. Accordingly, the proposed turbine facilities and the related or supporting facilities, other than the proposed new roads, are commercial utility facilities for purposes of both SCZO 3.1.3(e)(17) and ORS 215.283(2)(g) and are conditionally permitted under both state law and the Zoning Ordinance.

B. Transportation Improvements. Zoning Ordinance 3.1.3(f) allows the “construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are (1) not improvements designated in the Transportation System Plan; or (2) not designated and constructed as part of a

subdivision or planned development subject to site plan and/or condition use review” Transportation projects must comply with the Transportation System Plan (TSP) and applicable standards and must address four criteria: (i) the project’s compatibility with existing land use and social patterns including noise generation, safety and zoning; (ii) the project’s design must minimize unavoidable environmental impacts to wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities; (iii) the project must preserve or improve the safety and function of the facility through access management, traffic calming, or other design features; and (iv) the inclusion of bicycle and pedestrian circulations as consistent with the Comprehensive Plan and other requirements of the Zoning Ordinance.

The proposed new access roads and the proposed reconstruction of existing roads are not improvements designated in the TSP, and are not being constructed as part of a subdivision or planned development. The project is compatible with existing land uses and social patterns including with respect to its level of noise generation, its safety and its zoning. As discussed in this Exhibit K, the project is designed to minimize environmental impacts to identified wetlands, wildlife habitat, water quality, cultural resources, and scenic qualities. The project preserves or improves the safety and function of the existing roads by resurfacing or restructuring selected area roads and highways. No bicycle or pedestrian circulations are appropriate for the project area roads and, therefore, none are proposed.

2. Provisions Applicable to All Permitted and Conditionally Permitted Uses (All Facility Components)

The SCZO contains provisions that are applicable to all development proposals. The Facility complies with these provisions as provided below.

A. SCZO § 3.1.4(c)—Dimensional Standards/Setback Requirements

In an F-1 (EFU) Zone, the minimum setback requirements shall be as follows:

1) The front and rear setbacks from the property line shall be 30 feet, except that the front yard setback from the right-of-way of an arterial or major collector or road shall be 50 feet unless approved otherwise by the Planning Commission.

2) Each side yard setback from a property line shall be a minimum of 25 feet, and for parcels or lots involving a non-farm residential use with side yard(s) adjacent to farm lands, said adjacent side yards shall be a minimum of 50 feet unless approved otherwise by the Planning Commission.

Response: No new lots will be created by the facility. As depicted on Appendix C-2, all facility structures will comply with the setback requirements set forth in

SCZO 3.1.4(c). All of the wind energy generating turbines and other above ground elements of the facility will be located at least 50 feet from all property lines.

B. SCZO § 4.9(1) – Compliance with State and Federal Agency Rules and Regulations

Approval of any use or development proposal pursuant to the provisions of this Ordinance shall require compliance with and consideration of all applicable State and Federal agency rules and regulations.

Response: The Council's rules governing this application are designed to identify all applicable permits, approvals and regulations needed for construction of the facility. In particular, Exhibit E identifies all of the federal, state and local permits and approvals needed to construct the facility. Exhibit E provides evidence demonstrating that the construction and operation of the facility will comply with all state and local statutes, rules and standards applicable to the permit. Exhibit E also provides evidence that for federal permits, the relevant federal agencies have received or will receive the information needed to allow the facility to comply with all applicable federal rules and regulations. Set forth below are the most notable requirements identified in Exhibit E.

With respect to applicable federal rules and regulations, the Federal Aviation Administration (FAA) requires Klondike III to provide the FAA with a Notice of Proposed Construction or Alteration. Klondike III will file this notice with the FAA and will notify the Council as soon as the FAA's response has been received.

A Clean Water Act, Section 404 permit from the U.S. Army Corps of Engineers will not be required because there will be no fill in the waters of the U.S. including wetlands. As such, consultation with the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act will not be required, because there is no federal license, permit, or authorization required to build the facility. *See Exhibits J and Q.* The Oregon Department of Environmental Quality's (DEQ's) noise regulations apply to the facility. *See Exhibit X.*

With respect to state agency rules and regulations, Klondike III is pursuing an Energy Facility Site Certificate from the Oregon Energy Facility Siting Council. In addition, as described in Exhibits E and I, Klondike III will apply for and obtain a National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater (1200-C) Permit from the DEQ before constructing the facility. The new O&M facility will require an onsite sewage permit from the Wasco-Sherman Public Health Department. A fill-removal permit will not be required because no removal or fill will occur within waters of the state, including wetlands, and a permit to appropriate groundwater will not be required because the groundwater well will be exempt from permitting requirements due to the fact that it will supply less than 5000 gallons per day (See Exhibit O). Finally, the facility will meet state noise standards, as outlined in Exhibit X. In particular,

noise levels are not projected to exceed DEQ noise impact criteria. Where necessary, Klondike III intends to obtain easements from property owners to allow for a greater than 10 dBA increase over ambient noise levels, as provided for in DEQ rules.

C. SCZO § 4.13 Additional Conditions to Development Proposals

The County may require additional conditions for development proposals

- 1) The proposed use shall not reduce the level of service (LOS) below a D rating for the public transportation system. For developments that are likely to generate more than a V/C ratio of 75 or greater, the applicant shall provide adequate information, such as a traffic impact study or traffic counts, to demonstrate the level of impact to the surrounding road system. The developer shall be required to mitigate impacts attributable to the project.*
- 2) The determination of the scope, area, and content of the traffic impact study shall be coordinated with the provider of the affected transportation facility, i.e., city, county, state.*
- 3) Dedication of land for roads, transit facilities, sidewalks, bikeways, paths or accessways shall be required where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.*
- 4) Construction of improvements such as paving, curbing, installation or contribution to traffic signals, construction of sidewalks, bikeways, accessways, paths or roads that serve the proposed use where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.*

Response: Klondike III will comply with all conditions of approval imposed by the Council. Klondike III addresses the transportation and access provisions under the applicable review criteria set forth below. The project will not reduce the level of service for public transportation below a D rating, or generate a volume-to-capacity (V/C) ratio of 75 or greater. It is not necessary for Klondike III to dedicate any land for transportation facilities, nor for any road mitigation improvements other than the reconstruction of existing roads proposed in the application.

D. SCZO § 11.1 Design & Improvement Standards and Requirements, Compliance Required

Any land division or development and the improvements required, whether by subdivision, partitioning, creation of a street or other right of way, zoning approval, or other land development requiring approval pursuant to the provisions of this Ordinance, shall be in compliance with the design and improvement standards and requirements set forth in this Article, in any other applicable provisions of this Ordinance, in any other provisions of any other applicable County or affected City ordinance, and in any applicable provision of State statutes or administrative rules.

Response: The Council’s rules governing the application are designed to identify all applicable design and improvement standards, permits, approvals, and regulations needed for construction of the facility. In particular, Exhibit E identifies all of the federal, state, and local permits and approvals needed to construct the facility, and elsewhere in this Exhibit K all of the applicable County design standards are identified. No land division, subdivision, or partition approval or creation of a public street is required in order to site the project. For the reasons described in this Exhibit K and in the application, the facility complies with this provision.

E. SCZO § 11.2 Design & Improvement Standards and Requirements, Zoning or Other Land Development Permit or Approval

Prior to the construction, alteration, reconstruction, expansion or change of use of any structure, lot or parcel for which a permit or other land development approval is required by this Ordinance, a permit or approval shall be obtained from the County or the designated official.

Response: The Council has exclusive jurisdiction to issue site certificates for energy facilities that are under its jurisdiction, such as the proposed facility. Klondike III has elected to seek a Council determination of compliance with the Council’s land use standard. This Exhibit K demonstrates compliance with that standard. Upon the Council’s approval of a site certificate for the facility and prior to any development activities, the Council will direct the County to issue all necessary land use permits approved by the Council. *See* ORS 469.401(3). No construction, alteration, reconstruction, expansion or change of use of any structure, lot or parcel will occur until the County issues the required permits.

3. SCZO Section 5.2 General Conditional Use Provisions (Energy Facility, Access Roads, and Associated Equipment)

In determining whether or not a Conditional Use proposal shall be approved or denied, it shall be determined that the following criteria are either met or can be met through compliance with specific conditions of approval.

1) The proposal is compatible with the applicable provisions of the County Comprehensive Plan and applicable Policies.

2) The proposal is in compliance with the requirements set forth by the applicable primary zone, by any other applicable combining zone, and other provisions of this Ordinance that are determined applicable to the subject use.

3) That, for a proposal requiring approval or permits from other local, state and/or federal agencies, evidence of such approval or permit compliance is established or can be assured prior to final approval.

4) The proposal is in compliance with specific standards, conditions and limitations set forth for the subject use in this Article and other specific relative standards required by this or other County Ordinance.

5) That no approval be granted for any use which is or expected to be found to exceed resource or public facility carrying capacities, or for any use which is found to not be in compliance with air, water, land, and solid waste or noise pollution standards.

6) That no approval be granted for any use violation of this Ordinance.

Response: Each criterion is addressed separately below.

K.6 COMPLIANCE WITH APPLICABLE COMPREHENSIVE PLAN PROVISIONS

1. SCZO § 5.2.1. Compliance with Applicable Comprehensive-Plan Goals and Policies

The proposal is compatible with the applicable provisions of the County Comprehensive Plan and applicable policies.

Response: The facility complies with all relevant provisions of the Comprehensive Plan as set forth below.

A. SCCP § VIII Planning Process and Citizen Involvement

Finding I. This Plan was drafted to conform with the State-wide planning goals relating to citizen involvement (goal 1) and land use planning (goal 2).

Response: As is described in detail below, the Council's process for considering and approving a site certificate application provides significant opportunity for citizen involvement that comply with statewide goals 1 and 2.

Goal II. To provide the opportunity for all citizens and effected [sic] agencies to participate in the planning process.

Policy I. All land use planning meetings shall be advertised in a general circulation newspaper and be open to the public.

Policy II. All effected [sic] agencies and effected [sic] landowners shall be notified by written notice of any proposed site specific land use change.

Response: Because Klondike III has elected to seek a Council determination of compliance with the land use standard, the Council's procedures (rather than the County's specific procedures at SCZO § 5.6) will apply to the land use determination. The Council's process includes opportunities for interested persons and governmental agencies to comment on the application. Following the submittal of the application, determination of completeness, and public notice in local newspapers, the Oregon Office of Energy will conduct a public information meeting concerning the application that will provide an opportunity for public comment. Thereafter, a noticed public hearing will be held on the Council's proposed order, offering another opportunity for public input. The Council's process also provides affected public agencies and area landowners with notice

of the application and an opportunity to comment. *See e.g.*, ORS 469.370; ORS 469.505; OAR Chapter 345, Divisions 15 and 21.

Klondike III has consulted with the USFWS, the Sherman County Historical Society (SCHS), the Sherman County Planning Department (County Planning Department), the U.S. Bureau of Land Management (BLM), the Oregon State Historical Preservation Office (SHPO) and the Oregon Natural Heritage Information Center (ONHIC). These agencies, offices and organizations have provided information regarding the project site and adjacent lands, including whether listed and sensitive species occur within the analysis area. Klondike III contacted the Oregon Department of Agriculture (ODA) for information about plant distribution and protection and conservation programs, and the Oregon Department of Fish and Wildlife (ODFW) for information on fish and wildlife habitat regulations and requirements.

B. SCCP § XI Physical Characteristics

Goal V. Improve or maintain the existing quality of the physical environment within the County.

Policy I. The County Court recognizes the Policy Advisory Committee and the Agricultural Sub-Committee recommendations for a state-wide non-point source pollution control program as the appropriate implementation technique to achieve the intent of Public Law 95.217.

Policy II. Erosion control provisions shall be incorporated into the subdivision ordinance. These shall require that the best practical methods be used to control erosion from road and building construction sites as well as other changes in land use which may degrade the quality of the land, air and water.

Response: The facility will maintain the existing quality of the physical environment within the County. Construction of the facility will not create a pollution source. The majority of the project site consists of agricultural fields where bare soils are often exposed to wind and water. The project will not significantly increase the amount of exposed soils in the project area. *See Exhibit I.*

Temporary impacts to land within the project area will occur with the creation of the staging areas and excavation for underground collector lines. To minimize soil exposure during installation of the collector lines, Klondike III will endeavor to open only as much trench in a day as can be excavated and backfilled; in no case will a trench remain open for more than the 7 days allowed by the general NPDES Construction Stormwater (1200-C) Permit issued by DEQ.

Establishing the proposed staging areas will involve stripping and temporarily stockpiling topsoil before placing gravel on the laydown areas. Because stockpiling will occur during the time of year when rainfall is lowest, very little erosion will result from precipitation. Construction of the facility will be conducted pursuant to a NPDES General Construction Stormwater (1200-C) Permit issued by the DEQ. The NPDES permit will

require the use of best management practices to minimize the potential for erosion.

Best management practices will be used to minimize the impacts of wind erosion. In actively farmed areas, the wheat crop will protect the stockpiles from wind erosion. In other areas, hay bales or other similar containment features will be used during construction of the project. As needed, water from water trucks will be sprayed on disturbed areas to keep wind borne erosion losses to a minimum. After the need for the staging areas ends, the staging area locations will be brought back to their original contours, topsoil will be spread in these areas, and they will be revegetated or prepared for planting of wheat or barley, or for use as range land. Any disturbed Conservation Reserve Program (CRP) areas and other non-cropped vegetated areas will be revegetated with the appropriate species.

No non-point source pollution control or erosion control is required for wastewater, as the only wastewater generated during construction will be from washdown of concrete trucks after concrete loads have been emptied. Washdown will be done by the contractor and will likely occur at a contractor-owned batch plant. No industrial wastewater will be generated during operations. See further discussion in Exhibit V.

Goal VI. To protect life and property from natural disasters and hazards.

Response: The project site involves no designated hazard areas.

Goal VII. Provide for the rational development and conservation of the aggregate resources within the County.

Response: No known aggregate resource sites are located within or immediately adjacent to the project site.

Goal VIII. To provide a detailed investigation of the County's groundwater resources.

Response: The facility will use a small amount of groundwater. The new O&M facility will be served by a new well. No permit is required to draw from this well because Oregon law allows the project to use up to 5000 gallons of water per day from a groundwater well without a water right or permit.

Goal IX. To maintain the multiple use management concept on Bureau of Land Management Lands within Sherman County.

Response: The project site does not include any BLM lands.

Goal X. Preserve the integrity of the Sherman County Landscape.

Policy I. Trees should be considered an important feature of the landscape and therefore the County Court shall encourage the retention of this resource when practical.

Response: The facility site occurs in a largely treeless landscape. The facility is not expected to impact trees. Upland trees were located near Emigrant Springs, Webfoot, and scattered residences throughout the study area, but do not exist within 500 feet of the project. Development of the project will not require the removal of any trees. See Exhibit P.

Goal XI. To maintain all species of fish and wildlife at optimum levels and prevent the serious depletion of any indigenous species.

Policy I. Fish and Wildlife management policies should be implemented to enhance the public enjoyment of wildlife and fish in a manner that is compatible with the primary uses of the lands and waters.

Response: The Energy Facility Siting process requires the applicant to consider and comply with the ODFW Fish and Wildlife Habitat Mitigation Policy as set forth in OAR 635-415-0000 through -0025. As part of the process, Klondike III identified and categorized all fish and wildlife habitats within the habitat analysis area. There are no Category 1 habitats in the analysis area, and as such, none will be impacted. At the same time, the bulk of the habitat to be impacted by the Project is Category 6 habitat, which accounts for 96% of the habitat to be impacted temporarily during construction and 89% of the habitat to be impacted permanently. The Applicant has proposed to mitigate for all impacts in accordance with the ODFW Policy, as set forth in Exhibit P. Moreover, based on pre-field reviews and the fish and wildlife habitat analysis, there are no anticipated impacts to threatened and endangered species from the construction, operation, and retirement of the project, as set forth in Exhibit Q.

Policy III. Fence rows, ditch banks and brush patches should be considered for retention of wildlife use.

Response: No fence rows, ditch banks or brush patches would be affected by this project as the project site is primarily in large-scale wheat crop production.

Policy IV. The existing habitat plantings and water developments constructed for wildlife use shall be maintained by the Oregon Department of Fish and Wildlife. Additional planting and guzzler developments will be encouraged. Long-term agreements between landowners and the Department of Fish and Wildlife for the maintenance of such sites shall be encouraged.

Policy V. The County Extension agent shall encourage the use of pesticides, which have a low toxicity to wildlife, fish and people.

Response: As described in Exhibit P, the study area provides only limited wildlife habitat. Therefore the project is not expected to have a significant impact on wildlife populations. A monitoring plan will be developed in consultation with ODFW to evaluate actual project impacts.

These policies concern the protection of fish and wildlife in the County. One issue of

potential concern can be the use of pesticides to control weeds in crop fields. Construction equipment is a source of the dispersal of weed seed that may not otherwise be found in the area, and disturbed ground offers an opportunity for weeds to establish themselves. A weed management plan will be used by Klondike III to prevent the establishment of weeds. As described in the section on Mitigation Measures in Exhibit P, the plan will be developed in consultation with the Sherman County Soil and Water Conservation District. The plan will likely include a restoration effort to clear weeds through a combination of burning (if possible), spraying, and mowing. Additional steps may include the use of Roundup on newly emerging weeds, the planting of a native grass seed mix (certified weed free) with a no-till drill in the fall, followed by application of broadleaf-specific and post-emergent herbicides as needed.

Goal XII. Provide for the rational use of all resources within the designated Deschutes and John Day Oregon State Scenic Waterways.

Response: Exhibit T evaluates impacts to recreation resources. The project site is not located in or near either the Deschutes or John Day scenic waterway. See Exhibit R. Primary traffic routes for construction will originate near the I-84/US 97 Biggs Junction. Increased construction traffic would likely result in short-term traffic delays on these roads, particularly on hill climbs on US 97, but would not be detrimental to recreational opportunities near the Deschutes or the John Day scenic waterway. Long-term detrimental impacts (i.e., increased traffic as a result of operation) are not anticipated.

Goal XIII. Attempt to maintain the diversity of plan[t] and animal species within the County.

Policy I. The following sites or areas shall be considered as critical habitat, unique vegetative and/or natural areas: Department of Fish and Wildlife plantings and guzzlers; and areas containing plant species listed on either the Provisional List of Endangered or Threatened Plant Species or the listing of Endangered and Threatened Plant Species in the United States.

*Policy II. The County Court shall encourage the preservation of these critical habitats, unique vegetative and/or natural areas. Landowners will be encouraged to provide long term protection to these areas. * * **

Response: As described in Exhibits P and Q, the facility is not expected to significantly affect any listed endangered or threatened species or adversely affect fish and wildlife species or habitat. As described in Exhibit Q, there are no direct project-related impacts to any federal or state listed species, and there is little or no habitat in the project area to support such species. A monitoring plan will be developed in coordination with ODFW to evaluate actual project impacts.

C. SCCP § XII Social Characteristics

Goal XIV. To improve or maintain the current level of social services available within the County and to assure the provision of public facilities consistent with the intensity of land use.

Policy I. The County Court shall encourage the location of industries, businesses and commercial service agricultural developments within the County consistent with the desired population growth and other goals and policies herein contained.

* * *

Policy XIX. The continuing loss of economic opportunities for residents of the County is of great concern to the citizenry. The reduction of need for agricultural based jobs due to improved farming technology and practices, the inability to keep families employed or offer employment opportunities to attract new citizens or the children of existing residents results in a stagnant or declining population. It is therefore a matter of great urgency that the County Court make every effort to streamline its land use approval and amendment process. It is likewise a matter of great urgency that the Court give increased consideration to land use applications which will increase economic diversity and employment opportunities. This increased consideration shall not be made to the detriment of existing residential structures. This consideration should focus on long term job creation and should not be used as a means to allow residential and commercial uses to locate outside urban growth and rural service center (communities) boundaries.

Response: Regarding Policy I, Exhibit U indicates that the personnel necessary to operate the facility who move to the Sherman County area from other areas would not have a significant impact on the local population. During its anticipated 20 to 30-year operation, the project would employ 15 to 20 full-time and part-time employees. If, for example, the project employed 20 people and 60 percent of them relocated from outside the analysis area, approximately 29 new residents (12 new employees x 2.43 average persons per household) would be added to Sherman County's population, assuming all relocated within the County.

Project construction is anticipated to take about 8 months and employ an estimated 100 to 120 workers at peak construction periods, with approximately 50 percent of these workers expected to be local employees. Construction workers will include locally hired workers for road and turbine pad construction as local expertise and availability allows. The remaining workers used to construct the project will be in-migrant. When feasible, preference will be given to local workers.

Development of the facility will increase economic diversity within the County and offer non-agricultural employment opportunities for local residents. Operation of the facility is projected to produce additional tax revenue for the County. This additional tax revenue would contribute to improved local services like roads, schools, police and fire, that

benefit the entire area while the project is not anticipated to have any significant new impact to public facilities or services.

[Goal XIV] Policy IV. The County will support and assist efforts to secure adequate hospital or emergency clinic facilities to serve the needs of the local residents.

* * *

Policy VI. The County Court shall continue to cooperate with the school districts within the County to assure the provision of educational facilities in an efficient manner consistent with the demands of the Sherman County populace.

* * *

Policy VIII. Sanitary landfills shall continue to be provided for the use of the County citizenry. The County will continue to provide the leadership in the location and development of such sites.

Response: The facility is not expected to have any adverse impacts on the availability of social services, such as hospital or emergency service facilities, educational facilities or sanitary landfills. Exhibit U evaluates the capacity of service providers in the project area. Sunrise Disposal and Recycling provides solid waste service for all of Sherman County, including the existing O&M facility for Klondike I and for portions of Gilliam County. Sunrise Disposal also operates a transfer station that is open to the public on the second and fourth Saturdays of each month. Refuse and recycling is transported via truck to the Columbia Ridge Recycling and Landfill site located near Arlington. Columbia Ridge is a large regional facility that accepts refuse from both Oregon and Washington.

Solid waste generated in the construction and operation of the proposed facility is described in Exhibit V. The project will generate minimal construction waste and very little solid waste that would require off-site disposal. The nearest landfill is the Columbia Ridge Recycling and Landfill Center located near Arlington. The landfill is not projected to reach capacity for at least 56 years and conversations with landfill operators did not identify any concerns regarding solid waste generation from construction or operation of the Klondike III project.

[Goal XIV] Policy X. The County road system shall be maintained and improved consistent with the needs of the Sherman County citizenry.

Policy XII. The construction of new public roads and highways shall be located whenever possible to avoid dividing existing farming units.

Response: No new public roads or highways will be constructed as part of the project. The design for the private access roads and for the improvements to existing public roads have been developed by Klondike III. Public road improvements will meet or exceed road standards for the road classifications in the County's TSP and Zoning Ordinance,

because roads will require a more substantial section to bear the weight of the vehicles and turbine components than would usually be constructed by the County. The improved public and new private roads will enhance access by land managers and farmers to their fields and will improve conditions for all users of the public road system. The new private access roads will be designed and constructed to minimize dividing existing farming units.

[Goal XIV] Policy XX. Transportation Planning Policies (Ord No. 21-05-2003

- A. *The Transportation System Plan and Land Use Review Policies.*
- 2. *All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan.*
- 3. *Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.*

** * **

Response: No new public roads are proposed with this application and, thus, no roads that would not conform with the County's Transportation System Plan. The proposal will result in upgrades to existing public and private roads, that either meet or exceed the road classification standards for the roads that have a classification.

** * **

B. *Local-State Coordination Policies*

- 2. *The County shall provide notice to ODOT of land use applications and development permits for properties that have direct frontage or direct access onto a state highway. Information that should be conveyed to reviewers includes project location, proposed land use action, and location of project access points.*

** * **

C. *Protection of Transportation Facilities Policies*

** * **

- 2. *The County shall include a consideration of a proposal's impact on existing or planned transportation facilities in all land use decisions.*

3. *The County shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations.*

Response: With the exception of one access road, the project will not have direct frontage or direct access onto any state highway. Klondike III will notify the Oregon Department of Transportation (ODOT) about this access road's direct frontage on a state highway.

Construction vehicles that must access the project site will use public roads. Travel routes will generally be the same as those that were used to construct the Klondike I project and are being used in 2005 to construct the Klondike II project. The primary route that will be used by the project during construction activities begins at the I-84/US 97 interchange at Biggs Junction and proceeds south on US 97 to the US 97/OR 206 intersection. Traffic may also approach the project site on US 97 from the south. At that intersection, construction-related traffic will travel on OR 206 through the City of Wasco and then use County roads to access the project site. The County's roads are generally composed of a pavement or gravel surface. Traffic on these roads is light and generally consists of local residential or farm equipment traffic. County roads likely to be used by project construction vehicles are Wasco Lane, North Klondike Road, Emigrant Springs Road, Rayburn Road, Dehler Lane, Dormaier Road, McDonald Ferry Lane, Gosson Lane, Egypt Road, Klondike Lane and Smith Road.

Some of the local roadways will require a 6-inch gravel overlay prior to use by project construction vehicles. These improvements are necessary to accommodate the length and weight of vehicles that will deliver the turbines and other machinery necessary to construct the project. Sections of local roads in poor condition will be completely reconstructed. Areas anticipated to require reconstruction or substantial improvement are shown on Figure C-2 in Exhibit C. Reconstructed roadways will be improved to accommodate two eight-foot travel lanes and will be constructed with eight inches of crushed aggregate on top of a geo-textile separation fabric. There is one bridge near Webfoot. Klondike III's consulting engineer has evaluated the bridge for load-bearing capacity and width, and has concluded that it will not require improvements prior to or during use by project construction vehicles or employees.

Project construction vehicles may cause brief traffic delays when trucks deliver the turbines and other project equipment, but the delays are unlikely to significantly impair through-traffic movements on area highways and roads. Once the project is constructed, trips generated by the 15 to 20 permanent employees will not have any effect on the functioning of the area roads or highways in the vicinity of the project.

New private access roads will be constructed to access the project turbines and will extend from the County roads as show in the Project Component map at Appendix C-2. These roads will be 20 feet wide. During construction, an additional 10 feet on either side of the 20-foot road section may be temporarily disturbed. Where reasonably possible, these roads will be located adjacent to the turbine towers to minimize the length.

All road work will be conducted in compliance with the project's erosion control plan as part of the facility's NPDES Construction Stormwater (1200-C) Permit. The erosion

control plan will include “best management practices” for erosion control during and after construction, and permanent drainage and erosion control facilities as necessary to allow stormwater passage without damage to local roads or to adjacent areas and without increasing sedimentation to any intermittent streams in the vicinity of the project.

Constructing project roads will require substantial amounts of sand and gravel. Klondike III will contract with one or more construction companies to improve existing and construct new access roads. The construction contractor will be responsible for locating and providing aggregate for construction.

Goal XV. To protect historical, cultural and archeological resources from encroachment by incompatible land uses and vandalism.

Policy I. The following areas and structures shall be considered historically, archaeologically or culturally significant: all archeological sites; the Sherman County Courthouse; portions of the Old Oregon Trail which are visible and pass over rangeland; and the old Union Pacific Railroad bed through DeMoss Park.

Policy II. The County Court shall encourage the preservation of these archaeologically or culturally significant areas. Landowners will be encouraged to provide long term protection to these areas.

Response: As discussed in Exhibit S, results of the cultural resource survey conducted for the Klondike III project showed that there were no previously recorded archaeological resources within the analysis area. Four archaeological sites were identified in the field study. Three of these resources are prehistoric archaeological isolates (each represents the find of a single artifact) and the fourth is a small assemblage of historic-period refuse (also recorded as an archaeological isolate). It is the general policy of the Oregon State Historic Preservation Office that archaeological isolates are not significant resources and are not eligible for listing in the National Register of Historic Places. Archaeological Investigations Northwest (AINW), the experts that conducted the field study, also stated that based on their professional opinion, these isolates were not significant resources. As such, no mitigation measures are necessary to address possible project effects to these resources.

The survey also identified a number of historic-period resources within the project analysis area, mostly including buildings and structures associated with private ranching operations. Most were recommended as not significant given their lack of integrity (primarily due to more recent alterations and modifications) or their lack of distinction. In addition, four resources were examined more thoroughly, including the Anson farmstead, Emigrant Springs Cemetery, the Webfoot school, and the Columbia Southern railroad alignment. None were determined as likely eligible for listing on the National Register of Historic Places, so no mitigation measures are necessary to address possible project effects to these four resources.

Finally, the Oregon Trail alignment through the Klondike III project area is a designated

historic trail under both federal and Oregon statutes. The alignment of the trail, as best it can be reconstructed, crosses the northeastern portion of the Klondike III project area. No physical evidence of the trail was observed during the field survey, as all of the reported locations of trail segments were agricultural fields, and farming activity is likely to have obliterated most, if not all, physical traces of the trail.

Given the lack of physical evidence for the Oregon Trail within the Klondike III project site boundary, AINW has recommended that construction of the project proceed within the mapped alignment of the Oregon Trail. Should intact physical evidence of the trail that is not currently recognized be observed where there is the potential for adverse effect, Klondike III will make concerted efforts to avoid any disturbance to the intact segments through redesign, re-engineering, or imposing limits on the extent of construction activity. Should avoidance of intact trail segments not be practicable, Klondike III will consult with the Oregon State Historic Preservation Office to define appropriate mitigation measures.

In addition, construction of the turbine strings, especially those in the northeastern Klondike III area, are likely to constitute an adverse effect on the visual setting of the Oregon Trail alignment in general and any intact segments that may be extant. Klondike III proposes the following mitigation measures:

1. The present setting of the Oregon Trail alignment from the John Day River canyon to Biggs will be documented through photographs and videotape prior to construction of the Klondike III project; and
2. Klondike III will partner with the Sherman County Development League and consult with the Sherman County Historical Society to develop and enhance educational and interpretive displays and materials on the Oregon Trail at Biggs, which offers the best opportunity for visitor contact given the presence of an intact segment of the trail at Biggs and the proximity to Interstate 84.

D. SCCP § XIII Housing

Goal XVI. To encourage the provision of sound affordable housing units for the citizenry of the County.

Response: As described in Exhibit U, the facility is not expected to affect long-term housing availability in the County. The housing vacancy rate is sufficient to accommodate the project's permanent employees. Temporary housing needs during construction can be accommodated by existing housing stock or hotel and motel rooms available in Wasco, The Dalles, and other nearby communities. No impacts on the supply of affordable housing are expected to occur as a result of construction personnel moving to the local area during the development of the project. Temporary construction employees are likely to use hotels or rental housing for the short-term housing needs, but the numbers are not significant enough to pose a concern, given the number of communities nearby. Permanent employees are likely to be able to afford housing in the median price housing market.

E. SCCP § XIV Economics

Goal XVII. Diversify the economic base of the County and maintain the viability of the agricultural sector.

* * *

Policy II. Appropriate provisions shall be incorporated into the zoning, subdivision and other necessary ordinances to assure conservation and retention of agricultural lands in agricultural uses. At a minimum, agricultural lands shall be zoned as exclusive farm use and taxed accordingly.

Response: The project will substantially contribute to the diversification of the County's economic base. Allowing the development of the project is consistent with the purposes of the EFU zone, which allows for the development of commercial utility facilities as a conditional use. Further, the project will result in a net benefit to farm incomes. The minimal loss of farm income based on the limited amount of land that Klondike III proposes to withdraw from farm production will be more than offset by revenue to local farmers from wind turbine leases. An average of 50 bushels of wheat per acre is harvested in this area and sells for an average of \$225. The project will permanently remove approximately 70 acres of land from farm production. Revenues from 70 acres of wheat sold at \$225 per acre would be \$15,750 annually. Royalty payments to landowners vary, but typically range from \$2,000 to \$4,000 per turbine, per year. If the project consists of 165 turbines, the total in annual lease payments that would be paid by Klondike III would be \$330,000. The additional revenues received by farmers from wind project lease payments will provide a stable and predictable source of income that will supplement farm revenues and help assure that lessor-landowner's farming operations can remain viable in years with lower crop yields or prices.

F. SCCP § XV Energy

Goal XVIII. Conserve energy resources.

Policy I. Cooperate with public agencies and private individuals in the use and development of renewable resources.

Policy III. New high voltage electrical transmission lines with nominal voltage in excess of 230 kV and gas transmission line shall be constructed within or adjacent to the existing electrical and gas transmission line right-of-way, respectively. Upon approval of the County Court, the General Standards for Issuance of Site Certificates, Energy Facility Siting Council (OAR 345-80-010 through OAR 345-80-051) may be utilized for proposals deviating from the existing rights-of-way will be considered a plan amendment and subject to the approval of the Sherman County Court.

Response: The project is a renewable wind resource project. The County has recognized that it has "solar and wind resources which have not been utilized since widespread use of electricity was introduced." Comprehensive Plan § XV Finding III. This application

represents a new opportunity to develop those resources.

Wind power is a clean and renewable source of energy. Wind facilities do not emit greenhouse gases or particulates, do not produce hazardous wastes, and do not deplete other natural resources. The construction of the project represents an implementation of Policy I.

This application does not propose a high voltage electrical transmission line as that term is defined at ORS 469.300(11)(a)(C).

G. SCCP § XVI Land Use

Goal XIX. To provide an orderly and efficient use of the lands within Sherman County.

* * *

Policy IV. Commercial businesses, except those related to agricultural uses, should be located within the incorporated cities or within areas served by the Biggs or Kent special service districts.

Response: The County's EFU zone expressly permits the proposed project as a conditional use. The project is locationally dependent and, accordingly, cannot be located within any of the area's incorporated cities. Furthermore, the facility will not have a large impact on services in the County. Its co-location and compatibility with existing and ongoing agricultural activities provides an example of orderly and efficient land use.

H. Section XVII Comprehensive Land Use Plan Map

Cropland. Cropland is the "prime agricultural" lands within the County. Lands so designated shall be preserved for exclusive farm use. All uses, which are not directly or indirectly related to farm use shall be limited to those, which provide public service and could not be provided for within other lands.

Response: As noted above, the County's EFU zone expressly permits the project as a conditional use in the EFU zone. The facility is dependent on optimal wind resources and proximity to transmission facilities. Accordingly, it cannot be located within any of the nearby cities. The project will be co-located and compatible with existing and ongoing agricultural activities and other wind energy generating facilities. Although the project will permanently remove approximately 70 acres from agricultural enterprises, an exception to Goal 3 is warranted as described in this Exhibit K.

K.7 COMPLIANCE WITH ADDITIONAL ZONING ORDINANCE PROVISIONS

1. SCZO § 5.2.2 Compliance with Applicable Zoning Ordinance Provisions

The proposal is in compliance with the requirements set forth by the applicable primary Zone, by any other applicable combining zone, and other provisions of this Ordinance that are determined applicable to the subject use.

Response: The following criteria are applicable to the facility as described below.

A. SCZO § 3.1.3(f)(1)—Transportation Standards (Access Roads)

*1) Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are (1) not improvements designated in the Transportation System Plan; or (2) not designed and constructed as part of a subdivision or planned development subject to site plan and/or conditional use review. Transportation projects shall comply with the Transportation System Plan and applicable standards, and shall address the following criteria. * * **

a. The project is designed to be compatible with existing land use and social patterns including noise generation, safety, and zoning.

Response: The proposed private access roads are a conditionally permitted use in the EFU zone and will be compatible with the existing agricultural uses in the project area. SCZO 3.1.3(f). The new private access roads will be constructed to access the project facilities and will extend from the County roads as show in the map at Appendix C-2. These roads will be 20 feet wide. During construction, an additional 10 feet on either side of the 20-foot road section will be temporarily disturbed in order to construct the private access roads, but will be returned to its prior vegetated condition upon completion of road construction. To the extent reasonably possible, these roads will be located adjacent to the turbine towers to minimize the length of these roads. The private access roads will not increase traffic in the area but will provide improved access by land managers and farmers to their fields.

The primary route for construction traffic to build the Klondike III project would begin at the I-84/US 97 interchange at Biggs Junction and proceed south on US 97 to the US 97/OR 206 intersection. Traffic may also approach the project site on US 97 from the south. At that intersection, construction-related traffic will travel on OR 206 through the City of Wasco and then use County roads to access the project site. The County's roads are generally composed of a pavement or gravel surface and carry light traffic consisting of local residential or farm equipment traffic. County roads likely to be used by project construction vehicles are Wasco Lane, North Klondike Road, Emigrant Springs Road, Rayburn Road, Dehler Lane, Dormaier Road, McDonald Ferry Lane, Gosson Lane, Egypt Road, Klondike Lane and Smith Road.

Some of the local roadways will require a 6-inch gravel overlay prior to use by project construction vehicles. These improvements are necessary to accommodate the length and weight of vehicles that will deliver the turbines and other machinery necessary to construct the project. Sections of local roads in poor condition will be completely reconstructed. Areas anticipated to require reconstruction or substantial improvement are shown on Figure C-2 in Exhibit C. Reconstructed roadways will be improved to accommodate two eight-foot travel lanes and will be constructed with eight inches of crushed aggregate on top of a geo-textile separation fabric. There is one bridge near Webfoot. It has been evaluated by the Applicant's consulting engineer for load-bearing capacity and width, and is not expected to require improvements.

Construction-related traffic may cause brief traffic delays when trucks deliver the turbines and other project equipment but these delays are unlikely to impair the function of the public roadways. Once the project is constructed, trips generated by the 15 to 20 operational staff will not have any perceptible effect on the functioning of the roads or highways in the vicinity of the project because general usage of these highways and roads will remain low.

b. The project is designed to minimize unavoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.

Response: Construction of the proposed roads will impact about approximately 0.5 acres of grassland habitat, and 0.15 acre of low shrub/shrub steppe habitat, out of total land impacts of about 70 acres. See Exhibit P. Based on the wetland assessment, no impacts to wetlands and other waters of the state are anticipated as a result of the proposed project. See Exhibit J. Although three locations within the project boundary were noted as having wetlands or other waters of the state, potential impacts to these areas will be avoided through appropriate siting and construction techniques. As demonstrated in Exhibits P and Q, there is no suitable habitat for federal or state listed species. A cultural resource survey was conducted, and results are described in Exhibit S. With the exception of the Oregon Trail, no significant archaeological resources or historic-period resources were found that are eligible for listing in the National Register of Historic Places. The Oregon Trail alignment through the Klondike III project area is a designated historic trail under both federal and Oregon law. The alignment of the trail, as best it can be reconstructed, crosses the northeastern portion of the Klondike III project area. No physical evidence of the trail was observed at any of these locations or anywhere else in the field survey. Should intact physical evidence of the trail be observed in an area where there is potential for adverse impact, the project will avoid any disturbance to the intact segments by redesigning, re-engineering, or otherwise limiting the extent of construction activity.

In addition, construction of the turbine strings—especially those in the northeastern quadrant of the project site—is unlikely to adversely effect the visual setting of the Oregon Trail alignment and any intact segments of the Oregon Trail that may be extant. To minimize any adverse visual impacts the project may cause to those who visit the County, Klondike III proposes the following mitigation measures, which are discussed further in Exhibit S:

1. The present setting of the Oregon Trail alignment from the John Day River canyon to Biggs will be documented through photographs and videotape prior to construction of the Klondike III project; and
2. Klondike III will partner with the Sherman County Development League and consult with the Sherman County Historical Society to develop and enhance educational and interpretive displays and materials on the Oregon Trail at Biggs, which offers the best opportunity for visitor contact given the presence of an intact segment of the trail at Biggs and the proximity to Interstate 84.

There will be no substantial adverse impacts on air quality from the construction or operation of the project. The construction activities for the project will create dust but this would not be significant in a rural area where farming also creates dust. Standard best management practices to control dust and wind erosion will be used, such as spraying areas of the site with water periodically. See Exhibit I.

c. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.

Response: Several local roadways will be improved or completely reconstructed to accommodate project construction vehicles. Many of the existing local roads are in poor condition, so the proposed improvements to existing roads will have a long-term beneficial effect for all of those who use these roads. There is little traffic on roads in the area, so access management, traffic calming or other such features designed to reduce traffic conflicts are not necessary.

d. The project includes provision for bicycle and pedestrian circulations as consistent with the comprehensive plan and other requirements of this ordinance.

Response: No bicycle or pedestrian facilities are required by the County to permit the project and none are appropriate for the project area. The access roads will be located in a rural agricultural area where pedestrian and bicycle facilities are not appropriate, safe, or required by the County's ordinances or plans.

B. SCZO § 4.13 Additional Conditions to Development Proposals (Access Roads)

The County may require additional conditions for development proposals.

1) The proposed use shall not reduce the level of service (LOS) below a D rating for the public transportation system. For developments that are likely to generate more than a V/C ratio of 75 or greater, the applicant shall provide adequate information, such as a traffic impact study or traffic counts, to demonstrate the level of impact to the surrounding road system. The developer shall be required to mitigate impacts attributable to the project.

2) The determination of the scope, area, and content of the traffic impact study shall be coordinated with the provider of the affected transportation facility, i.e., city, county, state.

3) Dedication of land for roads, transit facilities, sidewalks, bikeways, paths or accessways shall be required where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.

4) Construction of improvements such as paving, curbing, installation or contribution to traffic signals, construction of sidewalks, bikeways, accessways, paths or roads that serve the proposed use where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.

Response: Klondike III will comply with all conditions of approval necessary to achieve compliance with the Zoning Ordinance and the Council's land use standard. Once completed, the project will not generate a significant number of trips. Traffic levels on area roads are low and will not increase beyond the network capacity with the addition of project traffic. Thus, the project will not reduce the LOS in the area, will not generate V/C ratios of 75 or greater, and will not require the dedication of land for transportation facilities or the construction of mitigation improvements, other than the reconstruction and resurfacing of existing roadways described herein. According to the County, no traffic analysis is required due to the small expected impact on the transportation system.

C. SCZO § 4.14 Access Management (Access Roads)

Response: The access management provisions of the Zoning Ordinance do not apply to the proposed project.

D. SCZO § 11.8 Design & Improvement Standards and Requirements, Streets and Other Public Facilities (Access Roads)

Response: The Council's rules governing the application are designed to identify all applicable design and improvement standards, permits, approvals and regulations needed for construction of the facility. In particular, Exhibit E identifies all of the federal, state and local permits and approvals needed to construct the facility, and elsewhere in this Exhibit K all of the applicable County design standards are identified. No land division, subdivision or partition approval, or zone change is required in order to site the project. For the reasons described in this Exhibit K and in the application, the facility complies with this provision.

E. SCZO § 5.2.3 Other Permits

That, for a proposal requiring approval or permits from other local, state and/or federal agencies, evidence of such approval or permit compliance is established or can be assured prior to final approval.

Response: The Council's rules governing the application are designed to identify all applicable permits, approvals and regulations needed for construction of the facility. In particular, Exhibit E identifies all of the federal, state and local permits and approvals needed to construct the project. Exhibit E provides evidence demonstrating the construction and operation of the project will comply with all state and local statutes, rules and standards applicable to the permit. Exhibit E also provides evidence that for federal permits, approvals and regulations the responsible agency has received that permit information.

Klondike III will send the following required notice to the FAA:

- 1. Federal Aviation Administration Notice.** Prior to beginning construction of the project, Klondike III will send the FAA a Notice of Proposed Construction or Alteration to the FAA with the proposed location of the turbines and related or supporting facilities.

Klondike III is likely to receive the following state and local approvals for construction of

the project:

1. **Oregon Department of Environmental Quality.** Klondike III will apply for a NPDES General Construction Stormwater (1200-C) Permit before beginning the construction of the project.
2. **Sherman County Sanitarian.** Klondike III will obtain an on-site sewage permit from the County sanitarian for the subsurface sewage disposal system at the new O& M building.

F. SCZO § 5.2.3 Compliance with Specific Standards

The proposal is in compliance with specific standards, conditions and limitations set forth for the subject use in this Article and other specific relative standards required by this or other County Ordinance.

Response: The facility complies with this criterion as described below.

2. SCZO § 5.8(14)—Specific Requirements for Nonfarm Uses in F-1 Zone, Public Facilities and Services (Energy Facility, Access Roads)

*(a) Public facilities including, but not limited to, utility substations, * * * electrical generation and transmission devices * * * shall be located so as to best serve the County or area with minimum impact on neighborhoods, and with consideration for natural or aesthetic values.*

(b) Structures shall be designed to be as unobtrusive as possible. Wherever feasible, all utility components shall be placed underground.

(c) Public facilities and services proposed within a wetland or riparian area shall provide findings that: Such location is required and a public need exists; and Dredge, fill and adverse impacts are avoided or minimized.

Response: For the reasons stated elsewhere in this Exhibit K, the substations, energy generating facilities, and collector lines will be located to best serve the County with minimum impacts to surrounding uses, natural features and values. With the exception of one collector line, all of the collector lines will be located underground. No public facilities or services, and no project elements will be located within a wetland or riparian area.

3. SCZO § 5.8(16)—Specific Requirements for Nonfarm Uses in F-1 Zone, Nonfarm Uses (Energy Facility, Access Roads and associated construction areas)

*Nonfarm uses * * * may be approved upon a findings [sic] that each such use:*

(a) Is compatible with farm uses described in ORS 215.203(2);

Response: SCZO section 5.8(16) provides criteria for conditional uses.

As previously noted, the facility is consistent with the purposes of the EFU zone, which

allows for the development of commercial utility facilities as a conditional use.

Based on interviews with the farm owners and operators of parcels directly impacted by the project, the project would not be incompatible with farm uses. A technical memorandum included as Appendix K-1 identifies adjacent agricultural crops, practices, impacts and mitigation measures. The current farm use is dry land wheat and barley farming.

Two common sources of conflict between farm and non-farm uses are the ability of farmers to maneuver equipment or vehicles around obstacles (like turbines), and timely access to parcels without conflicts with construction-related delays. For this project, access roads will be located to minimize disturbance and maximize transportation efficiency. Existing public and private farm roads will be used to the extent feasible.

Minimizing conflict with the turbines as obstacles depends to a large part on the size and configuration of the parcel they are on, the topography, and proximity to property lines or fences. Klondike III, to maximize energy generation, is very limited in where it can place turbines in the project area. The turbine strings are planned for locations well outside the minimum width of the largest farm equipment such as 50-foot-wide rod weeder. However, manipulating around the tight radius of a wind turbine may be difficult and may increase the opportunity for weeds to grow and infest crops. These on-the-ground conflicts in compatibility are significantly offset by the lease revenue to local farmers, which will exceed historic revenue from the land being displaced and will stabilize a portion of farm revenues as long as the project is in operation. Klondike III has been in contact with the County weed officer and is working with him to develop a plan to minimize potential invasion by weed species. This plan will include parameters for reseeding bare ground areas and for vegetation management.

The facility will have minimal impact on farm uses, and Klondike III will take steps to minimize any disruption to farming practices. Wherever feasible, turbines and transmission interconnection lines will be placed along the margins of cultivated areas to reduce the potential for conflict with farm operations. The project will require approximately 70 acres of land to be permanently removed from farm use while 55 of farmland will be affected temporarily by construction laydown sites. Approximately 11,000 acres are farmed in the immediate area, so the amount removed from production is about 0.5 percent of the farm land in the vicinity of the proposed project.

Due to the minimal amount of land being permanently disturbed and the mitigation measures taken by Klondike III, the project is compatible with the farm uses of the property.

(b) Does not interfere seriously with accepted farming practices on adjacent lands devoted to farm use;

Response: Adjacent EFU lands contain primarily dry land wheat and barley crop farming. The project will not seriously interfere with accepted farming practices on adjacent lands. “Accepted farming practices” is defined at ORS 215.203(2)(c) as “a mode of operation that is common to farms of a similar nature, necessary for the operation of

such farms to obtain a profit in money, and customarily utilized in conjunction with farm use.” Farm practices for farming wheat and barley in the area are described in the technical memorandum at Appendix K-1.

The land adjacent to the sites where the turbines, access roads, and construction areas will be located is devoted to the production of wheat or barley crops. While the presence of the turbine pads and turbines may have a minor impact on the use of adjacent land, the project will not seriously interfere with farm practices, based on interviews with the farm owners and operators. Farmers noted that some minor changes to plowing and harvesting patterns will be required, but none will seriously interfere with accepted farming practices on adjacent farmland.

Klondike III has met with crop dusters who work in Sherman County to review a site plan map for the project, and with the lease-holding landowners about aerial spraying around the turbines. The crop dusters do not anticipate having trouble avoiding the turbines, as they are accustomed to avoiding similar facilities, including power transmission lines. In addition, the local landowners already manually spray around fence lines to cover surface areas missed during crop dusting. A similar method will be used for areas missed by crop dusters due to the presence of the turbines.

Weed management will be undertaken by Klondike III during construction. Klondike III will also closely coordinate with farmers to ensure adequate and timely access to properties during critical periods in the farming cycle, such as during harvest.

(c) Does not materially alter the overall land use pattern of the area;

Response: The overall land use pattern of the area consists of wheat or barley crops with some rangeland. The analysis area for the project is described in Section K.2 as a one-half mile from the project facilities. Beyond the analysis area, and except for incorporated towns and rural nodes, the topography consists of similar rolling hills and drainages with wheat farming as the main use. In 1997, 80 percent of the land in Sherman County was in farmland, with 30 percent in harvested cropland. *Source: Atlas of Oregon.* Agricultural areas that are enrolled in the Conservation Reserve Program (CRP) are found throughout the analysis area, occurring as narrow strips in previously plowed drainageways and as large blocks in other areas. CRP areas have been planted with a mix of native and non-native bunchgrasses with the primary intent of increasing wildlife habitat in the area. Similarly, proposed access roads, turbine facilities, staging areas, the new O&M building, and under ground and above ground collector lines and access roads will not materially alter the land use pattern in the area, which includes one wind energy facility (Klondike I) and another that is under construction (Klondike II).

The Klondike I project is located on either side of and perpendicular to Gosson Lane. The Klondike II project will extend south and north of Klondike Lane between the two general areas associated with the Klondike III project. The Klondike I, Klondike II and proposed Klondike III projects are all depicted on the map at Appendix C-2.

There are no known non-farm dwellings in the area.

The project will not materially alter the overall land use pattern in the area. The project will require approximately 70 acres of land to be permanently removed from farm use while 55 acres of farmland will be affected temporarily (by construction laydown sites). Approximately 11,000 acres are farmed in the immediate area by the survey respondents, so the amount removed from production is about 0.5 percent of that total, a very small amount of agricultural land. Any financial impacts on the affected farmers resulting from removal of lands from farm production will be offset by the lease payments they will receive for use of their land to site the project, as demonstrated in the technical memorandum supporting this exhibit (Appendix K-2) and elsewhere in the site certificate application.

The project and private access roads will not materially alter the stability of the existing land use pattern that prevails over this area and much of the County. Local farmers will be able to maneuver around the turbine strings and across the gravel access roads, although minor changes in sowing and harvesting patterns in the immediate vicinity of the strings will be necessary. Since the farming in the area is dry land farming, no irrigation patterns will be affected. The average size of farms in Sherman County is over 2,000 acres, although several in the area are significantly smaller. As shown in Table 1 of the technical memorandum (Appendix K-1), most of the land removed from production for roads and longer turbine strings are on larger properties. The percentage of land affected by the project is small for all properties, although the smaller parcels would have less flexibility in adapting to the turbine facilities.

The project will not materially alter the stability of the existing land use pattern because the facility and all of the related or supporting facilities are compatible with farming when they are limited to a reasonably small percentage of the area farmed. Land uses may be induced to change by altering factors that affect value, either lowering or raising it. In this case, some of the optimum sites for the wind energy generation will be taken by this project and will maximize the value of this land for energy generation. The land leases provide an additional source of private income without creating major obstacles to farming. The stability of this lease income will help stabilize the inherent volatility associated with farming.

(d) Is situated upon generally unsuitable land for the production of farm crops and livestock, considering the terrain, adverse soil or land conditions, drainage and flooding, vegetation, location and size of the tract, and the availability of necessary support resources for agriculture;

Response: The roads, turbines, and associated construction areas are proposed on land that is currently being farmed for wheat and barley. The soils in the area, absent sufficient rainfall or irrigation, would not support any other crops except perhaps hay. Soils that support the wheat and barley farming are not top quality soils; they are Class IIc soils. The chief positive characteristics of these soils is their depth and that they are well drained. These soils, however, do not support a diversity of crops, nor crops that are high value. They also do not generally support livestock in the County. The price of wheat has dropped steadily over the last 10 years, and there is increasing evidence that maintaining production of wheat and barley on such lands is becoming uneconomic. The

wind turbines displace minor amounts of land on parcels that vary in size, but are generally large enough to accommodate both farm and wind energy uses. As a result the displacement impacts are minor and are offset by the lease allowances, which create stability in the economy of each farmer and compensate for the volatility of crop production and prices. Thus, Klondike III submits that the project would be sited on property that is “generally unsuitable” for the production of farm crops and livestock. In the alternative, Klondike III has submitted a proposal for a goal 3 exception to allow the project to be located on EFU land in the County.

(e) Complies with other applicable significant resource provisions; and

Response: There are no known other significant resource provisions applicable to the facility.

(f) Complies with such other conditions as deemed necessary.

Response: Klondike III will comply with all conditions of approval imposed by the Council in granting the site certificate.

4. SCZO § 5.2.5. Resource Carrying Capacities

That no approval be granted for any use which is or expected to be found to exceed resource or public facility carrying capacities, or for any use which is found to no be in compliance with air, water, land, and solid waste or noise pollution standards.

Response: As described in this application, the project will not exceed resource or public facility carrying capacities, and Klondike III will comply with all applicable air, water, land, solid-waste or noise-pollution standards. See Exhibit E (listing permits needed for construction and operation), Exhibit I (soils), Exhibit J (wetlands and other waters), Exhibit O (water resources), Exhibit P (fish and wildlife habitat); Exhibit Q (threatened and endangered species), Exhibit V (waste minimization), and Exhibit X (noise).

5. SCZO § 5.2.6. Violation of Ordinance

That no approval be granted for any use violation of this Ordinance.

Response: There are no use violations related to the project.

K.8 DIRECTLY APPLICABLE STATUTES, GOALS AND LCDC RULES

1. ORS 215.283(g)(2) and 215.296 – Development on EFU Land

Response: ORS 215.283(2)(g) conditionally permits commercial utility facilities for the purpose of generating power for public use by sale, subject to ORS 215.296. Similarly, the conditional use criteria in ORS 215.296 are also applicable to the access roads as required by ORS 215.283(3)(b) and OAR 660-012-0065 which are discussed below.

A. Energy Facility. ORS 215.296(1) requires a use allowed under ORS 215.283(2), such as the proposed project, to be approved if it does not: (i) force a

significant change in accepted farm or forest practices on “surrounding lands” devoted to farm or forest use, or (ii) significantly increase the cost of accepted farm or forest practices on “surrounding lands” devoted to farm or forest use. A logical boundary for the project’s “surrounding lands” is Oregon Highways 97 and 206 and Dehman Road on the west, Baseline Road and Grass Valley Canyon on the south, Canyon Road on the north, and the John Day River on the east. Within this area, land that is devoted to farm use is used to grow wheat or barley. There is no forest use within this area. Very little land in this area is irrigated, rainfall is low, and soils and terrain are consistent in type. Accepted farm practices include soil preparation in the spring and fall, sowing, fertilizing, pest and weed management, and harvesting.

The development and operation of the proposed facility has the potential to minimally and temporarily affect these practices. The development of the project may cause small changes in harvest patterns, access to farm fields, processes for delivering and applying fertilizers and other products to crops, and the harvesting of crops. Development of the facility will also displace approximately 70 acres of land from agricultural use during the life of the proposed facility. Ground disturbance during construction can encourage weeds that temporarily interfere with crop yields until eradicated. The development of access roads and turbine tower pads create margins in the wheat fields that may also temporarily cause the spread of weeds. In conjunction with the Sherman County Weed District, Klondike III intends to develop and implement a weed control management plan within the project boundary to minimize the growth of weed species in the areas in which the facility will be built.

Construction of the energy facility will take approximately 9 months to complete. During construction, there will be a temporary disturbance of approximately 55 acres of wheat field and some range land. Once the facility is completed, it will preclude approximately 70 acres of agricultural land from being used for farming during the life of the project. Klondike III also notes that the size of the area taken for facility use is small in comparison to the amount of land in the project area that will otherwise be available for continued farming uses.

Upon completion of project construction, all of the staging areas used to construct the energy facility will be rehabilitated and made available for agricultural and wildlife use. Further, where necessary and feasible, Klondike III will provide access across construction trenches to fields within the project area. Klondike III will undertake measures to avoid or mitigate impacts to soil, such as employing dust-control and erosion-control measures. Klondike III will also consult with area landowners during construction and operation of the facility to minimize or avoid any adverse impacts to surrounding agricultural practices. To the extent reasonably possible, Klondike III will use existing access roads to minimize the project’s impact to resource land. Some new access roads, however, are necessary. These roads will not significantly adversely impact farming practices or increase farming costs, either during the construction or use of these roads. Instead, they will provide farmers with better access to local agricultural lands.

Further, during operation of the facility these roads will be used infrequently by facility employees, thus producing minimal, if any, impact on surrounding farming practices or costs.

Klondike III submits that the development and operation of the facility will not force a significant change in accepted farm practices on surrounding lands devoted to farm use.

The proposed facility will also not significantly increase the cost of accepted farm practices on surrounding farmland. Klondike III surveyed area farmers to determine the impact of the facility on the cost of farming. The survey results show that, while development and operation of the project would cause some minor change to harvesting patterns or various farming practices associated with the application of fertilizers and other products, representing some slight loss of efficiency in some cases, the changes would not significantly increase the cost of farming in the surrounding area. In fact, any slight cost increase to area farmers associated with these minor changes in farming practices would be more than offset by compensatory lease payments paid to farmers in the area by Klondike III in order to develop the project.

Klondike III intends to mitigate any impacts to area farmers, including coordination with farmers concerning timely and adequate access during construction of the project, weed management during construction and operation of the facility, restoration of disturbed areas during construction and after construction is completed, and lease payments to lessor-farmers.

B. Access Roads Compliance with ORS 215.283(3).

ORS 215.283(3) authorizes the proposed access roads as a conditional use. The Zoning Ordinance does not expressly incorporate ORS 215.283(3). Accordingly, under ORS 197.646(3), ORS 215.283(3) applies to the application directly.

ORS 215.283(3) provides in pertinent part:

(3) Roads, highways and other transportation facilities and improvements not allowed under subsections (1) and (2) of this section may be established, . . . in areas zoned for exclusive farm use subject to:

(a) Adoption of an exception to the goal related to agricultural lands and to any other applicable goal with which the facility or improvement does not comply;

(b) ORS 215.296 for those uses identified by rule of the Land Conservation and Development Commission as provided in section 3, chapter 529, Oregon laws 1993.

LCDC rules OAR 660-033-0120 and 660-033-0130(13) identify as allowed uses

“transportation improvements on rural lands allowed by OAR 660-012-0065.” OAR 660-012-0065(1) identifies transportation facilities, services and improvements that may be permitted on rural lands without a goal 3, 4, 11 or 14 exception. OAR 660-012-0065(3)(o) permits transportation facilities, services and improvements “that serve local travel needs” on rural lands without a goal 3, 4, 11 or 14 exception. Under that rule, the travel capacity and level of service of facilities and improvements serving local travel needs are limited to “that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.” OAR 660-012-0065(5) requires that when such facilities or improvements are within an EFU zone, as is the case with the proposed project, the facilities or improvements must: (a) comply with ORS 215.296; (b) identify reasonable build design alternatives, such as alternative alignments, that are safe and can be constructed at a reasonable cost; (c) assess the effects of the identified alternatives on farm and forest practices, movement of farm and forest vehicles and equipment, and effects on access to farm and forest parcels; and (d) select the alternative that will have the least impact on farm or forest lands in the immediate vicinity.

Wind energy is a rural land use identified in the Comprehensive Plan at Section XV, Finding III. The proposed access roads would serve the local travel needs of the project and farmers who operate in the project area. ORS 215.296(1) requires a use allowed under ORS 215.283(3) to be approved if it does not: (i) force a significant change in accepted farm or forest practices on “surrounding lands” devoted to farm or forest use, or (ii) significantly increase the cost of accepted farm or forest practices on “surrounding lands” devoted to farm or forest use. A logical boundary for the project’s “surrounding lands” is Oregon Highways 97 and 206 and Dehman Road on the west, Baseline Road and Grass Valley Canyon on the south, Canyon Road on the north, and the John Day River on the east. Within this area, land that is devoted to farm use is used to grow wheat or barley. There is no forest use within this area. Very little land in this area is irrigated, rainfall is low, and soils and terrain are consistent in type. Accepted farm practices include soil preparation in the spring and fall, sowing, fertilizing, pest and weed management, and harvesting.

To the extent reasonably possible, Klondike III will use existing access roads to minimize the project’s impact to resource land. Some new access roads, however, are necessary. These roads will not significantly adversely affect farming practices or increase farming costs, either during the construction or use of these roads. Instead, they will provide farmers with better access to local agricultural lands. Further, during operation of the facility these roads will be used infrequently by facility employees, thus producing minimal, if any, impact on surrounding farming practices or costs. Klondike III submits that the development and use of the proposed roads will not force a significant change in accepted farm practices on surrounding lands devoted to farm use.

The proposed roads also will not significantly increase the cost of accepted farm practices on surrounding farm land. Klondike III surveyed area farmers to

determine the impact of the project, including the proposed roads, on the cost of farming. The survey results show that while development and operation of the project would cause some minor change to harvesting patterns or various farming practices associated with the application of fertilizers and other products, representing some slight loss of efficiency in some cases, the changes would not significantly increase the cost of farming in the surrounding area. In fact, any slight cost increase to area farmers associated with these minor changes in farming practices would be more than offset by compensatory lease payments paid to farmers in the area by Klondike III in order to develop the project. (See Appendix K-1).

Klondike III considered alternative locations for the proposed wind turbines and related or supporting facilities, but determined that the proposed site plan would maximize the efficiency of the project and have the least possible impact on adjacent farm practices, including the movement of farm vehicles and equipment, and on access to farm parcels. Klondike III thus submits that pursuant to ORS 215.283(3), 215.296 and OAR 660-0120-0065, the proposed new private roads may be built without taking an exception to goal 3. In the alternative, Klondike III proposes that the roads be allowed under a goal 3 exception.

C. Compliance with OAR 660-012-0065—Transportation Improvements on Rural Lands (Access Roads)

In pertinent part, OAR 660-012-0065 provides:

- (3) *The following transportation improvements are consistent with goals 3, 4, 11, and 14 subject to the requirements of this rule:*

*“ * * * ”*

(o) *Transportation facilities, services and improvements other than those listed in this rule that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.*

** * **

- (3) *The following transportation improvements are consistent with goals 3, 4, 11, and 14 subject to the requirements of this rule:*

*“ * * * ”*

(o) *Transportation facilities, services and improvements other than those listed in this rule that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.*

“* * *”

(5) *For transportation uses or improvements listed in subsection (3)(d) to (g) and (o) of this rule within an exclusive farm use (EFU) or forest zone, a jurisdiction shall, in addition to demonstrating compliance with the requirements of ORS 215.296:*

(a) *Identify reasonable build design alternatives, such as alternative alignments, that are safe and can be constructed at a reasonable cost, not considering raw land costs, with available technology. Until adoption of a local TSP pursuant to the requirements of OAR 660-012-0035, the jurisdiction shall consider design and operations alternatives within the project area that would not result in a substantial reduction in peak hour travel time for projects in the urban fringe that would significantly reduce peak hour travel time. A determination that a project will significantly reduce peak hour travel time is based on OAR 660-012-0035(10). The jurisdiction need not consider alternatives that are inconsistent with applicable standards or not approved by a registered professional engineer.*

(b) *Assess the effects of the identified alternatives on farm and forest practices, considering impacts to farm and forest lands, structures and facilities, considering the effects of traffic on the movement of farm and forest vehicles and equipment and considering the effects of access to parcels created on farm and forest lands; and*

(c) *Select from the identified alternatives, the one, or combination of identified alternatives that has the least impact on lands in the immediate vicinity devoted to farm or forest use.*

Response: No new public road alignments are proposed, only improvement to existing public roads to accommodate the weight and size of turbine components. No changes to road capacity would result, however some widening of these roads to include shoulders would occur to enable the transportation of project equipment and to assist farmers in maneuvering equipment without impeding traffic.

The proposed new private access roads are intended to serve local travel needs of project personnel and local farmers. In view of the location of the wind resource and of the existing public road system, there are no reasonable build design alternatives for the proposed roads. The proposed roads will have no impact on peak or non-peak travel time. Any alternative road alignments would not reduce the anticipated minor impacts, if any, to farm lands, structures and facilities, or on the movement of farm vehicles and equipment. Klondike III considered the possible locations of the

new roads and has proposed them in those locations that would have the least impact to adjacent farm and other existing land uses.

K.9 GOAL 3 EXCEPTION

State law permits “commercial utility facilities for the purpose of generating power for public use by sale” that preclude 20 acres or less of non-high-value farmland from commercial agricultural enterprise. OAR 660-033-0130(22). If such a facility, as here, exceeds this limit, the provision permits the use of an exception to goal 3 to allow the siting of the project. The Zoning Ordinance does not contain a similar criterion. Under ORS 197.646(3), the administrative rule criteria directly apply to the proposed project.

ORS 469.504(2) provides that the Council may find goal compliance for a facility that does not otherwise comply with one or more of the statewide planning goals by taking an exception to the applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide planning goal pertaining to the exception process or any rules of LCDC pertaining to an exception process goal, the Council may take an exception to a goal. In pertinent part, ORS 469.504(2)(c)(A)-(C) provides that the Council may take a “reasons” exception if the Council finds:

- (A) *Reasons justify why the state policy embodied in the applicable goal should not apply;*
- (B) *The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with the rules of the council applicable to the siting of the proposed facility; and*
- (C) *The proposed facility is compatible with other adjacent uses or will be made compatible through measures designed to reduce adverse impacts.*

A. Exception for Energy Facility and Related or Supporting Facilities.

The general state policy embodied in Goal 3 is “[t]o preserve and maintain agricultural lands.” As discussed above, the facility will not have significant adverse effects on accepted farm or forest practices. However, the application must nonetheless demonstrate why the policy contained in the 20-acre limitations should not apply to the project. As is explained in Exhibit I, the project will preclude 70 acres of EFU land from use as a commercial agricultural enterprise. As set forth below, there are several reasons for not applying the Goal 3 acreage limitation to the project.

- 1. Reasons that Justify the Exception.** Klondike III has chosen the project site because it is offer an optimal wind energy resource to produce the desired energy production. Extensive evaluation of wind resources in various areas within Sherman County indicates that the project site has among the best wind resources for the development of wind energy generating facilities. This conclusion is further supported by the successful operation of the nearby Klondike I project. Klondike III and other energy development companies have

collected substantial information about wind energy resources, and have determined that the Klondike area possesses among the most optimal, accessible wind energy resources in the area.

In addition, area farmers are willing to enter into land leases to allow the project to be built and control properties of a sufficient size and appropriate configuration to accommodate the project. Further, any alternative site in the County would involve the leasing of EFU land, because the areas of the County with the best wind resources are all located on EFU land.

The site is also located to take advantage of BPA's upgraded Klondike Schoolhouse substation and new 230kV transmission line which are being built by BPA as general system upgrades. BPA's facilities are also being built on EFU land. The new BPA substation and transmission line will be the only transmission facilities in Sherman County with the capacity to carry the project's power, and the only point of interconnection to the energy grid available to Klondike III. The proposed collector lines, substations, staging areas and operation and maintenance facility are all necessary to operate the project, and must be located in the project area. The collector lines between the turbines will be built next to the access roads to minimize EFU land disturbance. The above ground collector line corridor will occupy only several hundred square feet of EFU-zoned land, the new collector substations and O&M building will occupy only 8 acres of EFU-zoned land.

The project will minimize impacts from constructing new access roads by using existing roads where possible and designing the new roads for the minimum size possible that can provide safe and adequate access to the turbine string sites. The project will improve approximately 4 miles of existing roads, minimizing the construction of new roads to 19 miles. The access roads must be designed for use by cranes, excavators, supply trucks and line trucks and will, therefore, be 20 feet wide. Access to and along the turbine strings for proper operation and maintenance is crucial, and Klondike III has located the new access roads to minimize disruption to resource lands.

The only non-EFU land in the area is located in the cities of Moro, Wasco, Rufus and Biggs Junction. None of these locations has the necessary wind resource, adequate parcels of land, or proximate transmission system necessary to build the project. Hence, the facility must be sited on EFU land in order to provide the service.

The topography and remote location of the project site will minimize visual impacts to the surrounding community. Further, the agricultural value of the site is generally marginal, and the project will not displace highly productive agricultural activity.

As described in Klondike III's responses to the applicable criteria above, the project encourages the efficient siting of land uses. The facility will facilitate the

multiple use of land. The project will allow access to farmland on those acres occupied by turbine facilities.

The project will benefit the local economy through employment opportunities, particularly during construction, and contributions to the local tax base. The number of construction jobs will fluctuate during the 9-month construction period, ranging from 100 to 120 jobs. Operation of the facility will require 15 to 20 full-time and part-time employees. The 15 to 20 permanent jobs will provide a combined annual salary of over one-half million dollars, which will contribute to the local economy. In addition, the capital investment in the facility is estimated at up to three hundred million dollars, and the facility is expected to provide substantial tax revenues to the County over the life of the project, with insubstantial countervailing public service demands.

The affected landowners will also benefit. In return for granting leases and easements over small amounts of their farmland, the landowners will receive significant financial compensation.

2. ESEE Consequences Favor the Exception.

Environmental. The project's environmental consequences are discussed primarily in Exhibits J (Wetlands), L (Protected Areas), P (Fish and Wildlife), and Q (Threatened and Endangered Species). These exhibits demonstrate that the facility will not cause significant adverse environmental consequences. Indeed, by and large, the facility will avoid impacts to such resources altogether. The project will mitigate for any unforeseen impacts to wildlife habitat based on habitat categorization, as is required under ODFW policy (discussed above), and for any unforeseen impacts to the visual setting in which the Oregon Trail alignment occurs (also discussed above and in Exhibit R). In short, Klondike III does not anticipate any adverse impacts to soils, wetlands, protected areas, water resources, threatened and endangered species, scenic and aesthetic resources, historic and cultural and archaeological resources (other than the Oregon Trail alignment), or public services.

Socioeconomic. The project's socioeconomic consequences will not be adverse. The facility will not have significant adverse impacts on scenic, cultural, historical, archeological, or recreational resources. Exhibit U (Public Services and Socio-Economic Impacts) demonstrates that the project will not have significant adverse impacts on community services such as housing, sewer, water supply, waste disposal, health care, education, and transportation. As discussed above, the facility will create jobs and contribute income to the County. These benefits should be measured against the relatively small amount of agricultural activity that will be displaced by the project.

The project will supplement farmers' income with lease payments and without significantly reducing the land base available for farming practices. Similarly, although some farming will be displaced where certain portions of the facility will

be located, the project will be compatible with area farming, as is true with the Klondike I project adjacent to the project site.

Energy. The energy consequences of the facility are discussed briefly above. The facility will utilize existing electric energy capacity from the Wasco Electric Cooperative to operate the new O& M building. The energy produced by the project will be clean energy that will help Oregon and the northwest region meet increasing energy demands.

3. The Facility Is Compatible with Other Adjacent Uses. As discussed in detail above, the facility is compatible with adjacent land uses. The project will not significantly alter the farming land use pattern or practices in the area, nor will it significantly increase farming costs.

In sum, there are compelling reasons that justify siting the facility at the proposed location, and doing so will not create any significant adverse economic, social, environmental or energy consequences. The facility will be compatible with adjacent land uses, as is the existing adjacent wind energy facility (Klondike I). Klondike III therefore requests approval of a goal 3 exception for the energy generating facility and all related or supporting facilities, including the new roads.

K.10 FEDERAL LAND MANAGEMENT PLANS

OAR 345-021-0010(1)(k)(D) *If the proposed facility will be located on federal land:*

1. *Identify the applicable land management plan adopted by the federal agency with jurisdiction over the federal land;*
2. *Explain any differences between state or local land use requirements and federal land management requirements;*
3. *Describe how the proposed facility complies with the applicable federal land management plan;*
4. *Describe any federal land use approvals required for the proposed facility and the status of application for each required federal land use approval;*
5. *Provide an estimate of time for issuance of federal land use approvals; and*
6. *If federal law or the land management plan conflicts with any applicable state or local land use requirements, explain the differences in the conflicting requirements, state whether the applicant requests Council waiver of the land use standard described under paragraph (B) or (C) of this subsection and explain the basis for the waiver.*

Response: These provisions are not applicable to the project. No portion of the project will be located on federal land.

K.11 REFERENCES

Allan, S., Buckley, A., and Meacham, J. 2001. Atlas of Oregon. Second Edition. William Loy, Ed. University of Oregon Press.

Renewable Northwest Project. 2004. Windfall from the Wind Farm, Sherman County, Oregon. Ouderkirk, B. and Pedden, M. August 2004 (Revised December 2004).

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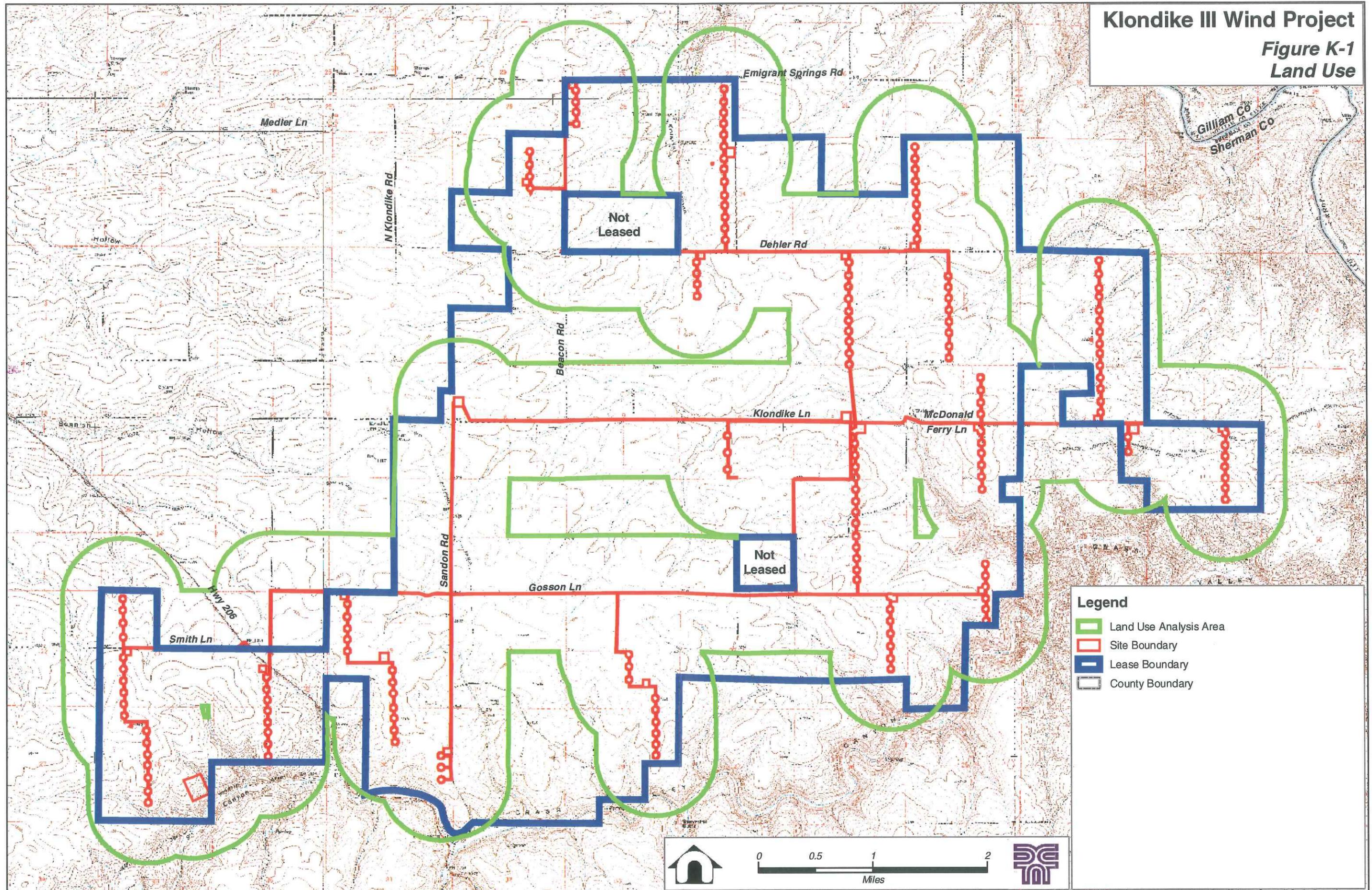
Appendix K-1

Land Use Analysis Area – Map

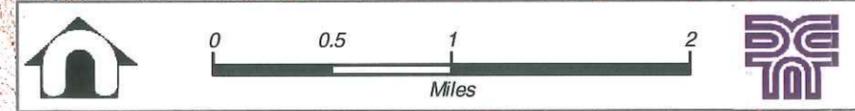
Appendix K-1

Land Use Analysis Area – Map

Klondike III Wind Project
Figure K-1
Land Use



- Legend**
- ▭ Land Use Analysis Area
 - ▭ Site Boundary
 - ▭ Lease Boundary
 - ▭ County Boundary



Appendix K-2

Farmland Technical Memorandum



DAVID EVANS
AND ASSOCIATES INC.

MEMORANDUM

DATE: March 15, 2005
TO: File
FROM: Gillian Zacharias
SUBJECT: Farm Impacts Analysis
PROJECT: Klondike III
PROJECT NO: PPME0000-0001
COPIES:

This memorandum addresses existing conditions in the vicinity of the proposed Klondike III Wind Power Project, potential impacts on farming practices and costs from the proposed project, and available mitigation. This memo is intended to support findings in Exhibit K of the Application for Site Certificate.

State law under Chapter 215.200 (Agricultural Land Use, Exclusive Farm Use Zones) of the Oregon Revised Statutes requires an analysis of a proposed project's impacts on agricultural lands when they are proposed to be impacted by non-agricultural uses. ORS 215.203(1) states that zoning ordinances may designate areas as exclusive farm use zones, within which land shall be used exclusively for farm use except as otherwise provided in ORS 215.213, 215.283 or 215.284. ORS 215.203(2)(a) defines "farm use," in part, as "the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops."

Methodology

Information on farm crops and farm practices in the area came from interviews with owners and/or farm operators affected by the project. A blank copy of the survey is attached. None of the survey respondents answered all of the questions. Therefore, only questions answered by the majority of respondents are included in the matrix. Also in the matrix is a calculation of the direct costs in lost revenue from farmland permanently converted to the utility use. Another column shows the expected lease revenue to property owners from Klondike Wind Power III LLC. Yields were provided by survey respondents and revenue per bushel of wheat was taken from the "Windfall from the Wind Farm, Sherman County, Oregon", a report by Renewable Northwest Project (August 2004, Revised December 2004).

Existing Conditions

Land in the vicinity of the proposed project is zoned F-1 (Exclusive Farm Use). Generally speaking, most of Sherman County is zoned F-1, except for some isolated nodes of commercial, industrial, and residential zoning designations. A Natural Hazards (NH) Combining District is applied to areas of surface water accumulations and high groundwater, unstable or fragile soils, geological hazards, and steep slopes (generally 30 percent or greater)

in the county. A portion of the combining district appears to extend onto parcels 2700 and 2800 (tax assessor map 1N18). The roads and turbine string on those two parcels would not encroach on the NH combining district.

The Walla Walla-Anderly series soils and Mikkalo-Ritzville General Soil Unit provide the basis for the wheat and barley production. The Walla Walla series is a Class II soil. (See Exhibit I for detailed discussion of soils.) Figure I-1 of Exhibit I shows the soil types. As shown on that figure, the flatter areas of the analysis area are dominated by Walla Walla silt loam on shallow slopes. The soil survey performed for Sherman County identifies the Walla Walla silt loam, deep and very deep as being well suited to wheat and moderately well suited barley. High-value farmland is land with exceptionally good soils, specifically those that include soils rated as *prime, unique*, Class I, or Class II by the Natural Resource Conservation Service.

The vast majority of the analysis area (and Sherman County) is under dryland wheat or barley production, with some areas in open range for cattle. While the leased area encompasses over 14,500 acres, of which approximately 125 will be directly affected by the project, in 2002 Sherman County had approximately 129,000 acres in wheat and barley production. Several local roads provide access to the area and scattered residences on farms: Klondike, Gosson, Smith, Sandon, McDonald Ferry, Dehler, Beacon, Rayburn, Webfoot, and Emigrant Springs. Portions of the land have also been enrolled in the Conservation Reserve Program (CRP).

Farm Practices

“Accepted farming practices” is defined at ORS 215.203(2)(c) as “a mode of operation that is common to farms of a similar nature, necessary for the operation of such farms to obtain a profit in money, and customarily utilized in conjunction with farm use.” Typical farm practices for dryland wheat farming consist of land preparation in the spring, such as plowing, aerial fertilizing, sowing, followed by mechanical weeding with rod weeders and hand removal of weeds where rod weeders cannot reach, and harvesting. Soil preparations for winter can involve burning stubble, spreading straw or crop residue, and reducing tall stubble by discing or harrowing. Farming in this area according to survey respondents occurs between March and October. None of the surveyed farmers mentioned aerial spraying. However, aerial spraying is known to occur in the area.

Access to the parcels is important for moving farming vehicles or equipment that is not stored on-site. Eight out of 12 respondents use local roads to transport equipment. Some equipment is large, with 28-foot-wide combines up to 50-foot-wide rod weeders, and require dismantling or “folding up” before they can be moved. Because the vehicles move slowly compared to regular traffic, transportation along well-travelled roads can be a challenge. The time needed to fold up and move the vehicles can affect profitability as well, particularly at critical times such as harvesting if there are large areas to cover when the crops are at their peak. Several respondents said they move equipment early in the mornings to avoid traffic.

Potential Farm Impacts

Permanent impacts consist of replacement of farmed land with the utility use (including roads to access the turbine strings) and forced changes in harvesting patterns to avoid the turbine strings. If the turbine strings are long and bisect a parcel, they effectively convert the site into two parcels for farming purposes, primarily from the aspect of difficulty in moving and manipulating equipment and vehicles to, across, and around the property. Rod weeders, for example, can be 50 feet wide. The turbines will generally be 500 feet apart. Another potential

permanent impact is the chance for new weeds to become established as a result of construction. Equipment brought from other parts of the state can carry weed seeds that opportunistically establish themselves and threaten crop yields and quality. Weed control is a major concern of farmers.

The project will require approximately 70 acres of land to be permanently removed from farm use while 55 acres of farmland will be affected temporarily (by construction laydown sites). Approximately 11,000 acres are farmed in the immediate area by the survey respondents, so the amount removed from production is about 0.5 percent.

Temporary impacts consist of delays in access to roads or property by construction traffic, and temporary displacement of crops by construction activities. Several of the roads listed by farm owners or operators are slated for improvements, which will cause temporary delays but when completed will improve the functionality of the roads for transporting farm equipment and vehicles. These roads are: Gosson, Sandon, Smith, and Klondike. Other roads cited by respondents that could experience delays from construction of the project (but not road improvements) are: Emigrant Springs, Rayburn, Webfoot, McDonald Ferry, and Dehler. There would be little to no effect from permanent changes in traffic volumes due to the small number of permanent employees of the energy facility (up to 20, on shifts).

To the extent that disruptions cause delays in harvesting, more time spent moving equipment, and interruptions to harvesting patterns, farm revenues can be adversely affected. This depends on the timing of construction (temporary) and on the general configuration of each parcel (a permanent impact). If parcels are fenced, manipulating the equipment between towers and property lines can be difficult if not impossible. Out of the 12 respondents, two cited the turbines as negatively affecting their farm operations. One respondent said it would take longer to farm because of added corners to the property as a result of the long turbine strings (Clark/Probstfield). More edges also increase the areas that support weeds because crops cannot be harvested there. They estimated a decline in yield and efficiency of 5 percent. However, the same respondent said that the location of the turbines would not force a significant change in farm practices.

One respondent said there would be a "little more hassle to farm around" the turbines but the impacts would not negatively affect annual revenues. Two other respondents said the loss of farmland would negatively affect annual revenues but did not quantify this. Neither the local crop duster nor any of the farmers raised concerns about aerial spraying being affected.

When asked whether the location of the turbines and the roads is compatible with farming, six said yes, four did not answer the question, and one said no. When asked if the location of the turbines and roads would force a significant change in farm practices, one respondent said yes, while eight said no and three did not answer the question. When asked if the location of the turbines and roads would force a significant change in farm costs, five respondents said no, and the remainder did not answer the question.

Additional Analysis

The potential impacts on individual farms depends on the size of the farm and the number of turbines proposed—which in turn determines the length of the turbine string and access road, the amount of land converted to utility use, and the relative difficulty of farming around the strings. It is also important to recognize that, unlike other

projects that can affect farmlands (such as public roads), the proposed project offers offsetting benefits that will positively affect farm owners' incomes and access to their properties.

As noted above, part of the local road network will be improved substantially beyond county road standards (because of the need to support the weight and size of the turbine components). The improvements should help to ease the movement of equipment and farm vehicles, thus also contributing to more efficient (less costly) operations. The private access roads that will parallel the turbine strings will provide better access for farmers to their parcels. The roads will be maintained by the Applicant, which will lower maintenance costs for farmers. In addition, and most importantly, this project will provide annual leasing fees to farmers that exceed the historical yields from the same amount of land. Table 1 compares the typical yield from an acre of land in wheat, approximately 45 bushels/acre at \$5.00 per bushel of wheat, for each affected land owner. The amount of land occupied (converted out of production) by each turbine and a portion of the access road is approximately 0.5 acre. Table 1 also shows the relative amounts of land that would be converted from farming to utility use, based on contiguous farmed property under the same ownership.

Table 1

Property owner	Number of turbines on property	Estimated annual crop revenue*	Estimated annual lease revenue**	Additional annual revenue to property owner	% of farmed contiguous parcels to be permanently removed from production
1	25	\$2812.50	\$50,000	\$47,187.50	4%
2	5	\$562.50	\$10,000	\$9437.50	2%
3	8	\$900	\$16,000	\$15,100	5%
4	3	\$337.50	\$6,000	\$5662.50	2%
5	2	\$225	\$4,000	\$3775	2%
6	8	\$900	\$16,000	\$15,100	1%
7	37	\$4162.50	\$74,000	\$69,837.50	3%
8	41	\$4612.50	\$82,000	\$77,387.50	3%
9	13	\$1462.50	\$26,000	\$24,537.50	5%
10	4	\$450	\$8,000	\$7,550	2%
11	5	\$562.50	\$10,000	\$9,437.50	6%
12	4	\$450	\$8,000	\$7550	1%

* Based on \$225 for 45 bushels of wheat per acre per year, multiplied by the number of acres displaced

** Based on \$2000 multiplied by the number of turbines on the property

It should be noted that the lease fees do not take into account higher taxes that will be assessed on the land occupied by the turbines, which property owners will be paying.

Summary of Impacts

On balance, there would be some disruption to farming practices in terms of equipment movement to and around properties to avoid the turbine strings. None of the respondents said that the disruption would force a significant

File

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change in farm practices. Some said that the loss of farm land would negatively affect farm revenues; however, this is offset by annual lease revenues from the Applicant. Most farm operators or owners either had no opinion or said the project would not be incompatible with farming.

Therefore, the project will not seriously interfere with accepted farming practices on adjacent lands, and will not force a significant change in farm practices or significantly increase the costs of farming.

Available Mitigation

No mitigation other than the annual lease revenue is proposed for loss of revenue from cropland converted to utility use. Wherever possible, turbines and transmission interconnection lines will be placed along the margins of cultivated areas to reduce the potential for conflict with farm operations. There is little other mitigation available for offsetting difficulties of maneuvering equipment around the turbine strings if the strings are close to property lines or fences so efforts will be made to allow sufficient room. The Applicant will coordinate with each property owner/farm operator to strike a balance between the Facility's locational needs and the farmer's need for maneuverability around the turbines and the roads.

A weed control plan will be developed with the Sherman County Weed District. It will consist of preventive measures such as cleaning vehicles that arrive from off-site and revegetating disturbed areas. Monitoring to look for weed invasions should be done regularly throughout the year. Chemical control can be used as needed, provided they are applied by licensed users.

Farmed areas that are disturbed by construction temporarily would be restored. The proposed restoration plan calls for bringing the site back to the original contours, spreading topsoil on the site, and re-seeding for crops or other vegetation. Any disturbed CRP areas and other non-cropped vegetated areas will be revegetated with the appropriate species.

Ongoing coordination with farmers and operators will occur during construction and road improvements, to ensure timely and adequate access to the crops for sowing, fertilizing, pest management and harvesting.

Initials: GMZ:klg

File Name: p:\ppme00000001\0600info\0670reports\0670 exk\appk-2_ farm memo.doc

Project Number: PPME0000-0001

Date : _____

Name : _____

Address : _____

Telephone Number : Day _____ Evening _____

Farm Survey for Clondike III Wind Power Project

1. Are you the property owner? Yes _____ No _____
2. Do you farm the property? Yes _____ No _____

If you do not farm the property, please provide the name, address, and telephone number of the farm operator.

Name: _____

Address: _____

Phone: _____

3. Do you live on the property? Yes _____ No _____

Some of the turbines for the wind power project are proposed to be constructed on the property you own and/or farm, or on adjacent property. The following questions will help us understand how both the construction of the project and the presence of the turbines and new maintenance roads may affect your farming operations, costs and facilities.

4. How large is the parcel (or parcels) that you own and/or farm that are affected by the project?

5. How much of your parcel is actively farmed?

If not all of the parcel is farmed, is the area not farmed suitable for farming, or are there constraints (such as poor soils, steep slopes) that make it unsuitable?

6. What is the total size of the land you own and/or farm in Sherman County?

Approximately what proportion of your business in terms of acreage or income does the affected parcel represent?

7. What crop(s) do you grow on this parcel?

How many crop(s) annually could you grow?

8. Is the equipment or machinery used to farm the crop(s) kept on the property, or is it moved from another location?

If moved from another location, which public roads and access points to your property are used?

How frequently and at what time of day or year do you need access to those roads?

9. Do you think the location of the wind turbines and the maintenance roads will negatively affect your ability or increase the cost of farming your parcel?

Why or why not?

10. Do you expect the loss of agricultural land as a result of the project to have a significant negative impact on the annual revenues you earn from your farming operations?

Why or why not?

11. Would you be willing to estimate the net cost or benefit of the project to you in terms of agricultural revenue as well as revenue from leasing the land for the wind power project?

If "yes," please estimate the net cost or benefit to you.

12. If not willing to estimate, do you agree or disagree with estimates of net costs provided by wheat farmers affected by Clondike I project? They estimated annual losses of approximately \$125 per turbine, based on loss of 1/2 acre of farmed land, 25 bushels of wheat per 1/2 acre at \$5 per bushel.

Agree _____ Disagree _____

13. Do you think the location of the wind turbines and roads that will be built to access the turbines are compatible with your ability to farm your parcel?

Why or why not? _____

14. Will the location of the wind turbines force a significant change in farming practices on your land?

If so, why? _____

15. Will the location of the wind turbines significantly increase the cost of farming your property? Yes _____ No _____

Comments:

EXHIBIT L

IMPACTS ON PROTECTED AREAS

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

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APPENDICES

L-1 PROTECTED AREAS - MAP	
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L.1 INTRODUCTION

Exhibit L addresses impacts the proposed facility would have on Protected Areas in the analysis area. The exhibit responds to the requirements of OAR 345-021-0010(1)(L), as follows:

OAR 345-021-0010(1)(L) *Information about the proposed facility’s impact on Protected Areas, providing evidence to support a finding by the Council as required by OAR 345-022-0040, including:*

Response: OAR 345-022-0040 requires that the application for site certificate for the proposed energy facility address impacts to Protected Areas as defined in OAR 345-022-0040(1)(a)(p). Except under special circumstances defined in OAR 345-022-0040(2), the Council will not issue a site certificate for a proposed facility located in a Protected Area. For facilities located outside these areas, the Council “must find that, taking into account mitigation, the design, construction, and operation of the facility are not likely to result in significant adverse impact [to Protected Areas]”.

This Exhibit is organized in accordance with the application requirements contained in OAR 345-021-0010(1)(L) and provides evidence to support a finding by the Council as required by OAR 345-022-0040.

L.2 MAP OF PROPOSED FACILITY IN RELATION TO PROTECTED AREAS

OAR 345-021-0010(1)(L)(A) *A map showing the location of the proposed facility in relation to the Protected Areas listed in OAR 345-022-0040 located within the analysis area:*

Response: The analysis area for impacts on Protected Areas includes the area within the site boundary and extends 20 miles beyond the site boundary in Oregon. Figure L-1 (in Appendix L-1) illustrates the analysis area and 12 identified Protected Areas within the analysis area. Table L-1 lists these Protected Areas and their approximate minimum distance from the proposed facility.

Table L- 1. Protected Areas Within Analysis Area and Their Approximate Minimum Distance from the Proposed Facility

Protected Area	Direction and Distance from Klondike III site (miles)
John Day Wildlife Refuge	East, 0.8
Columbia River Gorge National Scenic Area	NW, 12.2
Deschutes River State Recreation Area	NW, 12.9
Heritage Landing (Deschutes)	NW, 13.5
JS Burres State Recreation Site/BLM Cottonwood Facility	SE, 6.0

Protected Area	Direction and Distance from Klondike III site (miles)
John Day Federal Wild and Scenic River	E, 1.0
John Day State Scenic Waterway (Parrish Creek to Tumwater Falls)	E, 1.1
Deschutes Federal Wild and Scenic River	W, 8.0
Deschutes State Scenic Waterway (Pelton Dam to Columbia River)	W, 8.1
Columbia Basin Agriculture Research Center (Moro)	SW, 5.0
Horn Butte Area of Critical Environmental Concern (ACEC)	E/NE, 19.3
Lower Deschutes Wildlife Area	W, 7.4

The proposed facility is not located within any of the Protected Areas as defined by OAR 345-022-0040.

L.3 POTENTIAL IMPACTS

OAR 345-021-0010(1)(L)(B) *A description of significant potential impacts of the proposed facility, if any, on the Protected Areas including, but not limited to, potential impacts such as:*

Response: Through an evaluation of potential impacts, it has been determined that the design, construction, and operation of the facility are not likely to result in significant adverse impact to Protected Areas. The evaluation is described below.

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

Response: As detailed in Exhibit X, projected noise levels resulting from facility construction and operation would meet requirements contained in Oregon Department of Environmental Quality rules. For four noise receptors that may require a legally effective easement or real covenant that benefits the property on which the wind energy facility is located, as described in Exhibit X, none of these noise receptors are in the vicinity of the identified Protected Areas.

Given projected noise levels and distance between turbine locations and Protected Areas, noise resulting from facility construction or operation would not impact Protected Areas.

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

Response: A detailed description of traffic resulting from facility construction and operation is included in Exhibit U.

The construction access route includes using US 97 from Biggs Junction at I-84 to the US 97/OR 206 intersection near Wasco. Construction traffic may also approach the site from the south on US 97. Construction traffic would use OR 206 to reach Wasco, and then use a series of local Sherman County roads to reach construction sites within the site boundary. Several local roads would need to be

improved to accommodate heavier construction equipment, resulting in a long-term improvement to the local road system.

Temporary impacts such as short-term traffic delays on US 97 and local roads may affect access to Protected Areas associated with the John Day River (John Day Wildlife Refuge, John Day Federal Wild and Scenic River (WSR), and John Day State Scenic Waterway). However, the construction route is not a primary access route to these resources, and several passing lanes on US 97 would alleviate potential impacts. Traffic demands on local roads are currently low. Any effects are expected to be temporary, negligible, and would not have detrimental impact on Protected Areas. Long-term negative impacts due to traffic would be negligible because the facility would employ 15 to 20 people.

The remaining Protected Areas are distant enough from the facility that they would not be affected by increased traffic.

Local road improvements would enhance portions of a secondary access route to the John Day River via McDonald Ferry Lane, and thus have some positive impact on ability to access Protected Areas associated with the river.

In conclusion, increased traffic resulting from facility construction or operation would not adversely impact Protected Areas.

(iii) *Water use during facility construction or operation;*

Response: As stated in Exhibit O, water use during facility construction and operation will be minimal. During operations the water source will be a well near the proposed Klondike III O&M facility. Water will be used during construction for concrete mixing, road compaction, and dust suppression. Water will be used during facility operation for drinking, toilet flushing, and sink operation. During construction, water will be trucked in from offsite.

Water use during facility construction or operation would not impact Protected Areas.

(iv) *Wastewater disposal resulting from facility construction or operation;*

Response: The use of water for construction practices is not anticipated to generate runoff. Wastewater would not be discharged into wetlands or other adjacent resources, as stated in Exhibit V. Sanitary effluent would be treated via the existing on-site septic system and stormwater would infiltrate on site.

Wastewater resulting from facility construction or operation would not impact Protected Areas.

(v) *Visual impacts of facility structures, including cooling tower or other plumes, if any; and*

Response: The Bureau of Land Management (BLM) administers the majority of public lands within the analysis area and is guided by several potentially applicable management plans. Exhibit R includes a thorough discussion of these documents and potential project impacts to visual and aesthetic resources. Because the proposed facility occurs on private land, BLM jurisdiction does not apply. However, the following discussion is included to demonstrate compatibility with BLM management guidance for scenic resources, especially those in the John Day River corridor.

The proposed facility may potentially impact two Protected Areas: the John Day Federal WSR and John Day State Scenic Waterway, both of which are managed for outstanding scenic quality (USDI 1986, USDI 2000, USDI 2001). The BLM has indicated that its primary concern would be visual impacts seen from the John Day River (Mottl, H. 2005).

A “seen area” analysis conducted using geographical information systems (GIS) technology has shown that portions of the proposed project would be intermittently visible from the John Day River between approximately river miles 15.2 and 16.8. Portions of the project may also be visible from some locations along the upper portions of the canyon walls with the highest likelihood occurring downstream of the McDonald Crossing (approximately river mile 20.7).

BLM classifies all WSR segments as Visual Resource Management (VRM) Class II in which “management activities resulting in changes to the existing character of the landscape may be allowed, provided they do not attract the attention of the casual observer” (USDI 2000). Because access to the rim and canyon walls is very limited, potential impacts to these areas would not be significant and are not the primary concern of the BLM (Mottl, H. 2005). The John Day River system includes over 500 river miles; the Protected Areas analysis area includes approximately 70 river miles. Computer modeling indicates portions of the proposed facility may be seen from approximately 1.6 river miles, or 2.3 percent and 0.3 percent of the analysis area and entire river system respectively. Given the relatively small portion of river that may be affected, that nearly all developed and undeveloped recreation sites within the river corridor occur upstream of river mile 40 and would not likely see the proposed facility, and that the lower 40 river miles are interspersed with significant private lands, the proposed facility would not significantly affect the John Day Federal WSR and John Day State Scenic Waterway Protected Areas.

Regarding the remaining ten Protected Areas, computer modeling and personal communication with agency staff indicate the proposed facility would either not be visible, would be visible at such a great distance that effects, if any, would be negligible, or that the Protected Area in question is not managed for scenic quality (e.g. Columbia Basin Agriculture Research Center, Horn Butte ACEC, and John Day Wildlife Refuge) (Anderson 2005, Fitzwater 2005, Houck 2005, Kohl 2005, Mottl, H. 2005, Mottl, T. 2005, Petrie 2005).

In conclusion, visual impacts of facility structures would not significantly impact Protected Areas.

- (vi) *Visual impacts from air emissions resulting from facility construction or operation, including, but not limited to, impacts on Class 1 visual resources as described in OAR 340-204-0050;*

Response: The proposed project would not create air emissions, so no impacts would occur.

L.4 CONCLUSION

The proposed project complies with all applicable regulatory guidelines concerning Protected Areas as previously discussed in OAR 345-021-0010(l)(L)(A) and (B). The design, construction, and operation of the proposed facility are not likely to result in significant adverse impact to Protected Areas, and the Council may find that the standard in OAR 345-022-0040 is satisfied.

L.5 REFERENCES

L.5.1 Telephone Contacts/Personal Interviews

Anderson, Jim. Park Ranger. Deschutes River State Recreation Area, Oregon Department of Parks and Recreation. Personal interview with Sean Sullivan. February 16, 2005.

Fitzwater, Daryl. Park Manager. Deschutes Management Unit, Oregon Department of Parks and Recreation. Telephone conversation with Sean Sullivan. February 14, 2005.

Houck, Jan. Scenic Waterway Coordinator. Oregon Department of Parks and Recreation. Telephone conversation with Sean Sullivan. March 7, 2005.

Kohl, Keith. District Wildlife Biologist. Mid-Columbia District. Oregon Department of Fish and Wildlife. Telephone conversation with Sean Sullivan. March 7, 2005.

Mottl, Heidi. Recreation Planner. Prineville District, Bureau of Land Management. Telephone conversation with Sean Sullivan. March 3, 2005.

Mottl, Tom. District Recreation Planner. Prineville District, Bureau of Land Management. Telephone conversation with Sean Sullivan. February 18, 2005.

Petrie, PhD., Steve. Director. Columbia Basin Agriculture Research Center (Moro). Oregon State University. Telephone conversation with Sean Sullivan March 10, 2005.

L.5.2 Website/Document References

USDI Bureau of Land Management. Two Rivers Resource Management Plan Record of Decision. June 1986.

USDI Bureau of Land Management. John Day River Proposed Management Plan, Two Rivers and John Day Resource Management Plan Amendments and Final Environmental Impact Statement. June 2000.

USDI Bureau of Land Management. John Day River Management Plan, Two Rivers, John Day, and Baker Resource Management Plan Amendments Record of Decision. February 2001.

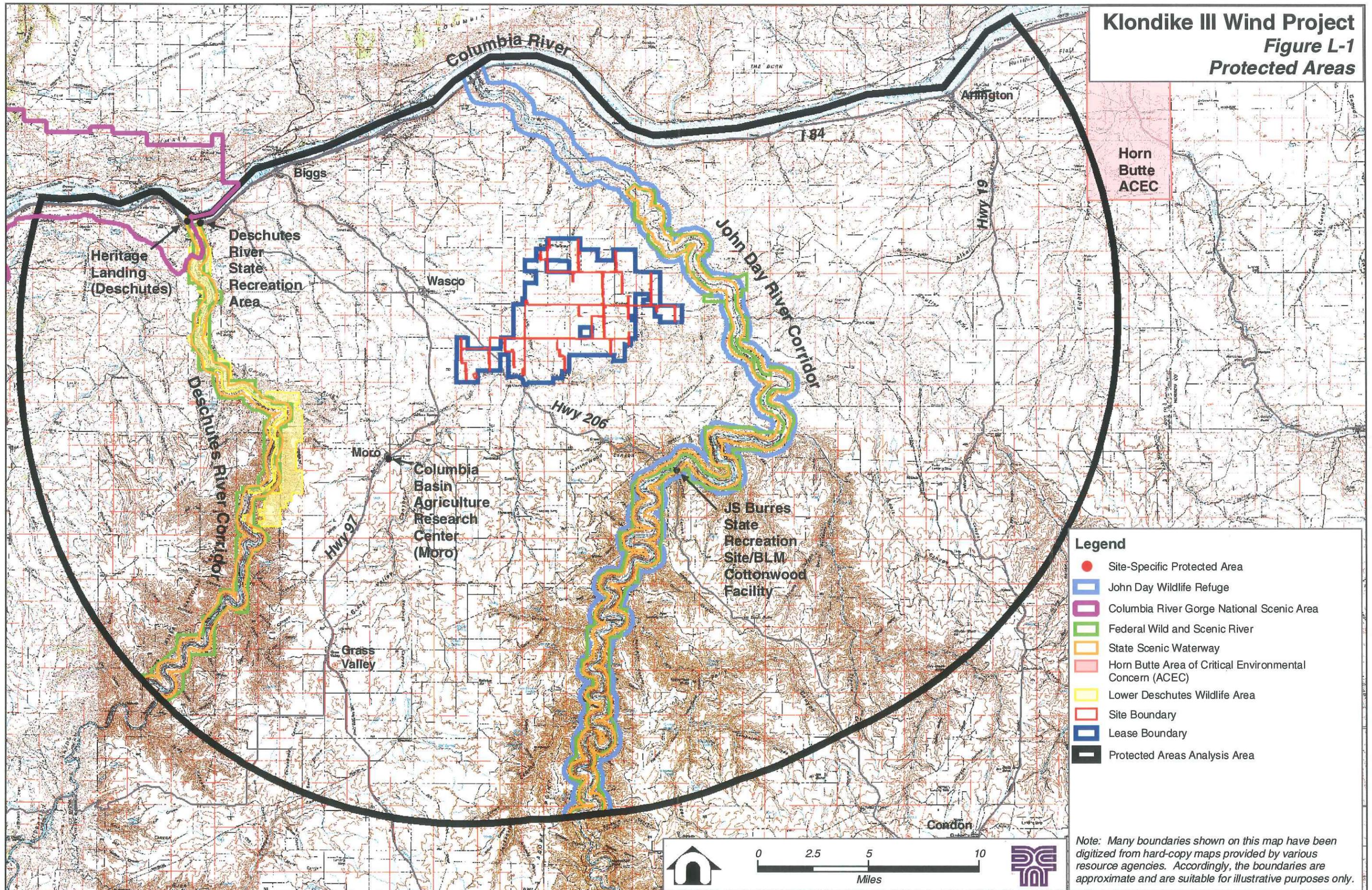
APPENDIX L-1

Figure L-1: Protected Areas – Map

APPENDIX L-1

Figure L-1: Protected Areas – Map

Klondike III Wind Project
Figure L-1
Protected Areas



Legend

- Site-Specific Protected Area
- John Day Wildlife Refuge
- Columbia River Gorge National Scenic Area
- Federal Wild and Scenic River
- State Scenic Waterway
- Horn Butte Area of Critical Environmental Concern (ACEC)
- Lower Deschutes Wildlife Area
- Site Boundary
- Lease Boundary
- Protected Areas Analysis Area

Note: Many boundaries shown on this map have been digitized from hard-copy maps provided by various resource agencies. Accordingly, the boundaries are approximate and are suitable for illustrative purposes only.

