DEVELOPMENT AGREEMENT
Between
KITTITAS COUNTY, WASHINGTON
And
SAGEBRUSH POWER PARTNERS, LLC

EXHIBIT A

PROJECT DESCRIPTION

Project Description

The Project will be built on open ridge tops between Ellensburg and Cle Elum at a site located about 12 miles northwest of the city of Ellensburg. The site center is located approximately where the main Bonneville Power Administrations (BPA) and Puget Sound Energy (PSE) east-west transmission line corridors intersect with state Highway 97. Maps showing the Project location and site layout are presented in Exhibit B. Land use in the entire study area consists primarily of privately-owned open space and livestock grazing and publicly-owned land (WDNR). The entire Project encompasses approximately 6,000 acres. A permanent footprint of approximately 90 acres of land area will be required to accommodate the proposed turbines and related support facilities. Turbines will be located on open rangeland in areas that are currently zoned as Forest and Range and Ag-20 by Kittitas County. The Project area is bisected by five Bonneville Power Administration (BPA) and one Puget Sound Energy (PSE) high-voltage transmission lines. A Project substation, which would connect the Project's output to the regional transmission grid, would be constructed near the center of the Project site, adjacent to the BPA or PSE lines.

Infrastructure

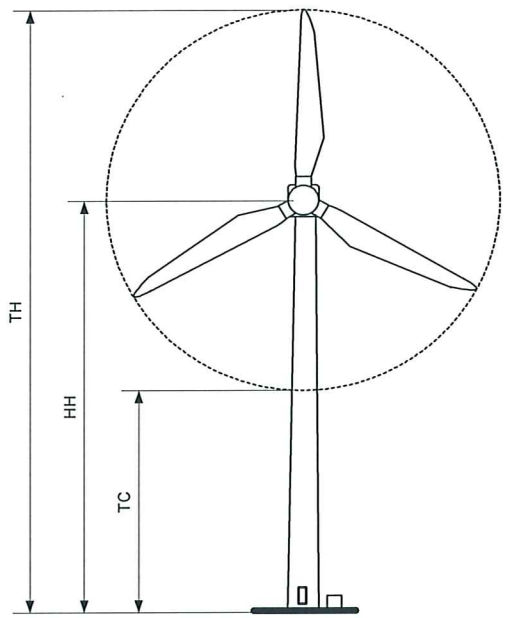
The Project will consist of up to 65 wind turbines for an installed nameplate capacity of up to 195 megawatts (MW). The Applicant has not made a final selection of the specific turbine model to be used for this Project. Figure 1 shows the minimum and maximum dimensions for the range of turbines being considered for the Project. If a larger turbine model is selected (i.e. over 3MW nameplate capacity), fewer turbines will be installed. For purposes of this application, the Project will utilize proven, 3-bladed, upwind, megawatt-class wind turbines on tubular steel towers.

The Kittitas Valley Wind Power Project will also include other prime elements including roads, foundations, underground and overhead electrical lines, grid interconnection facilities, feeder lines running from the on-site step-up substations to the interconnection substations, O&M center and associated supporting infrastructure and facilities. The Project turbines will be laid out in strings (also called rows), connected by a network of gravel access roads. A general site layout illustrating these key elements is contained in Exhibit 1, 'Project Site Layout'.

Wind Turbine Generators

Several wind turbine generators (WTGs) are under evaluation for the Project. Based on these evaluations, a number of wind turbine vendors have been pre-qualified to supply equipment for the Project. The Project will implement 3-bladed wind turbines on tubular steel towers each ranging in size from 1.8 MW to 3 MW (generator nameplate capacity) and with dimensions as shown in Figure 1.

Figure 1



HH	80m/263ft	65m/213ft	Hub Height
TC	40m/131ft	25m/82ft	Tip Clearance
TH	125m/410ft	76m/250ft	Tip Height

The pre-qualified wind turbines all have a minimum design life of 20 years under extreme high wind and high turbulence conditions. Based on the lower turbulence intensities on the Project site, it is likely that the original WTGs will operate well into their third decade before a retrofit or replacement program is implemented.

Wind Turbine Basic Configuration

Wind turbines consist of 3 main physical components that are assembled and erected during construction: the tower, the nacelle (machine house) and the rotor (3-blades).

Tower

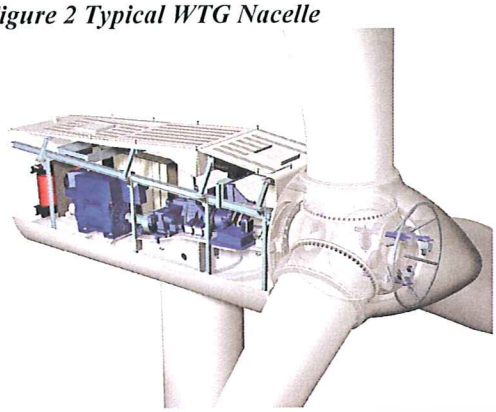
The WTG tower is a tubular conical steel structure that is manufactured in multiple sections depending on the tower height. Towers for the Project will be fabricated, delivered and erected in 2 to 4 sections. A service platform at the top of each section allows for access to the tower connecting bolts for routine inspection. An internal ladder runs to the top platform of the tower just below the nacelle. A nacelle ladder extends from the machine bed to the tower top platform allowing nacelle access independent of its orientation. The tower is equipped with interior lighting and a safety glide cable alongside the ladder.

The tower design is certified by experienced and qualified structural engineers who have designed several generations of turbine towers that have proven themselves well in some of the most aggressive wind regions of the world. The towers and foundations are designed for a survival gust wind speed of 90+ mph with the blades pitched in their most vulnerable position. For the cold-weather winter conditions on the Project site, special material specifications are set to ensure that materials do not go below the brittle transition temperature.

Nacelle

Figure 2 shows the general arrangement of a typical nacelle that houses the main mechanical components of the WTG. The nacelle consists of a robust machine platform mounted on a roller bearing sliding yaw ring that allows it to rotate (yaw) to keep the turbine pointed into the wind to maximize energy capture. A wind vane and anemometer are mounted at the rear of the nacelle to signal the controller with wind speed and direction information.

Figure 2 Typical WTG Nacelle



The main components inside the nacelle are the drive train, a gearbox, and the generator. On some turbines, the step-up transformer is situated at the rear of the nacelle that eliminates the need for a pad-mounted transformer at the base of the tower.

The nacelle is housed by a fully enclosed steel reinforced fiberglass shell that protects internal machinery from the environment and dampens noise emissions. The shroud is designed to allow for adequate ventilation to cool internal machinery such as the gearbox and generator.

Drive Train

The rotor blades are all bolted to a central hub. The hub is bolted to the main shaft on a large flange at the front of the nacelle. The main shaft is independently supported by the main bearing at the front of the nacelle. The rotor transmits torque to the main shaft that is coupled to the gearbox. The gearbox increases the rotational speed of the high speed shaft that drives the generator at 1200-1800 RPM to provide electrical power at 60 Hertz (Hz).

Rotor Blades

Modern WTGs have 3-bladed rotors that turn quite slowly at about 17-20 RPM resulting in a graceful appearance during operation. The rotor blades are typically made from a glass-reinforced polyester composite similar to that used in the marine industry for sophisticated racing hulls. Much of the design and materials experience comes from both the marine and aerospace industries and has been developed and tuned for wind turbines over the past 25 years. The blades are non-metallic, but are equipped with a sophisticated lightning suppression system that is defined in detail in Section 2.3.6.1.11, 'Lightning Protection Systems', of the ASC.

Turbine Control Systems

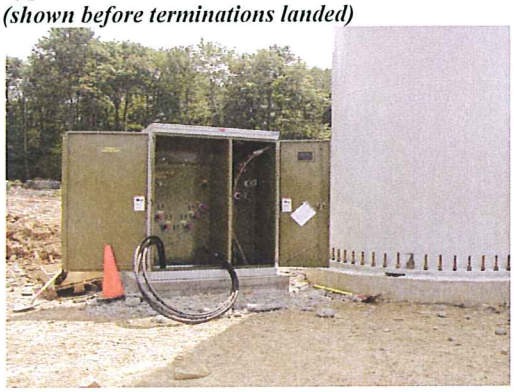
Wind turbines are equipped with sophisticated computer control systems which are constantly monitoring variables such as wind speed and direction, air and machine

temperatures, electrical voltages, currents, vibrations, blade pitch and yaw angles, etc. The main functions of the control system include nacelle operations as well as power operations. Generally, nacelle functions include yawing the nacelle into the wind, pitching the blades, and applying the brakes if necessary. Power operations controlled at the bus cabinet inside the base of the tower include operations of the main breakers to engage the generator with the grid as well as control of ancillary breakers and systems. The control system is always running and ensures that the machines are operating efficiently and safely.

Electrical Collection System

Electrical power generated by the wind turbines will be transformed and collected through a network of underground and overhead cables that terminate at the Project interconnection substation.

Typical Pad-Mount Transformer
(shown before terminations landed)



Power from the wind turbines will be generated at 575-690 Volts (V), depending on the type of turbine utilized for the Project. Power from the turbines is fed through a breaker panel at the turbine base inside the tower and is interconnected to a pad-mounted step-up transformer (located either inside the tower base or on an adjacent concrete pad) that steps the voltage up to the collection system voltage (typically 34.5kV or 24.94kV). The pad transformers are interconnected on the high side to underground cables that connect all of the turbines together electrically. Where practicable, the underground cables are installed in a trench that runs beside the Project's roadways. In locations where two or more sets of underground lines converge, underground vaults and/or pad-mounted switch panels will be utilized to tie the lines together into one or more sets of larger feeder conductors.

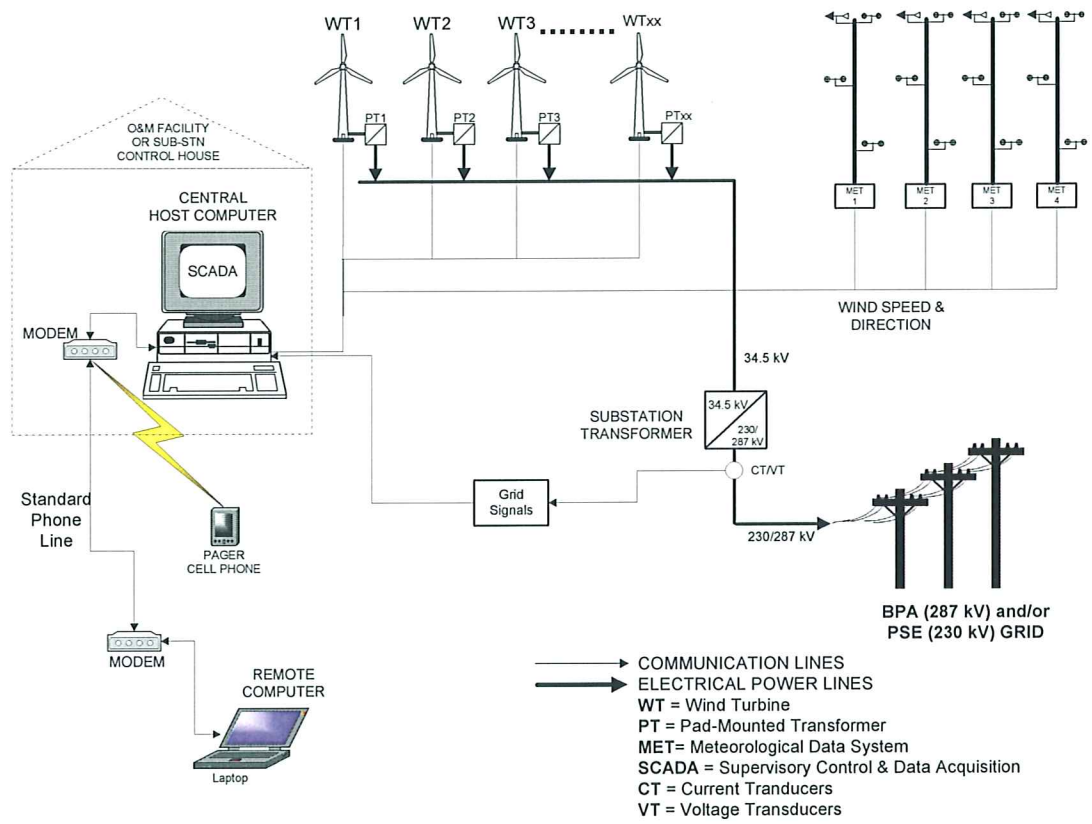
Short sections of overhead collector cable may be required at a few locations, such as over steep ravines or riparian areas, where trenched cable would have a greater environmental impact. For the few short runs of overhead power lines, a fused, switch-riser pole will be used to run the cables from the underground trench to the overhead conductors. The collection cables feed to a step-up/interconnection substation where the voltage is stepped up to interconnection voltage (230kV), then interconnected to the transmission grid.

Central SCADA System

Each turbine is connected to a central Supervisory Control and Data Acquisition (SCADA) System as shown schematically in Figure 4. The SCADA system allows for remote control and monitoring of individual turbines and the wind plant

as a whole from both the central host computer or from a remote PC. In the event of faults, the SCADA system can also send signals to a fax, pager or cell phone to alert operations staff.

Figure 4 Electrical and Communication Collection System



Safety Systems

All turbines are designed with several levels of built-in safety and comply with the codes set-forth by European standards as well as those of OSHA and ANSI.

Braking Systems

The turbines are equipped with two fully independent braking systems that can stop the rotor either acting together or independently. The braking system is designed to be fail-safe, allowing the rotor to be brought to a halt under all foreseeable conditions. The system consists of aerodynamic braking by the rotor blades and by a separate hydraulic disc brake system. Both braking systems operate independently such that if there is a fault with one, the other can still bring the turbine to a halt. Brake pads on the disc brake system are spring loaded against the disc and power is required keep the pads away from the disc. If power is lost, the brakes will be mechanically activated immediately. The aerodynamic braking system is also configured such that if power is lost it will be activated immediately using back-up battery power or a hydraulic actuator, depending on the turbine's design.

After an emergency stop is executed, remote restarting is not possible. The turbine must be inspected in-person and the stop-fault must be reset manually before automatic operation will be re-activated.

The turbines are also equipped with a parking brake that is generally used to "park" the rotor while maintenance routines or inspections that require a stationary rotor are performed.

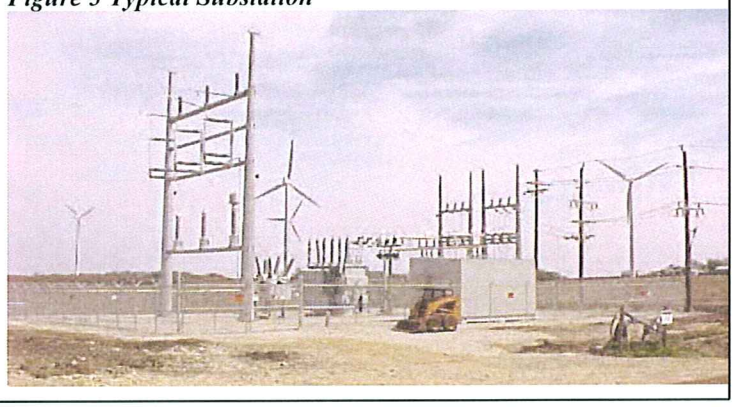
Electrical Collection and Communication System

The electrical output of the WTGs is collected and transmitted to the Project substation via underground and overhead electric cables. Underground cables are proposed wherever feasible to minimize visual and avian impacts. At the substation, the voltage will be increased to be compatible with the transmission lines to which the Project will be interconnected. Along with the electric collector cables, fiber optic or copper communication wires also link the individual turbines to a central operations and maintenance (O&M) center allowing around-the-clock remote monitoring and control of the turbines. This electrical collection and communication system is depicted schematically in Figure 4.

Substation and O&M Facility

Electrical power generated by the wind turbines is transformed and collected through a network of underground and overhead cables which all terminate at the Project step-up/interconnection substation. Because the BPA and PSE high voltage transmission lines directly cross the Project site, it is most likely a single combined step-up and interconnection substation will be constructed for the Project. The Project Site Layout in Exhibit 1 shows the general routing paths of the underground and overhead electrical lines as well as the proposed step-up/interconnection substation location. The main function of the substation and interconnection facilities will be to step up the voltage from the collection lines (at 34.5 kV) to the transmission level (230 kV or 287 kV), to interconnect to the utility grid and provide fault protection. The basic elements of the substation and interconnection facilities are a control house, a bank of main transformers, outdoor breakers, relaying equipment, high voltage bus work, steel support structures, and overhead lightning suppression conductors. All of these main elements will be installed on concrete foundations that are designed for the soil conditions at the substations sites. The substations

Figure 5 Typical Substation



and interconnection facilities each consist of a graveled footprint area of approximately 2-3 acres, a chain link perimeter fence, and an outdoor lighting system as depicted in Figure 5.

An O&M facility is planned near the center of the Project site as indicated on the Project Site Layout in Exhibit B. The O&M Facility will include a main building with offices, spare parts storage, restrooms, a shop area, outdoor parking facilities, a turn around area for larger vehicles, outdoor lighting and a gated access with partial or full perimeter fencing. The O&M building will have a foundation footprint of approximately 50 ft. by 100 ft. The O&M facility area will be leveled and graded and will serve as a central base. The overall O&M facility area will have a footprint of approximately 2 acres. The final design and architecture of the O&M facility will comply with all required building standards and codes and be determined prior to its construction.

DEVELOPMENT AGREEMENT
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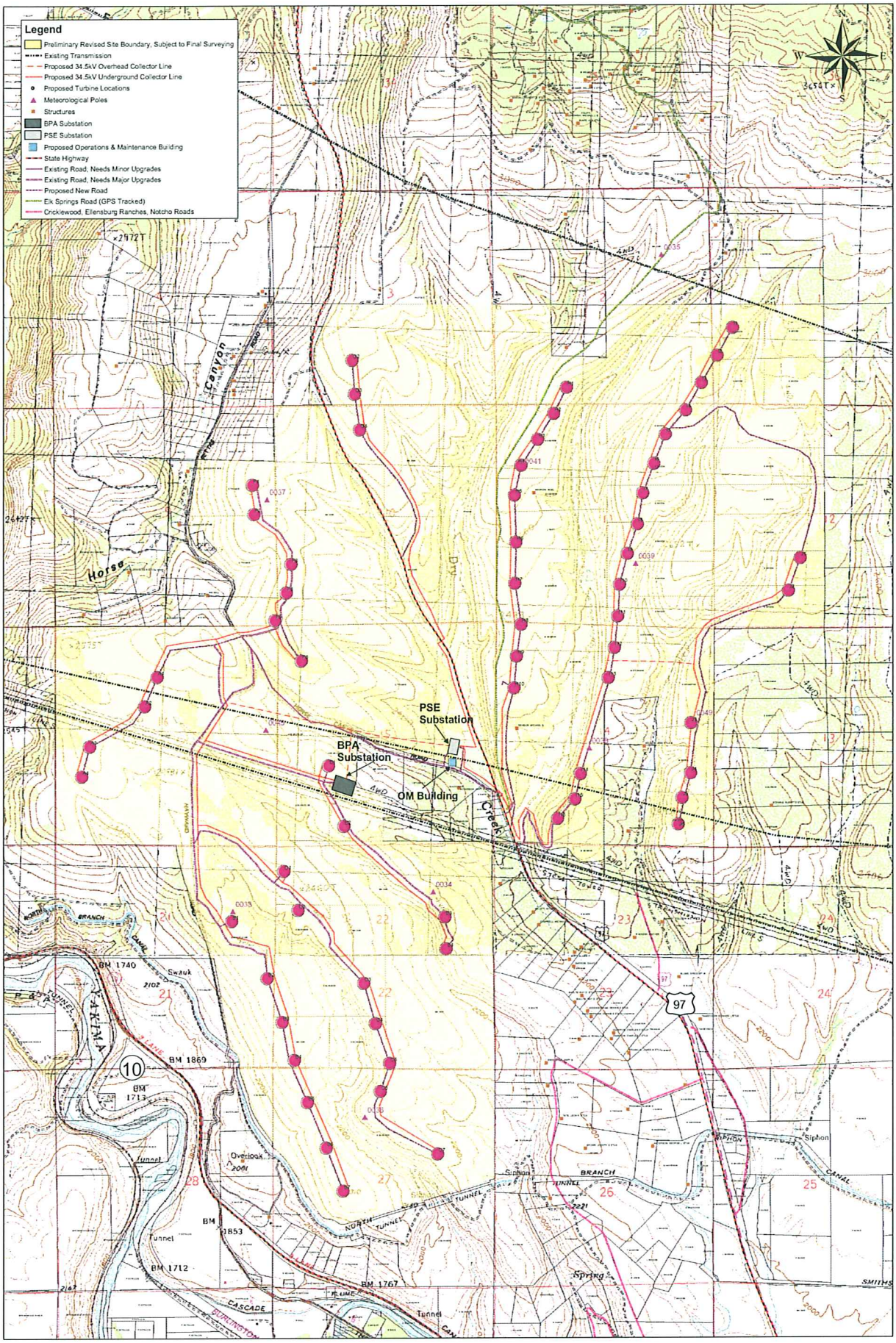
EXHIBIT B

PROJECT SITE LAYOUT



Kittitas Valley Wind Power Project
Preliminary Site Layout
Map Revised May 1, 2006

Horizon Wind Energy

0 0.1 0.2 0.4 0.6 0.8 1 Miles

NOT FOR CONSTRUCTION

DEVELOPMENT AGREEMENT
Between
KITTITAS COUNTY, WASHINGTON
And
SAGEBRUSH POWER PARTNERS, LLC

EXHIBIT C

PROJECT LAND LEGAL DESCRIPTION AND LANDOWNERSHIP INTERESTS

KITTITAS VALLEY WIND POWER PROJECT
PROJECT AREA LEGAL DESCRIPTION UNDERLYING LANDOWNER CONTACT INFORMATION

ASSESSOR NO.	LEGAL *Detailed legals in Exhibit 3c, 'Landowner Consents to Development'	OWNER NAME	OWNER ADDRESS	ADDRESS 2	CITY	ST	ZIP	PHONE
19-17-11000-0002	ACRES 100.32, CD. 7487-1; SEC. 11, TWP. 19, RGE. 17; PTN. NW1/4 (TRACTS 1 & 2, SURV. #501915)	ANDREW, NOEL	2701 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-306-5348
19-17-11000-0003	ACRES 50.13, CD.#7487-1-1; SEC. 11; TWP. 19; RGE 17 PTN. NW1/4 (TRACT 3, SURVEY #501915)	ANDREW, NOEL	2701 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-306-5348
19-17-21000-0001	ACRES 182.38, CD. 7514; SEC. 21; TWP. 19; RGE. 17; E1/2 OF SEC. E. OF HAYWARD RD. & NORTH OF KRD; LESS 3.00 STATE	CASCADE FIELD & STREAM CLUB	PO BOX 424		CLE ELUM	WA	98922	509-674-9278
19-17-14000-0002	ACRES 260.84, CD. 7492-1; SEC. 14; TWP. 19; RGE. 17; PTN. W1/2 LY N STATE HWY 131 (SURVEY, B21/P197)	GENSON, MICHAEL K	101 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-964-9082
19-17-14000-0003	ACRES 39.44, CD. 7492-1-1; SEC. 14; TWP. 19; RGE. 17; PTN. N1/2 NW1/4 (SURVEY B21/P197)	GENSON, MICHAEL K	101 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-964-9082
19-17-14000-0004	ACRES 9.83, CD. 7492-1-2; SEC. 14; TWP. 19; RGE. 17; PTN. NW1/4 (SURVEY, B21/P197)	GENSON, MICHAEL K	101 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-964-9082
19-17-11000-0005	ACRES 106.04, CD.#7487-1-3; SEC. 11; TWP. 19; RGE 17 PTN. SW1/4 (TRACTS 5 & 6, SURVEY #501915)	GENSON, MICHAEL K ETUX	101 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-964-9082
19-17-23000-0014	ACRES 10.00, CD. 7535-1; SEC. 23; TWP. 19; RGE. 17; PTN. W1/2 LYING NLY OF BPA POWER LINE ROAD (SURVEY, B21/P197)	GENSON, MICHAEL K	101 ELK SPRINGS RD		ELLENSBURG	WA	98926	509-964-9082
19-17-01000-0002	ACRES 40.00, CD. 7452; SEC. 1; TWP. 19; RGE. 17; NE1/4 SW1/4	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-01000-0009	ACRES 40.00, CD.#7452-2; SEC. 1; TWP. 19; RGE. 17; NW1/4 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-01000-0010	ACRES 40.00, CD.#7452-3; SEC. 1; TWP. 19; RGE. 17; SW1/4 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-01000-0011	ACRES 40.00, CD.#7452-4; SEC. 1; TWP. 19; RGE. 17; SE1/4 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-11000-0001	ACRES 70.00, CD. 7487; SEC. 11; TWP. 19; RGE. 17; N1/2 N1/2 NE1/4; N1/2 S1/2 N1/2 NE1/4; N1/2 S1/2 S1/2 N1/2 NE1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-11000-0006	ACRES 50.00, CD.#7487-2; SEC. 11; TWP. 19; RGE. 17; S1/2 S1/2 S1/2 N1/2 NE1/4; N1/2 S1/2 NE1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-11000-0007	ACRES 50.00, CD.#7487-3; SEC. 11; TWP. 19; RGE. 17; S1/2 S1/2 NE1/4; N1/2 N1/2 N1/2 N1/2 SE1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-11000-0008	ACRES 50.00, CD.#7487-4; SEC. 11; TWP. 19; RGE. 17; S1/2 N1/2 N1/2 N1/2 SE1/4; S1/2 N1/2 N1/2 SE1/4; N1/2 S1/2 N1/2 SE1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-11000-0009	ACRES 50.00, CD.#7487-5; SEC. 11; TWP. 19; RGE 17; S1/2 S1/2 N1/2 SE1/4; N1/2 N1/2 S1/2 SE1/4; N1/2 S1/2 N1/2 S1/2 SE1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495

KITTITAS VALLEY WIND POWER PROJECT
PROJECT AREA LEGAL DESCRIPTION UNDERLYING LANDOWNER CONTACT INFORMATION

ASSESSOR NO.	LEGAL *Detailed legals in Exhibit 3c, 'Landowner Consents to Development'	OWNER NAME	OWNER ADDRESS	ADDRESS 2	CITY	ST	ZIP	PHONE
19-17-11000-0010	ACRES 50.00, CD.#7487-6; SEC. 11; TWP. 19; RGE. 17; S1/2 S1/2 N1/2 S1/2 SE1/4; S1/2 S1/2 SE1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-12000-0002	ACRES 70.00, CD. 7489; SEC. 12; TWP. 19; RGE. 17; N1/2 N1/2 NW1/4; N1/2 S1/2 N 1/2NW1/4; N1/2 S1/2 S1/2 N1/2 NW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-12000-0006	ACRES 50.00, CD.#7489-1; SEC. 12; TWP. 19; RGE. 17; S1/2 S1/2 S1/2 N1/2 NW1/4; N1/2 S1/2 NW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-12000-0007	ACRES 50.00, CD.#7489-2; SEC. 12; TWP. 19; RGE. 17; S1/2 S1/2 NW1/4; N1/2 N1/2 N1/2 N1/2 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-12000-0008	ACRES 50.00, CD.#7489-3; SEC. 12; TWP. 19; RGE. 17; S1/2 N1/2 N1/2 N1/2 SW1/4; S1/2 N1/2 N1/2 SW1/4; N1/2 S1/2 N1/2 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-12000-0009	ACRES 50.00, CD.#7489-4; SEC. 12; TWP. 19; RGE. 17; S1/2 S1/2 N1/2 SW1/4; N1/2 N1/2 S1/2 SW1/4; N1/2 S1/2 N1/2 S1/2 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-12000-0010	ACRES 50.00, CD.#7489-5; SEC. 12; TWP. 19; RGE. 17; S1/2 S1/2 N1/2 S1/2 SW1/4; S1/2 S1/2 SW1/4;	GREEN, DANIEL A. ETUX	715 CARP LAKE RD		CAMANO ISLAND	WA	98282	360-387-3495
19-17-14000-0005	ACRES 50.00, CD.#7492-2; SEC. 14; TWP. 19; RGE. 17; PTN. E1/2 (LOT 2, SURVEY #505298-ROLLING ACRES)	GREEN, MARVIN ETUX	519 GOBBLER LN		HOLLADAY	TN	38341	217-553-2130
19-17-14000-0001	ACRES 54.53, CD. 7492; SEC. 14; TWP. 19; RGE. 17; PTN. E1/2 (LOT 1, SURVEY #505298-ROLLING ACRES); LESS .39 STATE; 2.63 SR 135;	KROGSTAD, KARL ETUX	PO BOX 95260		SEATTLE	WA	98145	206-323-6472
19-17-15000-0007	ACRES 69.06, CD. 7495-4; SEC. 15, TWP. 19, RGE. 17; PTN. S1/2 (PARCEL F, B29/P242-244)	STORWICK, LANE K.	1910 W BASIN ST		MOSES LAKE	WA	98937	509-771-0798
19-17-15000-0008	ACRES 51.49, CD. 7495-5; SEC. 15, TWP. 19, RGE. 17; PTN. SW1/4 (PARCEL G, B29/P242-244)	LOS ABUELOS INC	361 CEDAR COVE RD		ELLENSBURG	WA	98926	509-925-3902
19-17-15000-0009	ACRES 32.42, CD. 7495-6; SEC. 15, TWP. 19, RGE. 17; PTN. W1/2 W1/2 (PARCEL H, B29/P242-244)	LOS ABUELOS INC	361 CEDAR COVE RD		REDMOND	WA	98926	509-925-3902
19-17-15000-0010	ACRES 32.39, CD. 7495-7; SEC. 15, TWP. 19, RGE. 17; PTN. NW1/4; PTN. SW1/4 (PARCEL J, B29/P242-244)	LOS ABUELOS INC	361 CEDAR COVE RD		ELLENSBURG	WA	98926	509-925-3902
19-17-14000-0006	ACRES 50.00, CD.#7492-3; SEC. 14; TWP. 19; RGE. 17; PTN. E1/2 (LOT 3, SURVEY #505298-ROLLING ACRES)	MAJORS, JAMES L. ETUX	521 RUSTIC RD.		ELLENSBURG	WA	98926	509-962-4059
19-17-03000-0003	ACRES 400.00, CD. 7456-1; SEC. 3; TWP. 19; RGE. 17; NE 1/4 & PTN. S 1/2 E. SR131	PAUTZKE BAIT CO INC	PO BOX 36		ELLENSBURG	WA	98926	509-925-9365
19-17-10000-0001	ACRES 160.00, CD. 7483; SEC. 10; TWP. 19; RGE. 17; E1/2 E1/2	PAUTZKE BAIT CO INC	PO BOX 36		ELLENSBURG	WA	98926	509-925-9365
19-17-15000-0003	ACRES 60.00; SEC. 15; TWP. 19; RGE. 17; THAT PTN OF NE1/4 LYING E. SR 131 ROAD	PAUTZKE BAIT CO INC	PO BOX 36		ELLENSBURG	WA	98926	509-925-9365
20-17-34000-0004	ACRES 80.00, CD. 7766; SEC. 34; TWP. 20; RGE. 17; S 1/2 SE 1/4	PAUTZKE BAIT CO INC	PO BOX 36		ELLENSBURG	WA	98926	509-925-9365

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19-17-22000-0003	ACRES 40.00, CD. 7532; SEC. 22; TWP. 19; RGE. 17; SW1/4 NW1/4	SAGEBRUSH POWER PARTNERS	808 TRAVIS ST., STE 700		HOUSTON	TX	77002	713-265-0350
19-17-22000-0008	ACRES 80.00, CD. 7532-1; SEC. 22; TWP. 19; RGE. 17; N1/2 SW1/4	SAGEBRUSH POWER PARTNERS	808 TRAVIS ST., STE 700		HOUSTON	TX	77002	713-265-0350
19-17-22000-0009	ACRES 40.00, CD. 7532-2; SEC. 22; TWP. 19; RGE. 17; SE1/4 SW1/4	SAGEBRUSH POWER PARTNERS	808 TRAVIS ST., STE 700		HOUSTON	TX	77002	713-265-0350
19-17-27000-0001	ACRES 506.50, CD. 7563; SEC. 27, TWP. 19, RGE. 17 TAX NO. 1	SAGEBRUSH POWER PARTNERS	808 TRAVIS ST., STE 700		HOUSTON	TX	77002	713-265-0350
19-17-28010-0001	ACRES 27.70, CD. 7564; SEC. 28, TWP. 19, RGE. 17 NE1/4 NE1/4 TAX NO`S. 8 & 9	SAGEBRUSH POWER PARTNERS	808 TRAVIS ST., STE 700		HOUSTON	TX	77002	713-265-0350
19-17-02000-0001	ACRES 155.33, SEC. 2; TWP. 19; RGE. 17 NE 1/4 LOTS 1 & 2	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-02000-0003	ACRES 40.00, SEC. 2; TWP. 19; RGE. 17 SW 1/4 NW 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-02000-0005	ACRES 280.00, SEC. 2; TWP. 19; RGE. 17 ALL S 1/2 EXCEPT NE 1/4 SW 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-10000-0002	ACRES 80.00, SEC. 10; TWP. 19; RGE. 17 W 1/2 NE 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-10000-0005	ACRES 80.00, SEC. 10; TWP. 19; RGE. 17 W 1/2 SE 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-10000-0006	ACRES 320.00, SEC. 10; TWP. 19; RGE. 17 ALL W 1/2	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-16000-0001	ACRES 640.00, SEC. 16; TWP. 19; RGE. 17 ALL SECTION	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-22000-0001	ACRES 240.00, SEC. 22; TWP. 19; RGE. 17 ALL NE 1/4; N 1/2 NW 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-22000-0002	ACRES 40.00, SEC. 22; TWP. 19; RGE. 17 SE 1/4 NW 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-22000-0005	ACRES 40.00, SEC. 22; TWP. 19; RGE. 17 SW 1/4 SW 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-22000-0007	ACRES 160.00, SEC. 22; TWP. 19; RGE. 17 ALL SE 1/4	STATE OF WASH (DNR)	1111 WASHINGTON ST SE	PO BOX 47016	OLYMPIA	WA	98504-7016	509-925-8510
19-17-14000-0010	ACRES 20.20, CD.#7492-7; SEC. 14; TWP. 19; RGE. 17; PTN. E1/2 (LOT 7, SURVEY #505298-ROLLING ACRES)	STEINMAN, ANDREA A	19822 28TH AVE W		LYNNWOOD	WA	98036	425-774-0790
19-17-14000-0009	ACRES 50.08, CD.#7492-6; SEC. 14; TWP. 19; RGE. 17; PTN. E1/2 (LOT 6, SURVEY #505298-ROLLING ACRES)	STEINMAN, MERLE JR	19822 28TH AVE W		LYNNWOOD	WA	98036	425-774-0790
19-17-09010-0003	ACRES 60.00, CD. 7480; SEC. 9; TWP. 19; RGE. 17; S1/2 NE1/4 E. OF CO. RD.	THOMAS, CARLA L.	911 ROBBINS RD		ELLENSBURG	WA	98926	509-962-8572
19-17-09040-0003	ACRES 105.00, CD. 7480-1; SEC. 09, TWP. 19, RGE. 17; SE1/4 E OF CO. RD.	THOMAS, CARLA L.	911 ROBBINS RD		ELLENSBURG	WA	98926	509-962-8572
19-17-15000-0001	ACRES 268.00, CD. 7494; SEC. 15; TWP. 19; RGE. 17; ALL NO. CO. RD. EX. PTN. LYING E. SR 131 ROAD @ 24.07	THOMAS, CARLA L.	911 ROBBINS RD		ELLENSBURG	WA	98926	509-962-8572
19-17-11000-0004	ACRES 50.18, CD.#7487-1-2; SEC. 11; TWP. 19; RGE 17 PTN. W1/2 (TRACT 4, SURVEY #501915)	TRITT, LARRY L ETUX	PO BOX 725		ROSLYN	WA	98941	509-649-3611

DEVELOPMENT AGREEMENT
Between
KITTITAS COUNTY, WASHINGTON
And
SAGEBRUSH POWER PARTNERS, LLC

EXHIBIT D

PROPOSED SEPA MITIGATION MEASURES

EXHIBIT D

PROPOSED SEPA MITIGATION MEASURES

Proposed

SEPA
Mitigation Measures

This document is a summary listing of the State Environmental Policy Act (SEPA) mitigation measures proposed by the Application and by the Washington State Energy Facility Site Evaluation Council (EFSEC) taken from the Draft Environmental Impact Statement (DEIS) issued by EFSEC in December 2003 and the Addendum to the DEIS issued by EFSEC in December 2005.

Section numbers listed in the Table of Contents reflect the numbering system in the DEIS.

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3.1.4 Mitigation Measures

Erosion Control during Project Construction
Before construction begins, a detailed SWPPP would be developed and approved by EFSEC for the project to minimize the potential for pollutant discharge from the site during construction and operation activities. The SWPPP would be designed to meet the requirements of the Washington Department of Ecology General Permit to Discharge Storm Water through its stormwater pollution control program (Chapter 173-220 WAC) associated with construction activities.

The SWPPP would include both structural and non-structural BMPs. Examples of structural BMPs include the installation of silt curtains and/or other physical controls to divert flows from exposed soils or otherwise limit runoff and pollutants from exposed areas of the site. Examples of non-structural BMPs include materials handling protocol, disposal requirements, and spill prevention methods.

The SWPPP would be prepared along with a detailed project grading plan by the EPC contractor when design level topographic surveying and mapping are prepared for the project site. The EPC contractor would carry out the construction BMPs, with enforcement by the project's environmental monitor, who would be responsible for implementing the SWPPP.

Site-specific BMPs would be identified on the construction plans for the site slopes, construction activities, weather conditions, and vegetative buffers. The sequence and methods of construction activities would be controlled to limit erosion. Clearing, excavation, and grading would be limited to the minimum areas necessary to construct the project. Surface protection measures, such as erosion control blankets or straw matting, also may be required during construction before site restoration if the potential for erosion is high.

All construction practices would emphasize erosion control over sediment control through such non-quantitative activities as:

- Using straw mulch and vegetating disturbed surfaces;
- Retaining original vegetation wherever possible;
- Directing surface runoff away from denuded areas;
- Keeping runoff velocities low by minimizing slope steepness and length; and
- Providing and maintaining stabilized construction entrances.

Work on the access roads would include grading and regraveling existing roads and constructing new roads. The site would have gravel roadways generally with a low profile design, allowing water to flow over them in most areas. Erosion control measures to be installed during work on the access roads include:

- Maintaining vegetative buffer strips between the affected areas and any nearby receiving waterways;

- Installing sediment fence/straw bale barriers on disturbed slopes and other locations shown in the SWPPP;
- Using straw mulch at locations adjacent to an affected road;
- Providing temporary sediment traps and Sedimat-type mats downstream of seasonal stream crossings;
- Installing silt fences on steep, exposed slopes; and
- Planting affected areas with designated seed mixes.

At each turbine location, a crane pad area would be graded and covered with road rock. During construction, silt fences, hay bales, or matting would be placed on the downslope side of the crane pad. Wind turbine equipment such as blades, tower sections, and nacelles would be transported and off-loaded at each turbine location near the foundation and crane pad. After construction, disturbed areas around all crane pad staging areas would be reseeded as necessary to restore the area as closely as possible to its original condition.

Erosion Control during Project Operations

The project operations group would be responsible for monitoring the SWPPP measures that are implemented during construction to ensure they continue to function properly. Final designs for the permanent BMPs would be incorporated into the final construction plans and specifications prepared by the engineering team's civil design engineer. The EPC contractor's civil design engineer and the project's engineering team would prepare an operations manual for permanent BMPs. The permanent stormwater BMPs would include erosion and sedimentation control through site landscaping, grass, and other vegetative cover. The final designs for these permanent BMPs would conform to the Washington Department of Ecology Western Washington Storm Water Management Manual with adjustment for conditions in Eastern Washington.

Operational BMPs would be adopted, as part of the SWPPP, to implement good housekeeping, preventive and corrective maintenance procedures, steps for spill prevention and emergency cleanup, employee training programs, and inspection and record keeping practices, as necessary, to prevent stormwater pollution. Examples of good operational housekeeping practices, which would be used by the project, include:

- Prompt cleanup and removal of spillage;
- Regular pickup and disposal of garbage;
- Regular sweeping of floors;
- HAZMAT data sheet cataloguing and recording; and
- Proper storage of containers.

The project operations group would periodically review the SWPPP against actual practice. The plant operators would determine if the controls identified in the plan are adequate and if employees are following them.

Earthquakes

Prior to final project design, a detailed geotechnical investigation and field survey would be performed to ensure that no turbine locations or other project components lie immediately above a high-risk fault.

The wind turbines would be equipped with vibration sensors that would automatically shut down the turbine in the event of a severe earthquake (Sagebrush Power Partners LLC 2003a, Section 7.2.9). In addition, current engineering standards applicable in Kittitas County (that is, the 1997 UBC) would be used in the design of project facilities. These standards require that under the "design" earthquake, the factors of safety or resistance factors used in design exceed certain values. This factor of safety is introduced to account for uncertainties in the design process and to ensure that performance is acceptable. Given the relatively low level of earthquake risk for the site, application of the UBC in project design would provide adequate protection for the project facilities and ensure protection measures for human safety (Sagebrush Power Partners LLC 2003a, Section 2.15.3).

Earthquakes occur without warning, thus damage prevention measures and plans must be made in advance. The Applicant would prepare onsite emergency plans to protect the public health, safety, and environment on and off the project site in case of a major natural disaster such as an earthquake. The Applicant proposes the following measures for its detailed emergency plans that would be developed prior to project construction and operation to mitigate for potential hazards during an earthquake (Sagebrush Power Partners LLC 2003a, Section 7.2.9):

- Personnel would seek safety at the nearest protected location;
- Personnel would take cover to avoid any falling debris;
- All personnel would check the immediate area to identify injuries and equipment failures and report to the Site Construction Manager, O&M Manager, or designee;
- All personnel would be instructed to report to a protected area, as necessary, or would continue monitoring the operating equipment;
- A determination would be made about missing personnel and a search and rescue effort would be taken if safe and appropriate;
- If the conditions warrant, Kittitas County Emergency Communications Center and Bonneville or PSE (the electric transmission line operator) would be notified;
- Turbines would be shut down manually as required depending on the severity of the quake and brought back on-line after they have been cleared for restart;
- Off-duty personnel would report to the site, if they can, as designated in the emergency plan;
- If the structures are intact and other plant safety issues are under control, the O&M Manager would approve re-entry of personnel to any turbines for search and rescue efforts.

Volcanic Hazards

In the event of damage from a volcanic eruption, the project facilities would be shut down until safe operating conditions return. If an eruption occurred during construction, a temporary shutdown would most likely be required to protect equipment and human health (Sagebrush Power Partners LLC 2003a, Section 2.15.4).

The Applicant would prepare onsite emergency plans to protect the public health, safety, and environment on and off the project site in case of a major natural disaster such as a volcanic eruption. The Applicant proposes the following actions be taken to reduce potential impacts from a volcanic eruption (Sagebrush Power Partners LLC 2003a, Section 7.2.10):

- Close all O&M facility vents to prevent ash from entering buildings;

- Cover data processing equipment and computers not required for safe project operation or shutdown, and shut down other electronic equipment sensitive to dust;
- If the dust load is heavy enough, shut down the project facilities;
- If the conditions warrant, notify Kittitas County Emergency Communications Center and Bonneville or PSE (the electric transmission line operator);
- Determine if employees should be sent home immediately before roads become unsafe or if personnel must be sheltered onsite;
- Initiate ash cleaning operations by personnel wearing protective equipment;
- Coordinate all ash disposal activities with local Kittitas County officials.

Decommissioning Plans

During the EIS scoping process, a commenter requested that the costs of preparing and implementing a restoration plan for the reclamation (i.e., decommissioning) phase of development be bonded to or deposited with the state prior to project approval. The Applicant would provide adequate financial assurances to cover all anticipated costs associated with decommissioning the project, including the costs of preparing and implementing a restoration plan. In all cases, final financial responsibility for decommissioning would rest with the Applicant (Sagebrush Power Partners LLC 2003a, Section 1.3.3). Refer to Section 6.3 of the Development Agreement for further details.

Additional Mitigation Measures Proposed in the Addendum to the DEIS

Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

VEGETATION, WETLANDS, WILDLIFE AND HABITAT, FISHERIES, AND THREATENED AND ENDANGERED SPECIES

3.25 Mitigation Measures

Mitigation Measures Proposed by the Applicant

Thorough Study and Analysis to Avoid Impacts

The Applicant has commissioned extensive studies by qualified biologists of plants and animals at the project site to avoid impacts on sensitive populations. These studies include:

- Rare plant surveys,
- Habitat mapping,
- Avian use point count surveys,
- Aerial raptor nest surveys,
- Wintering bald eagle surveys,
- Non-avian wildlife surveys,
- Biological assessment for threatened and endangered species, and
- Stream and wetland surveys.

The results and recommendations of these studies have been incorporated into the proposed design, construction, operation, and mitigation for the project.

Project Design Features to Avoid and/or Minimize Impacts

The proposed design of the project incorporates numerous features to avoid and/or minimize impacts on plants and wildlife. These features are based on site surveys, experience at other wind power projects, and recommendations from consultants performing studies at the site. Features of the project that are designed to avoid or minimize impacts on plants and animals include:

- Avoiding when possible, construction in sensitive areas such as riparian zones, wetlands, forests, etc.
- Minimizing new road construction by improving and using existing roads and trails instead of constructing new roads.
- Choosing underground (vs. overhead) electrical lines wherever feasible to minimize perching locations and electrocution hazards to birds.
- Choosing turbines with low rotations per minute and using tubular towers to minimize risk of bird collision with turbine blades and towers.
- Using unguyed permanent meteorological towers to minimize potential for avian collisions with guy wires.
- Equipping all overhead power lines with raptor perch guards to minimize risks to raptors.
- Spacing all overhead power line conductors to minimize potential for raptor electrocution.

Construction Techniques and BMPs to Minimize Impacts

Constructing the project has the potential to impact both habitat and wildlife in a variety of ways. The Applicant proposes using construction techniques and BMPs to minimize these potential impacts. These include the following:

- Using BMPs to minimize construction-related surface water runoff and soil erosion.
- Using certified "weed free" straw bales during construction to avoid introduction of noxious or invasive weeds.
- Flagging sensitive habitat areas (e.g., raptor nests, wetlands, etc.) near proposed areas of construction activity and designation of such areas as "off limits" to all construction personnel.
- Developing and implementing a fire control plan, in coordination with local fire districts, to minimize risk of accidental fire during construction and respond effectively to any fire that does occur.
- Establishing and enforcing reasonable driving speed limits during construction to minimize potential for road kills.
- Properly storing and managing all wastes generated during construction.
- Requiring construction personnel to avoid driving over or otherwise disturbing areas outside the designated construction areas.
- Monitoring raptor nests on site for activity prior to construction and modifying construction timing and activities to avoid impacts on nesting raptors.
- Designating an environmental monitor during construction to monitor construction activities and ensure compliance with mitigation measures.

Post-Construction Restoration of Temporarily Disturbed Areas

The following measures would be taken to restore temporarily disturbed areas after construction:

- All temporarily disturbed areas would be reseeded with an appropriate mix of native plant species as soon as possible after construction is completed to accelerate the revegetation of these areas and to prevent the spread of noxious weeds.
- The Applicant would consult with WDFW regarding the appropriate seed mixes for the project area.

Noxious Weed Control

Because noxious weeds can have numerous detrimental effects on rare plant populations, measures would be implemented to control the introduction and spread of undesirable plants during and after construction. Noxious weed control measures include:

- Cleaning construction vehicles prior to bringing them into the project area from outside areas.
- Quickly revegetating habitats temporarily disturbed during construction.
- Actively controlling noxious weeds that have established themselves as a result of the project.
- Developing a noxious weed control plan prior to construction, and implementing the plan over the life of the project as mitigation.

Dust Control

The Applicant has proposed to implement a comprehensive dust control program. See Section 3.11, Air Quality, for a detailed description of mitigation measures to minimize fugitive dust emissions from construction-related traffic and additional wind-blown dust as a result of ground disturbance.

Fire Protection

Prior to construction, a comprehensive fire control plan would be developed, and implemented project-wide over the life of the project. The fire control plan would take into account the dry nature of the region, and address risks on a seasonal basis. See Section 3.4, Health and Safety, for a detailed description of mitigation measures to minimize or prevent the risk of fire and explosion at the project site during both project construction and operations. A Fire Protection Services Agreement is in place, refer to Exhibit G for details.

Monitoring and Adaptive Management

The Applicant proposes to convene a Technical Advisory Committee (TAC) to evaluate the mitigation and monitoring program and determine the need for further studies or mitigation measures. The TAC would be composed of representatives from WDFW, USFWS, Kittitas County, local interest groups, project landowners, and the Applicant. The role of the TAC would be to coordinate appropriate mitigation measures, monitor impacts on wildlife and habitat, and address issues that arise regarding wildlife impacts during construction and operation of the wind power project. The post-construction monitoring plan would be developed in coordination with the TAC and approved by EFSEC.

The TAC would evaluate the mitigation and monitoring program and determine the need for further studies and mitigation measures in accordance with the *Wind Project Habitat Mitigation Draft Guidance Document* (WDFW 2003a). Based on a verbal agreement by the Applicant and WDFW coordinated in July 2003, three years of monitoring studies to evaluate impacts from project operations should occur.

Acquisition and Enhancement of Onsite Habitat

The Applicant proposes to purchase and protect, for the life of the project, a large area of habitat in the project area. This privately owned parcel, approximately 550 acres in size, is between proposed turbine strings B and C (Sections 22 and 27, Township 19 North, Range 17 East, WM) and is adjacent to land owned by the Washington DNR. The Applicant proposes to purchase this parcel and implement measures to enhance its value as habitat. Based on an agreement by the Applicant and WDFW, the Applicant proposes to protect and restore replacement habitat for habitat temporarily and permanently disturbed by the project. Proposed mitigation ratios and replacement acres of habitat for the middle scenario are identified in Table 3.2-13 The same replacement ratio would apply under the lower and upper end scenarios.

Based on data provided, WDFW has determined that the proposed mitigation site would provide adequate mitigation for the impacts on wildlife habitat that are expected to result from the proposed project (WDFW 2003f).

Overall, the parcel is in fair to good condition. However, several opportunities for enhancement exist that would be expected to raise habitat quality further. Primary among these is management and control of cattle grazing within the entire parcel, and especially within the riparian zone. A grazing management plan could be developed that reduces or eliminates cattle pressure on the most sensitive portions, and allows for re-establishment of native vegetation in specific problem areas. Implementing riparian replanting designed to re-establish native species would benefit certain problem areas along the unnamed creek in the mitigation parcel.

Although high concentrations of noxious weeds were not found within the parcel, scattered patches and individuals (primarily diffuse knapweed [*Centaurea diffusa*]) are present throughout. An overall noxious weed control effort for the parcel, developed in coordination with the Kittitas County Noxious Weed Control Board, would likely be effective at reducing or eliminating noxious weeds from the site, increasing the habitat quality and effectiveness.

Loss of Wetlands and Streams

In August 2003, the Applicant submitted a JARPA to the U.S. Army Corps of Engineers and other applicable resource agencies to mitigate for the project's expected minor loss of jurisdictional wetlands and waters of the United States. The Corps issues Nationwide Permits that authorize minimal project impacts on wetlands and waters. NWP 12 addresses Utility Line Activities and specifically addresses utility lines and access roads. NWP 14 addresses Linear Transportation Projects and crossings of waters of the state by roadways. Both permits provide acreage limits of not greater than one-half-acre (21,779 square feet). There are some differences

Table 3.2-13: Proposed Mitigation Ratios and Replacement Acres of Habitat under the Middle Scenario (Acres)

Vegetation Type	Permanently Disturbed Area[1]	Permanent Mitigation Ratio	Permanent Mitigation Area[1]	Temporarily Disturbed Area	Temporary Mitigation Ratio	Temporary Mitigation Area	Total Mitigation Area Needed	Total Mitigation Area Provided
Dense Conifers	<0.1	2:1	0.0	0.1	0.5:1	0.1	0.1	0.0
Deciduous Shrub Thicket	<0.1	2:1	0.1	0.0	0.5:1	0.0	0.1	2.8
Dense Shrub-Steppe	2.4	1:1	4.8	6.0	0.5:1	3.0	7.8	0.0
Moderate Shrub-Steppe	22.6	2:1	45.2	57.2	0.5:1	28.6	73.8	274.9
Sparse Shrub-Steppe	15.9	2:1	31.9	54.0	0.5:1	27.0	58.8	73.1
Low Sagebrush	9.8	2:1	19.6	28.4	0.5:1	14.2	33.8	0.0
Grassland	40.3	1:1	40.3	159.2	0.1:1	15.9	56.2	185.1
Riparian Tree	<0.1	2:1	0.0	0.4	0.5:1	0.2	0.2	8.0
Riparian	0.0	2:1	0.0	0.0	0.5:1	0.0	0.0	0.0
Developed	1.5	0:1	0.0	5.3	0.0:1	0.0	0.0	0.0
Totals	92.5		141.8	310.5		88.9	230.7	543.9

1 Permanent disturbance to low sagebrush habitat assumes disturbance of both the proposed Bonneville and PSE substation sites (3 acres each); therefore, total acreage numbers have been adjusted accordingly.

in the requirements for these two different permits, and the Corps would make the determination of which NWP to apply for the proposed project. EFSEC would provide Section 401 water quality certification to the Corps if the project is approved by the Governor. Depending on the total project impacts and which NWP the Corps assigns, EFSEC may require compensatory mitigation for the project. Therefore, the specific mitigation requirements to compensate for loss of wetlands and water resources at the project site is considered an issue of uncertainty that has yet to be resolved.

Post-Construction Restoration of Temporarily Disturbed Areas

Existing project design minimizes both permanent and temporary impacts from facilities construction. The Applicant proposes to reseed temporarily disturbed areas with an appropriate mix of native plant species as soon as possible after construction is completed (see Mitigation Measures Proposed by the Applicant, above). WDFW recommends that a broadcast application (4 to 6 pounds per acre) of a lithosol origin biotype such as native Sandberg Bluegrass should be applied to restored areas (WDFW 2003e).

Additional Mitigation Measures Proposed in the Addendum to the DEIS

Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.3.4 Mitigation Measures

Mitigation Measures Proposed by the Applicant

Surface Runoff Pollution during Construction

The Applicant proposes to develop and implement, as required by the National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit for Construction Activities, a detailed SWPPP to minimize the potential for discharge of pollutants from the site during construction. See Mitigation Measures in Section 3.1, Earth Resources, for a detailed description of proposed SWPPP activities and measures to be implemented during construction.

Surface Runoff Pollution during Operations

The Applicant proposes to develop and implement a detailed SWPPP to minimize the potential for discharge of pollutants from the site during operations and maintenance activities. See Mitigation Measures in Section 3.1, Earth Resources, for a detailed description of proposed SWPPP activities and measures to be implemented during project operations and maintenance.

Water Supply

A licensed well driller would install a potable water well to serve the O&M facility. The well would be installed consistent with Kittitas County Environmental Health Department and Ecology requirements.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.4.4 Mitigation Measures

Mitigation Measures Proposed by the Applicant
The Applicant and its subcontractors would comply with all applicable local, state, and federal safety, health, and environmental laws, ordinances, regulations, and standards. Some of the main laws, ordinances, regulations, and standards designed to protect human health and safety that would be reflected in the design, construction, and operation of the project include:

- Occupational Safety And Health Act Of 1970 (29 USC 651, et seq.) and 29 CFR 1910, Occupational Safety and Health Standards;
- Washington Industrial Safety and Health Act (RCW 49.17) and associated rules (WAC 296); Uniform Fire Code;
- Americans with Disabilities Act;
- Uniform Fire Code Standards;
- Uniform Building Code;
- National Fire Protection Association, which provides design standards for the requirements of fire protection systems;
- National Institute for Occupational Safety and Health, which requires that safety equipment carry markings, numbers, or certificates of approval for stated standards;
- American Society of Mechanical Engineers, which provides plant design standards;
- American National Standards Institute, which provides plant design standards;
- National Electric Safety Code;
- American Concrete Institute Standards;
- American Institute of Steel Construction Standards;
- American National Standards Institute;
- American Society for Testing and Materials;
- Institute of Electrical and Electronic and Installation Engineers; and
- National Electric Code.

Fire and Explosion Risk Mitigation Plan (Construction and Operations)

Table 3.4-3 presents the potential causes of fire or explosion during both project construction and operations, and mitigation measures that would be employed to minimize or prevent the risk.

Table 3.4-3: Fire and Explosion Risk Mitigation Plan

C/O[1]	Potential Fire or Explosion Source	Mitigation Measures
C & O	General Fire Protection	• All onsite service vehicles fitted with fire extinguishers • Fire station boxes with shovels, water tank sprayers, etc. installed at multiple locations onsite along roadways during summer fire season • Minimum of one water truck with sprayers must be present on each turbine string road with construction activities during fire season
C & O	Dry vegetation in contact with hot exhaust catalytic converters under vehicles	• No gasoline-powered vehicles allowed outside of graveled areas • Mainly diesel vehicles (i.e., w/o catalytic converters) used on site • Use of high clearance vehicles on site if used off road
C & O	Smoking	• Restricted to designated areas (outdoor gravel covered areas)
C	Explosives used during blasting for excavation work	• Only state-licensed explosive specialist contractors are allowed to perform this work; explosives require special detonation equipment with safety lockouts. • Clear vegetation from the general footprint area surrounding the excavation zone to be blasted. • Standby water spray trucks and fire suppression equipment to be present during blasting activities
C & O	Electrical fires	• All equipment is designed to meet NEC and NFPA standards. • Graveled areas with no vegetation surrounding substation, fused switch risers on overhead pole line, junction boxes and pad switches • Fire suppressing, rock-filled oil containment trough around substation transformer

Table 3.4-3: Continued

C/O[1]	Potential Fire or Explosion Source	Mitigation Measures
C & O	Lightning	• Specially engineered lighting protection and grounding systems at wind turbines and substations • Footprint areas around turbines and substation are graveled with no vegetation
C	Portable Generators – hot exhaust	• Generators not allowed to operate on open grass areas • All portable generators to be fitted with spark arresters on exhaust system
C	Torches or field welding onsite	• Immediate surrounding area will be wetted with water sprayer. • Fire suppression equipment to be present at location of welder/torch activity
C & O	Electrical arcing	• Electrical designs and construction specifications meet or exceed requirements of NEC and NFPA.

Source: Sagebrush Power Partners LLC 2003c.
1 Indicates risk during construction (C) and/or operations (O).

Additional Measures to Reduce Risk of Fire and Explosion during Construction

- The Construction Manager would be responsible for staying abreast of fire conditions in the project area by contacting DNR and implementing necessary fire precautions.
- Fire risk reporting by the Washington DNR would be actively posted at the construction job site during the high-risk season.
- A Fire Protection and Prevention Plan would be developed and implemented, in coordination with the Kittitas County Fire Marshal and other appropriate agencies.
- Potential hazards associated with use of flammable liquids such as construction equipment fuels would be reduced by compliance with a Construction Health and Safety Plan. Each contractor would develop its own plan tailored to suit the specific site conditions, design, and construction requirements for the project. These contractors would administer the program to ensure compliance with laws, ordinances, regulations, and standards pertaining to worker safety, including the State of Washington's construction safety standards (Chapter 296-155 WAC) and the requirements of the Occupational Safety and Health Administration (OSHA) (Title 29, Labor, Code of Federal Regulations Part 1926, Safety and Health Regulations for Construction). The Construction Health and Safety Plan would include the following provisions:
  - Injury and illness prevention plan;
  - Written safety program;
  - Personnel protective devices program;
  - Onsite fire suppression program;
  - Offsite fire suppression support; and
  - Emergency plan.

Additional Measures to Reduce Risk of Fire and Explosion during Operations

- The Applicant has committed to developing and implementing emergency response procedures and employee training addressing the following topics:
  - Personnel injury;
  - Construction emergencies;
  - Project evacuation;
  - Fire or explosion;
  - Floods;
  - Extreme weather abnormalities;
  - Earthquakes;
  - Volcanic eruption; and
  - Facility blackout.
- The project O&M group and third party contractors would receive regular emergency response and safety training to ensure that effective and safe action would be taken to reduce and limit the impact of an emergency (including fires and explosions) during project operations.
- The wind turbine generators would be equipped with specially engineered lightning protection systems that connect the blades, nacelle, and tower to a grounding system at the base of the tower. The blades would be constructed with an internal copper conductor and an additional lightning rod that extends above the wind vane and anemometer at the rear of the nacelle. The Applicant also proposes to keep the areas around each turbine base graveled with no vegetation, to reduce fire risk.
- The turbine control system would detect overheating in turbine machinery. Internal fires would be detected by these sensors, causing the machine to shut down immediately and to send an alarm signal to the central SCADA system which would notify operators of the alarm by cell phone or pager.
- The proposed substations would be equipped with specially engineered lightning protection systems to minimize the risk of fire during substation operations. All electrical designs for the substations and interconnection facilities would comply with the National Electric Code and the National Fire Protection Agency regulations and standards. The substations would be completely enclosed by a locked fence and access would be limited to authorized personnel. The area surrounding the substations would be graveled and no combustible vegetation would be located within the fenced area.
- Permanent meteorological monitoring towers would be installed with a grounding system that protects the meteorological sensors and loggers from electrostatic discharge and provides lightning protection to the tower by bringing the tower and everything mounted on it to ground potential. Lightning dissipaters or rods would be installed at the top of the towers to provide an umbrella of protection for the upper sensors.
- Only qualified personnel would perform maintenance on the electrical cables. Sufficient clearance would be provided for all types of vehicles traveling under the overhead segments of the electrical lines.

Measures to Reduce Potential Releases of Hazardous Materials to the Environment during Construction

- During construction, the EPC contractor would use fuel trucks for refueling construction vehicles and equipment on site. There would be no fuel storage tanks used at the project site. To avoid spills, fueling trucks would be equipped with auto shutoff valves and other safety devices. The fuel trucks would be properly licensed and would incorporate features in equipment and operation, such as automatic shutoff devices, to prevent accidental spills.
- The oil truck used to fill substation transformers would be properly licensed and would incorporate several special features in equipment and operation, such as automatic shutoff devices, to prevent accidental spills.
- The details of how lubricating oils and other materials would be stored and contained at the construction staging area would be documented in a construction spill prevention and control plan developed and approved by EFSEC prior to commencement of construction. This plan would show storage, detention, and response procedures for all potential chemicals used on site. Implementation of appropriate spill prevention and control measures would ensure that the risk of an accidental release of hazardous materials remains low throughout construction.
- The EPC contractor would be responsible for compliance with applicable federal, state, and local laws, ordinances, regulations, and standards to ensure that the risk of release does not create an adverse health and safety or environmental impact. The EPC contractor would also be responsible for training its personnel in spill prevention and control and, if an incident occurs, would be responsible for containment and cleanup. Spills would be addressed in accordance with the construction spill prevention plan.

Measures to Reduce Potential Releases of Hazardous Materials to the Environment during Operations

- The wind turbines would be equipped with sensors to automatically detect loss in fluid pressure and/or increases in temperature; these sensors would enable the turbines to be shut down in case of a fluid leak. The turbines would be designed with fluid catch basins and containment systems to prevent accidental releases from leaving the nacelle. Any accidental gear oil or other fluid leaks form the wind turbines would be contained inside the towers because they are sealed around the base.
- The pad-mounted transformers would be designed to meet stringent electrical industry standards, including containment tank welding and corrosion protection specifications. These transformers would also be equipped with oil level indicators to detect potential spills.
- The substation transformers would have a specifically designed containment system to ensure that any accidental fluid leak does not result in discharge to the environment. The substation design would incorporate an oil containment system consisting of a perimeter containment trough, large enough to contain the full volume of transformer mineral oil with a margin of safety, surrounding the main substation transformers. The trough and/or membrane would drain into a common collection

sump area that would be equipped with a sump pump designed to pump rainwater out of the trough to a nearby natural drainage. To prevent the sump from pumping oil out to the surrounding area, it is fitted with an oil detection shutoff sensor that would shut off the sump when oil is detected. A fail-safe system with redundancy is built into the sump controls because the transformers are also equipped with oil level sensors. If the oil level inside a transformer drops due to a leak in the transformer tank, it would also shut off the sump pump system to prevent it from pumping oil and an alarm would be activated at the substation and into the main wind project control (SCADA) system.

- Waste fluids would be stored in appropriate containers on a concrete surface inside the O&M facility for collection by a licensed collection service for recycling or disposal. The storage area inside the O&M facility would be surrounded by a berm or trough to trap any leaks or spills.

Measures to Minimize Risk of Ice Throw

In order to prevent ice from causing any potential danger, the proposed turbines would be located at least 1,000 feet from any residences. For additional safety, selected turbine rows within 328 feet of public roads would also be equipped with a fail-safe icing sensor system, which would shut the turbines down and activate a local alarm during rare icing events. The affected machine(s) would remain dormant until icing conditions are no longer present.

Measures to Minimize Risk of Tower Collapse and Blade Throw

- The Applicant proposes setbacks of at least the height of the tower plus the blade (overall tip-height) from any public roads and residences. The size of this setback would vary depending on the selected project scenario. The tip-height would range from a low of 260 feet under the upper end scenario to a high of 410 feet under the lower end scenario.
- The wind turbines would meet international engineering design and manufacturing safety standards. This includes tower, blade, and generator design. There is an international quality control assurance program for turbines, and a number of relevant safety and design standards. Quality Assurance/Quality Control (QA/QC) inspections of the wind turbine generators and towers would typically include, but not be limited to, the following operations, checks, and review:
  - Inspection of turbines at manufacturer's facilities;
  - Review and inspection of manufacturer's QA/QC procedures;
  - Manufacturing drawing review and verification;
  - Verification of welding procedure specifications compliance ;
  - Material mill certificates tracking system and verification;
  - Overall visual inspection (including assembly, fastening systems and welding);
  - Inspection of flange interface flatness measurements, finishing and protection;
  - Witness or review of turbine run-in load testing;
  - Inspection of paint finishing and protection;
  - Inspection of painting/marking/preparation for shipment;
  - Verification of field wiring and tagging; and
  - Pre-Commissioning field testing and verification.

- Foundation design and commissioning checks would address potential equipment failure due to extreme events such as earthquakes or extreme wind loadings, as well as frequency tuning of the different parts of the structure to avoid failure due to dynamic resonance.

Measures to Minimize Exposure to EMF

Proposed high voltage transmission lines would be designed and built according to industry standards to avoid EMF impacts.

Measures to Minimize Electric Shock

The substations would be designed and constructed to have a robust grounding grid that would divert stray surges and faults. Generally, the substation grounding grid would consist of heavy gauge bare copper conductor buried in a grid fashion and welded to a series of multiple underground grounding rods.

Measures during Decommissioning

An audit would be performed of the relevant operation records and a project site survey would be conducted to determine if a release of hazardous material has occurred. A review of all facilities would be performed to determine if hazardous or dangerous materials (as then defined by regulation) are present as construction materials or materials used in the operation of any facility components such as cleaning and maintenance fluids, lubricating oils, and gases. The project site inspection would determine and record the location, quantity, and status of all identified materials.

Additional Recommended Mitigation Measures

In addition to the mitigation measures proposed by the Applicant above, the following measures would further reduce health and safety related impacts and risks.

Measures to Minimize Risk of Ice Throw

The Applicant proposes to equip selected turbines within 328 feet of public roads with a fail-safe icing sensor system. However, some of the residents in the project area travel on private roads to access their properties. Because some roads appear to be close to the proposed turbines, the Applicant should install a similar icing sensor system on any turbine located within 328 feet of private roads.

Measures to Minimize Risk of Tower Collapse and Blade Throw

The Applicant proposes setbacks of at least the turbine tip-height (ranging from 260 to 410 feet, depending on the project scenario) from public roads and residences as a safety measure to reduce the risk of tower collapse or blade throw. However, some of the residents in the project area travel on private roads to access their properties. Because some roads appear to be close to the proposed turbines, the Applicant should adjust the siting of individual turbines, as necessary, to avoid encroaching upon a 260- to 410-foot setback around private roads.

Measures to Minimize Shadow-Flicker Effects

Shadow-flicker caused from low-angle sun shining through rotating wind turbines would affect several residences in proximity to the project site. Although the number of expected hours of exposure is relatively low, residents may perceive these effects to be significantly disruptive in nature. Recommended mitigation measures to minimize the nuisance effect from shadow-flicker to residents in the project area should include one or more of the following:

- Plant trees between the affected residence and the turbines causing the effect;
- Install fixed shades on affected windows;
- Install automatic shades on affected windows that are opened and closed by electric motor on a timer.

Additional Mitigation Measures Proposed in the Addendum to the DEIS

Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.5.4 Mitigation Measures

The Applicant proposes to implement energy conservation measures during project construction and operation including, but not limited to, the following:

- Use lignin (a non-toxic wood byproduct) as a dust palliative to reduce water consumption for dust suppression during construction;
- Encourage carpooling of onsite construction crews;
- Use high-efficiency electrical fixtures and appliances in the O&M facility and substation
- control house; and
- Use low-water-use flush toilets in the O&M facilities.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.6.5 Mitigation Measures

Mitigation Measures Proposed by the Applicant

- During project construction, it would be necessary to remove cattle from areas where blasting or heavy equipment operations are taking place. The Applicant proposes to make arrangements with property owners and livestock owners to keep livestock out of these areas during those periods.

- After construction is completed, disturbed areas would be returned as closely as possible to their original state, excluding service and access roads, which would remain in place for the life of the facility.

Additional Recommended Mitigation Measures

In addition to measures proposed by the Applicant and inherent in the project design, the following mitigation measure is recommended to minimize potential conflicts between project construction and operation activities and onsite recreation users:

- In June 2003, DNR and the Applicant executed a lease agreement that would permit the Applicant to construct and operate portions of the proposed wind turbine project on DNR property (DNR 2003). Under the terms of the agreement, DNR's activities on this property, and any grant of rights DNR makes to any person or entity, shall not unreasonably interfere with the construction, installation, maintenance, operation, or removal of the project, access to the project, or the undertaking of other permitted activities allowed by the lease. If DNR determines that potential conflicts between turbine construction and/or operations and existing recreational uses on DNR property would occur, the agency could take steps to limit access to its property. For example, DNR could post appropriate signs on its property limiting public pedestrian and/or vehicle access to portions of the project area during construction or operation.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

SOCIOECONOMICS

3.7.4 Mitigation Measures

To minimize the potential increase in visitors to the project site, the Applicant proposes to construct an information kiosk and public viewing area near the proposed O&M facility off Bettas Road. Signs would be provided to direct tourists to this viewing area (see Chapter 2, Proposed Action and Alternatives, Section 2.2.3, Facilities). No other mitigation measures are required or have been identified for potential socioeconomic impacts.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

CULTURAL RESOURCES

3.8.5 Mitigation Measures

Mitigation Measures Proposed by the Applicant
A qualified archaeologist would monitor the ground-disturbing activities; the Yakama Nation would be contacted prior to these activities and invited to have representatives present during all ground disturbances. If intact archaeological resources or human burials are encountered during construction, the construction foreman would immediately direct activities that could further disturb the deposits away from their vicinity. The construction foreman or Sagebrush Power Partners LLC would then contact Dr. Robert G. Whitlam, Washington State Archaeologist, the Yakama Nation, and other pertinent parties who would determine how the materials should be treated. The area would be secured and placed off limits for anyone but authorized personnel.

Additional Recommended Mitigation Measures
Because tribal consultation is ongoing and cultural resources significant to the Yakama Nation may yet be identified, mitigation measures appropriate for these resources should be developed by the Applicant and approved by EFSEC and the Yakama Nation before construction begins. It is recommended that the Yakama Nation be involved in establishing procedures to be followed in the event of any unanticipated finds during the construction and decommissioning phases of the proposed project.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

VISUAL RESOURCES

3.9.5 Mitigation Measures

Mitigation of aesthetic and light and glare impacts related to wind power projects could include a combination of methods. The goal of mitigation is to avoid, reduce, and compensate for impacts to the maximum extent practical. The most fundamental mitigation method is to completely avoid the impacts at a given location by either not constructing the project or constructing it at a different location. This option is discussed in Section 3.9.4, No Action Alternative.

In current literature on the subject, a number of commonly accepted aesthetic and light and glare impacts are associated with wind power projects. Many of these impacts may be reduced if recommended planning and design methods are followed. The Applicant is proposing some of these impact-reduction methods, as summarized below.

Mitigation Measures Proposed by the Applicant

- During the construction period, active dust suppression would be implemented to minimize the creation of dust clouds.
- When construction is complete, areas disturbed during the construction process would be restored to natural conditions.
- The wind turbine towers, nacelles, and rotors used would be uniform in design throughout the project.
- The turbines would have neutral gray finish to minimize contrast with the sky backdrop. Because the turbines are most frequently seen against the sky, particularly in close-range views where visual concerns are the greatest, the gray finish is the most effective choice for minimizing project aesthetic impacts.
- A low-reflectivity finish would be used for all surfaces of the turbines to minimize the reflections that can call attention to structures in a landscape setting.
- Because of the prevailing wind conditions and the high level of reliability of the equipment being used, the rotors would be turning approximately 80-85% of the time, minimizing the amount of time that turbines would appear to be not operating.
- The small cabinets containing pad-mounted equipment that would be located at the base of each turbine would have an earthtone finish to help them blend into the surrounding ground plane.
- The only exterior lighting on the turbines would be the aviation warning lighting required by the FAA. The warning lighting would be the minimum required intensity to meet the current FAA standards.
- Most of the project's electrical collection system would be buried.
- The 1.2-mile aboveground segment of the electrical collection system would include wood poles, low-reflectivity conductors, and non-reflective insulators. The aboveground segment would be located along two sets of existing overhead high voltage transmission.
- To the extent feasible, existing road alignments would be used to provide access to the turbines, minimizing the amount of additional surface disturbance required. Access road widths would be restricted to 20 feet in the middle and upper scenarios.

The roads would have a gravel surface and would have grades of not more than 15% to reduce unsightly soil erosion.

- The O&M facility would have a low-reflectivity earth tone finish to reduce visual contrast with the surrounding landscape.
- The colors of the asphalt and gravel used for circulation and parking areas at the O&M facility would be selected to minimize contrast with the site's soil colors.
- Outdoor night lighting at the O&M facility and substations would be the minimum necessary for safety and security. All lights would be shielded to reduce offsite light trespass.
- All substation equipment would have a low-reflectivity neutral gray finish to reduce visual impact.
- All insulators in the substations and on takeoff towers would be non-reflective and non-refractive.
- The control buildings located at each substation would have a low-reflectivity earthtone finish.
- The chain-link fences surrounding the substations would have a non-reflective, dark finish to reduce their contrast with the surroundings.
- In the areas surrounding the O&M facility and substations, naturalistic groupings of indigenous trees and shrubs would be established to provide partial screening and to help visually integrate the facilities into the landscape.
- An information kiosk and public viewing area would be constructed near the proposed O&M facility off Bettas Road. Signs would be provided to direct tourists to this viewing area (see Chapter 2). There is evidence from viewer survey results that people who have an understanding of the technology and characteristics of wind energy facilities are less likely to find views of turbines in the landscape objectionable.

Additional Recommended Mitigation Measures

During EIS scoping, concerns were raised about the project's aesthetic impacts. It was suggested that the County impose scenic setbacks from US 97 to protect the project area's viewshed. Kittitas County would make decisions regarding scenic setbacks in the project area.

Other commentors requested that the project compensate for lost sleep or loss of enjoyment of property caused by the proposed turbine lighting. Specific types of mitigation include methods to mitigate for light pollution at residences that do not have window coverings and methods to shield or somehow create a visual barrier between the tower lights and nearby residences. However, as noted below, attempts to screen or buffer views of the wind turbines should be carefully examined because a failed attempt to screen the turbines could have a greater negative impact than no attempt at all.

Additional measures or modifications that could further reduce the aesthetic and light and glare impacts of the project are recommended below. Some of the potential mitigation measures are published recommendations in current literature about wind power project aesthetic impacts (e.g., Pasqualetti et al. 2001). See Section 3.4, Health and Safety, for a

discussion of recommended measures to minimize the effects of shadow-flicker during project operations.

- Architectural compatibility with the region's agricultural building types would unify the O&M facility and potentially the substation with the surrounding landscape. For example, if the O&M facility looked like a barn and the parking area was hidden behind it, travelers on US 97 would be less likely to view the structure as atypical for the area.
- For wind turbines that would be viewed uphill within a 1-mile distance, planting natural-looking groups of native conifers should be explored as a means to reduce the overall impact. However, any attempt to screen or buffer views of the wind turbines should be carefully examined because the aesthetic impact of a failed attempt to screen the turbines could have more impact than no attempt at all. Any attempt to camouflage or paint in a decorative way would make the turbines more noticeable and incongruous. The wind turbines should not be painted to match sky or ground surface colors because the sky and surface colors are constantly changing. For paint colors other than white or light gray, the degree of contrast between the turbines and sky or ground surface could range from very low to very high depending on conditions such as snow or seasonal vegetative cover.
- The wind turbines should not be installed on a foundation that is raised above natural (existing) grades. The grasses and other plants used in post-construction restoration efforts should continue to the base of the tower so that the tower is visually connected to the earth.
- All wind turbines should be the same design, height, and color, and their blades should rotate in the same direction. The nacelles should have only one small logo visible on the two longest sides. Cellular dish-type antennas should not be attached. Narrow antennas could likely be added to the wind turbines with minimal aesthetic impact.
- The towers should be constructed to house the transformer and any control panels within the base of the tower to avoid visual clutter.
- To compensate for visual impacts, the Applicant should acquire conservation easements on land in important foreground views of the wind turbines so that no further development occurs in these areas until after decommissioning. This approach would conserve natural areas so that the visual contrast between the wind turbine and the land maintains its order and purity.

Additional Mitigation Measures Proposed in the Addendum to the DEIS

The mitigation measures presented in the Draft EIS for visual impacts remain appropriate. However, mitigation of the exterior lighting of turbines required by FAA will be revised as follows:

- The only exterior lighting on the turbines will be the nighttime aviation warning lighting required by the FAA. This lighting will conform to the FAA's new standards for marking of wind turbines, required intensity and synchronization. It is anticipated that according to the FAA's new guidance daytime lighting of the turbines will not be required.

TRANSPORTATION

3.10.4 Mitigation Measures

Mitigation Measures Proposed by the Applicant

Construction Traffic Control

The following mitigation measures are proposed to reduce the impact of project construction on roadway traffic in the region:

- The Applicant would prepare a Transportation Management Plan (TMP) that would be reviewed and approved by WSDOT and Kittitas County. The TMP would direct and obligate the contractor to implement procedures that would minimize traffic impacts;
- The TMP would include coordination between project-related construction traffic and WSDOT planned construction projects;
- Any oversize or overweight vehicles would comply with applicable state and county requirements, as permitted by WSDOT and Kittitas County.
- The Applicant would provide notice to landowners when construction takes place to help minimize access disruptions;
- The Applicant would provide proper road signs and warnings of "Equipment on Road," "Truck Access," or "Road Crossings";
- When slow or oversized wide loads are in transit to and from the site, advance signs and traffic diversion equipment would be used to improve traffic safety. Pilot cars would be used as WSDOT codes dictate depending on load size and weight. Permits would be obtained for these oversized or overweight vehicles as required by WSDOT and Kittitas County;
- The Applicant would construct necessary site access roads and entrance driveways that would be able to service truck movements of legal weight;
- The Applicant would encourage carpooling for the construction workforce to reduce traffic volume;
- In consultation with Kittitas County, the Applicant would provide detour plans and warning signs in advance of any traffic disturbances;
- The Applicant would employ flaggers as necessary to direct traffic when large equipment is exiting or entering public roads to minimize risk of accidents;
- One travel lane would be maintained at all times.

Hazardous Materials Transport

- Transportation of hazardous materials would be conducted in a manner that protects human health and the environment and is in accordance with applicable federal and WSDOT requirements.

Access Road Construction

- The access road from US 97 would be constructed with slopes and culverts designed according to WSDOT and Washington State access management standards under Title 468 WAC and Chapter 47.50 RCW. Access from county roads (Bettas or Hayward) would also be constructed with the appropriate slopes and culverts in accordance with Kittitas County standards.

Roadway Maintenance

- The Applicant proposes to upgrade the northern portion of Hayward Road prior to construction to allow passage of heavy equipment and trucks and to restore this portion of Hayward Road to a condition equal to or better than its present condition after construction is completed.
- The Applicant would consult with the Kittitas County Department of Public Works to determine the specific requirements for any improvement and restoration to Hayward Road (and any other county roads used by the project).
- The Applicant proposes to take responsibility for ongoing maintenance to the northern portion of Hayward Road that is necessitated by the project's operation. Assuming the County chooses to keep Hayward Road closed for the winter, the Applicant would coordinate with the County to keep non-project vehicles off this road during the closure period.
- The Applicant plans to submit an Application for Proposed Use of ROW to Bonneville for joint use of the 1-mile section of ROW between Hayward Road and the proposed Bonneville substation and turbine string E. With Bonneville approval, the Applicant proposes to upgrade this section of ROW from dirt to gravel surface and would assume responsibility for maintenance of this section of ROW.

Tourism-Induced Traffic

- The Applicant proposes to construct an information kiosk and public viewing area near the proposed O&M facility off Bettas Road. Signs would be provided to direct tourists to this site (see Section 2.2.3, Facilities). This measure would minimize tourist-generated traffic impacts on county roadways.

Additional Recommended Mitigation Measures

Construction Traffic Control

- The Applicant should consult and coordinate with WSDOT and Kittitas County to identify additional temporary measures that could be implemented to improve LOS along US 97 north during the construction period.

Parking

To ensure that adequate parking is provided to accommodate both project employees at the O&M facility and tourists attracted to the project area, the following mitigation measure is recommended:

- The Applicant should monitor the volume of tourists visiting the proposed viewing area to determine if overflow parking is required. If additional parking is needed, the Applicant could identify and create an adjacent overflow parking area. The specific location of an overflow parking area should be sited so that tourist traffic does not conflict with employee access into and out of the O&M facility and no additional environmental impacts are caused.

Traffic Safety

In the absence of projected increased traffic volumes at the intersection of US 97 and Bettas Road, WSDOT recommends the following mitigation measure to improve traffic safety at this intersection during project operations (WSDOT 2003b):

- WSDOT would monitor the incidence of traffic accidents at the intersection of US 97 and Bettas Road. If, within a five-year time period, WSDOT determines that channelization improvements at the intersection of US 97/Bettas Road are necessary to reduce accidents caused by additional turning traffic, the Applicant should be responsible for all costs associated with the safety improvement. The safety improvement would be limited to a northbound left-turn lane, a southbound right-turn lane, or both. The time period for monitoring would begin at the time of development approval.

Aviation Safety

To ensure that the project would not create hazards to aviation under any of the project scenarios, the following mitigation measure is recommended:

- If the Applicant's final proposal differs from the proposal submitted to, reviewed, and approved by the FAA in terms of number, siting, or size of proposed turbines, the Applicant should notify the FAA of these changes and secure any additional "Determinations of No Hazard to Air Navigation," as warranted.

Additional Mitigation Measures Proposed in the Addendum to the DEIS

Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.11.5 Mitigation Measures

Construction of the proposed project would create fugitive dust emissions from construction-related traffic and additional wind-blown dust because of ground disturbance. The proposed project would require mitigation measures to comply with Ecology's regulations to control dust during construction (WAC 173-400-040).

The proposed project would implement a dust control program to minimize any potential disturbance from construction-related dust and to avoid creating a local nuisance or significant environmental impacts. The specific details of the dust control program would depend largely on the timing of construction, which is itself dependent on the date when the project is permitted. For example, a more aggressive dust control effort would be required if major civil construction work occurs in the late dry summer as opposed to early spring (Sagebrush Power Partners LLC 2003g).

Dust suppression would be accomplished through application of either water or a water-based, environmentally safe dust palliative such as lignin, in accordance with the Proposed Dust Abatement Policy developed by Kittitas County Public Works Department. (This draft policy has not been formally adopted by the Board of County Commissioners.) The use of a dust palliative such as lignin (a non-toxic, non-hazardous compound derived from trees) would result in the use of substantially less water for dust suppression (see Section 3.3, Water Resources) and therefore less traffic from water trucks to the construction site. The EPC contractor in consultation with local authorities would make the final decision regarding dust suppression techniques.

The Applicant proposes the following mitigation measures for construction-related air emissions and dust:

- All vehicles used during construction would comply with applicable federal and state air quality and vehicle emission regulations;
- Operational measures such as limiting engine idling time and shutting down equipment when not in use would be implemented;
- Active dust suppression would be implemented on unpaved construction access roads, parking areas and staging areas, using water-based dust suppression materials in compliance with state and local regulations;
- Traffic speeds on unpaved access roads would be kept to 25 mph to minimize generation of dust;
- Carpooling among construction workers would be encouraged to minimize construction-related traffic and associated emissions;
- Disturbed areas would be replanted or graveled to reduce wind-blown dust; and
- Erosion control measures would be implemented to limit deposition of silt to roadways.

No mitigation is proposed for project operations because there would be no regulated air or odor emissions.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.12.4 Mitigation Measures

Mitigation Measures Proposed by the Applicant

- Substation transformers and high-voltage switching equipment would be specified or designed to comply with the 70 dBA limit at all Class C EDNA property lines and 50 dBA at all Class A EDNA structures (Sagebrush Power Partners LLC 2003c).

Additional Recommended Mitigation Measures

Construction

Although no specific receivers are identified as being adversely affected by construction noise, the following contractor practices are recommended to minimize the effects of construction noise in the project area:

- Implement work-hour controls so that noisy activities occur between 7 a.m. and 10 p.m., which would reduce the impact during sensitive nighttime hours.
- Maintain equipment in good working order and use adequate mufflers and engine enclosures to reduce equipment noise during operation.
- Turn off engines when not in use to eliminate needless engine idle noise.
- Locate stationary equipment away from receiving properties to help reduce the noise through increased distance between source and receiver.
- Coordinate construction vehicle travel to reduce the number of passes by sensitive receivers.
- Schedule noisy activities to occur at the same time since additional sources of noise generally do not add a significant amount of noise.
- In the most severe case of construction noise, use temporary noise barriers or curtains to reduce noise from stationary equipment or activities located near sensitive receivers.

Operations and Maintenance

During EIS scoping, concerns were raised about the effects of the project's operational noise on nearby residents. It was suggested that trees should be planted for property owners to buffer noise impacts. Retaining existing trees and shrubs and planting new vegetation around residences in the project area would reduce noise annoyance psychologically by removing the noise source from view. However, to actually reduce noise levels, vegetation must completely block the line of sight between the receptor and the wind turbine. In addition, the vegetative buffer must be of sufficient depth to reduce noise. For example, dense woods with a depth of 100 feet would be required to reduce noise by 5 dBA. This kind of sound reduction from intervening landscaping would be expected to occur in the forested, residential establishment northwest of the project site, referred to as "Section 35." However, on the rangeland portions of the site, planting dense landscaping of sufficient depth to reduce noise would require a change in use of

adjacent agricultural and residential properties. Therefore, vegetative buffering to reduce noise is not considered to be a reasonable mitigation measure for those properties.

To ensure that noise levels in the project do not exceed regulatory thresholds during project operations, the following mitigation measure is recommended:

- Prior to construction, an acoustical analysis of the final turbine layout should be prepared for all wind turbines to be located within one mile of an existing residence prior to project construction. The analysis should be conducted using noise level data for the final turbine type, size, and layout and would demonstrate compliance with the WAC (173-60). If compliance is not demonstrated, turbines should be relocated or removed, to the extent necessary, so that the project meets applicable regulatory thresholds.

Additional Mitigation Measures Proposed in the Addendum to the DEIS
Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

3.13.4 Mitigation Measures

Mitigation Measures Proposed by the Applicant

General

The following mitigation measures would be implemented to reduce impacts to public services and utilities resulting from construction of the project:

- Tax revenues generated by the Applicant's project would mitigate potential impacts to public services and utilities. Should there be construction impacts requiring additional staffing levels during construction, or other impacts or costs related to services that would not be covered in a timely manner by tax revenues, the Applicant would enter into agreement(s) with the appropriate local governmental agency for prepayment of taxes for mitigation of the cost impacts. This would include fire, police, and county roads.
- If emergency fire protection services are required during project operations prior to having an agreement in place, local fire officials informed the Applicant that the costs of these services could be billed to the project on a cost-recovery basis. Therefore, if an emergency occurs, the responding district(s) would bill the Applicant for their actual costs of responding.
- The Applicant would provide all local police, fire, and emergency medical agencies with emergency response information for the project including employee contact information, procedures for rescue operations to the nacelles, and location of rescue basket.

Law Enforcement

- The Applicant would consult with the county regarding the impact on county law enforcement staffing. If additional staffing is required, the Applicant proposes to mitigate by prepaying taxes in a sufficient amount to provide adequate staffing levels during construction.
- As described in Chapter 2, Section 2.2.4, Construction Activities, a full time security plan would be implemented during project construction to reduce the potential need for increased police services to the project site. For example, temporary fencing with a locked gate would be installed for a roughly 1.5-acre area adjacent to the site trailers for the temporary storage of special equipment or materials. In addition, construction trailers would be equipped with outdoor lighting and motion-sensor lighting, and access to the project site would be controlled. These measures would help to significantly reduce the potential for incidents at the project site that would require a response by local law enforcement agencies.
- As described in Chapter 2, Section 2.2.5, Operations and Maintenance Activities, the plant operations group would prepare a detailed security plan to protect the security of the project and project personnel. Site visitors including vendor equipment personnel, maintenance contractors, material suppliers, and all other third parties

would require permission for access from authorized project staff prior to entrance. The plant operations manager, or designee, would grant access to critical areas of the site on an as-needed basis. Arrangements would be made with adjacent landowners that have legal ingress and egress easements across areas where project facilities would be located to ensure their continued access.

Fire Protection

- Fire risk potential is constantly tracked and reported during the summer fire season by the DNR; fire danger levels would be actively posted at the construction job site during the high-risk season.
- The construction manager would be responsible for monitoring fire conditions in the project area by contacting Washington DNR and implementing necessary fire precautions. A Fire Protection and Prevention Plan would be developed and implemented, in coordination with the Kittitas County Fire Marshall and other appropriate agencies. In addition, all onsite construction employees would be responsible for contributing to fire prevention through the following programs:
  - Construction Written Safety Program;
  - Construction Onsite Fire Suppression and Prevention; and
  - Construction Offsite Fire Suppression Support.
- All turbines and towers and the substations would be built with engineered lightning protection systems and the footprint areas around these facilities would be graveled with no vegetation. In the event of a nacelle fire, project operations staff and fire personnel would not attempt to put it out, but would prevent the fire from spreading to adjacent lands. This can be achieved either by use of fire suppressant material or a small, controlled burn around the base of the tower (Sagebrush Power Partners LLC 2003a, Section 5.3.3.2.2).
- All onsite operations employees would be responsible for contributing to ongoing fire prevention in the project area through the following programs:
  - Operational Safety Program;
  - Operations Written Safety Program;
  - Emergency Action Plan;
  - Fire Prevention Plan.
- Onsite emergency plans would be prepared for the project in case of a major natural disaster or accident relating to or affecting the project. The plans would describe the emergency response procedures to be implemented during various emergency situations that may affect the project or surrounding community or environment.
- The Applicant would also be responsible for the following fire protection and prevention measures:
  - Contract with fire district(s) for protection services during construction;
  - Provide special training to fire district personnel on how to respond to fires related to wind turbines, and to EMS personnel in how to use a rescue basket that would be kept at the operations and maintenance facility for the purpose of removing injured employees from the towers;
  - Provide detailed maps that show all access roads to the project;

- Provide keys to a master lock system that would enable emergency personnel to unlock gates that would otherwise limit access to the project;

- Use spark arresters on all power equipment, e.g., cutting torches and cutting tools;
- Inform workers at the project site of emergency contact phone numbers and train them in emergency response procedures;
- Carry fire extinguishers in all maintenance vehicles; and
- Coordinate with DNR when the fire danger is high.

The Applicant's proposed Fire and Explosion Risk Mitigation Plan is presented in Table 3.4-2 in Section 3.4, Health and Safety.

Emergency Medical Services

- Onsite emergency plans would be prepared to protect the public health, safety, and environment on and off the project site in the case of a major natural disaster or industrial accident relating to or affecting the project. The construction specifications would require that the contractors prepare and implement a Construction Health and Safety Program that includes an emergency plan. The Construction Health and Safety Program would include the following provisions:
  - Construction Injury and Illness Prevention Plan;
  - Construction Written Safety Program;
  - Construction Personnel Protective Devices;
  - Construction Onsite Fire Suppression Prevention; and
  - Construction Offsite Fire Suppression Support.
- In the event that operations personnel are seriously injured and require evacuation from a remote location within the project area, the Applicant would make arrangements with the Kittitas Valley Community Hospital for helicopter transportation service.

Schools

Pursuant to the terms of the project lease agreement signed between the Applicant and DNR in July 2003, approximately $5.6 million dollars would be generated by the project and diverted into a state trust fund for school construction over the life of the project (Daily Journal of Commerce 2003). Therefore, project-generated funding could be used to help offset the capacity issues being faced by the local school districts.

Water Supply

A licensed well contractor, in compliance with the requirements and standards of Chapter 173-160 WAC (Department of Ecology Minimum Standards for Construction and Maintenance of Wells) would install the domestic water well.

Wastewater

The Applicant would coordinate with Kittitas County and comply with the county's septic tank and subsurface disposal field design, installation, and maintenance

requirements for systems with designed flows of less than 3,500 gallons/day pursuant to Kittitas County Code Title 13.04.

Communication Services

- Once the specific location and configuration of the turbines is identified on paper, the Applicant proposes to conduct final field measurement test surveys of communication microwave paths. If the results of these final surveys identify that the proposed turbines would interfere with or obstruct communication microwave paths, the Applicant would adjust the tower location, accordingly, to avoid line-of-sight interference.
- The Applicant plans baseline field studies to more precisely determine the existing quality of television reception in the Swauk Prairie prior to construction of the project. After the project is built, the Applicant plans follow-up field studies to determine if the quality of television reception could be degraded by project operations. In the event that the project creates significant television reception problems for residents in this area, the Applicant would consult with affected residents to develop an appropriate solution.

Additional Recommended Mitigation Measures

Fire Protection

Additional mitigation measures recommended by the County Fire Marshall (Kittitas County 2003) but not specified by the Applicant include the following:

- Comply with equipment rules and regulations required by DNR for work conducted in wildland/forested lands (e.g., fire extinguishers and shovels would be required on each piece of equipment);
- Limit parking areas for vehicles;
- Provide garbage containers; and
- Implement restrictions on burning.

In addition, the following mitigation measure is recommended to further reduce the potential for wildland fires during project construction:

- Implement the terms of any negotiated agreements between Fire District No. 1 and the Applicant regarding improvements to the southern portion of Hayward Hill Road to ensure adequate fire protection to the project area. If Hayward Hill Road were upgraded to meet fire department standards, it is estimated that Fire District No. 1 could respond to a project area fire in approximately seven to eight minutes. If the southern portion of Hayward Hill Road is not improved, Fire District No. 1 trucks responding to an emergency fire in the project area would need to be re-routed from Thorp to US 97. Under this scenario, estimated response times to the project area would be approximately three times longer (Evans, pers. comm., 2003).

Communication Services

If the Applicant's follow-up studies determine that the project creates significant television reception problems in the area, one of the following mitigation measures to minimize television interference impacts should be implemented by the Applicant:

- Improve the receiving antenna system;
- Install a remote antenna;
- Install an antenna for TV stations less vulnerable to interference;
- Connect affected residents to an existing cable system; or
- Connect affected residents to an existing satellite system.

To reduce the impact of potential cell phone degradation in the project area, the Applicant should implement the following mitigation measures:

- The Applicant should conduct a field study before and after project construction to determine if the quality of cell phone service in the project area is degraded by project operations.
- If cell phone degradation is identified as a result of project operations, the Applicant should be responsible for implementing appropriate mitigation to minimize impacts. This could include developing and funding a program under which the cell phone service provider would establish new antenna locations to ensure continued high-quality reception and transmission. These locations could include the wind turbine generator towers or other locations as determined by the cell phone service provider.

Regarding the potential impact of radio interference in the project area, the Applicant should implement the following mitigation measures:

- Prior to construction, but after the final turbine make, model, and size and site configuration have been selected, the Applicant should provide data regarding the frequency spectrum of electrical noise generated by the wind turbine generators at locations surrounding the generator similar to those made for audible noise emissions. The Applicant should then compare this frequency spectrum with frequency spectrums from existing, operating radio communication devices in the project area to identify if potential harmful interference could occur.
- If radio interference is identified as a potential impact, mitigation could be accomplished by reducing the amount of noise generated or by screening the electrical equipment to prevent radiation of unwanted frequencies.

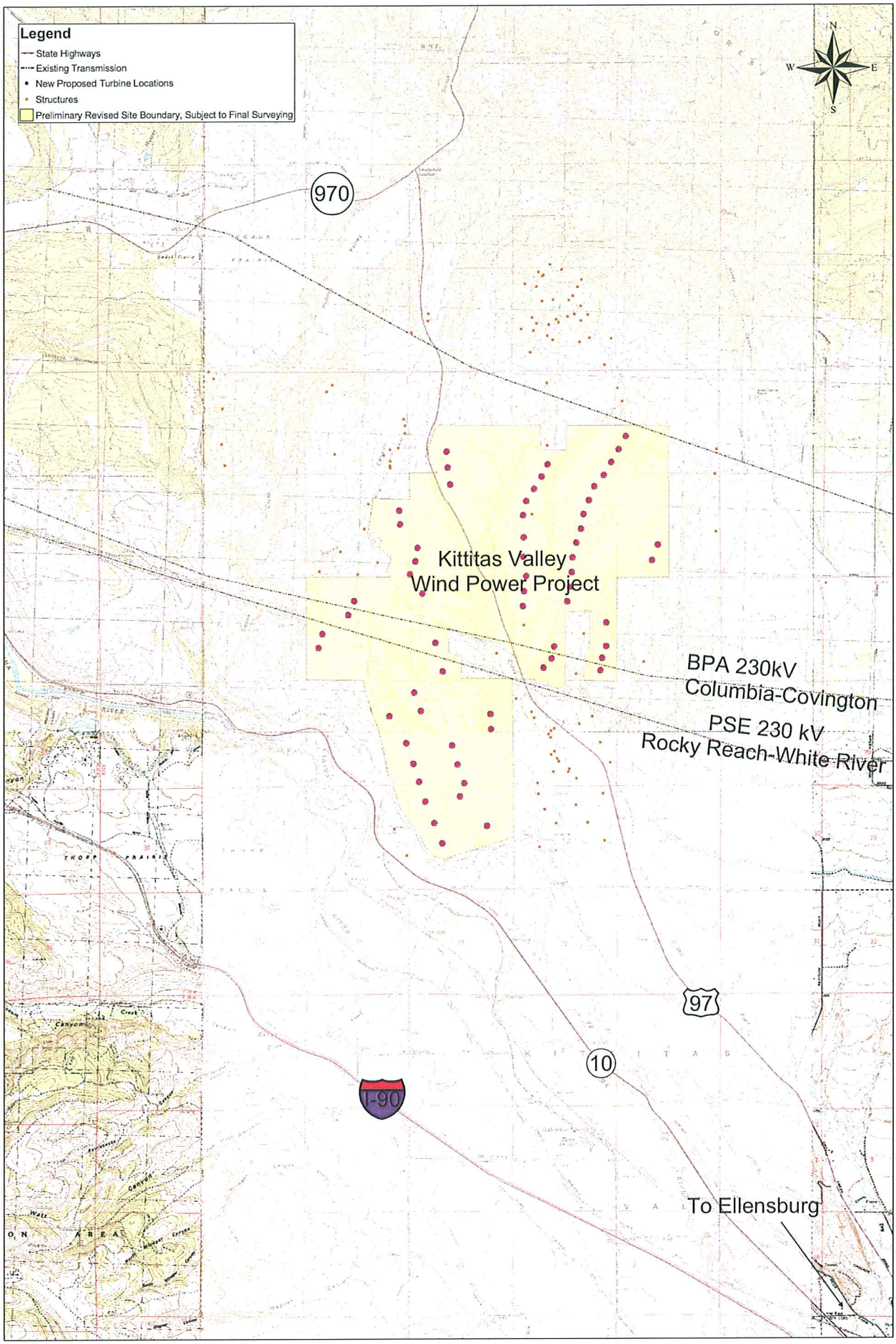
Additional Mitigation Measures Proposed in the Addendum to the DEIS

Because new impacts have not been identified based on the revised project layout, additional mitigation measures are not warranted.

DEVELOPMENT AGREEMENT
Between
KITTITAS COUNTY, WASHINGTON
And
SAGEBRUSH POWER PARTNERS, LLC

EXHIBIT E

PROJECT VICINITY MAP WITH STRUCTURE LOCATIONS



Kittitas Valley Wind Power Project
Vicinity Map with Structure Locations
Map Revised May 1, 2006