

# Wild Horse Wind Power Expansion Project

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Final Supplemental Environmental Impact Statement

Lead Agency:

**Energy Facility Site Evaluation Council**



January 2009



**WILD HORSE WIND POWER  
EXPANSION PROJECT**

**Final Supplemental Environmental Impact  
Statement (SEIS)**

*Prepared by:*

**DAVID EVANS AND ASSOCIATES, INC.**  
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Bellevue, WA 98005

**January 2009**



## FACT SHEET

### Wild Horse Wind Power Expansion Project Supplemental Environmental Impact Statement (SEIS)

**Lead Agency and Responsible Official:** Washington Energy Facility Site Evaluation Council (EFSEC); Allen Fiksdal, EFSEC Manager, 905 Plum Street, PO Box 43172, Olympia, WA 98504-3172; (360) 956-2152.

**Abstract:** On July 2, 2008, Puget Sound Energy (PSE) submitted a request to amend the Site Certification Agreement (SCA) for the Wild Horse Wind Power Project (WHWPP), as recommended by EFSEC in Council Order No. 814, and approved by Governor Gregoire on July 26, 2005. The WHWPP was approved along with EFSEC's issuance and approval of a Final Environmental Impact Statement (FEIS) dated May 16, 2005. The WHWPP is fully constructed and operational and includes 127 wind turbine generators, along with related and supporting facilities, with generation of 229 MW of electricity. The Site Certificate Agreement and FEIS document EFSEC's and Governor Gregoire's review and approval of a maximum project of 158 wind turbine generators and 312 MW of electrical generation.

The purpose of the requested Amendment is to develop and operate 22 new wind turbine generators, adding 960 acres to the 8,600-acre Wild Horse Project, with generation capacity of approximately 44 MW of electricity. The Project proposes related and supporting facilities as described fully in the Request for Amendment and in the Draft Supplemental EIS (SEIS), including without limitation: access roads, underground electrical collection cables, and expansion to the existing substation. The total output and number of turbines will remain within the limits allowed under the existing SCA. The Draft SEIS analyzed existing conditions and impacts of these additional facilities, which are located outside the project footprint analyzed in the FEIS. The project will be constructed on the high open ridges in the vicinity of Whiskey Dick Mountain, located approximately 10 miles east of Kittitas and approximately 5 miles north of the Old Vantage Highway. The project will be adjacent to the WHWPP. Specifically, the project will be located in Section 8 and the North Half of Section 17, all in Township 18 North, Range 21 East, W.M., in Kittitas County.

This abbreviated form Final SEIS is designed to supplement or correct information provided in the Draft SEIS. This Final SEIS was prepared from information received from agencies, organizations, and individuals who submitted written comments on the Draft SEIS. This Final SEIS includes comments submitted on the Draft SEIS and responses to those submitted comments.

**Proposal's Sponsor:** Puget Sound Energy, 10885 NE 4th Street, Bellevue, WA 98009

**Date of Implementation:** Construction activities are anticipated to begin in early 2009 and last approximately nine months. The start of construction depends on the date of approval of the SCA amendment.

**List of Possible Permits, Approvals, and Licenses:** EFSEC is the sole non-federal agency authorized to permit the proposed project. For informational purposes, Table 2-10 of the August 2004 Draft EIS lists the major state and local permitting requirements preempted by EFSEC, as well as federal requirements. Not all listed permits and approvals may be required. The original SCA provides construction and operational requirements and all other relevant local and Washington state permits and approvals for the Wild Horse Wind Power Facility as a whole.

**Authors and Principal Contributors to SEIS:** David Evans and Associates, Inc., consultant to the project sponsor, is the principal author of the SEIS. The primary sources of information used to prepare the SEIS are the DEIS and FEIS prepared by Jones & Stokes, as well as supporting documentation prepared by Puget Sound Energy and its consultants: WEST, Inc.; Lithic Analysts, and WildLands. The document was reviewed by EFSEC staff.

**Subsequent Environmental Review:** None anticipated.  
SEPA Checklist

**Date of Final Lead Agency Action:** After EFSEC deliberates on the facts, testimony, and SEIS contents, it will make a decision to approve, conditionally approve, or deny the project (expected in early 2009).

**Contact for Additional Information:**

Allen Fiksdal, EFSEC Manager  
905 Plum Street SE, Building 4  
P.O. Box 43172  
Olympia, WA 98504-3172  
(360) 956-2047  
[allenf@cted.wa.gov](mailto:allenf@cted.wa.gov)

**Location of Background Information:** You may access this SEIS and find additional information about the project on the EFSEC Web site at [www.efsec.wa.gov](http://www.efsec.wa.gov). Copies of the Wild Horse Wind Power Project SCA, EFSEC No. 2004-01, and this SEIS, also are available for public review at the following locations:

Washington State Energy Facility Site Evaluation Council  
905 Plum Street SE, Building 4  
Olympia, WA 98504-3172  
(360) 956-2121

Washington State Library  
Joel M. Pritchard Branch  
Point Plaza East  
6880 Capital Blvd.  
Olympia, WA 98504-2460  
(360) 704-5200

Ellensburg Public Library  
209 North Ruby Street  
Ellensburg, WA 98926  
(509) 962-7250

Kittitas Public Library  
NE 2nd and Pierce Streets  
Kittitas, WA 98934  
(509) 968-0226

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- Appendix B – Applicant Responses to Checklist Comments
- Appendix C – 2007 Baseline Wildlife and Habitat Study
- Appendix D – 2008 Rare Plant Survey/Sage-grouse Lek Survey
- Appendix E – 2007 First-Year Operation Wildlife Monitoring Report
- Appendix F – 2008 Aerial Raptor and Sage-Grouse Surveys
- Appendix G – 2008 Visual Impact Study
- Appendix H – 2008 Cultural Report Summary
- Appendix I – 2006 Baseline Survey Protocols and WDFW Response Letter
- Appendix J – 2008 Post-Construction Habitat Restoration Monitoring Year 1 Report
- Appendix K – 2008 Conservation Easement Correspondence

## Abbreviations and Acronyms

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CRM	Coordinated Resource Management
DEIS	Draft Environmental Impact Statement
dBA	decibels
Ecology	Washington State Department of Ecology
EFSEC	Energy Facility Site Evaluation Council
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
met	meteorological
MW	megawatts
PSE	Puget Sound Energy
SCA	Site Certification Agreement
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Policy Act
TAC	Technical Advisory Committee
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
Wild Horse	Wild Horse Wind Power Project
WTG	wind turbine generator

# 1 INTRODUCTION

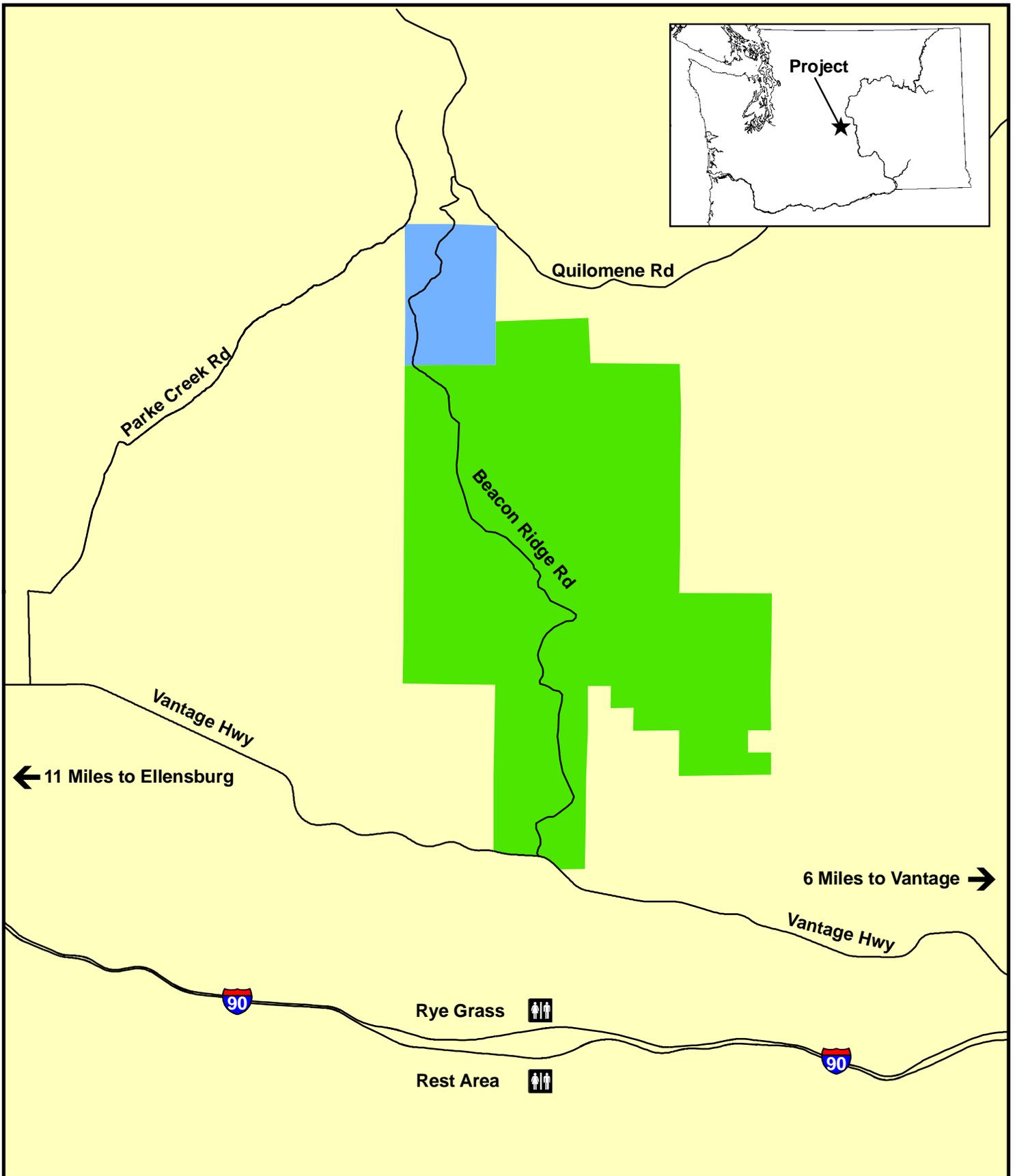
## 1.1 *Project Overview*

Wild Horse Wind Power Project (Wild Horse) is located six miles west of Vantage in eastern Kittitas County (**Figure 1**). The Final EIS (FEIS) for Wild Horse was published by the Washington Energy Facility Site Evaluation Council (EFSEC) on May 16, 2005. On July 26, 2005, Governor Gregoire approved the Site Certification Agreement (SCA) for the project. Construction of 127 wind turbine generators (WTGs) and related facilities (**Figure 2**) was substantially completed in December 2006. Since then, Puget Sound Energy (PSE) has operated Wild Horse, which currently has a gross nominal generating capacity of 229 megawatts (MW) of electricity.

The original Wild Horse SCA authorized a facility of up to 158 WTGs with a maximum nameplate capacity of 312 MW on an approximately 8,600-acre site. This is a significantly larger number of turbines and total output than installed to date. PSE has requested an amendment to the SCA in order to add approximately 960 acres immediately adjacent to the northwest corner of the existing site. These additional acres comprise Section 8 and the north half of Section 17, all in Township 18 North, Range 21 East, Willamette Meridian.

The expansion project would install 22 new WTGs, associated roads, and an electrical collection system delivering generated electricity to the existing Wild Horse substation, which will be expanded slightly (**Figure 3**). Three of the WTGs would be installed within the Wild Horse site, and 19 are proposed within the new expansion area. The power would be transported off the site on the existing transmission line. The expansion project will result in a total of 149 WTGs at Wild Horse with a generating capacity of 273 MW, both of which are below the respective limits authorized by the SCA.

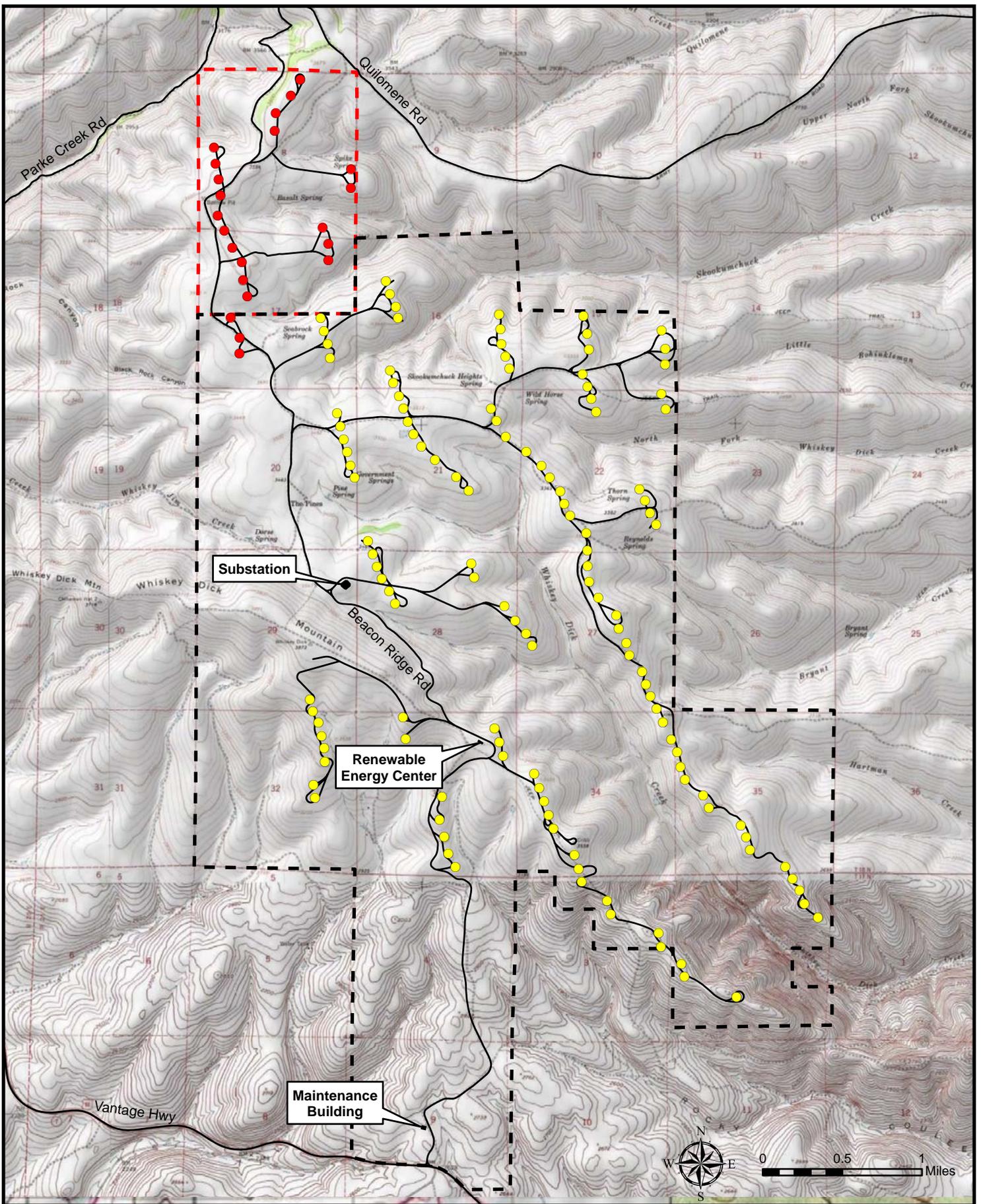
EFSEC is evaluating the siting of the additional 22 turbines pursuant to the requirements of Chapter 80.50 RCW. In accordance with the Washington State Environmental Policy Act (SEPA) (RCW 43.21C), EFSEC is conducting an environmental review with this Supplemental Environmental Impact Statement (SEIS) (WAC 463-47). Information and resulting analysis presented in this SEIS are based primarily on information provided in the FEIS for Wild Horse, which incorporates the Draft EIS (DEIS), and in a SEPA Checklist submitted as part of the SCA amendment request. The SCA, DEIS, FEIS, and SEPA Checklist are available on the internet at EFSEC's website ([www.efsec.wa.gov](http://www.efsec.wa.gov)) and are incorporated by reference into this SEIS.



**Figure 1 - Vicinity Map**  
**Wild Horse Supplemental EIS**



- Road
- Expansion Area
- Existing Facility



**Figure 2 - Expanded Wind Facility  
Wild Horse Supplemental EIS**

- Proposed Wind Turbine
- Existing Wind Turbine
- Road
- Existing Facility
- - - Expansion Area

## **1.2 Purpose and Need**

The purpose of the expansion is to allow PSE to approach its previously-approved generation capacity for Wild Horse. The additional electricity that would be generated is needed to help meet the growing regional demand for renewable, wind-generated electricity. PSE has indicated that adding this and other wind power projects to the utility's portfolio of electric resources will help provide more control over PSE's power supply and minimize the risk to their customers from a volatile short-term energy market. The expansion is also needed to help PSE meet its own goal of supplying 10 percent of its customers' total electricity needs with cost-effective renewable resources by 2013. This goal exceeds the target established by Washington's renewable portfolio standard, which requires a qualifying utility (such as PSE) to generate 3 percent of their total electricity from renewable sources other than hydroelectric facilities by 2012, escalating to 15 percent by 2020.

## **1.3 Background**

Early in 2008, PSE acquired rights to a potential wind energy site named Whiskey Ridge and located immediately north of Wild Horse. This acquisition offered PSE the potential to expand the generating capacity of Wild Horse closer to the level authorized in the SCA. By taking advantage of the infrastructure already in place, PSE could avoid impacts of constructing new facilities such as a transmission line, substations, and operations and maintenance building, which a stand-alone project would need. Preliminary biological and cultural studies of Whiskey Ridge showed many similarities to Wild Horse, so PSE could apply their experience constructing and operating Wild Horse to the adjacent site.

In spring of 2008, PSE commissioned additional studies of the potential expansion area to better understand existing conditions and optimize a preliminary site layout that included 26 WTGs. On July 2, 2008, PSE submitted a request to EFSEC, accompanied by a SEPA checklist and supporting studies, to amend the Wild Horse SCA by adding 1,280 acres and 26 additional WTGs to the operating facility. The requested amendment proposed related and supporting facilities, including without limitation: access and crane roads, temporary concrete batch plant and rock quarry, turbine pads, laydown area, electric cable system proposed primarily underground, and an addition to the existing substation. These facilities are described fully in the Request for Amendment and the SEPA Checklist.

On August 6, 2008, during the public comment period on the SEPA Checklist, EFSEC conducted a public hearing in Ellensburg to accept verbal and written comments on the proposal. This comment period served as an opportunity for the public to comment on the environmental checklist and studies prepared for the project, and as a "scoping" opportunity for agencies and the public. The process also allowed EFSEC to evaluate issues and concerns for ongoing SEPA

review. Written and oral comments received by EFSEC, and responses by the applicant to concerns that were raised, are provided in Appendices A and B of the Draft SEIS. Primary issues and concerns raised during the initial comment period included the following:

- Potential impacts to greater sage habitat and regional populations
- Placement of “V” and “W” strings
- Potential impacts of the overhead collector line
- Status of the mitigation parcel
- Alternative mitigation
- Landscape restoration
- Potential impacts to bats from proximity to forested areas
- Potential impacts to water resources (i.e., springs)
- Temporary versus permanent fencing
- Potential loss of shrub-steppe habitat

Some comments suggested that a SEIS be prepared to analyze the potential impacts related to issues and concerns related primarily to the “V” and “W” strings. PSE revised the proposed expansion to mitigate potential impacts by dropping four WTGs (i.e., the “V” and “W” strings) from this proposal and the supporting facilities, including the overhead collector line, associated with them. PSE also elected to prepare a SEIS on the revised project with 22 WTGs and a 960-acre expansion of the existing Wild Horse facility, as described in Chapter 2. EFSEC SEPA rules allow the applicant to prepare EISs and addenda with oversight from the responsible official (WAC 463-47-090).

The Draft SEIS was issued on November 12, 2008 for public comment. The comment period for the Draft SEIS closed on December 15, 2008. During the comment period, EFSEC received comments from agencies, organizations, and individuals. Comments were submitted in emails and letters. This abbreviated form Final SEIS is designed to supplement or correct information provided in the Draft SEIS. The Final SEIS was prepared from information received from agencies, organizations, and individuals who submitted written and oral comments on the Draft SEIS. This Final SEIS also includes comments submitted on the Draft SEIS and responses to those submitted comments.

## 1.4 Summary Table

**Table 1. Summary of Project Impacts**

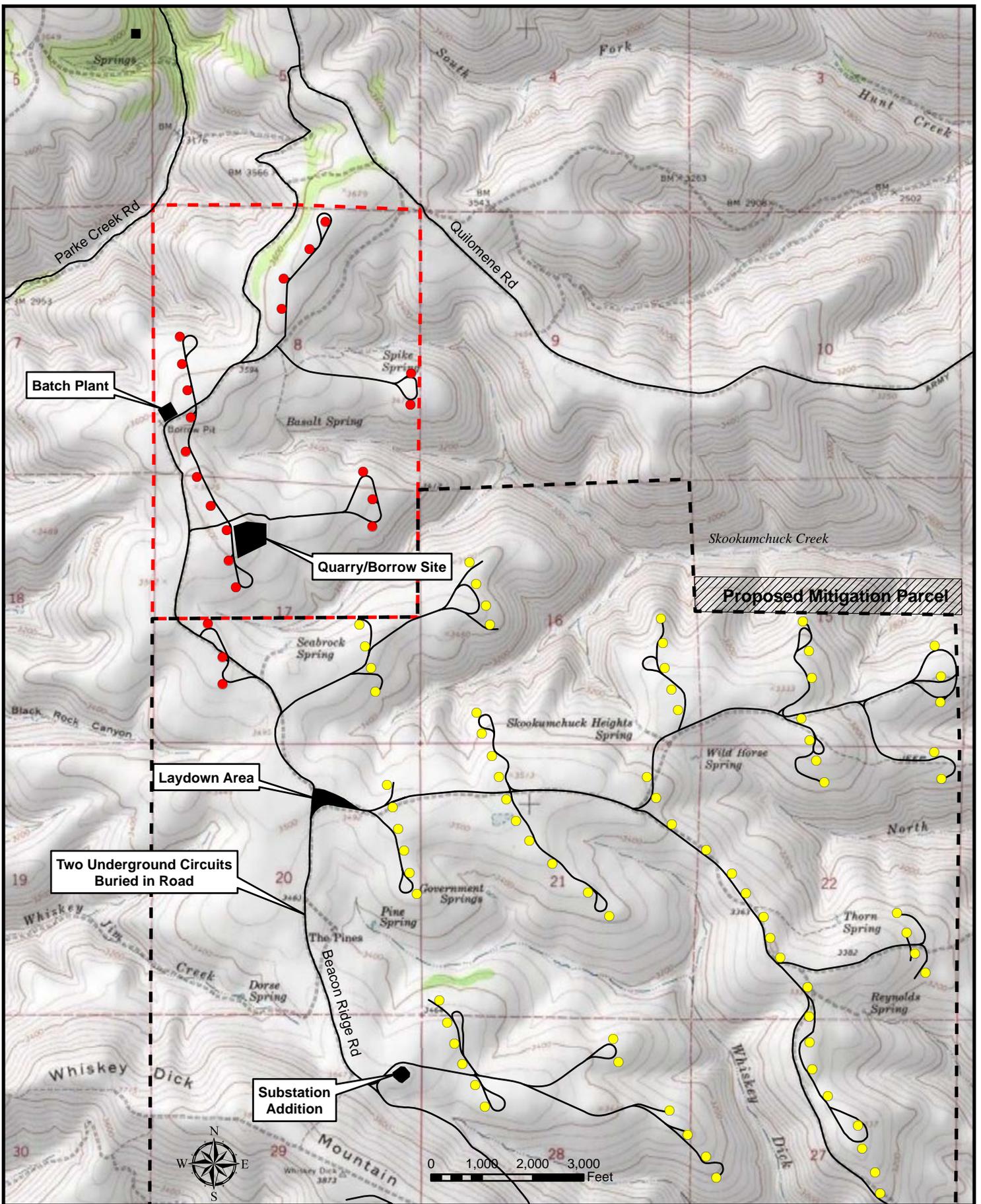
Resource	Construction Impacts	Operation and Maintenance Impacts	Mitigation Measures
Earth	<ul style="list-style-type: none"> <li>• 72 total acres disturbance</li> <li>• 49,922 cubic yards cut/85,917 cubic yards fill</li> <li>• 98,000 cubic yards quarry/borrow material</li> <li>• No off-site spoils disposal</li> </ul>	Low potential for earthquakes, volcanic hazard, or landslides.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.1.3.
Biological Resources	<ul style="list-style-type: none"> <li>• 25.1 acres permanent vegetation removal and habitat loss</li> <li>• 44.6 acres temporary vegetation removal and habitat loss</li> <li>• 6.6 acres permanent impact to lithosols</li> <li>• 0 acres impact to wetlands</li> <li>• No impacts to federal or state listed endangered, threatened, proposed, candidate, or species of concern plant species</li> <li>• 0.4 acres permanent impact to rock habitat that supports state "Review" plant species – hedgehog cactus</li> <li>• Temporary construction disturbance to wildlife using project area, including big game, small mammals, raptors, and songbirds</li> <li>• No impacts to identified raptor nests</li> <li>• No impacts to fish or fish-bearing waters</li> </ul>	<ul style="list-style-type: none"> <li>• Potential colonization of 72 acres of disturbed area by invasive species</li> <li>• Raptor mortality, 1-4 year</li> <li>• Songbird mortality, 50-120/year</li> <li>• Most likely birds to be killed include American kestrel, red-tailed hawk, and horned lark</li> <li>• Bat mortality, approximately 15/year, mostly migratory bats</li> <li>• Possible avoidance behavior by big game</li> </ul>	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.2.3.

Resource	Construction Impacts	Operation and Maintenance Impacts	Mitigation Measures
Water Resources	<ul style="list-style-type: none"> <li>• No impacts to surface water or ground water</li> <li>• Project footprint located at least 150 meters from all springs</li> <li>• 72 acres of ground disturbance/potential area for erosion and stormwater runoff</li> <li>• No groundwater withdrawals</li> <li>• No floodplain impacts</li> </ul>	25 acres of permanent ground disturbance/potential area for erosion and stormwater runoff.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.3.3.
Visual Resources	Construction activity will be visible from nearby areas, including several seasonal residences.	Minor visual change; levels of impact will be the same as described in the FEIS. Seasonal residences to the north will have more turbines in their view, but they will blend in to the existing turbines on the facility.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.4.3.
Energy and Natural Resources	Project will consume resources, including electricity, diesel fuel, gasoline, sand, gravel, water, cement, and steel. Over time, energy produced by the completed project will be significantly greater than that expended by the facility's construction.	During periods of low wind, the proposed turbines will consume electricity provided by the Wild Horse solar facility and the transmission grid. Other materials, such as diesel and unleaded gasoline, would be consumed by on-site vehicles.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.5.3.
Noise	Short-term noise sources include construction traffic, blasting, and operation of equipment. Blasting will occur more than 1 mile away from nearest residence. No impacts to Town of Kittitas. Minor impacts to local residents immediately adjacent to roads.	Noise from wind turbines may be detectable at one seasonal residence north of the project, but will be below permissible levels per WAC 173-60-040.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.6.3.
Land Use and Recreation	<ul style="list-style-type: none"> <li>• Temporary disturbance to 45 acres of open space and grazing land</li> <li>• Construction may require short-term, intermittent closures of project area to recreational users</li> </ul>	<ul style="list-style-type: none"> <li>• Permanent removal of 25 acres of open space and grazing land</li> <li>• No agricultural land will be removed from production</li> <li>• Public access through the wind farm facility via Beacon Ridge Road</li> <li>• No public access to turbine strings</li> <li>• Controlled hunting to be allowed in accordance with hunting plan</li> </ul>	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.7.3.

Resource	Construction Impacts	Operation and Maintenance Impacts	Mitigation Measures
Cultural Resources	Project footprint avoids all identified sites.	No impacts.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.8.3.
Transportation	<ul style="list-style-type: none"> <li>• 3.8 miles of new roads constructed</li> <li>• 1.8 miles of existing roads improved</li> <li>• 0.7 miles of existing roads abandoned and restored</li> </ul>	<ul style="list-style-type: none"> <li>• 5 to 10 additional vehicle trips per day</li> <li>• No new parking required</li> </ul>	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.9.3.
Health and Safety	Health and safety risks would be the same as those described in the Wild Horse FEIS.	Health and safety risks would be the same as those described in the Wild Horse FEIS.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.10.3.
Air Quality	Temporary, localized impacts from fugitive dust and tailpipe emissions. Potential air quality impacts from operation of the batch plant and rock crushers will be managed under the auspices of Ecology's air quality permit program.	Negligible impacts from fugitive dust and tailpipe emissions from commuter vehicles and onsite operational equipment.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.11.3.
Public Services and Utilities	Public services and utilities impacts are generally the same as described in the Wild Horse FEIS. Less construction personnel would be required, minimizing the need for public services, including emergency services.	Public services and utilities impacts from operation are generally the same as described in the Wild Horse FEIS.	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.12.3.
Socioeconomics	Temporary increase in local construction force and associated spending for nine months.	<ul style="list-style-type: none"> <li>• Operation will employ approximately 2 to 5 additional full-time staff</li> <li>• Expansion will contribute an additional estimated \$500,000 annually to local economy</li> </ul>	All mitigation measures identified in the Wild Horse FEIS and required by the SCA will be implemented. Additional mitigation measures are described in Section 3.13.3.

## **2 PROJECT DESCRIPTION**

No changes to the project description are proposed based on comments received during the public comment period. However, Figure 3 from Chapter 2 of the Draft SEIS has been revised to show the location of the proposed mitigation parcel in the south half of the south half of the north half of Section 15, Township 18 North, Range 21 East, W.M., Kittitas County, Washington.



**Figure 3 - Expansion Features  
Wild Horse Supplemental EIS**

- Proposed Wind Turbine
- Existing Wind Turbine
- Seasonal Residence
- Road
- ⬜ Existing Facility
- ⬜ Expansion Area

### 3 REVISIONS TO THE DRAFT SEIS

No text-specific edits or comments on Chapter 3 of the Draft SEIS were submitted during the public comment period. Minor changes and additional information are listed below in errata format.

#### 3.1 *Errata*

##### Section 3.2 – Biological Resources

One comment requested a map and additional information about the habitat condition of the proposed mitigation parcel. A map is provided in Chapter 2. The mitigation parcel is an approximately 80-acre rectangle immediately adjacent to the northeast corner of the existing wind power facility (**Figure 3**). It is in the same basin, Skookumchuck Creek, as the majority of the expansion area. Located on a north-facing slope south of Skookumchuck Creek, elevation of the mitigation parcel varies between 2800 and 3200 feet. Habitat types are similar to those found in the expansion area, with a combination of mixed scrub, shrub-steppe, and bare rock habitats. Several of the draws on the mitigation parcel support relatively dense stands of sagebrush and other shrub species, with rocky and more open habitats on the ridge tops. Habitat condition in the mitigation parcel is generally less disturbed than in the expansion area, with no roads and less human disturbance. There are no documented springs on the mitigation parcel.

Several comments also expressed concern that the proposed project would negatively affect future use of the project as either a migratory corridor or nesting habitat for greater sage-grouse. Comments point out sources which suggest that sage-grouse demonstrate behavioral avoidance of wind turbines and that the proposed project would create a potential population sink that could interfere with recovery of this species. However, all available research is either anecdotal or based on comparisons with dissimilar activities such as an interstate (Connelly et al. 2004) or a coal-fired generation plant (Stinson et al. 2004). Other studies show avoidance of transmission lines, but all electrical transmission facilities on the expansion area are under ground. Furthermore, evidence of sage-grouse nesting in close proximity to wind turbines at both Foote Creek Rim and Wild Horse wind facilities belies the conclusion that the birds avoid turbines (WEST 2007, 2008). Lastly, the Final Sage Grouse Recovery Plan states that existing rugged topography and past habitat degradation are the primary factors that have influenced the suitability of the Colockum Management Unit to provide connectivity between the extant populations of greater sage-grouse. Also, in a recent review of all wind projects in the Columbia Plateau Ecoregion, no sage-grouse fatalities have been reported from wind turbines (Johnson and Erickson 2008).

### **Section 3.6 - Noise**

Section 3.6.1 of the Draft SEIS, page 38. Second sentence of the first full paragraph is revised as follows: Per WAC 173-60-040, the maximum permissible *daytime* noise level at a Class A site such as a residence from a Class C noise source such as wind turbine is 60 decibels (dBA), *while the maximum permissible nighttime noise level is 50 dBA.*

## 4 COMMENTS ON DRAFT SEIS AND RESPONSES

The Draft SEIS was issued on November 12, 2008 for public comment. During the comment period that closed on December 15, 2008, EFSEC received comments in emails and letters from agencies, organizations, and individuals. This section contains the comments and corresponding responses. Each comment email or letter has been assigned a number according to the order in which they were received by EFSEC (**Table 2**). Within each submission, comments on specific issues have been designated using a line and secondary number shown in the margin of the email or letter.

**Table 2. Comments Received on the Draft SEIS**

<b>Assigned Number</b>	<b>Commenter</b>
1	Mike Marsh
2	David Crane
3	Cindy Huwe, Washington Department of Ecology (Ecology)
4	Janet Nelson
5	Kirk Holmes, Kittitas County Dept. of Public Works
6	Aaron Robins, Cascade Chapter of the Sierra Club
7	Travis Nelson, Washington Department of Fish and Wildlife (WDFW)
8	Robert Kruse, Friends of Wildlife and Wind Power
9	Tom Gauron, Kittitas Audubon Society
10	Tom Gauron and Janet Nelson, Kittitas Audubon Society

As described in Washington Administrative Code (WAC) 197-11-560, possible options for responding to comments on a DEIS or Draft SEIS include modifying the alternatives or developing new alternatives, improving or modifying the analysis, making factual corrections, or explaining why the comments do not warrant further agency response. In this regard, for each numbered comment, this chapter either:

- provides additional information or elaboration on a topic previously discussed in the Draft SEIS;

- notes how the Draft SEIS text has been revised to incorporate new information or factual corrections;
- refers the reader, when appropriate, to another comment response;
- explains why the comment does not warrant further response; or
- simply thanks the commenter for stating an opinion.

The rest of this chapter presents the comments submitted on the Draft SEIS and responses to these comments. Each comment email or letter appears first, followed by the corresponding responses to the numbered comments.

From: Mike Marsh [mailto:swamp@blarg.net]  
Sent: Thursday, November 13, 2008 5:03 PM  
To: CTED EFSEC  
Cc: Mike Marsh  
Subject: comment: proposed amendment to the Wild Horse Wind Power project

I am Conservation Co-Chair for the Washington Native Plant Society, and I sit on the Wildlife Diversity Advisory Council of the Washington Department of Fish and Wildlife (WDFW). The Whiskey Dick ridge and adjacent land currently occupied by the Wild Horse Wind Farm is the centerpiece of a unique expanse of public wildlife land extending from near Wenatchee to Richland in Benton County.

Elk, mule deer, mountain sheep and greater sage grouse are only a few of the wildlife species occupying this land.

I am concerned that the extension of the Wild Horse Wind Farm will extend the fencing already present (which we encountered while measuring vegetation on the Quilomene Wildlife Area) which acts as a barrier to free passage of wildlife on adjacent State lands managed by WDFW. Replacement of the current fences surrounding the Wind Farm by "let-down" fences which would be erected only as needed to control domestic livestock would be a great improvement. Northwestern Elk have been shown to avoid land within 500 meters of a road, and . Scientists and managers of the Wind Farm must continuously review their options for making this area more wildlife friendly.

1-1

Michael Marsh  
3434 14th Ave. W.  
Seattle, WA 98119

206-281-8976  
swamap@blarg.net

## Responses to Comment Email 1 from Mike Marsh, Individual.

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 1-1. Neither extending nor replacing existing fences is proposed as part of the Wild Horse Expansion Project. Existing fencing that will not interfere with construction activities will be left in its current condition. The applicant intends to use temporary electric fencing for protection of the springs and mitigation parcel when grazing occurs on the site. Potential impacts of the proposed project to elk and other wildlife species, as well as proposed mitigation measures to avoid, minimize, and mitigate impacts, are provided in Section 3.2 of the Draft SEIS.

11-16-08

RECEIVED  
NOV 24 2008

ENERGY FACILITY SITE  
EVALUATION COUNCIL  
David Crane  
1201 N. Vista Rd.  
Ellensburg, Wa. 98926

Allen Fiksdal, Manager  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
905 Plum St., SE  
Olympia, WA 98504-3172

Dear Allen,

It will be evident to any thinking person who has visited the Wild Horse Wind Power site that they have done an excellent job with the project, in spite of the nonsensical comments some have made that they didn't know what they were doing.

There is no longer any room for sensible debate regarding the fact that we need more renewable electric power. Wind power is safe, clean and the least intrusive of many remaining options. Anything we do changes the environment.

Those who have opposed all of these projects here in Kittitas County, are an insignificant, self-serving, and misinformed minority. They are not bad people, for sure, but terribly mistaken. All this stuff about "my property rights" and "view shed" and "environment" and "birds" and "noise" and "blinking red lights" is nothing more than "the spoiled child--me first and the devil take the hindmost" syndrome. I frankly think that most of us up here in the Kittitas Valley are tired of the obstructionism. Some of these people will never be really happy with anything they didn't think of, even if it does benefit our community. After all, it took more than 23 years to get approval to build Grand Coulee Dam.

2-1

Personally, I like Wild Horse very much and I think it is a winner in every way. It is definitely a popular tourist attraction, contrary to what the opposition tried to say. The wind farm people should definitely be granted the extension they are requesting.

Thank you for the quality of your council and your work. Let us know how we can be of help.

Respectfully,



David Crane, and extended family  
(509) 962-1431

## Responses to Comment Letter 2 from David Crane, Individual.

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

2-1. Thank you for your comment.



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

December 10, 2008

RECEIVED

DEC 13 2008

ENERGY FACILITY SITE  
EVALUATION COUNCIL

Allen Fiksdal  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
Olympia, WA 98504-3172

Dear Mr. Fiksdal:

Thank you for the opportunity to comment on the Draft Supplemental Environmental Impact Statement for Wild Horse Wind Power expansion. We have reviewed the documents and have the following comments.

### Water Quality

Sand and Gravel Operations: All concrete products manufacturers and property owners (or operators) of sand and gravel pits, rock quarries, asphalt and concrete batch plants are required to apply for permit coverage under the Sand & Gravel General Permit. In addition, owners of *portable* crushers, operating at sites that are not permitted for crushing under the Sand & Gravel General Permit, are required to apply for coverage. You may download the application form and instructions from the internet at <http://www.ecy.wa.gov/programs/wq/sand/index.html>. If you do not have internet access call Cindy Huwe at (509) 457-7105 for application materials. Ecology must receive your application at least 180 days before the proposed date for starting operations. Mail your completed application to:

3-1

Cindy Huwe, Water Quality Permit Coordinator  
Washington Department of Ecology  
15 West Yakima Avenue #200  
Yakima, WA 98902



## Responses to Comment Letter 3 from Cindy Huwe, Washington Department of Ecology.

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 3-1. Thank you for your comment. The existing NPDES Sand and Gravel permit for the overall Wild Horse Wind Power Project will be amended to cover the rock quarry, portable rock crusher, and concrete batch plant needed for construction of the Wild Horse Expansion.

Janet Nelson comments 12-9-08

From: Janet Nelson [mjanet2001@yahoo.com]  
Sent: Tuesday, December 09, 2008 10:35 AM  
To: Posner, Stephen (CTED)  
Subject: Wild Horse SEIS

Hello Stephen,

As I mentioned on the phone I could not find several items referenced to in the SEIS in the appropriate appendices on the website.

1. page 22 of the SEIS states that in Appendix B searches for Hoovers tauschia were done. In appendix B I believe I found a reference to table one on page 28 of the special plant survey being corrected to reflect this survey. I did not see Hoovers tauschia on that list. | 4-1

2. More importantly on page 23 of the SEIS there is a discussion of a supplemental acoustic study done in 2007 to determine relative level of bat use in the expansion area. I have been unable to locate this study on the website. | 4-2

3. Since these things appeared to be missing I looked on page 95 on the website at the letter sent by Scott Williams of PSE with a list of the things he included with his letter. I looked at it to see if there were other items missing. | 4-3  
I do not see item 3 (perhaps its somewhere else?), item 6- the post construction habitat restoration monitoring, or items 8 and 9 on the website. Perhaps the printed document has them?

I would like to see these items before submitting our comments, as well may others.

Thanks,

Janet Nelson  
Kittitas Audubon

## Responses to Comment Email 4 from Janet Nelson, Individual

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 4-1. The final version of the 2007 Baseline Wildlife and Habitat Study (Appendix C to the Draft SEIS) including Hoover's tauschia was posted to EFSEC's internet site for Wild Horse. Appendix C of this Final SEIS includes the final version.
- 4-2. The supplemental bat acoustic study was inadvertently left out of Appendix C to the Draft SEIS. It was subsequently posted to EFSEC's internet site for Wild Horse. Appendix C of this Final SEIS includes this supplemental study.
- 4-3. Attachments to the September 8, 2008 letter from PSE to EFSEC were posted to EFSEC's internet site for Wild Horse. Appendix B of this Final SEIS provides a cross index between the attachments and SEIS appendices. Please note that most of the attachments to that letter are duplicated in other appendices of the Draft SEIS.

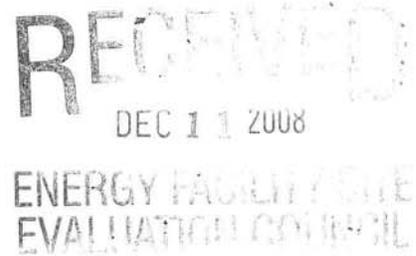


**KITTITAS COUNTY**  
DEPARTMENT OF PUBLIC WORKS

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December 5, 2008

Allen Fiksdal, Manager  
Energy Facility Site Evaluation Council  
PO Box 43172  
905 Plum Street, SE  
Olympia, WA 98504-3172



RE: Draft SEIS for the proposed amendment to the Wildhorse Wind Power Project.

Dear Mr. Fiksdal:

Kittitas County Public Works has reviewed the Draft SEIS for the proposed amendment to the Wild Horse Wind Power Project Site Certification Agreement and has the following comments.

KCPW has jurisdiction on the access roads leading from Interstate 90 to the site. Based on the information provided, KCPW expects the expansion project will have similar impacts to county roads as the original project. Section 3.9.3 Mitigation Measures of the Draft SEIS addresses this concern by requiring the expansion project to follow all mitigation measures identified in the Wildhorse FEIS. Specifically, this includes Section 3.14.4.1 Construction Mitigation Measures of the Wildhorse FEIS. KCPW agrees with this requirement.

5-1

Kittitas County recently approved a wind power project in a nearby location that will utilize the same county roads for site access. In the event that construction activities occur at the same time, KCPW recommends the Wildhorse expansion project take additional measures to document pavement conditions to avoid disparity between projects if road restoration is required.

Thank you for the opportunity to comment on the Draft SEIS.

Sincerely,

Kirk Holmes, Director

KH:cw

## Responses to Comment Letter 5 from Kirk Holmes, Kittitas County Department of Public Works

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 5-1. Thank you for your comment. The applicant will be required to implement all applicable measures listed in Section 3.14.4.1 of the Wild Horse FEIS. PSE will document pavement conditions on nearby county roads prior to beginning of construction of the expansion area.

Allen Fiksdal, Manager  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
905 Plum Street, SE  
Olympia, WA 98504-3172  
[allenf@cted.wa.gov](mailto:allenf@cted.wa.gov)



Re: Wild Horse Expansion Project

Thank you for the opportunity to comment on the Wild Horse Wind Power Expansion project and Draft Supplemental Environmental Impact Statement (DSEIS).

The Sierra Club considers action to combat global warming a top priority. Washington State has been a leader in this effort, including net metering and other distributed energy incentives, our Renewable Portfolio Standard (I-937), and Washington's leadership in regional and national efforts to cap carbon emissions. The Sierra Club actively supports well sited renewable energy projects as a means of reducing our dependence on fossil fuels, creating sustainable local jobs, and ameliorating the environmental justice concerns often associated with fossil fuel-based energy development.

The history of the Wild Horse project has shown it to be an appropriately sited and well managed wind farm, as evidenced by the minimal impact to wildlife observed to date, including low avian and bat mortality rates and Puget Sound Energy's constructive participation in the Coordinated Resource Management (CRM) group. In light of the above assessment, the Cascade Chapter of the Sierra Club supports the proposed expansion of the Wild Horse Wind Farm under the conditions outlined in the DSEIS.

6-1

The mitigation measures described in the DSEIS and Puget Sound Energy's response to public comments (September 8<sup>th</sup>, 2008) should offer real protection of conservation values on the project site. Nevertheless, PSE's interpretation of various requirements of the existing SCA as voluntary, conditional, or interchangeable does raise some concerns. This includes the size and scope of the conservation easement, management of the mitigation parcel, and restoration of disturbed areas during the operational phase of the project.

The proposal includes certain mitigation measures which the Sierra Club considers critical to minimizing the environmental footprint of the expansion. These measures must be codified in the amended SCA such that all requirements are clearly mandatory, independent, and severable.

1. The conservation easement allows for potential development of solar and geothermal resources at the site. The inclusion of these uses in the easement must not be interpreted as evidence that the site is appropriate for such development or proof that solar and geothermal projects can be completed without unacceptable degradation of conservation values.

6-2

2. PSE has committed to a two year post-construction monitoring study on the expansion site. Given that only one year of the original two year study in the SCA has been completed, we interpret this as a commitment to a total of *three additional years* of post-construction monitoring. The amended SCA should make this requirement clear, specify whether or not three consecutive years are required, and provide a deadline by which such studied should be completed. Given the relatively low mortality rate observed in the first year of monitoring, four total years of data will be needed in order to conduct a statistically meaningful assessment of seasonality and the relationship between turbine placement and avian / bat mortality.

6-3

3. In light of the removal of a requirement for permanent fencing at the mitigation parcel (Section 27) PSE has committed to provide protection of water resources by some alternate means. PSE has also committed to other restoration efforts (reseeding, weed control) within the project site. Given the lack of specificity in the application, the amended SCA should include requirements that PSE design and publish detailed post-construction conservation plans in coordination the CRM and the TAC. Vagaries in these areas could lead to incomplete actions, significant degradation of habitat, and effectively nullify the commitments PSE has made in its application.

6-4

In addition to the mitigation measures described in the DSEIS, two additional steps should be considered in the amended SCA, which would provide enhanced environmental protection at minimal cost:

1. A longer time frame, along with intended outcomes, for restoration of temporarily disturbed areas, as opposed to the fixed two-year window proposed by PSE. Preliminary data has shown strong success in controlling invasive weeds, but no data has been presented to show the success of reseeding efforts. There seems to be a significant danger that restoration efforts will be terminated prematurely. While highly specific

6-5

targets are probably unrealistic, adaptive management should allow for broad-based goals designed to fit within a 3 – 5 year time frame.

6-5  
cont.

2. Additional monitoring and mitigation measures to be negotiated with WDFW and the TAC if observed avian and/or bat mortality rates are significantly higher than predicted in the DSEIS, or if geographic trending does show a correlation between turbine placement and mortality. Generating these data in the absence of a requirement for additional mitigation under certain circumstances is pointless. In short, why do we need to know how many birds are being killed if we are not prepared to do anything about it?

6-6

Finally, the DSEIS presents excellent technical data for evaluating the impacts of the Wild Horse expansion, but the Cumulative Impacts section is limited to this project and other wind farms in the immediate area. Given that well over half of the shrub-steppe habitat in Washington State has already been converted to agricultural and residential uses, it seems appropriate to evaluate cumulative impacts in a broader context. The DSEIS recognizes that “Impacts from ongoing agricultural and residential development are also contributing to cumulative loss of native vegetation in the project vicinity”, but fails to explain how this project is acceptable in light of the multiple kinds of conversion and fragmentation that are threatening the small percentage of remaining shrub-steppe habitat.

6-7

We believe the Wild Horse project has contributed positively to Washington’s greenhouse gas reduction goals and the proposed expansion should continue to reduce our need for fossil fuel-based electricity as well as helping Puget Sound Energy meet its requirements under Washington’s Renewable Portfolio Standard. The measures described above would allow us to capture these benefits without sacrificing the conservation values of the surrounding habitat.

Thank you for your time and consideration,

Aaron Robins  
Sierra Club Cascade Chapter

## Responses to Comment Letter 6 from Aaron Robins, Cascade Chapter of the Sierra Club

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 6-1. Thank you for your comment.
- 6-2. The conservation easement between PSE and WDFW was a voluntary measure and is not part of this proposal. The conservation easement is complete, and has been accepted by WDFW and PSE. Neither the conservation easement nor any action on this amendment will make any regulatory predetermination about the suitability or environmental impacts concerning any potential, unplanned future development of the property. Appendix K contains correspondence from WDFW regarding the conservation easement.
- 6-3. PSE has agreed to a total of three years of avian and bat monitoring on the original Wild Horse facility (one more year than originally required) and two years on the expansion area. WDFW has previously agreed to this study protocol. The second year of monitoring on the existing facility was postponed per direction from the Technical Advisory Committee (TAC) so that it could be conducted simultaneously on the entire facility, including the expansion area. Timing of completion of avian and bat monitoring will be determined by the TAC. It should be noted that bat monitoring is not required under the 2003 WDFW Wind Power Guidelines and has been voluntarily offered by the applicant.
- 6-4. The request to waive the requirement for fencing was removed from the proposal by the applicant. The post-construction restoration plan for the expansion area is under development, includes recommendations by WDFW, and will be reviewed by the TAC in early 2009. Participation in the Coordinated Resource Management (CRM) is not a requirement of the SCA but a voluntary commitment made by the applicant to help manage important habitat and wildlife resources in a coordinated effort on Wild Horse. The applicant intends to use temporary electric fencing for protection of the mitigation parcel and springs when grazing occurs on the site.
- 6-5. The Wind Power Guidelines (WDFW 2003) specifically state that a “good faith effort should be made to restore the impacted area” but that long-term performance targets should not be imposed since temporal losses and the possibility of restoration failure are incorporated into the acquisition and improvement of replacement habitat. The applicant voluntarily proposed a three-year monitoring effort, which was approved by the TAC and by qualified WDFW habitat biologists. Nevertheless, the applicant has already agreed in their September 8, 2008 letter to EFSEC to extend restoration monitoring on the existing facility for an additional two years (through 2012) to maintain consistency with the monitoring on the expansion area. Thus, the existing wind power facility will be monitored for a total of five years, and the expansion area for three years.
- 6-6. One of the express purposes of the TAC as described in the 2003 Wind Power Guidelines is to make adjustments if unanticipated impacts become apparent from

monitoring data, which could include additional monitoring or research and creation of raptor nesting structures. Also, as stated in their September 8, 2008 letter to EFSEC, PSE will make adjustments to operational monitoring if significant and unanticipated impacts become apparent from monitoring data. However, based on the results of the first year of monitoring data from the operating facility, avian and bat fatalities are within and somewhat lower than anticipated rates. In addition, the applicant has agreed to report all avian and bat fatalities found by wind project personnel over the entire life of the project in accordance with the Wildlife Incident Reporting and Handling System reviewed by the TAC and approved by EFSEC as part of project operations and monitoring efforts to help detect any significant or unanticipated impacts.

- 6-7. Cumulative impacts of the proposed project have been previously analyzed in Section 3.16 of the DEIS and FEIS as well as Section 3.14 of the Draft SEIS. Under SEPA, the nature of cumulative impacts is prospective and not retrospective. A cumulative impact analysis need only occur when there is some evidence that the project under review will facilitate future action that will result in additional impacts. Where cumulative impacts are merely speculative, they need not be considered. No future actions have been identified that would occur because of the proposed project that would have further impacts to regional sage-grouse habitat. It is generally understood that the proposed project would provide a much higher level of protection to shrub-steppe habitat on the property than would conversion to agricultural or residential uses, or unmanaged, heavy cattle grazing. The original EIS and the Draft SEIS thoroughly document the applicant's and EFSEC's consideration of appropriate environmental factors in analyzing the project's probable environmental consequences. A thorough consideration of environmental factors related to the potential non-speculative impacts of the proposed project on sage-grouse has been undertaken in accordance with protocols previously discussed and confirmed with WDFW (see SEIS Response 7-2). Impacts of wind power development on sage-grouse breeding and movement in the Colockum Management Unit has been addressed in detail previously in several locations, including Section 3.5.2 of the original FEIS for the WHWPP; PSE September 8, 2008 responses to WDFW comments on the SEPA Checklist; and the Wildlife Baseline Study for the Expansion Area (Appendix C of the Draft SEIS). Analyzing impacts of wind power development in general on the entire sage-grouse population is outside the scope of this project.

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State of Washington  
**Department of Fish and Wildlife**  
*201 North Pearl Street, Ellensburg, Washington 98926*

December 15, 2008

Mr. Allen Fiksdal, Manager  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
905 Plum Street, SE  
Olympia, WA 98504-3172

Subject: State Environmental Policy Act (SEPA) Document; Expansion to the Wild Horse Wind Power Project, Draft Supplemental Environmental Impact Statement for the proposed amendment to the Site Certification Agreement Document, in Section 8 and the North Half of Section 17, all in Township 18 North, Range 21 East, W.M., in Kittitas County.

Dear Mr. Fiksdal:

Thank you for the opportunity to review the Draft Supplemental Environmental Impact Statement (DSEIS) for the Expansion to the Wild Horse Wind Power Project (EWHWPP). The Washington Department of Fish and Wildlife (WDFW) reviewed the above referenced SEPA document received on November 12, 2008. WDFW offers the following comments to the information provided by the Energy Facility Siting Evaluation Council (EFSEC) and Puget Sound Energy (PSE).

It is evident that PSE has made some significant modifications to the preliminary turbine layout. Most notably, the four northernmost turbine locations adjacent to the Wildlife Area and straddling Quilomene Ridge, have been removed from consideration. Thus, our concerns for fish and wildlife related impacts associated with those turbines, associated access roads, and overhead transmission lines no longer exist. PSE also agreed that if they ever sell the Quilomene Ridge property they intend to sell it to WDFW.

We have also worked closely with PSE in negotiating a conservation easement on approximately 7,500 acres of PSE lands, including about 2,000 acres that were not owned by PSE at the time the original project was permitted. The expansion area will be included in the conservation easement when permitted. This provides important protection for the headwaters of Skookumchuck Creek, and parts of Quilomene and Skookumchuck Ridges. This conservation easement addresses many of the threats to shrub steppe habitat, and we wish to note that PSE made significant concessions on these lands, and is a participant in the Coordinated Resource Management plan (CRM) to

ensure that grazing on their lands occurs in a science based, fish and wildlife friendly manner, and was a key participant with efforts to obtain funding for the Skookumchuck acquisition.

After reviewing the information, database, and maps related to this proposal, it is apparent that some bat concerns remain in the northern end of the expansion area that contains pine forest habitat types. The south end of the expansion areas does not contain pine forest habitat. Due to the dissimilarity of this habitat type compared to the original project proposal and the frequency of bat detections found, we wish to collaborate with PSE to conduct additional bat surveys around the proposed S-String of turbines.

The conclusions and identification of impacts were based on results and studies from the original Wild Horse Wind Power Project (WHWPP). However, differences exist in vegetation between the WHWPP and the EHWPP. The differences between the original project and new expansion include the siting of a string of turbines along a stand of ponderosa pines. The Technical Addendum for bat acoustic studies indicates possible higher mortality for bats than most eastern Washington wind power projects (Jeffrey and Erickson 2007).

It appears that bat mortality predictions for the expansion area were based on current mortality rate in the original Wild Horse Wind Power Project. In general, the habitat in the north end of the EHWPP is a little wetter and contains more trees and shrubs with potential for greater diversity of habitat and bat and avian species and therefore larger avian/bat populations. WDFW has concerns for the S-string of turbines along the ponderosa pine woodland and the additional bat mortality associated with it.

WDFW requests that the Technical Addendum for Bat Acoustical Study -- 2007 (Jeffrey and Erickson 2007) be added to the appendices for the Final Supplemental Environmental Impact Statement (FSEIS) because of its importance in predicting bat mortality. The DSEIS refers to the Technical Addendum (Jeffrey and Erickson 2007) in the bat impact sections. From this document, we understand that number of detections per detector per night correlates with bat mortality predicted on a wind power project. This study shows a higher than normal amount, 14.97 detections per detector per night (hence forth just detections), for the EHWPP. Approximately 15 detections rate higher than a project with low bat mortality. The detection average remains below the highest bat mortality wind power projects (around 35 detections) but stays well above the low bat mortality projects (around 2 detections). Although 15 detections looks like a moderate average number of detections when comparing projects nationally, it is relatively high for Eastern Washington. Higher bat mortalities for an eastern Washington wind power project warrant more attention and additional surveys.

Additional assumptions made by the Technical Addendum (Jeffrey and Erickson 2007) also concern WDFW. Although a few mass mortalities of smaller residential bats have occurred in the Western United States and Canada, larger, migrating bats have made up the largest part of the mortalities in the Pacific Northwest (Erickson et al. 2000, 2003, 2004; Young et al. 2006, 2007). When recorded by the Anabat detectors, small residential bats register as high frequency calls and the larger, migrating bats register as low frequency calls. The Technical Addendum (Jeffrey and

Erickson 2007) postulates in the Results Section that a large number of detections from high frequency bats will lead to less mortality, because usually the smaller residential bats receive less mortality from wind turbines. However, the Technical Addendum also acknowledges, "The placement of Anabats [bat detector] in this study at ground level (1 meter above ground) may be biased against detecting low frequency migratory bats that are commonly found as fatalities in the Pacific Northwest," (Jeffrey and Erickson 2007). The Technical Addendum (Jeffrey and Erickson 2007) leads WDFW to believe that we may know little about migratory bat use of the area or that the project may kill more bats than the average wind power project in eastern Washington. Either finding leads WDFW to desire more bat surveys with Anabat detectors placed at elevation in the EWHWPP, especially along the S-string.

The DSEIS reports that the Anabats detected more bats on the "forested" station than the S-string meteorological (MET) tower location, but the S-string MET tower resided closer to the ponderosa pine forest. On a field visit, We noted however that the "forested" station lies among ponderosa pines as well. We would expect that bats travel between the ponderosa pines at the "forested" station with many detections and the larger ponderosa woodland with the S-string of wind turbines located between the two habitats.

In conclusion, we recommend addition bat surveys beginning in April 2009 and timed to capture bat presence during the spring-fall migration periods. WDFW would recommend another year of bat surveys during the spring and fall migration to gain additional knowledge of bat life histories and migration and to assist PSE in micro-siting the S-String turbines. We recommend that the bat surveys be conducted at rotor sweep elevation to record activity. We believe that construction can occur while the PSE conducts that bat surveys at night. We would encourage PSE to construct the S-string of turbines last to accommodate the survey and a provide opportunity for micro-siting.

The Technical Addendum (Jeffrey and Erickson 2007) showed a relatively high detection of bats for eastern Washington as compared to other eastern Washington and Western United States wind power projects. The survey methods likely did not totally capture the full use by migratory bat species. PSE should differentiate between the bat detection surveys in the ponderosa pine stand and the rest of the project because of the more suitable habitat. WDFW would like to collaborate in additional bat studies.

We recommend that PSE incorporate some of the lessons we have learned about wind development in sensitive shrub-steppe habitats during the construction of the WHWPP into the amendment of the Site Certification Agreement, especially with regard to minimizing the disturbance footprint and restoring and revegetating native plant species. We recommend hiring an independent, qualified environmental monitor.

We would like to emphasize the differences between the EWHWPP and the rest of WHWPP. PSE should redesign the post-construction monitoring to better account for these differences. This study design should be discussed and approved by the Technical Advisory Committee (TAC) prior to submission to EFSEC for final consideration and approval.

7-2  
cont.

7-3

7-4

Mr. Allen Fiksdal  
December 15, 2008  
Page 4 of 9

PSE should revise the Site Certification Agreement (SCA) and attachments/submittals accordingly in collaboration with WDFW. WDFW looks forward to continue to work collaboratively with the EFSEC and PSE during the design, assessment, and construction phases of the proposed project.

Please keep us apprised of the status of the Amendment of the SCA. If you have any questions or need more information, please feel free to call me at (360) 902-2390.

Sincerely,

Travis Nelson  
Wind Power Mitigation Biologist

Cc: Brock Applegate, WDFW Ellensburg  
Cindi Confer, WDFW Yakima  
Ted Clausing, WDFW Yakima  
Perry Harvester, WDFW Yakima  
Mike Livingston, WDFW Pasco  
Brent Renfrow, WDFW Ellensburg  
Mike Schroeder, WDFW Bridgeport  
Jeff Tayer, WDFW Yakima

**SPECIFIC COMMENTS CONCERNING THE AMENDMENT TO THE SCA:**

**Recommended Post-Construction Raptor Nest Surveys:** WDFW noticed that PSE predicted that the ESHWPP would not impact raptor nests or have significant adverse impacts to wildlife, (David Evans And Associates, Inc 2008). In 2003, the DSEIS reported twice as many active red-tailed hawk (*Buteo jamaicensis*) nests as during the 2008 survey. Raptors often become agitated with disturbances higher than their nests. The project area contained no active red-tailed hawk nests closer than 2 miles downhill or side-slope from the project area. Although red-tailed hawks remain very common, post-construction monitoring of active nests may support the claim of no impacts by the project to raptor nests by the DSEIS. WDFW would be willing to offer help with the monitoring effort of active nests.

7-5

**Batch Plant Location:** WDFW recommends moving the batch plant to the southwest and centering it on the old  $\frac{3}{4}$  of an acre borrow pit. WDFW suggests minimizing the amount of shrub-steppe disturbed during construction.

7-6

**MET Towers (2.2):** WDFW recommends erecting permanent MET tower with no guy lines. Please mark the guy lines on temporary MET towers with bird markers. We recommend removing the guy-lined MET tower on the Quilomene Ridge around the old V- and W- strings.

7-7

**Construction Sequencing (2.3):** We recommend that PSE not schedule trenching during turbine construction in the same area so that the construction crew can place the trenches as close to the road as possible without blocking the flow of construction traffic. To minimize habitat disturbance, WDFW recommends burying cables in the road, if possible.

7-8

**Impacts of the Proposed Action (3.1.2):** The DSEIS described the batch plant and the quarry as a temporary option. To minimize disturbance to shrub-steppe, we ask that PSE does not grade, blade, or disturb the areas for the batch plant and quarry until PSE has decided it needs these structures for construction.

7-9

**Cumulative Impacts and Greater Sage-Grouse Habitat (3.1.4):** WDFW recommends that EFSEC have PSE consider a cumulative impact analysis for sage grouse habitat, especially with in the Greater Sage-Grouse Recovery Area. In consideration of leks, both the Management Recommendations for Washington's Priority Species, Volume IV: Birds (greater sage-grouse) (Schroeder et al. 2004) and the U.S. Fish and Wildlife Service's Interim Guidelines To Avoid And Minimize Wildlife Impacts From Wind Turbines (2003) both ask for a 5-mile disturbance buffer for sage-grouse leks to minimize disturbances. PSE searched for a 2-mile buffer outside their project footprint. PSE should describe the impacts to sage-grouse habitats by the ESHWPP including leks, nesting, brooding, wintering, and migration. PSE could complete this analysis by using GIS and information databases.

7-10

Manes et al. (2002) found an instinctive avoidance of tall structures, even those with perch deterrents by prairie grouse. In California, sage-grouse abandoned leks and attended leks less within three miles of power lines (Rodgers 2003). In Washington, Sage-grouse vacated 95% of

their leks (19 out of 20) within 7.5 km (4.7 miles) of 500 kV power lines and abandoned another 59% (22 out of 37 leks) beyond 4.7 miles (WDFW 2008).

Sage-grouse's aversion to development includes avoiding roads, highways, drilling rigs, gas wells, etc. Hollaran (2005) noted a decrease in sage-grouse activity close to drilling rigs, gas wells, and haul roads. He noted an overall negative effect on sage-grouse by energy development. With many other studies noting the effects of development on sage-grouse, we think that oil and gas drilling would act as a surrogate for wind power development. Connelly et al. (2004) noted a negative effect of Interstate 80 with a sample size of 802 leks within 100 km. No leks existed within 2 km of the highway, very few within 4 km, and outside 4 km, leks were evenly distributed. In addition, sage-grouse attendance decreased from 44% of the leks within 7.5 km of the highway to 67% beyond 7.5 km beyond the highway. Sage-grouse may avoid areas with regular sound, disturbance, and/or development along with the avoidance of tall vertical structures.

7-10  
cont.

The entire project area resides in the Greater Sage-Grouse Recovery Area. Construction of additional turbines in the migration habitat further degrades the sage-grouse habitat for other life activities like nesting, brooding, wintering, and migrating because of their possible aversion to vertical structures. Sage-grouse show high nest fidelity and may nest in unsuitable areas that can lead to nest failure. Degradation of habitat may turn once suitable habitat into a population sink area because of nest failures.

The EHWPP area remains important migration corridor between two remnant populations of greater sage-grouse at approximately 30 miles apart (Schroeder et al. 2000). The best opportunity to reconnect these two populations lies with the Colockum, Quilomene, and Whiskey Dick Wildlife Areas, so we must maintain the habitat quality and integrity for sage-grouse to guarantee a chance of recovery (Stinson et al. 2004). The Whiskey Dick and Skookumchuck watershed reflect some of the best sage-grouse habitat around because 1) the area contains an upper bench separating multiple drainages, 2) sage-grouse tend to move uphill as summer desiccates the vegetation at lower elevations, and 3) before the project, the area contained some of the most suitable habitat in the region. With that in mind, we would like to minimize the impacts of the surrounding area for sage-grouse and consider a cumulative impact analysis on the sage-grouse population as a whole. WDFW would like to see an overall analysis on greater sage-grouse, so that we can understand the impacts of wind power development on the population as a whole

**Calculation of Permanent Impacts:** WDFW recommends counting temporary impacts on lithosol soils as a permanent impact when calculating mitigation acreage. The Wind Power Guidelines Update group will more than likely make this a condition in the new guidelines. As a stakeholder to this group, we know PSE knows and understands the impact of wind power development on lithosol soils.

7-11

The construction of the entire EHWPP is greater than the extent of the project footprint (permanent impacts) due to disturbance and habitat fragmentation related impacts. The construction degrades nesting/brooding/wintering/migration habitat for sage-grouse and other

species requiring large blocks of shrub-steppe habitat through habitat fragmentation. Ultimately, we would like to work with PSE on addressing all the permanent impacts, including those through disturbance and habitat degradation, so that the acreage can properly reflect impact to species that require large blocks of contiguous, unfragmented shrub-steppe. PSE had addressed these sorts of issues with the mitigation of the WHWPP in the past and we know that we can work with PSE to do the same on the EHWPP.

7-11  
cont.

**Compensatory Mitigation:** The DSEIS proposes either replacing (protecting from development) additional shrub steppe habitat or payment of an annual alternative mitigation fee in accordance with the 2003 WDFW Wind Power Guidelines. An 80 acre parcel in Section 15 is proposed if the replacement habitat option is selected. WDFW would like to further research the habitat of the proposed parcel as compared to the habitat impacts from the project. WDFW and PSE should then report to EFSEC as to the suitability of the proposed parcel and any other parcels considered by PSE and WDFW. WDFW requests that EFSEC require that the final mitigation transactions be completed prior to the start of construction (or prior to start of operation).

7-12

**Direct Loss of Wildlife Habitat Due to Construction and Siting of Facilities:** Construction impacts to wildlife habitat will include clearing, excavation, fill and grading associated with construction of towers, power lines, roads, and utilities. A temporary loss of habitat will occur throughout the broad area required for construction activities, a permanent loss of habitat from the footprint of the completed project, and general reduction in habitat value of the site. The project will have both permanent and temporary negative impacts on native plant communities important to wildlife.

7-13

To minimize construction damage, the PSE should conduct construction during the time of year when the site contains dry soils. PSE should address the construction schedule in relation to the minimization of impacts to soils and habitat.

**Carcass Removal:** WDFW recommends a program or plan to remove any large carcasses from the project site around the turbines. Large carcasses can attract vultures and raptors to the site, which inadvertently could lead to a collision with turbines and other project structures.

7-14

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## Responses to Comment Letter 7 from Travis Nelson, WDFW

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 7-1. Thank you for your comment.
- 7-2. The 2007 bat study was inadvertently left out of Appendix C of the Draft SEIS. EFSEC subsequently posted it on their website. It is provided in an updated Appendix C to this Final SEIS. WDFW concurred in writing and agreed with the study protocols proposed by Whiskey Ridge Wind Partners LLC in 2006. The documentation of confirmation of all protocols is attached in Appendix I.

Ongoing avian and bat monitoring has been conducted to meet all of the requirements of the 2003 WDFW Wind Power Guidelines. These guidelines recommend and encourage use of existing information from projects in comparable habitat types in locations close to proposed projects. Both the expansion area and the existing facility support ponderosa pine habitat in proximity to wind turbines. Similarly, the existing wind facility contains nine springs and the expansion area contains two springs. Both projects support similar habitat types in similar amounts, with shrub-steppe habitat dominating the landscape intermixed with minor amounts of pine forest and exposed rock. A full year of post-project bat fatality monitoring is available from the operating facility to provide information on bat occurrence in the project area, including one search plot located within 1/8 mile of a ponderosa pine stand and five plots within 1/8 mile of springs.

Also, a voluntary bat acoustical study was conducted in the expansion area in 2007 to provide more site-specific information on bat use. It reported that the mean number of bat calls per detector per night across the entire expansion site was higher than similar numbers reported for wind farms at Buffalo Ridge, Minnesota, and Foote Creek Rim, Wyoming. No results were reported from other projects in Eastern Washington. The report also explains that the majority of detected bat calls were from high-frequency species such as *Myotis* bats, which have been shown to not be particularly susceptible to mortality from wind turbines. A recent study compared bat mortality at all existing wind energy projects in the Columbia Plateau Eco-region, including Washington. Wild Horse had the lowest reported number of bats killed annually per turbine of any of the eleven projects with data (Johnson and Erickson 2008).

The comment also suggests that we know little about migratory bat use of the area. However, the first year of actual bat fatality monitoring data from the existing facility, which is immediately adjacent to the expansion area, strongly supports the conclusion that migratory bats are most susceptible to mortality from wind turbines (i.e., thirteen of seventeen bat fatalities were migratory bats). Therefore, the applicant believes that no further pre-construction surveys for bats are warranted. Both the pre-project survey work and the post-construction fatality monitoring data (including the S-String area in close proximity to the forested area) support the prior assessments and mitigation measures documented in the Wild Horse EIS, and validate that information and its

applicability to the expansion. There is no environmental information that would require additional pre-construction surveys or delaying the construction of the S-String turbines for this purpose.

- 7-3. The applicant has proposed additional mitigation measures to incorporate lessons learned in the original project, including erosion control measures, into the design of the Expansion Project. A qualified environmental monitor will be present on site during construction.
- 7-4. The post-construction monitoring plans for the expansion area, including both the restoration plan and the wildlife plan, will include a rigorous sampling across all soil and habitat types as well as a statistically valid subset of turbines. All monitoring plans will be reviewed by the TAC and WDFW.
- 7-5. Post-construction monitoring will include monitoring active red-tailed hawk nests.
- 7-6. The proposed batch plant has been located on an area of previous disturbance as much as possible while remaining on PSE property. There is insufficient room at the old borrow site to adequately meet the needs of the project. Also, the old borrow site has standing water during part of the year, which is beneficial to wildlife.
- 7-7. No permanent meteorological (met) towers are proposed. The existing temporary met towers will be needed for turbine testing after construction is completed but will be removed as soon as practicable.
- 7-8. Cables will be installed in the existing road between the substation and beginning of the new road improvements (approximately 1.5 miles). Remaining cable trenches will be located immediately adjacent to newly improved roads with minimum clearance between each conduit as required by the electrical resistivity and thermal conductivity of the soil.
- 7-9. The batch plant and quarry areas will not be disturbed until deemed necessary for construction.
- 7-10. See Response 6-7 on cumulative impacts and additional information provided in Chapter 3 of the Final SEIS. The comment states that the U.S. Fish and Wildlife Service (USFWS) 2003 Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines asks for a 5-mile disturbance buffer around sage-grouse leks. That document actually states that turbines should not be placed within 5 miles of known leks “in known prairie grouse habitat.” As stated in earlier correspondence, and in the Greater Sage Grouse Recovery Plan, the Colockum Recovery Unit is not considered occupied sage-grouse habitat. Mitigation measures in the SCA along with voluntary conservation measures implemented by the applicant may improve the long-term likelihood of the area supporting an active sage-grouse population. Further information on presence of sage-grouse in the project area will be gathered for the life of the project through the Wildlife Incident Reporting and Handling System. WDFW was consulted prior to completing all surveys for sage-grouse, with confirmation of the agreed protocols (see attached correspondence in Appendix I).

- 7-11. Proposed mitigation for temporary impacts meets and exceeds the requirements of the 2003 Wind Power Guidelines, which were intended to address impacts to all species. Assuming replacement habitat is selected as the mitigation, the guidelines would require approximately 72.5 acres (25.1 acres permanent disturbance @ 2:1 plus 44.6 acres temporary disturbance @ 0.5:1). PSE proposed to offer an approximately 80-acre parcel owned by PSE as mitigation (the south half of the south half of the north half of Section 15, Township 18 North, Range 21 East W.M., Kittitas County, Washington). Furthermore, the revised post-construction restoration plan for the expansion area has been developed in concert with WDFW habitat biologists to develop site-specific seed mixes for lithosol soils that will maximize the recovery of these disturbed areas.
- 7-12. More information on the habitat status of the 80-acre mitigation parcel has been provided in Chapter 3 of the Final SEIS. If the proposed parcel is not acceptable to WDFW, the applicant has proposed to mitigate per the alternative mitigation section in the 2003 WDFW Wind Power Guidelines.
- 7-13. The applicant will comply with the same construction timing requirements as the original SCA for Wild Horse, which state that “the Certificate Holder shall avoid, to the greatest extent possible, construction activities outside areas that will be permanently disturbed except during the months of May through October when soil moisture is low. Trenching of underground electric collection cables may be performed outside this time window, as the soil cover in those areas will be disturbed regardless of the season and will need to be restored and reseeded.”
- 7-14. The applicant is already committed to identification and removal of animal carcasses that may attract foraging raptors, as stated in Section 3.5.4.3 of the Wild Horse Final EIS.



*Friends of* **Wildlife & Wind Power**

12/15/08

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Mr. Allen Fisksdal  
EFSEC Manager  
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[allenf@cted.wa.gov](mailto:allenf@cted.wa.gov)

Re: Wild Horse Expansion Request  
Draft SEIS

Dear Mr. Fisksdal

We write to recommend approval of Puget Sound Energy's request to expand the existing project with 22 new turbines.

Friend's supports successful and properly managed wind and alternative energy projects with appropriate protections for habitat and wildlife.

We are members of the Wild Horse Technical Advisory Committee (TAC), the Wild Horse Coordinated Resource Management committee (CRM) and the Washington Department of Fish and Wildlife Wind Power Guidelines Renewal Committee.

For the CRM grazing plan we assembled the construction cost estimates for the springs reconstruction and water development and participated in the successful lobbying effort for legislative funding of the water development plan.

Friends joined with the Kittitas Audubon Chapter and Kittitas Field and Stream Club in the submission of recent public comments to the EFSEC Council in letters of August 6, 2008 and to the Fish and Wildlife Commission of September 17, 2008. The joint participants also commented at the public hearing on August 6th. Discussions herein follow those prior comments, the draft SEIS, Puget Sound Energy's responses to public comments of September 8 2008 and the Fish and Wildlife Commissioners responses dated November 7 2008 attached.

Remarks following are the opinions of Friends of Wildlife and Wind Power.

Herein we discuss incomplete mitigation for the original project, proposed expansion mitigation, wildlife and environmental concerns.

We wish to extend our heartfelt thanks and congratulations to Puget Sound Energy and the Department of Fish and Wildlife Commissioners for recently formalizing a conservation easement for the Wild Horse project. Completion of the easement was very important to many supporters of conservation and wind energy. The easement provides vital and important protections for wind and alternative energy development as well as conservation values.

### **Incomplete Mitigation for the Original Project**

#### **Fencing of the Mitigation Parcel and Springs**

The Site Certification Agreement requires the mitigation parcel and springs to be fenced and protected **“for the life of the project.”** This requirement was intended to protect against the affects of grazing, to promote the restoration of plant material cover and provide protections for ground nesting birds such as Sage Grouse.

The recently completed conservation easement now provides for well managed grazing on the project lands.

We sincerely appreciate the measures undertaken by PSE and the current grazer Russ Stingley to implement the protections outlined in the SCA with the installation of electric fencing at the springs and mitigation parcel during the first years grazing in 2008.

During the “life of the project” other grazers may utilize the landscape. A permanent yet adaptive guidance formula is requested in the amendment to the SCA outlining specifically the measures to be undertaken to maintain compliance with required protections for the mitigation parcel and springs.

8-1

WDFW, in its response letter to joint concerns of Audubon, Field and Stream and Friends regarding PSE proposals to waive requirements for fencing, dated November 7 2008 states:

“We view the fencing provision of the EFSEC permit for PSE as a safety net in the event that our best efforts for implementing a wildlife friendly grazing program were not fruitful. Fortunately, a landscape level, wildlife friendly grazing plan has been developed. The section 27 fencing provision was specific to grazing management, and the CRM is achieving what was intended regarding wildlife habitat protection. Building permanent fences where they are not needed can be harmful to wildlife. Fences can pose a significant hazard to sage grouse and should be avoided where possible, and since the agreed upon grazing performance standards will now be applied to section 27, we no longer need to fence it. **We do concur that protection of the springs and riparian area’s with fencing is necessary, but temporary electric fences that are only up when they are needed, and are the least intrusive method consistent with our range management performance standards.”**

We appreciate WDFW's acknowledgement that "fencing is necessary" to protect the springs.

With respect to the mitigation parcel we are interested in WDFW's confirming assessment that "since the agreed upon performance standards [of the CRM] will now be applied to section 27, we no longer need to fence it".

Following are comments from Friends letter to the Council of 10/9/08 regarding fencing of the mitigation parcel:

"The mitigation parcel fencing would create a test plot to compare grazed and ungrazed landscapes.

If the parcel is fenced during times when grazing animals are present and monitoring indicates deterioration in rangeland health on the adjacent grazed lands, adaptive management should be used to modify grazing on the adjacent lands. Conversely, if monitoring reveals that grazing is beneficial to the wildlife habitat, then the fencing might be removed. But in that instance, it must be remembered that the mitigation parcel was created to offset the wind projects adverse wildlife impacts. If fencing the mitigation parcel does not create those compensatory benefits, then some other mitigation measures will be needed to produce a like quantum of compensatory mitigation for the wind projects impacts."

It is apparent a change in the requirement for PSE to install permanent wildlife friendly post and wire fencing at the mitigation parcel is forthcoming. In the process of implementing alternative measures we request, in addition to recognition of the conservation values originally intended with the fencing, that the fiscal magnitude of the fencing requirement be acknowledged in the resolution of alternative measures.

Permanent post and wire fencing surrounding the mitigation parcel including sales taxes, survey, procurement, management, inspections and maintenance for the life of the project (30 years), we estimate to fall within the range of \$250,00 - \$400,000.

In Conclusion:

- We request clarification whether WDFW intends to allow grazing on the mitigation parcel lands.
- Adherence to the SCA for fencing protections of the mitigation parcel and springs could be met with **permanent installation and maintenance, for the life of the project**, of electric fencing that is used only when needed. The hot wire would be installed and electrified only during grazing periods. The wire would be rolled up and removed or laid on the ground at other times. These actions were implemented with measured success by the grazing leaseholder during the first grazing season this year. This technique could be memorialized in the SCA amendment for the expansion. Recognizing that the grazing plan is "adaptive," it could be later amended pending the results of monitoring and data over a period of time appropriate to determine if grazing benefits the mitigation parcel, or not.
- If conservation measures for the mitigation parcel alternative to the original requirements for permanent wire fencing, which are now of

8-1  
cont.

questionable benefit, are undertaken, the conservation and fiscal values of the original SCA requirements should be considered.

8-1  
cont.

We are not biologists and will rely on the decisions of WDFW and local agricultural knowledge for judgments on protections for the parcel. We thought it beneficial however that a comparison control plot would be created with fencing.

### **Raptor Perch Deterrents**

The SCA and FEIS call for the use of raptor perch deterrents at all overhead lines. The deterrents were not installed during the construction phase. The deterrents were meant to control raptor electrocution and prevent raptor predation with emphasis on sage grouse.

The deficiency in compliance has been brought to the TAC committee by WDFW and Friends and reviewed in committee meetings.

As a consolation, PSE proposed installation of deterrents on five overhead transmission towers which was approved unanimously by the TAC committee and they were installed. Monitoring of the results was undertaken by PSE employees when on site. Results from May to October were reviewed in November. Raptors did not occupy poles where deterrents were placed but did where they were not installed. Additional monitoring is to be performed by one PSE employee while on site undertaking unrelated tasks. The WDFW representative on the TAC recommended one years monitoring.

8-2

As stated in the TAC committee forum; Friends objects to the circumstance of overhead lines in place and the project in operation with only five deterrents installed. We have stated in the TAC committee that the deterrents should be installed in accordance with the SCA and FEIS. We consider it inappropriate for the TAC committee to be utilized as a forum to explore omission or dilution of SCA mitigation requirements benefiting wildlife.

We request the Council and WDFW require installation of deterrents on all overhead lines as required by the SCA and FEIS.

### **Proposed Expansion Mitigation**

#### **Mitigation Lands or Alternative Mitigation Fee**

Following the WDFW Wind Power Guidelines, mitigation proposed is 80 acres of land contiguous to the project apparently in the headwaters of Skookumchuck Canyon, or an annual fee of \$3850 to be paid to WDFW.

8-3

Unless an escalation factor for inflation was negotiated the annual fee would diminish in benefit over the life of the project.

If the 80 acre parcel is selected a stipulation that the lands would remain protected and undeveloped for the life of the project should be implemented.

8-4

We request a map of the mitigation area be provided.

## **Landscape Restoration**

The restoration efforts PSE proposes are greater than required according to the 2003 WDFW Wind Power Guidelines. The topsoil management strategy and experience developed during the first phase will be implemented. Extended monitoring of the original project site has been offered. Reseeding of select areas within the original project site where germination has not occurred has been promised and use of locally adapted native seed prescriptions will be used in the expansion area. The proposed efforts are appreciated. The procedures will improve the prospect of a successful long term restoration.

8-5

The DSEIS however seems to downplay possible adverse impacts on sage grouse, noting the limited extent of suitable habitat in the expansion area. DSEIS at 24. But the DSEIS also notes that this lack of habitat may be due to past poor grazing practices. Given that multiple efforts are underway to rectify that problem, the SEIS should consider the projects impacts on the ability of those restorative mitigation efforts to succeed. A project has significant impacts both when it damages existing habitat and when it adversely impacts the ability of previously damaged habitat to be restored.

8-6

## **Environmental and Wildlife Concerns**

### **Spring Preservation and Enhancement**

In the joint letter of August 6<sup>th</sup>, we discussed the importance of water resources in the arid environment and the prospect of supportive community involvement in on going spring enhancement program. We hope PSE and WDFW will promote assistance from the community to protect and maintain the water resources on the original and expansion project site. The long term volunteer effort could include planting of native grasses, forbs and shrub materials and noxious weed control. The DSEIS does not adequately acknowledge the projects adverse impacts to the springs nor identify an adequate range of measures to mitigate those impacts.

8-7

### **Turbine Placement and Avian Monitoring**

Avian and bat mortality studies comparing **turbines close to water sources** and turbines further away were reported to be unavailable at the time of permitting for the project. This lack of study data would appropriately be remedied with bat and avian monitoring data contributions from the Wild Horse project for both the original project and the expansion. Turbines in the original project and the expansion are designed and installed close to vital water sources for bats, avian and terrestrial species. Friends expressed concern regarding the lack of data beginning with the EFSEC Adjudicative Hearings process in 2004. As TAC committee participants we also have brought our concerns since that time before WDFW, PSE, and EFSEC Council and TAC committee members.

8-8

Requests have been made in the TAC forum to conduct the post construction avian surveys with protocols which identify turbines in close proximity to water resources.

The first year Bat and Avian Monitoring report for 2007 records 77 avian fatalities at 64 turbines which were monitored, on average a rate of 1.2 deaths per turbine. The project has 127 turbines. At a single turbine J-3, five fatalities occurred. This is four times the average rate and higher than the rate at any other turbine location. Is the high mortality rate at this turbine a statistical fluke or the tip of a larger problem? Notably, turbine J-3 lies between two springs: Thorn Spring and Reynolds Spring. Is the turbines proximity to those water sources related to a higher mortality rate? The data sampling is too small to indicate a trend. Additional monitoring is necessary for this location and other turbines close to water as well as further away, in order to discern trends if they exist.

The FEIS should discuss this issue and discuss the extent to which additional data should be gathered to adequately inform the final permit decision. See WAC 197-11-080 (1) ( duty to fill gaps). See also WAC 197-11-080 (3) (duty to make worst case assessment if important gaps cannot be filled.)

Given the number and importance of the water resources in the arid shrub steppe region and the need for mortality rate comparisons at turbines close to water as well as further away, to discern trends if they exist, we believe three years monitoring for the original project and the expansion should be undertaken with particular emphasis on turbine proximity to water resources. Avian mortality data would be useful for design considerations on this and other future projects in similar habitat.

8-8  
cont.

### **Project Road Widths**

In prior correspondence and public comment Friends has expressed concern that the Wild Horse project road widths are wider than necessary. They also seem likely to be wider than the roads contemplated when the FEIS was prepared. Given that the roads are wider than originally contemplated, the DEIS cannot adopt by reference the assessment of wildlife and habitat impacts from the FEIS.

A new analysis based on the wider than expected roads must be undertaken. Alternatively, the project could incorporate enforceable standards for narrower roads. Our understanding is that the existing project roads were based in part on a desire to allow vehicles transporting wide loads to pass one another on the roadways for construction efficiency and timing reasons. It seems like with some minor effort to better time transport, road widths could be narrowed considerably and impacts to habitat and restoration costs may be reduced. It seems quite wasteful to permanently destroy wide strips of habitat for a road width that is needed very infrequently, if at all.

8-9

Recent tours of operating wind energy projects in Oregon at the Klondike and Bigelow Canyon project sites indicate the project road widths are significantly narrower (approximately 40%), than roads of the Wild Horse site.

8-9  
cont.

We request this aspect of the project be reviewed by WDFW and EFSEC prior to construction start and a plan for keeping road widths and their resultant permanent impacts to a minimum be implemented.

### **Enforceable Commitments**

Throughout the amendment application and the DEIS, reference is made to conditions that PSE has agreed to incorporate into its project. We request that the ultimate approval of the expansion clearly identify terms like these as conditions of the approval (to avoid later controversy as to whether they are "voluntary measures" or enforceable commitments).

8-10

### **Cumulative Effects**

The DEIS acknowledges the need for a cumulative effects analysis and recognizes that the prior cumulative analysis is inadequate for wildlife and vegetation impacts (among others). See DEIS at 49-50. Surprisingly though, the DEIS does not discuss the cumulative impact for sage grouse. This oversight should be corrected.

8-11

Thank you, for the opportunity to submit these comments on the Draft SEIS.

We look forward to continuing work with the EFSEC Council, WDFW and PSE in pursuit of successful clean energy production with appropriate protections for habitat and wildlife.

Respectfully Submitted



Robert Kruse

## Responses to Comment Letter 8 from Robert Kruse, Friends of Wildlife and Wind Power

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 8-1. See PSE's response to SEPA Checklist comments on spring preservation and enhancement (**Appendix B**, pages 5 and 12).
- 8-2. This comment about raptor perch guards at the operating Wild Horse facility pertains to a unanimous recommendation made by the TAC, on which Kittitas Audubon Society is represented, and thus it is not relevant to the Draft SEIS. No overhead transmission lines are proposed as part of the expansion project.
- 8-3. Thank you for your comment.
- 8-4. Location of the proposed 80-acre mitigation parcel is provided on a revised version of **Figure 3** in Chapter 2 of this Final SEIS. If the proposed parcel is not acceptable to WDFW, the applicant has proposed to mitigate per the alternative mitigation section in the 2003 WDFW Wind Power Guidelines.
- 8-5. Thank you for your comment.
- 8-6. The proposed expansion project will have no effect on ongoing restoration efforts on the existing Wild Horse facility. One area of the existing facility, the old laydown area, is proposed to be re-used because restoration efforts in that location have not been successful. Also, a new restoration plan is being prepared for the expansion area that takes into account lessons learned on the existing facility, as well as incorporating site-specific concerns for the expansion area including installing plant communities that are more appropriate for lithosol and other very rocky soils.
- 8-7. See PSE's response to SEPA Checklist comments on spring preservation and enhancement (**Appendix B**, pages 5 and 12). Potential impacts of the proposed project to water resources are addressed in Section 3.3.2 of the Draft SEIS.
- 8-8. Three years of avian and bat monitoring will occur on the original Wild Horse project, and two years of concurrent monitoring on the expansion area, as agreed upon by WDFW and the applicant. The monitoring program includes several search plots in close proximity to the nine springs on the existing facility. The monitoring program and associated plot locations have been established to avoid observer bias. It would not be statistically valid to arbitrarily locate plots close to springs. Statistical tests of geographic patterns of fatality locations on the facility will be conducted following the second full year of monitoring, because, as the commenter points out, the data sample from the first year of monitoring is too small to detect trends.
- 8-9. The proposed roads on the expansion site are as narrow as is practicable to allow safe and efficient construction. Project crane roads are the minimum width necessary to

allow passage of the large crane used to erect turbines, which also has specific horizontal curve and vertical slope road design criteria based on WSDOT specified multi-axle trailers used to transport equipment. These are the same criteria that controlled road design on the original Wild Horse project. Narrower roads would require multiple episodes of dismantling and reassembly, which would extend construction and increase costs significantly. The permanent road width discussed in the Draft SEIS includes the shoulders and drainage ditches, which are assumed not to be revegetated, although in reality vegetation in these areas will reestablish over time.

8-10. Thank you for your comment.

8-11. See Responses 6-7 and 7-10.

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Alan Fiksdal  
EFSEC Manager  
905 Plum St  
Olympia, WA 98504 - 3172

December 13, 2008

R.E. the matter of hawk perch guards at Wild Horse wind farm

Dear Mr. Fiksdal,

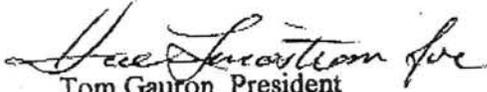
One of Kittitas Audubon Society's concerns expressed in previous public and written comments about the wind farms in the Kittitas Valley regards potential avian impacts. Our comments in part profit from experience gained from the operation of existing wind farms across the U.S and abroad. Increasingly clear, and coupled with the relative newness of the wind power enterprise, is the lack of scientific research upon which to base plans. The consequence is something of a learn-as-you-go approach with wind farms being installed and made operational only to discover problems needing correction that include unanticipated wildlife impacts - some extraordinarily so. Once an installation is in place and functioning, it is near impossible to make changes to rectify a problem - largely because of the expense, however there are other impediments including the lack of precision in contracts that make it difficult to mandate changes once the installation is in place.

It is with the above in mind that KAS comments here on the issue of hawk perch guards at Wild Horse. The Site Certification Agreement (SCA) and even the application for the SCA, along with other documentation calls for hawk perch guards to be on transmission poles. They are required - that's the way we read it. Yet they haven't been installed.

We understand that the TAC for Wild Horse, after listening to representatives of Puget Sound Energy and through discussions that followed, decided on a different path that called for installation of hawk perch guards on five strategically-placed transmission poles to serve as test sites. One question we have is this: Does the TAC have authority to make this decision to change, and/or, if it does, what constraints or qualifications should accompany such a departure from a written contract - one that is public information and assumed to be part of the project?

Kittitas Audubon is not necessarily opposed to this adaptive management route if the five test transmission poles were well selected, and there is a competent plan for monitoring. We have reasonable confidence in the site selections made from consultation that included Mel Waters of PSE and Brent Renfrow of DFW. We don't have confidence in what we understand is the monitoring arrangement that appears to be not more than having PSE workers occasionally taking a look as they go about their other jobs on the site. We recognize the expense of an 'up-to-snuff' scientific monitoring effort, but how else can future plans regarding hawk perch installations be made and defended. Unless a scientifically defensible monitoring of the test site is established, KAS feels the 5-transmission pole test arrangement cannot be used to alter what is called for in the SCA - namely, hawk perch guards on all transmission poles.

With the assumption of continuing improvement in the quality and amount of ground cover on the project, transmission poles will eventually be in areas that afford adequate cover for ground nesting birds including sage grouse. While current models for hawk perch guards have had mixed or indeterminate results, further study can be expected to provide better models. The eventual re-introduction of Northern Sage Grouse is an established goal, and efforts to minimize predation should continue in order to help make that happen.



Tom Gauron, President  
Kittitas Audubon  
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## Responses to Comment Letter 9 from Tom Gauron, Kittitas Audubon Society

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

9-1. See Response 8-2.

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Kittitas Audubon Society • P.O. Box 1443 • Ellensburg, WA 98926

RECEIVED

DEC 18 2008

ENERGY FACILITIES  
EVALUATION COUNCIL

December 14, 2008

Allen Fiksdahl, Manager  
Energy Facilities Evaluation Council  
P.O. Box 43172  
905 Plum St. SE  
Olympia, WA 98504-3172

RE: The Wild Horse Wind Power Expansion Project Draft Supplemental Impact Statement

Dear Mr. Fiksdahl,

We have reviewed the DEIS and the supplemental information from the hearings, letters submitted, and information and letters supplied by PSE.

First, we would like to say that the photo of the Sage Grouse nest with eggs found during post construction monitoring under grass near one of the turbines on WHWPP is a clear and exciting demonstration of the value of this area of Sagebrush Steppe habitat for recovery of the Sage Grouse. In addition, it demonstrates the value of the monitoring program.

Also, we are so pleased to see that the Conservation Easement between WDFW and PSE has at last been finalized, and that it will be applied to the expansion area. Congratulations to all involved!

We greatly appreciate the number of changes that have been made to the project which should benefit wildlife and the environment in general for years to come. Some of them are:

1. PSE's volunteering to remove the four turbines on strings V and W from the project, and subsequent reduction of the size of the project to 960 acres, is the most significant change. It is huge. There will be no negative impact on the Quilomene, no habitat lost, no overhead wires and poles built, and no road upgrading in the area of raptor nests. These are a few of the benefits from this move.
2. The connection of the yard lights at the substation to motion detectors is a bird friendly move, since it is thought that lights attract migrating birds at night. (page 3

10-1

of Sept 8, 2008 letter from PSE to EFSEC.) Bats have been observed feeding on the insects which have been attracted to the lights in Kittitas County (personal comm. J. Nelson) and would be attracted to the lights also.

3. Bat studies were done on the project, which is a first in Kittitas County, PSE and others involved are to be commended. This will help to establish at least some knowledge of the bat populations in the area. Previously there has been little or no knowledge. This is an important step and we hope to see it continued. Finding greater bat activity at the forested area and springs was an important finding (page 23 SDEIS 3.2.1.4 Wildlife, second paragraph). Bats may roost in the trees and certainly would use the nearby springs for feeding and water. It would make sense that bats would travel from the trees through the turbines on string S to the water at Basalt and Spike Springs, the closest water.
4. On page 6 of the letter from PSE to EFSEC under Landscape Restoration additional mitigation will involve reseeding certain areas within the existing site where native seeds have not germinated. PSE will also extend restoration monitoring requirements on the existing site for an additional 2 years so that comparisons can be made.
5. There was also mention of extending the 2 year post construction avian bat monitoring to the original Wild Horse site. KAS would definitely encourage this extension. A further Extension to 3 years on both projects would be a good idea due to the proximity of the springs to the turbines.

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cont.

We still have some concerns about this expansion:

1. There is the possible increased risk of bat and avian mortality in the vicinity of string S. Both the Basalt Spring and forested stations had greater bat activity than the one on S string. Bat/turbine interaction is poorly understood and it may be that bats are attracted to turbine blades for some reason. If blades are an attractant it would appear possible that there would be a greater interaction with turbine blades than meteorological towers. Several others including Attorney General for the Environment Bruce Martin had similar concerns. He requested supplemental avian studies be done. This does not appear to have been done.
2. Under the cumulative impact section 3.14.2 Wildlife paragraph 3, KAS would take issue with the statement that “this level of mortality is not expected to have any population-level consequences for individual species because of the expected low fatality rates for most species and high population sizes of the commonly killed species such as horned lark, European starling, American robin, and western meadowlark. Some species documented at these facilities (including horned lark and western meadowlark) have declining populations in the Columbia Basin, so may be more sensitive to declines in local populations.”  
This represents a view from the past.

10-2

10-3

The 2007 Audubon State of the Birds Report makes it clear that the Western meadowlark is one of our common birds in decline in Washington and the whole country. It is down 60% from 40 years ago. National Audubon states “ A quarter of U.S. birds need our help to keep them from slipping toward extinction.” Other birds in our area such as the evening grosbeak (down 93%), yellow headed blackbird (down 72%), white breasted nuthatch, prairie falcon, and even our beloved western bluebird are also birds of concern on a national watchlist. Information is listed on the Audubon Washington website [www.wa.audubon.org](http://www.wa.audubon.org) under June 2007 State of the Birds report. The watch list is at the Seattle Audubon website: [www.birdweb.org](http://www.birdweb.org) under Species of Special Concern.

Predictions of no cumulative effect cannot be made absent cumulative impact studies. These studies are a part of the Oregon Wind Energy Guidelines and perhaps the pending Washington’s Guidelines . Each windfarm represents hundreds, even thousands of acres of habitat impacted and that is one of the prime reasons for these population declines. Combined with turbine mortality the effect will be greater. This is another form of cumulative effect which has not been considered. With the recent overruling of the Kittitas County Board of Commissioners decision by the Supreme Court on the Kittitas Valley Wind Farm, the specter of mass building of windfarms over the whole eastern part of Kittitas County, as well as other counties, is raising its head. Combined with the dramatically increased residential development, increased roads, and more people, it would seem the potential exists for cumulative effects on the entire valley to reach huge proportions. The valley as we know it may be changed forever. Cumulative Impact Studies need to be done before any new wind farm is built.

10-3  
cont.

3. Setting aside areas for mitigation parcels and minimizing impact to habitat on this project are critical. For this reason we support a new mitigation parcel, if of appropriate value, for the expansion project. We also support fencing of the original mitigation parcel and springs and the new parcel, if grazing is to be allowed. The new parcel should be of equal or higher value than land already impacted. Movable fencing could be appropriate if it is deemed best for wildlife and the SCA is amended. Fencing should be the responsibility of PSE. The SCA of the original WHPPP calls for permanent fencing of the mitigation parcel as well as springs.

10-4

Due to the large size of the roads that resulted on the original WHPP, we recommend that road size be kept to a minimum.

10-5

4. Another aspect is habitat restoration which has been started, and planned to be worked on for at least a couple of years. We hope habitat restoration will be worked on for the life of the project. It would be an opportunity to research methods, as was demonstrated by the new topsoils management protocol which resulted in superior re-growth of volunteer plants. “They are not making any new sage brush steppe” might be said but perhaps that’s not true. This is an opportunity to find out.

10-6

The restoration of the springs and surrounding plant cover and fencing is another habitat endeavor that will benefit wildlife, including sage grouse which do seem to be using the area. The SCA for Wild Horse requires it. We encourage it being done. Community help is available for this we are sure.

10-7

5. We also would like to see the post construction avian and bat monitoring on the original project continued to 2 years as proposed by PSE. The expansion to 3 years post construction monitoring on both projects would be even better. Precedent is being set at the Maple Ridge WPP where 4 years post construction monitoring is being done. (From internet)  
This would likely provide meaningful data upon which to base future expansion and windfarm decisions.

10-8

We thank you for the opportunity to comment on this project.

Sincerely,



Tom Gauron  
President, Kittitas Audubon Society

Janet Nelson  
Conservation Committee

## Responses to Comment Letter 10 from Tom Gauron and Janet Nelson, Kittitas Audubon Society

*Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.*

- 10-1. Thank you for your comment.
- 10-2. See Response 6-3 on avian and bat studies, PSE's response to the letter from CFE on the SEPA Checklist (**Appendix B**, page 3), and Response 7-2.
- 10-3. See Response 6-7 on cumulative impacts.
- 10-4. The applicant's request to amend the SCA so that fencing requirements for the mitigation partial are consistent with TAC recommendations generated considerable controversy in comments on the SEPA Checklist, including those by Kittitas Audubon Society. Therefore, the request was withdrawn. The applicant's current intent is to fence these areas with temporary electric fence when grazing occurs on site. In any case, the applicant will comply with the existing language in the SCA.
- 10-5. See Response 8-4 on road widths.
- 10-6. The applicant has consistently undertaken voluntary measures to improve restoration of areas disturbed by construction at Wild Horse, and plans to continue its commitment to good stewardship on the expansion area.
- 10-7. See PSE's response to SEPA Checklist comments of spring preservation and enhancement (**Appendix B**, pages 5 and 12).
- 10-8. See Response 6-3 on avian and bat monitoring.

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## 5 ADDITIONAL REFERENCES

- Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished report. Cheyenne, Wyoming.  
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- U.S. Fish and Wildlife Service (USFWS). 2003. *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines*.
- Washington Department of Fish and Wildlife (WDFW). 2003. Baseline and Monitoring Studies for Wind Projects and Wind Project Habitat Mitigation (Draft Guidance Document). April.
- . 2006. Personal communication from WDFW to PSE re: survey protocols.
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- WEST, Inc. 2008a. Puget Sound Energy Wild Horse Wind Facility Post-Construction Avian and Bat Monitoring First Annual Report, January – December 2007. Unpublished report. Cheyenne, Wyoming.

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