



Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: MWDEIS-028	South Central Region 2800 Ruden Road, Union Gap P.O. Box 12560 Yakima, WA 98909-2560
RECEIPT DATE: MAY 21 2002	509-577-1603 TTY: 1-800-545-5161 www.wsdot.wa.gov

May 15, 2002

Benton County Planning/Building Department
P. O. Box 910
Prosser, WA 99350-0910

Attention: Michael E. Shuttleworth, Senior Planner

Subject: DOS/EIS-0333, EA 01-28/CUP 01-11; Washington Winds, Inc.
Maiden Wind Farm - Draft NEPA/SEPA Environmental Impact Statement
Related to EA 01-27 & CUP 01-15

We have reviewed the proposed Draft Environmental Impact Statement (DEIS). WSDOT responded to the initial proposed development in a letter dated May 3, 2001. We also responded to the proposed placement of temporary meteorological towers on May 10, 2001. We have the following comments concerning the DEIS.

The DEIS mitigation indicates that overweight permits will need to be obtained from Yakima and Benton Counties Public Works Departments. Overweight and oversize permits will also be required from WSDOT for any hauls meeting the criteria.

The characteristics of two state highways were incorrectly identified. The posted speed limit for SR 241 is 55 mile per hour, and SR 24 is classified as a rural-minor arterial. Table 3.9-1 does correctly identify SR 24's classification.

Thank you for the opportunity to review and comment on this proposed project. If you have any questions concerning our comments, please contact John Gruber at (509) 577-1636.

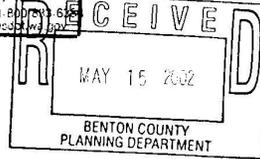
Sincerely,

Troy A. Stuing, P.E.
Regional Planning Engineer

TAS: rh/jjg

cc: File #22, Benton County (2001)
Tom Root, Area 3 Maintenance Supervisor

p:\planning\elcvr\cbenton\cbentco_maiden wind_deis.doc



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: MWDEIS-029	RECEIPT DATE: MAY 21 2002
---	------------------------------

May 10, 2002

Mr. Mike Shuttleworth
Benton County Planning
1002 Dudley Ave
Prosser WA 99350

Dear Mr. Shuttleworth:

Thank you for the opportunity to comment on the draft environmental impact statement (EIS) for the Maiden Wind Farm project proposed by Washington Winds Inc. (#DOE/EIS-0333). We have reviewed the draft EIS and have the following comments.

In addition to the permits listed on page 1-6 of the draft EIS the following permits may be required:

Water Quality

The owner of a construction site which disturbs five acres or more of total land area, and which has or will have a discharge of storm water to surface water or to a storm sewer, must apply for coverage under Ecology's Baseline General Permit for Storm Water Discharges Associated with Construction Activities.

The proponent must schedule an inspection by Ecology to determine the need for a storm water construction permit. Please contact Ray Latham at (509) 575-2807 to schedule an inspection.

Water Resources

Chapter 90.03 RCW Surface Water Code and Chapter 90.44 RCW Regulation of Public Ground Waters (wells). If the proponent plans to use water for dust suppression at your site, be sure that you have a legal water right. A water right permit is required for all surface water withdrawal and for any water from a well that will exceed 5,000 gallons per day. If in doubt, check with Department of Ecology, Water Resources. Temporary permits are usually obtainable in a short time-period. The concern of Water Resources is for existing water rights. In some instances water may need to be obtained from a different area and hauled in or from an existing water right holder.

Post-It™ brand fax transmittal memo 7671		# of pages	1
To	Mike Shuttleworth	From	John Gruber
Co	Benton County	Co.	WSDOT-SCR
Dept.	Planning	Phone #	509-577-1636
Fax #	509-786-5612	Fax #	509-577-1603



Mr. Mike Shuttleworth
May 10, 2002
Page 2

If you have any questions concerning the Water Resources comments, please contact
Suzanne Blakeney at (509) 454-7294.

Thank you again for this opportunity to comment.

Sincerely,



Rebecca J. Inman
Environmental Coordination Section

EIS #021672

cc: Suzanne Blakeney, CRO
Ray Latham, CRO
Debbie Smith, CRO



RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: MWDEIS-030
RECEIPT DATE: MAY 21 2002

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
District 4 Office: 2620 North Commercial Avenue - Pasco, Washington 99301 - (509) 545-2014

May 17, 2002

Bonneville Power Administration
Attention: Sarah T. Branum
Environmental Specialist - KEC - 4
P. O. Box 3621
Portland, Oregon 97208-3621

Dear Ms Branum:

SUBJECT: NEPA/SEPA - Draft Environmental Impact Statement DOE/EIS-0333, Maiden Wind Farm, Bonneville Power Administration, Construct up to 549 wind turbines, associated access roads, water crossing structures, and associated facilities in the Rattlesnake Hills, Benton and Yakima Counties, Washington.

The Washington Department of Fish and Wildlife (WDFW) reviewed the above-referenced National Environmental Policy Act (NEPA) Draft Environmental Impact Statement (DEIS) document and offers the following comments at this time. Other comments may be offered as the project progresses.

Permitting

It appears from the general description of the project, that a Hydraulic Project Approval (HPA; Chapter 77.55 RCW, WAC 220-110) to be issued by WDFW, will be required for the project. The road construction and crossing of Sulphur Creek require an HPA. The other ephemeral streams that are crossed need further review to determine if an HPA is required. Early involvement with WDFW will facilitate processing of the HPA. Once final design plans are available, please submit a completed Joint Aquatic Resource Permits Application (JARPA) for an HPA, including complete plans and specifications, to WDFW for review.

Wetland Impacts

Although the DEIS identifies wetlands within the project scope, there is insufficient information to determine to what extent they will be affected by the project. The proposed access roads and other associated structures should be located to avoid impacts to these wetlands. In instances

where structures must be placed within or near wetlands, delineations should be completed to determine mitigation requirements.

Tower and Collector System Construction Method and Siting

The DEIS describes two different types of construction, one regarding the footings and the other regarding overhead collector cables, that were not presented in any previous project discussion forums, Conditional Use Permit (CUP) applications, or other environmental reviews. WDFW prefers the caisson-type foundation over the spread footing type, as they are less intrusive to an adjacent habitats. Not enough information is available though, to completely assess whether the spread footing foundation has a larger footprint.

The wind industry made great strides to limit wind tower bird impacts by eliminating lattice structures or overhead collector systems. The wind source appears greatest on the ridge tops, where steep slopes, bedrock or lithosol soils are prevalent. How many towers or strings of towers require overhead collector cables? The DEIS does explain the higher bird mortality caused by guy wires associated with meteorological towers. These cables are smaller than transmission lines, making them more likely to cause bird mortalities. WDFW would like to see more complete details regarding the number of towers planned with overhead cable collectors and an estimate for the associated bird mortality.

In review of other wind farms locations and configurations, especially where raptors are prevalent, developers used a setback configuration along ridge lines. The intent for the setback appeared to be for the purpose of avoiding the highly utilized updraft areas (used by raptors) associated with geographic ridges and ridge lines. WDFW recommends an appropriate setback configuration along Yakima and Benton County ridge lines to avoid a higher mortality rate on raptors or other birds using these natural updraft areas. The specific setback distance for each string of towers proposed along the ridge line may vary, but should depend on observations made during pre project surveys and the best available information from other wind farms. The DEIS did not contain enough information for WDFW to comment in more detail on specific tower locations or string configurations.

WDFW does prefer, that wherever possible, to site towers or string of towers on existing agricultural land rather than on shrub steppe or lithosol soil habitats.

Land Use and Recreation

A number of sections within the DEIS discuss Land Use and Recreational impacts. We will summarize our general and specific comments here.

The DEIS lacks any reference to the WDFW Wildlife Area within the study area. The Wildlife area is more than three sections of public land (Sections 9, 14, 15, and 22, Range 25 East, Township 10 North) only one mile south of Section 33 between Rothrock Road and Pearl Road. Public uses include but are not limited to, hunting, photography, horseback riding, hiking, and wildlife viewing. Additionally, the Department of Natural Resource (DNR) sections within the study area are open to the same uses as the Wildlife areas. Regardless of agricultural leases, as long as there is public access to DNR sections, public recreation is allowed. The DEIS doesn't recognize or evaluate any of these public access issues. There should be a full impact analysis for these public lands.

The DEIS states that the Arid Lands Ecology (ALE) managers don't allow general public access therefore the project would not be affected by the wind project (page 3-8). The United States Fish & Wildlife Service (USFWS) is likely to weigh in on this issue, but we also have some comments because the obvious omission of future management options for ALE reflects other Land Use errors (i.e., WDFW Wildlife areas and DNR land use) referenced within the documents. ALE is a National Monument because of its numerous and unique values to the people of the United States. The USFWS is undertaking a public review process on how to manage the ALE reserve in the future. One of the key issues is how much public access to allow. Another key issue regarding wildlife management is the elk herd. WDFW supports public access on ALE in order to manage the elk herd size. This is our preferred option to transporting the animals or other suggested methods to reduce the herd size over time. Therefore, the ALE land adjacent to the Maiden Wind Project, may be open to public access in the future. The DEIS does not evaluate any land use or any other type of impact under the assumption of future public access on ALE. WDFW believes these potential impacts need to be evaluated.

Shrub Steppe, Grasslands, and Lithosol Soils

The shrub steppe habitat within the project area has unique qualities. Shrub steppe is very fragile, and especially fragile on southern exposed slopes, in the driest climate within its Washington range. The DEIS states that the permanent loss of shrub steppe is only 57.5 acres. The temporary loss is identified as 174.4 acres. Only 12.2 and 50.9 acres of lithosol soils are lost permanently and temporarily respectively, within the project scope. Once disturbed both of these types of habitats are difficult to replace, especially lithosol. Lithosol dependent plants have unique qualities obtained only in this type of environment. Replacement is not a likely option. Again, the nature of our dry climate on the Rattlesnake Hills in Benton County makes recovery

Sarah Branum, BPA
May 17, 2002
Page 4

almost impossible on any short term basis. Any reference to temporary disturbance, removal, or loss, should be categorized as permanent. The length of the project proposal is only 20 years. The length for full recovery of a shrub steppe community within the project area is more than 60 years.

The grassland-steppe component recovery period is much less. Yet, it is an important component of wildlife habitat that needs to be restored whenever disturbed.

While the DEIS identifies the Environmental Consequences and provides means to avoid most of the potential environmental risks associated with the proposed project, it also itemizes impacts which cannot be avoided. We believe that the project will contribute to an increased level of habitat fragmentation and a reduction in available shrub-steppe vegetation for wildlife habitat.

Unmitigated impacts include the area of the habitat which will be lost through construction of roads, improved roads, staging areas, substations, wetlands, water crossing structures, riparian corridors, and well as other cumulative impacts. While it is relatively easy to estimate the acreage of impacted habitats, cumulative impacts and disturbance associated with the projects are more difficult to assess.

The DEIS indicates that the road disturbance associated with the preferred alternative will result in 44.5 miles of new road or more than 161 acres of habitat disturbance. It is not clear in the DEIS about the amount of additional vegetation or shrub-steppe impacts associated with improving and widening 10.3 miles of existing roads. Thus, the combined total loss of shrub steppe is 231.9 acres. The combined total loss of lithosol soil habitats is 63.1 acres.

It appears that the total direct loss of shrub-steppe habitats will be greater than 230 acres. Direct loss may be reduced if restoration and revegetation work is implemented in the project area. Additional impact to wildlife which is likely to result from implementation of the preferred alternative includes, the lineal distribution of noxious weeds, wildlife displacement, and some loss of ecological connectivity due to habitat fragmentation.

WDFW's mitigation policy is to seek greater than 1:1 mitigation ratios for impacts or direct loss of fish and wildlife habitat. Three to one (3:1) ratios are typically used. A 3:1 to 5:1 mitigation ratio is valid for shrub-steppe due to: 1) difficulty in restoring habitats in arid environments; 2) length of time to restore a climax community (20-30+ years for sagebrush); 3) fragmentation impacts beyond those of direct habitats lost by roads, towers etc. (e.g., transmission line built through a remnant block of shrub-steppe reduces the ecological connectivity and functionality of the whole block even though most habitat is not directly disturbed).

Sarah Branum, BPA
May 17, 2002
Page 5

With consideration of expected cumulative impacts it appears that the preferred alternative will conservatively require acquisition or protection of a minimum of 690 to 1,150 acres of shrub-steppe habitat to mitigate for impacts which cannot be avoided. The lithosol soil habitat is so unique that replacement ratios have never been explored. Restoration is unlikely, and replacement of such a large segment may be difficult to find. We recommend greater than a 5 to 1 ratio (if even possible) to replace disturbed lithosol habitat. WDFW would also like to see mitigation that addresses restoration or replacement of a continuous plant community that includes all three, shrub steppe, grassland-steppe, and lithosol habitats.

It is difficult to evaluate impacts and develop suitable mitigation through a piecemeal approach whereby each project is considered individually and not in context with all BPA's proposals in south central and south eastern Washington. Independent biological assessments of the environmental impacts of multiple projects in shrub-steppe habitat often do not fully assess the combined cumulative effects on the landscape.

Conservation Reserve Program (CRP)

The DEIS states that 100 acres of CRP will be lost due to project footprint impacts. The purpose of CRP was to balance soil, water, and wildlife resource needs. These coequal factors were to ensure that only the most environmentally sensitive lands were enrolled. The formula for eligibility has wildlife values equal to the other two. WDFW's preference is to replace this lost CRP function at a 3 to 1 ratio on other disturbed agricultural land, not land already enrolled in CRP. Replacement on grasslands or existing grazed areas is not acceptable unless the ratio is much higher.

Use of CRP lands for the purpose of providing mitigation for lost shrub steppe or grassland-steppe must use variable replacement ratios to account for habitat quality and the functions actually provided. CRP acreage that is enhanced and used for mitigation credits must be removed from the CRP enrollment and dedicated as mitigation for the life of the project.

Wildlife Impacts

The evaluation of project impact to birds covers a large portion of this DEIS. The intent of the DEIS is not necessarily to address why the sensitive bird populations are at a critical stage. There is some reference to the fragmentation of shrub steppe habitat and how the shrub steppe obligate species populations are on the decline due to increased fragmentation. We concur and also view this project as furthering the fragmentation of shrub steppe and leading to further decline in sensitive bird populations in the project area.

The WDFW Ferruginous Hawk Recovery Plan discusses spatial and temporal buffers around nest areas that are based on human activity unrelated to wind turbines. Wind turbine farms were never considered in this recovery plan. In order to help meet species recovery goals, WDFW strongly recommends buffers around any of the identified Ferruginous Hawk nests to be a minimum of 1.1 kilometers. The juvenile hawks that fledge on these territories would be highly vulnerable to turbine mortality and electrocution (depending on tower and configuration). The 1.1 kilometer buffer also would allow the adult hawks to forage at a safer distance within their range from the nest.

We do not support creation of artificial nest site for ferruginous hawk mitigation. Avoiding disturbance near the nest sites is our preference. If species recovery goals are met, there should be an increase in ferruginous hawk populations around the existing nest sites. WDFW doesn't believe that the DEIS adequately addresses the potential for a significant increase in the ferruginous hawk population over time.

On page 3-34, the DEIS states that no western sage grouse have been documented in the study area and they are unlikely to occur. Sage grouse has been documented on ALE land, even after the fire of 2000. The large continuous parcel of shrub steppe on ALE and on and near the Maiden Wind project site is valuable habitat necessary for sage grouse recovery. It's likely that they will be present in the future if they are not already.

The exposure index comparison should be evaluated on like kind projects. It doesn't appear that other wind plants have the 2.0 Mw towers that stand 390 feet. Even if the blade is higher off the ground, it still rotates at a much higher height and is likely to affect bird flight patterns to a greater degree. The development trend is to build with the higher output towers (i.e., 2.0 Mw). Even though the DEIS states the developer will use variable tower sizes, the assumption for a full build out is a much greater total of 390 foot towers than any other wind plant that this project is being compared to. The resulting effect, is a higher mortality rate on birds.

Monitoring

In general, WDFW agrees with the continuation of pre-project avian impact monitoring, monitoring during construction, and post construction monitoring. The specific monitoring study design needs to target and adapt to the more sensitive species needs. We prefer to reach an agreement with either BPA, Benton County, or the developer on compensatory mitigation before final approval of the entire project, rather than continue to fund post construction studies that do not have a chance of altering operations or result in avoidance of avian mortality. The scientific information gathered will be useful in certain forums, throughout the life of the project, but

unless there are serious operational concessions, WDFW prefers a more beneficial use for these types of funds.

We don't believe that monitoring or data gathering is a mitigative action. This should be a requirement upon the developer throughout the life of the project.

Unmitigated Impacts

It is assumed that other proposed projects associated with wind power, transmission lines, substations, and gas turbine power plants identified in the DEIS, will also require some mitigation. We strongly advocate the development of a comprehensive mitigation banking plan which consolidates necessary mitigation for all proposed projects. Scientific literature indicates that shrub-steppe habitat owes a great deal of its functionality to large, contiguous blocks, and mitigation banking is a valid means of mitigating for loss of shrub-steppe vegetation. Mitigation from each proposed project could be banked to secure large blocks of relatively intact shrub-steppe habitat. The mitigation banking effort could be coordinated through BPA's existing Fish and Wildlife programs.

WDFW would like the proponent to recognize the potential for direct loss from project impacts on raptors (up to nine fatalities/year), including golden eagle fatalities at one per year, ferruginous Hawk fatalities at one per year, bat fatalities at more than 400 per year, and impacts on passerines (estimated mortality up to 1,565 birds per year). The shrub steppe obligate passerines, the loggerhead shrike, the sage thrasher, and the sage sparrow, are all Washington candidate species for listing as threatened or endangered species. The mitigation alternatives for these direct losses are listed below in order of preference.

- 1) Avoidance
- 2) Large scale off site mitigation banking that preserves the habitat which will lead to recovery of the Threatened and Endangered (T&E) and sensitive species and prevent further listing of other shrub steppe obligate species..
- 3) A monetary fee per tower per year over the life of the project of \$125. The funds will be used to improve, preserve, or purchase an appropriate local wildlife habitat, that is impacted from the Maiden Wind Project.

Cumulative Impacts

Sarah Branum, BPA
May 17, 2002
Page 8

WDFW does not concur with the conclusion of insignificant cumulative impacts on loss to vegetation, land use, or wildlife. The Maiden Wind DEIS, on page 3-139, states, "The proposed project is the only known wind energy development planned in the Rattlesnake Hills." Another BPA DEIS, drafted for the McNary - John Day Transmission Line Project identifies another wind plant (Ice Wind) is planned in the Rattlesnake Hills immediately south of Maiden Wind. Additionally, other developers have discussed options to build immediately south of Prosser, and almost on every ridge top in Benton County where the wind resource could support a wind farm. Other wind project feasibility studies for siting in Kittitas County, Yakima County, Grant County, Walla Walla County, and more, are under way.

We don't believe that this document addresses cumulative impacts nor cumulative mitigation options accurately. In addition to the absence of the projects referenced above, total impacts from the identified projects on page 3-139 to -140, are inaccurate in all three categories, land use, recreation, and wildlife. There is a potential for over 2,000 wind turbines just on the Rattlesnake and Horse Heaven Hills based on current wind farm applications or feasibility studies. This figure doesn't even include the existing Stateline Wind Farm in nearby Walla Walla County. The cumulative impact evaluations are incomplete and not enough information is provided to accurately assess the total project impacts. The result of a lack of information is that it keeps the environmental impact estimates lower on the Maiden Wind Project.

It is for the stated reasons above that WDFW reemphasizes the need to approach evaluation of wildlife and shrub steppe impacts from this projects and all other BPA projects with a programmatic strategy. The benefits to Benton County and Yakima County natural resources, and other southeast Washington resources could be compounded with a large scale shrub steppe mitigation banking program.

Sarah Branum, BPA
May 17, 2002
Page 9

Thank you for the opportunity to provide these comments. We look forward to meeting with you regarding mitigation opportunities and development of a comprehensive mitigation plan. If you have any questions, please contact me at (509) 545-2014.

Sincerely,



Paul E. LaRiviere
Area Habitat Biologist
larivpel@dfw.wa.gov

cc: SEPA Coordinator, WDFW
Clausing, WDFW, Region 3
WDFW Wind Power Group
Lower Columbia Basin Audubon Society
Richland Rod and Gun Club
Shuttleworth, Benton County Planning
Hughes, USFWS, Richland
Kurz, USFWS, Ephrata
Yakima County Planning
Yakima Valley Audubon Society



United States Department of the Interior
U.S. Fish & Wildlife Service

Hanford Reach National Monument
 Saddle Mountain National Wildlife Refuge
 3250 Port of Benton Boulevard
 Richland, Washington 99352
 Phone: (509) 371-1801 Fax: (509) 375-0196



FWS-02-122

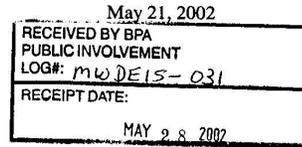
Mr. Tom Osborn
 Bonneville Power Administration
 911 N.E. 11th Avenue
 Portland, OR 97212

SUBJECT: Comments on Maiden Wind Farm Draft Environmental Impact Statement (EIS),
 DOE/EIS-0333

Dear Mr. Osborn:

The Hanford Reach National Monument/Saddle Mountain National Wildlife Refuge (Monument) is nationally recognized for its natural and cultural resources and vast landscapes. The area is a haven for important and increasingly scarce objects of natural and historic interest. Bisected by the free-flowing Hanford Reach of the Columbia River, the monument contains the largest remnant of the shrub-steppe ecosystem that once blanketed the Columbia River Basin. The proposed Maiden Wind Farm project is located immediately adjacent to the Monument's Fitzner-Eberhardt Arid Lands Ecology Reserve (ALE) Unit, and currently, much of ALE is considered within the effected area of the project. This project may potentially affect the ability of the management of the Monument/Refuge to protect the objects of natural and historic interest preserved within the Monument. Please consider the following comments during the preparation of your final Environmental Impact Statement (EIS).

1. The majority of the issues related to construction that are of concern to the Hanford Reach National Monument will be addressed in the proposed "Site Management Plan (SMP)". The Monument would like the opportunity to comment on the SMP and the Noxious Weed Control Plan.
2. **Section 3.2.3.3, 3.2.4.2:** The Recreation Affected Environment and Impacts section of the draft EIS provide an incomplete characterization of the ALE. The Department of Energy historically administered the ALE as an area closed to public uses with the exception of approved research, Native American traditional uses, and environmental education purposes. The administrative transfer of the ALE to the Service in 1997, and designation of the area as a National Monument in 2000, signals a blossoming change in management direction from the past era of secrecy and defense security. Currently the Service maintains historical management of the ALE while preparing to initiate a Comprehensive



Conservation Plan and Environmental Impact Statement for the Monument. The CCP/EIS will consider a range of public uses that may take place across the Monument. Preliminary issue scoping for the CCP/EIS indicates a strong interest from the Hanford Reach Federal Advisory Committee and other stakeholders in continuing to manage the ALE as a Research Natural Area, with increased opportunities for environmental education. Thus, while this area now receives limited public use which is focused on environmental education, it is reasonable to expect that in the future, these uses may be expanded at this new National Monument. The spectacular vistas afforded from the Rattlesnake Mountain crest are regionally unique, and the viewshed from the Rattlesnake crest would be significantly impacted by the proposed project.

3. **Section 3.3.4 Impacts of the Proposed Action, Noxious Weeds:** The text indicates several negative impacts from non-native plant invasion through a bulleted list. It should also be indicated that non-native plants may also cause changes in fire frequency and intensity. This should be added to the bulleted list of negative impacts.
4. **Section 3.4.3.1 Special Status Species:** Pygmy Rabbit have historically occurred on the National Monument. The Monument may be critical in the recovery and re-introduction of this species.
5. **Section 3.4.3.3 Bats:** Field surveys for bats should be conducted prior to construction. A minimum of two years of post-construction bat surveys and mortality documentation should be conducted to evaluate impacts.
6. **Section 3.4.4.3 Operation Impacts, Mitigation:** Post-construction study of impacts to Ferruginous hawks should be conducted. Potential impacts to Ferruginous hawks nesting on the Hanford Reach National Monument are of concern. We suggest further study using radio-telemetry to examine impacts and potential displacement of nesting Ferruginous hawks post-construction. Study specific to Ferruginous hawks would be in addition to post-construction monitoring of general avian impacts.

The construction of the wind power facility in this area, combined with the construction of the Bonneville Power Administration, Shultz-Hanford Transmission line may impact the ability of Sage Grouse to naturally expand from the Department of Defense, Yakima Training Center (YTC) to the Hanford Reach National Monument. These facilities restrict the area of connectivity between the YTC and the Monument. Post-construction study of sage grouse use in the area should be conducted to determine if these facilities are preventing the grouse from using the Monument area. Alternatively, focused attention to mitigation/enhancement of habitat conditions in the interstitial areas between the Monument and YTC should be conducted to facilitate grouse expansion.

One year of post-construction monitoring is inadequate to assess impacts. A minimum of two years of monitoring and mortality documentation should be conducted to account for inter-annual variation. Each year the potential impacts to birds and bats could be affected by climate, weather conditions, and other factors.

7. **Section 3.5.3, Visual Resources:** The regionally unique landscape views afforded from the Hanford Reach National Monument's Rattlesnake Mountain crest are not addressed in the draft EIS. Please see comments on Section 3.2.3.3, 3.2.4.2 above. The draft EIS should include an evaluation and simulation of visual impacts from observation points along the Rattlesnake Mountain crest.
8. **Section 3.17.3:** The estimated 1425 bird strike mortalities would be *in addition* to any other anthropogenic causes of mortality. The argument that other causes, such as collision with communications towers, vehicles, building, etc., would cause higher mortality than those caused by the wind turbines, makes no sense, because the other sources of mortality would still exist, and the wind turbines add to those existing mortalities. This is essentially 1425 mortalities that would not have otherwise occurred. This does significantly contribute to the large number of avian mortalities that are caused by all anthropogenic sources in the area.
9. **Cultural Resources:** Because the Cultural Resource (CR) technical report was either not completed or not attached, little specific data other than a list of "features" and "isolates" is included in the draft EIS and it is very non-descript information. What is the connection of these features? How many of these are sites? The very first step in a cultural resource survey is to locate, record and evaluate the cultural resources within a project. It is difficult to ascertain from this document whether this step has been done. The comment that the resources recorded ".....will be formally recorded as archaeological "sites" or "isolates" as appropriate....." suggests that additional work may be in process but still is incomplete or not included here.

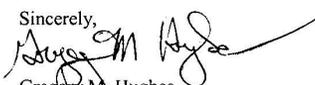
We recognize that locational information is withheld purposely but other details such as site, or perhaps in this case "feature", size, characteristic (rock cairns being historic, prehistoric, hunting blinds, burials etc) relationship to the Area of Potential Effect (APE) and so on is absent. More importantly, there is no site evaluation for National Register of Historic Places significance, perhaps because the actual "sites" are still unknown. This is the critical determination to be made in order to complete an appropriate environmental document. The impacts of the project are directly linked to the eligibility of the sites. i.e. sites eligible for the National Register are the "historic properties" to be considered under 36 CFR 800 guidelines.

The information presented under 3.6 Cultural Resources is rather confusing and disjointed. The chapter lacks necessary information and cohesion of what is presented. The regional background under 3.6.3.1 is sparse and relatively generic with the exception of the Anderson Ranch. This discussion on the other hand, is good background information but seems out of place where it was inserted. Relating it to the project in the beginning, as is done briefly in the third paragraph of page 3-77, would be more helpful.

The Impacts section 3.64 is premature without the site details as mentioned. The comment regarding " any impact to cultural resources is considered a high impact." is inappropriate and does not follow the 36 CFR 800 guidelines for the CR compliance procedures. The rest of the paragraph merely cites language from the regulation and tells us nothing about the CR in this project. The involvement of the Tribes and other Native American groups is commendable but I hope the text regarding the traditional cultural properties has been authorized by the appropriate tribal entities.

The heading "Mitigation" is confusing as it has no section number. We assume it only references the mitigation for construction. However, the next two subheadings 3.6.4.3 and .4 incorporate mitigation within them. The idea of the cultural resource mitigation monitoring plan is useful but seems to be a larger scope, agency CR management type plan that would take time to develop. Certainly many of the specifics for inadvertent discovery, points of contact etc. could be written into the construction contracts without having what sounds like a formal "plan" being adopted.

Thank you for carefully considering these issues in your plans for the development of the Maiden Wind Project. If you have questions we would be happy to meet with you to discuss our concerns in greater detail. I can be reached at (509) 371-1801.

Sincerely,

Gregory M. Hughes
Project Leader

cc:
Kevin Clarke, DOE
Mark Miller, USFWS
Don Voros, USFWS
Dana Ward, DOE



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10
1200 Sixth Avenue
Seattle, WA 98101

RECEIVED BY PUBLIC INVOLVEMENT LOG#: MWDEIS-032
RECEIPT DATE: JUN 10 2002

2

Reply To
Attn Of: ECO-088

2002 9 - NIT

01-047-BPA

Thank you for the opportunity to comment on the draft. If you have any questions you may call me at (206) 553-6911, or Val Varney, (206) 553-1901.

Sarah Branum
BPA, KC-4
P.O. Box 3621
Portland, OR 97208-3621

Sincerely,


Judith Leckrone Lee, Manager
Geographic Unit

Dear Ms. Branum:

The Environmental Protection Agency (EPA) has reviewed the draft environmental impact statement (EIS) for the **Maiden Wind Farm**. Our review was conducted according to our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA). Section 309 of the CAA directs the EPA to review and comment in writing on the environmental impacts of any major federal action.

Based upon our review, EPA has no significant concerns with the project and has rated it LO, Lack of Objection. EPA's earlier comments in a scoping letter including a description of existing conditions, environmental consequences, tribal consultation and tower design and avian mortality have been satisfactorily answered.

Washington Winds, Inc., the developer, plans to build and operate up to 494 megawatts (MW) of wind generation on mostly private farm and ranch land, and two sections of public land in Benton and Yakima Counties in southeast Washington. The project is located 10 miles northeast of Sunnyside in the Rattlesnake Hills on 251 acres of land. Depending on turbine height (300 to 390 feet), the number to be built range from 247 to 549 tubular steel turbines, mounted on reinforced concrete foundations.

Power from the turbines would be collected by an underground and overhead cable system, then fed to one or two proposed substations. Power would then be transmitted to one of three existing BPA transmission lines that transect the site. Other required facilities at the site include small pad-mounted transformers located at the base of each turbine tower, access roads, and two or three operation and maintenance buildings. The project is scheduled to be built the summer of 2002 and be operational the winter of 2002-2003.



**Confederated Tribes and Bands
Of the Yakama Nation** **Established by the
Treaty of June 9, 1855**

RECEIVED BY BPA PUBLIC INVOLVEMENT LOG#: MWDEIS-033
RECEIPT DATE: AUG 15 2002

August 7, 2002

Steve Wright
Administrator
Bonneville Power Administration
905 NE 11th Ave.
Portland, OR 97232

Re: Wind Farm Development within the Ceded Lands of the Yakama Nation

Dear Mr. Wright:

Thank you for the opportunity to provide comments on the Maiden Wind Farms proposed development. This proposed wind farm is located within the Ceded Area of the Yakama Nation as identified in the Treaty of 1855 between the Yakama Nation and the U. S. Government. In the Treaty of 1855 the Yakama Nation allowed non-Yakama settlement within the Ceded Area, but retained certain very important rights. Among the retained rights are those relating to the cultural and spiritual practices of the Yakama People. When activities or developments are proposed that may affect the practice of these retained rights in the Ceded Area, the Yakama Nation becomes strongly concerned.

Recently there have been a large number of wind farm development proposals in the Ceded Area of the Yakama Nation. Locations of many of these proposed wind farms lie upon sacred ridges and mountains that recount the creation of the Yakama people. Yakama oral history describes how the proposed location of the Maiden Wind Farm was used by the Yakama people to explain the origin of different weather conditions and served as a dividing line between the north and south. Ancient Yakama trails traverse the Rattlesnake Hills and were used in the seasonal hunting, fishing, and gathering of foods. The remnants of these trails are still clearly visible from different vantage points and extend northward from the Rattlesnake Hills to the Columbia River. Archaeological Resources present at Maiden Wind Farm include burials, Cairns, talus pits, quarries, and hunting and gathering camps.

The Yakama Nation is particularly concerned that the regional effects of these wind farms on flora and fauna have not been adequately studied. A recent review of Bonneville Power Administration New Transmission and Generation Project Maps indicate that the Yakama Nation could soon be completely encircled by wind power farms. Our fear is that this will significantly change the existing flight paths of migratory birds that return annually to the Yakama Reservation. These birds have a spiritual value for the Yakama people and have been part of Yakama culture from its creation. Should these migratory birds fail to return to the Yakama Reservation the Bonneville Power Administration would abrogate its trust responsibility to Article 3 of (12 Stat 951) by actively preventing the hunting of game upon the reserved lands of the Yakama Nation. A second concern of the Yakama Nation is the affect these wind power farms will have upon important foods and medicines. Little has been said by the BPA on the longevity of these wind power developments. In a recent site visit to the Maiden Wind Farm project area by representatives of the Yakama Nation it was observed that this project area had an abundance of traditional foods that would be destroyed should wind turbines be constructed upon them. There is currently little research to show how much time is required for these plants to re-establish themselves on disturbed lithosols. Whether these foods become locally extinct remains an open question. BPA would

August 7, 2002

again abrogate its trust responsibility to the Yakama Nation should it actively prevent the Yakama Nation from the gathering of its traditional foods and medicines upon its ceded lands.

Presently the Yakama Nation is being asked to review several wind power proposals. These proposals are treated independent of each other, with only the local impacts of the projects being considered. As more and more wind farm projects are implemented in the future the cultural and natural resource impacts predicted for each individual project may greatly underestimate the combined impacts of many projects. Because of this the Yakama Nation will oppose all wind power projects as directed by Tribal Council Resolution T-129-95-06 passed on July 11, 1995; including the Maiden Farms proposal, until a regional approach to planning, impact assessment, and mitigation is completed.

The Yakama Nation feels that wind power can be an important source of clean energy for the region, especially if it can be used to lessen the burden now placed upon hydropower. We are asking that BPA and the wind power project proponents assist the Yakama Nation and other appropriate agencies in the development of this regional planning effort. A well-constructed plan will facilitate wind power projects in appropriate areas, protect and enhance the cultural and natural resources of the Region, and assist in cost-effective mitigation for those impacts, which cannot be avoided.

I would like to arrange a meeting between my staff and yours to begin the dialog leading to this regional planning effort. Please contact the Yakama Nation's Deputy Director of Natural Resources, Carroll Palmer, to confirm a meeting date and agenda. Carroll's phone number is (509) 865-5121. From the number of wind power proposals generated in the past year, it seems that this effort cannot begin too soon.

Thank you again for the opportunity to present our views. I look forward to a mutually productive planning effort regarding the development of this very important resource.

Sincerely,


Robert N. Wahpat
Chairman
Yakama Nation Tribal Council


Virgil Lewis, Sr.
Chairman; Roads, Irrigation and Land Committee
Yakama Nation Tribal Council

cc: Sonya Tetnowski, BPA Tribal and Public Affairs Manager
Tom Osborn, BPA
Jeff Koenings, WDFW
Tim Cullinan, Audubon
Betsy Bloomfield, TNC

POST OFFICE BOX 151, FORT ROAD, TOPPENISH, WA 98948
(509) 865-5121

Branum, Sarah T - KEC-4

From: Paul Boynton [boynton@u.washington.edu]
Sent: Wednesday, July 17, 2002 1:34 PM
To: stbranum@bpa.gov
Cc: rdnewman@uci.edu; roy.gephart@pnl.gov
Subject: Maiden wind farm impact study

Follow Up Flag: Follow up
Due By: Friday, July 19, 2002 5:00 PM
Flag Status: Flagged

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG#: MWDEIS-034
RECEIPT DATE:
SEP 03 2002



WASHINGTON STATE DEPARTMENT OF
Natural Resources

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG#: MWDEIS-035
RECEIPT DATE:
SEP 03 2002

July 10, 2002

Sarah T. Branum
Environmental Specialist – KEC-4
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Terry A. Marden, Director
Benton County Planning/Building Department
P. O. Box 910
Prosser, WA 99350

RE: Washington Winds/Maiden Wind Farm Proposal
Draft NEPA/SEPA Environmental Impact Statement DOE//EIS;
DNS and Request for Comments on Scope of EIS. File No. EA 01-28;
Conditional Use Permit 01-11/9A 01-28

Dear Ms. Branum and Mr. Marden:

Washington State Department of Natural Resources (DNR) supports the Maiden Wind Farm Proposal as a viable power source. DNR is currently working with the applicant to lease portions of state owned lands located in Sections 16 and 36, Township 11, Range 24 East W. M. These two sections could be incorporated into the overall wind farm project and are included in the environmental reviews in process.

DNR's lease agreement will address issues, such as site reclamation, weed control, rights of way, road construction and use, wildfire prevention and planning, among other site specific issues. Since the DNR parcels are a portion of the overall wind project, the departments plan is to have the SEPA process for state lands conducted through the county; with Benton County acting as Lead Agency on this action.

Thank you for the opportunity to comment on this proposal.

Sincerely,

Milton D. Johnston
Assistant Region Manager
Southeast Region

c: Rick S. Koebbe, Washington Winds

Dear Ms. Branum

Thank you for informing Roy Gephart of Dr. Robert Schofield's draft report "Seismic Measurements at the Stateline Wind Project."

We expected a study that would fulfill BPA's intention to determine the possible impacts of the proposed Maiden Wind Farm on BOTH the LIGO Hanford and our facility, the Battelle Gravitation Physics Laboratory (BGPL - mistakenly referred to as BGRO in the DEIS). Completion of that study would comply with the statement made in Ch. 3 (page 106) of the DEIS:
". . . further studies will be conducted in consultation with the facilities [LIGO and BGPL] to determine whether operation of the proposed project would disrupt the research facilities . . ."

Upon reading the report, we find that Dr. Schofield's methodology was constructed to investigate exclusively the impact on LIGO operations, and bears only indirectly on possible impacts on our research. Some major differences between the two facilities are:

1. The ambient seismic background at our facility is measurably quieter than at LIGO and is more strongly coupled to the basalt substructure that also extends below the proposed wind farm.
2. Our facility is significantly closer to the location of the proposed farm than LIGO.
3. We are susceptible to broadband and narrowband noise, not just narrowband noise (as is the case with LIGO).

We look forward to being consulted by BPA regarding a second study that focuses upon our unique seismic noise issues. This is critical to our multi-year physics research programs and would fulfill the BPA commitment to study the potential "Moderate to High" (page S-7) impact of the Maiden Wind Farm on the BGRO and LIGO facilities.

Sincerely,

Paul Boynton Riley Newman
Professor of Physics Professor of Physics
University of Washington University of California Irvine
206-543-8967 949-824-7209