August 10, 2008

Bonneville Power Administration
Public Affairs – DKC-7
P.O. Box 14428
Portland, OR 97293-4428

Re: Cascade Wind Project

To Whom It May Concern:

After reading the proponents application and doing extensive internet research on protocols for siting and monitoring the impacts of wind turbines on birds and other issues associated with industrial wind sites, I've decided that, for the reasons stated below, it isn't possible to write specific comments that would have a chance of altering the path this proponent has taken. It appears to be simply a matter of industry choosing a site.

The only thing green about wind power is the money the industry has used to buy the boards of the environmental organizations in this country and to pave the way to the corporate subsidies through the halls of Congress. There are no mandatory siting criteria for any kind of studies. It simply appears to be what the industry chooses to do, when they choose to do it, and how they choose to do it. They have control over hiring the biologists. Biologists who more than likely have a vested interest in continued employment with the industry to conduct surveys with outcomes that benefit both themselves and the industry. The industry has control over access to the site and monitoring bird kills. The public is barred from access or independent studies. Industry controls the turbine studies and the public is expected to believe their claims that this or that turbine has more or less bird kills. What do you think the outcome of the studies will be? The only oversight afforded the public would be the USFWS and the State Wildlife agencies, who answer to people (politicians) whose positions depend on the financial support of the industry. There are no protections for government employees who go against industry or their politically appointed superiors, as we've recently seen with the U.S. Attorney General firings—an area one should reasonably be able to presume would ethically and morally be beyond political manipulation. There is no independent assessment of this industry and the claims they make. There are no checks and balances.

Because of the amount of tax money available for these projects, there are basically no limits or restrictions. They can and will build wherever the wind blows. In the White Salmon Enterprise on August 9, 2007, Klickitat County Commissioner, Don Struck, boasted that Klickitat County (which is directly across the river from where this project is located) "…initially put a ceiling of 1,000 MW of operating project in the county (speaking of the energy overlay zone for wind

power)…we're almost at that 1,000 MW ceiling now, and we'll hold workshops to see where it's going." This is 1,000 megawatts of wind power located directly across the river in the same flyway. BPA currently has a proposal before it for another 75 MWs of wind generation from the Saddleback Mountain Project proposed for somewhere in the Underwood, Washington area. This project is located directly across from Hood River, Oregon, and borders and may actually continue in to Klickitat County. I understand that a meeting will take place between BPA, Skamania County and the proponents sometime this month and then the exact location will be made public.

From 1998 to 2006 Hawk Watch International records significant decline in raptor species passing through their migration sites across the United States. It could be extrapolated that the wind industry has something to do with this decline. I suspect we will follow the same example as the dams, in that although the industry and fish and wildlife agencies knew all along that the turbines were killing significant numbers of fish; that information was not passed on to the public until recovery may very well be beyond reach.

This area is located between two sites of a handful of sites that Hawk Watch International has determined to be the most significant migratory flyways in the U.S., the Bonney Butte Site and the Chelan Ridge Site. Each of these points covers what is known to be a specific flight line of the Pacific Flyway. Through the use of satellite-tracked raptors, Hawk Watch has observed that there appears to be flight-line shifts between two major flyways. It is known that birds use ridges, land formations and waterways to navigate. Evidence points to birds leaving the flight-line that passes over Chelan Ridge and down through the Great Basin, and crossing over to the Bonney Butte or Cascade flight-line. From documents that are available through internet search, I quote: "We suspected that a logical diversion path for migrants would be to veer west through the Blue and Wallowa Mountains and over to the Cascades, with Mt. Hood as a navigation target." As a lay person, it appears to me, that those birds would most likely use the Columbia River and its associated ridges as a path to the Bonney Butte flight-line. These birds would pass directly over the turbines that would jut up from the highest ridges, cutting a six mile swatch through their flight-line, giving this site a potential for significantly high bird kills.

Little is known about these flight-line shifts for passerines or bats. Since most birds follow the same migratory patterns, common sense would lead one to believe that they would also be affected.

All of the information I found on bat habitat, bat migration, bats and wind turbines…etc., refers to bats being most numerous and being the most threatened by wind turbines when they are on forest edges and ridges. This site contains numerous, diverse forest types culminating at or very near the turbines sites, along the ridges. Again, common sense would lead one to believe one could expect unusually high bat mortality at this site.

Much of the bird information relied on by the wind power companies on both sides of the Columbia River in the Columbia Gorge was collected by the Columbia Gorge Audubon Society. Several of the individuals that collectively form Pacific Northwest Biological Consultants (an organization UPC has hired to conduct surveys) were members of the Columbia Gorge Audubon Society and were involved in collecting and compiling data with the organization, others attended field trips or events but were not actually members. I was an active member of the Columbia Gorge Audubon Society prior to and during the time that many of Audubon's bird studies were done, to include breeding bird surveys, Christmas Bird Counts, and field trips. Because of the way the data was collected, handled, compiled, and included or excised, I believe that any and all of the information compiled is unreliable, incomplete and/or tainted. Independent, surveys need to be done by people whose interest in the resource is greater than their future employment. I have personally observed a roost of over 30 Turkey Vultures at the north edge of Maryhill State Park that was not documented. On one trip traveling a back road from Willow Creek (west of Arlington, OR) to Wasco, Oregon, I observed eight Golden Eagles sitting on fence posts, rocks, etc. They were observed by others but not documented. I observed over 1000 Vaux's Swifts flying into the chimney at the Lyle Middle School. This observation was left out of the documentation. I have observed Ferruginous Hawks on several occasions on or near Hoctor Road in East Klickitat County (have pictures of two together) they were not included in the documentation. I observed a Burrowing Owl on a spur road on Davenport property off of Hoctor Road that was left out of the documentation. How many other people's personal observations were simply left out?

From my observations, it appears that the wildlife and avian resources of the Columbia Gorge were not inventoried until it was in the interest of the wind power industry to collect data in a way that suited their needs.

Because of the high number of projects proposed for the area, the potentially biased and inadequate wildlife and avian studies, and the lack of both diurnal and nocturnal migratory bird and bat surveys in a recognized significant migratory flyway, the entire Columbia Gorge Scenic area needs to have independent, through surveys of wildlife and avian species and the cumulative impacts of these projects on those species needs to be assessed.

There is certainly evidence that these turbines within close proximity of dwellings cause significant health risks. Yet this project is being proposed in an area where approximately 400 homes are within a distances that some countries have imposed limits (France and England) for building.

Congress has designated this area a "National Scenic Area." When the hearings were held and the boundaries were drawn, an attempt was made to preserve the "scenic values" of the Columbia Gorge. Four hundred foot (plus or minus) towers

with rotating blades, located just outside the boundaries, but towering over and disfiguring the view shed was not what Congress intended. No one could have foreseen the potential threats to the gorge from industrial wind power during the Congressional proceedings in the early 80s. Applicable agencies and the public are currently engaged in efforts to ascertain visible air pollutants that originate outside the Scenic Area boundaries that affect the air quality of the scenic area. It would seem that visual pollution from wind turbines is no different. These industrial facilities will mar the view of approximately 40 miles of the Columbia Gorge National Scenic Area. They will dominate the view of several key viewing areas. If industrial wind turbines are allowed to be built on this site, it will pave the way for turbines all along the Washington side of the Gorge where Klickitat County has established an energy overlay zone, favoring the development of power facilities. If industrial wind farms are permitted to mar an area designated for scenic values, how will we protect any other value from them?

It is ironic that this proposal is being located overlooking one of the most significant documented continuous human settlements of the North American continent. As the salmon were the blood cells running through the heart of the earth, we are now attempting to puncture the lungs in our non-sustaining quest to reach loftier heights.

Because there appear to be no rules or standards by which to judge this project other than reason, I would appeal to you to deny this project be sited in this area because of the close proximity to human dwellings; because of the high likelihood of bird and bat mortality; and because of the scenic value of the area to future generations.

Sincerely,

Bonnie White

August 10, 2006

Bonneville Power Administration
Public Affairs – DKC-7
P.O. Box 14428
Portland, OR 97293-4428

Re: Cascade Wind Project, Wasco County, Oregon

The following comments were submitted to Adam Bless of the Oregon Department of Energy regarding this projects potential impacts on birds and other wildlife species and our assertion of the inadequacies of surveys, studies, etc., to determine those impacts. We would add here that under the National Environmental Policy Act, BPA is required to consider cumulative impacts of past, present, and reasonably foreseeable future wind energy projects in the region, especially along the Columbia River, on wildlife and other natural resources.

To conserve resources the exhibits are referenced only and not provided as attachments herein. They can all be found on the internet and copies have been made available to the Oregon Department of Energy.

Comments from the Columbia Gorge Audubon Society

The Columbia Gorge Audubon Society is a non profit organization registered in 1989 with the state of Washington. The society has conducted numerous field trips and bird surveys including Christmas bird counts on and near the proposed project site. Members of our organization live near the proposed site. The Audubon Society's comments pertain to Exhibit P.

P.2

The application states that changes have been made in the proposed project facilities since the initial concept in 2006 and that wildlife/habitat surveys remain to be completed for areas potentially impacted under the changes. Presumably these surveys would entail the full range of temporal periods as were the surveys for the project area which remains unchanged. How can the public review and comment on an application to predict a reasonable assessment of wildlife risk and fatalities when an incomplete application has been submitted?

P.2.2

The applicant states that no "habitat category 1" (P.2.l.l) and only that a minuscule amount of "habitat category 2" exists in the proposed project area. CGAS disagrees: Habitat impacted by the project area and support facilities will involve a mosaic of Oregon White Oak habitats: oak woodland, oak prairie, oak savannah, and oak riparian area. These areas are rare and exist in a diminishing state in Oregon. They singly and

collectively provide habitat for a unique assemblage of animal species, particularly birds. (See Exhibit 1 attached.) This is born out by the large diversity of animal species, including seventeen "special status" species that turned up under the applicant's own surveys. No other Oregon terrestrial wildlife habitat is more diverse (some 300 species) and home to resident and seasonal wildlife, than oak habitats.

At least six pileated woodpeckers were documented in the project area during the point counts. Pileated woodpeckers are dependent on specific habitat features that may be considered "irreplaceable." While the document states "The pileated woodpecker appears to be at low level of risk due to limited occurrence on the project," the level of occurrence with the type, number, and location of the surveys that were conducted appears to be quite high. Page P27, of the report, sums up the inadequacy of the surveys that were conducted. P.E.l.7, paragraph 4 states: "Three additional avian species that were not previously recorded on point counts were detected during the May and June 2004 morning surveys of turbines and construction zones in forested and grassland habitat. Cassin's vireo and pine siskin were observed in the forested patches; savannah sparrow was detected in grassland habitat.... Also, sign of pileated woodpecker use was noted on four snags near proposed turbines 21 through 23 and 28 through 30) maps to be prepared in Spring of 2007). There is likely a pileated family group or two in this area. " How many more species would be found with a proper amount of point counts and other survey techniques located off the roads in the various habitat types?

P.3

Bat fatalities at wind power sites have reached a level of national concern. On May 2, 2007, the Congressional Subcommittee on Fisheries, Wildlife, and Oceans, held an oversight hearing: Gone with the Wind: " Impacts of Wind Turbines on Birds and Bats." The National Academy of Science questioned the wind industries claims of no significant impacts to birds and bats from wind turbines. Thousands of bats, mostly migratory species, are being killed at some sites. The cumulative impacts are starting to mount. See Exhibits 3, 4, and 5 attached.)

Numerous bat species are presumed to be present at this project site, based on the geographic and ecological characteristics of the site. Most importantly three migratory species, the hoary, silver-haired, and western red bat are present as resident and migrants (migrants potentially use the site for pass over, resting and feeding.) The development site is characterized by forested ridges, indicative of bat migratory routes of these species.

A document entitled "Bats and Wind Turbines, Pre-siting and pre-construction survey protocols," dated May 2006, which is attached to these comments as Exhibit 2, states: "Over 90% of bat mortalities currently recorded at wind energy developments involve migratory species." The same document recommends methods for surveying and states "At a minimum, bat activity during the entire month of August should be measured; because silver-haired bat have been shown to move through an area later than hoary bats, if possible, the first two weeks of September should also be monitored. They also recommend that when using AnaBat microphones, they should be placed at least 30 m above ground. Placement of the AnaBat detectors should be at each proposed turbine location, or when more than 5 turbines are proposed, positioning at least one AnaBat detector at each of the north, east, south, and west peripheries of the proposed area, and

one in the centre is recommended. The proponent's bat surveys consist of four sample nights conducted between the dates of September 4 through 12, 2005, by what appears to be hand-held AnaBat detectors. The application also states that "Surveys were conducted May 21 through July 20. From this information it cannot be determined if all of the habitat types were sampled or if proper surveys were done, but again, the surveys were stopped before the critical migration month of August.

No migratory surveys (nocturnal or diurnal) were done to determine occurrence of migrating bats. The bat survey protocols, both in scope and methodology, used to determine bat occurrence on or near the proposed development site are inadequate to predict an assessment of bat risk and fatalities. (See Exhibit 2 attached.)

Birds, particularly raptors and nocturnally migrating passerines (song birds) are vulnerable to collision with wind turbines. Recent information suggests that the new generation of much larger turbines, with the larger spatial configuration and greater blade-tip speeds may pose an even greater risk to birds than the older, smaller turbines.

As with bat migration, bird migrations follow land forms such as the ridge of the Seven Mile site and large bodies of water, such as the Columbia River. Hawk Watch International has documented that the area along the east side of Mt. Hood is a raptor migration route. Hawk Watch has a raptor observation site at Bonney Butte, just southwest of the proposed project sight. The applicant states that survey methods used were similar to surveys used at eastern wind energy sites. The land features and occurring habitats are quite dissimilar between the respective areas. Survey methods should have been used to reflect this. The survey methods involved only 6 survey points along existing road ways for a proposed project 6-8 miles in length. Given the diversity of habitats and variable land features, this method is inadequate to determine numbers and composition of avian species using the site. No nocturnal or adequate diurnal migratory surveys for birds were done. Migratory birds would use the Seven Mile site and adjacent areas for resting and feeding as part of the habitat requirements of their lifecycles. Birds exhibit "funneling" in their migrations, particularly when there are low cloud ceiling. At an open house meeting in The Dalles on May, 23, 2007, a biologist who spoke on behalf of the applicant said that no studies were done to determine bird activity within the sweep of the turbine blades.

From a cursory literature search on owl survey protocol, it appears as though protocol for different species of owls would differ. This area is prime owl habitat and no (migratory, breeding, wintering) surveys were conducted. The occurrence of the Northern Spotted Owl , a federally listed species, cannot be ruled out based on absence of optimal habitat conditions alone. This species has been reported in habitats that do exist on Seven Mile Hill. The Burrowing Owl does not appear on Table P.2 of special status animal species of known or potential occurrence in the general Cascade Wind Project Study Area. This is a serious omission both because this owl is listed as a "sensitive-critical" Oregon species and because optimum habitat—open grassland, prairie and farmland occurs in the project site and general area.

This site is located between two sites that Hawk Watch International has deemed to be major migratory flyways, the Bonney Butte, Oregon, site and the Chelan Ridge, Washington, site. A cursory examination of data posted on their website shows a

significant decline in raptor numbers passing through all of their locations from their data collection periods of 1998 to 2006. While in their document, "Fall 2006 Raptor Migration Studies at Chelan Ridge, Washington," (Exhibit 9, attached) points to drought as a possible factor in this decline, a reasonable person would ask what role placing wind turbines in migratory pathways has to do with these declines. This decline accentuates the importance of siting turbines outside of migratory flyways.

This area is located between two sites of a handful of sites that Hawk Watch International has determined to be the most significant migratory flyways in the U.S., the Bonney Butte Site and the Chelan Ridge Site. Each of these Hawk Watch sites intersects what is known to be a specific flight-line of the Pacific Flyway. Through the use of satellite-tracked raptors, Hawk Watch has observed that there appears to be flight-line shifts between these two major flight-lines. It is documented that birds use ridges, land formations and waterways to navigate. Evidence points to birds leaving the flight-line that passes over Chelan Ridge and down through the Great Basin, and crossing over to the Bonney Butte flight-line. From documents provided as Attachment 9, I quote: "We have now recorded three instances of migrants being caught at both Chelan Ridge and at HWI's Bonney Butte migration site farther south in the Cascades of northern Oregon, and several of HWI's satellite-tracked raptors have passed near both sites. Thus we know that the two sites are connected for many migrants that move within the Pacific Coast Flyway and generally winter in California."… "We suspected that a logical diversion path for migrants moving south through eastern Washington and northern Idaho to use to avoid the parched Great basin would be to veer west through the Blue and Wallowa Mountains and over to the cascades, with Mt. Hood as a navigation target. This would result in those migrants intersecting the Cascades just north of Bonney Butte, and might explain the high counts at Bonney Butte despite low counts farther north in the Washington Cascades." These migrating birds would most likely use the Columbia River and its associated ridges as an east/west path from the Chelan Ridge flight-line to the Bonney Butte flight-line, putting this project, directly in their line of flight, and giving this site a potential for significantly higher bird kills.

The inadequacy of the bird surveys is particularly born out by the failure of the biologists who did the surveys to observe five" Special Status" species, three passerine species: Olive-sided flycatcher, Willow flycatcher, and yellow-breasted chat and two species of woodpeckers: White-headed and Acorn. These species would be expected, including breeding populations, in the habitats occurring on the proposed development site. Breeding populations of Olive-sided flycatchers would be particularly expected as the area experienced a wild fire in 2002. Burned areas are favored by this species for breeding sites. (See exhibits 10, 11, 12.)

Line transect surveys were not done at this site. A line transect is a form of distance sampling which, if assumptions are met, can be used to provide density estimates. The most important assumptions are that transects are placed randomly with respect to habitat, that distance is accurately estimated, and that all birds very close to the transect are detected. Line transects were not used in the surveys so information on bird population densities is missing and therefore predictions of risk and fatalities for birds cannot be property assessed.

To be effective, point counts must be placed in well-chosen locations and performed at the appropriate time of day in appropriate weather conditions. Point counts may be chosen either randomly or systematically within the target habitats. Point counts should not be located along roadways, as they appear to be in this study. Every major habitat type within the project area (pine forest, hardwood forest, scrub, grassland, field, etc.) likely to support significant numbers of breeding birds should be included. One of the studies attached states: "at least 20 stations are normally required to sample a habitat adequately, spaced at least 250m apart in forest, or 500m apart in open habitat. These stations may be distributed among several different blocks of habitat. " It appears as if the proponents conveniently spaced sites along the roadway. These habitats would all be disturbed "roadway" habitat, whether it is pine forest, oak woodland, grassland, etc.) The proponents of this project did six point count stations with a 600m radius (making point count centers 1200 meters apart) over a six-eight mile turbine reach of the turbine arrays.

For wind farms that may affect sensitive bird populations or their habitats, a rigorous environmental assessment should be done. The applicant has failed in this regard. The bird surveys done for the Cascade Wind Project are inadequate in both their scope and methodology to predict the risk and fatalities to birds. See Exhibits 6, 7, 8, and 9.

Respectfully submitted:

David Thies
President
Columbia Gorge Audubon Society

Exhibit List:

Exhibit 1: Quercus garryana, Gucker, Corey L., 2007, Quercus garryana. In: Fire Effects Information System, (Online). U.S. Department of Agriculture, Forest Service, Rocky Mountain research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/[2007,May20].

Exhibit 2: Bats and Wind Turbines. Pre-siting and pre-construction survey protocols, May 2006. Cori Lausen, Erin Baerwald, Jeff Gruver, and Robert Barclay, University of Calgary. This document has been reviewed and endorsed by the Alberta Bat Action Team (http://www3.gov.ab.ca/srd/fw/bats/ABAT.html), and is an Appendix to the following: Bats in Alberta. Alberta Sustainable Resource Development, Fish and Wildlife Division, Edmonton, Alberta. Revised 2005.

Exhibit 3: Bat Conservation International , Written Statement of Edward B. Arnett, Conservation Scientist, Bat Conservation International, Oversight Hearing on "gone with the Wind: Impact of Wind Turbines on Birds and Bats" Before the Subcommittee on Fisheries, Wildlife, and Oceans, U.S. House of Representatives Committee on Natural Resources, 1 May 2007.

Exhibit 4: "Researchers Alarmed by Bat Deaths from Wind Turbines," by Justin Blum, Washington Post Staff Writer, Saturday, January 1, 2005; Page A01— http://www.washingtonpost.com/wp-dyn/articles/A39941-2004Dec31.html.

Exhibit 5: Birds, Bats and Wind Industry Boondoggle, Huliq: Beaking News, http://www.huliq.com/21060/irds-bats-and-wind-indusry-boondoggle.

Exhibit 6: USFWS, Department of Interior, Interim Guidelines to Avoid and Mimize Wildlife Impacts from Wind Turbines, with cover letter from the Deputy Director to Regional Directors of Regions 1-7, dated May 13, 2003.
Exhibit 7: Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds, Final July 28, 2006, Environment Canada, Canadian Wildlife Service.

Exhibit 8: USDA Forest Service, General Technical Report PSW-GTR-144-Web, http://www.fs.fed.us/psw/publications/documents/gtr-144/00-08,

Exhibit 9: Fall 2006 raptor Migration Studies at Chelan Ridge, Washington. Report prepared by Jeff P. Smith and Mike C. Neal, HawkWatch International, Inc., Salt Lake City, Utah, March, 2007. Project Cooperators: HawkWatch International, Inc., Principal Investigator: Dr. Jeff P. Smith and Okanogan and Wenatchee National Forests, Methow Valley Ranger District, Principal Investigator: Kent Woodruff.

Exhibit 10: 2000 Lyle Christmas Bird Count, Sunday, Dec. 17th, 2000, compiled by Bob Hansen, http://community.gorge.net/birding/001cbc.htm

Exhibit 11: "Birds in Forested Landscapes," Olive-sided Flycatcher, http://www.birds.cornell.edu/bfl/speciesaccts/olsfly.html

Exhibit 12: Columbia Gorge National Scenic Area Bird Checklist as of March, 2007, http://www.gorgeecology.org/CRGNSA%20Bird%20Checklist%20March%202007.htm