

BEFORE THE STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Application No. 2006-02  
**Desert Claim Wind Power Project**

**EXHIBIT 16**  
**PREFILED DIRECT TESTIMONY**  
**DAVID P. YOUNG, JR.**

**Q. Please state your name and address.**

**A.** David P. Young, Jr. My business address is Western EcoSystems Technology, Inc.  
(WEST), 2003 Central Avenue, Cheyenne, WY 82001.

**Q. What is WEST?**

**A.** WEST is an environmental consulting firm built on a core of wildlife and statistical expertise. WEST has broad experience in basic and applied ecological studies and the sophisticated analysis of natural resource data. WEST was established in 1990 and has worked within the wind industry since 1994. We have worked for all interests in the industry including project developers, project owner/operators, utilities, state and federal agencies, construction companies, and non-governmental organizations. Our experience in the wind industry ranges from early stage site assessments and site characterization studies, to baseline studies, post-construction

1 monitoring, specialty studies such as wetland delineations and rare plant surveys,  
2 threatened and endangered species surveys, permitting studies, impact assessments,  
3 habitat conservation plans, wildlife incident reporting plans, and research studies.  
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5 We have worked on over 300 wind projects in more than 30 states.  
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11 **Q. What is your position?**

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13 **A.** Senior Project Manager/Wildlife Biologist  
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17 **Q. What topics will your written testimony address?**

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19 **A.** My testimony will describe my background and experience, and then discuss the  
20 vegetation and wildlife impacts expected from the construction and operation of the  
21 Desert Claim Wind Project (the "Project").  
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27 **Background and Experience**

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29 **Q. Briefly describe your educational background.**

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31 **A.** I obtained an M.S. in Zoology from University of Georgia and obtained an  
32 undergraduate degree (B.A.) from Earlham College.  
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37 **Q. Please briefly describe your professional experience.**

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39 **A.** Prior to 1991, my work experience was primarily academic and research oriented. I  
40 was a research biologist at both Earlham College and the University of Georgia  
41 while in school and spent a year as a field biologist at the Savannah River Ecology  
42 Lab.  
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1 In 1991, I went to work for Wildlife International Ltd. as a field supervisor  
2 conducting large scale research studies on the effects of pesticides on non-target  
3 wildlife species. In 1992, I came to work for WEST Inc. as a Research  
4 Biologist/Project Manager. My experience at WEST includes wildlife surveys,  
5 threatened and endangered species studies, and compliance studies for federal  
6 regulations such as the Endangered Species Act and National Environmental Policy  
7 Act. I have been studying the interaction of wind turbines and wildlife since 1995  
8 and have been involved in all aspects of environmental study of wind projects from  
9 early site assessments through post-construction monitoring and mitigation studies.  
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21 A copy of my curriculum vitae is attached as **Exhibit 16.1**.  
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25 **Q. Have you testified or served as an expert on wind power projects before?**

26 **A.** Yes. I have testified as an expert witness for the Mount Storm Wind project in West  
27 Virginia on the pre-project baselines studies, agency involvement, and how permit  
28 conditions were met. I have also counseled various County Planning Commissions  
29 and Industrial Siting Councils on wind power impacts to vegetation, wildlife, and  
30 habitat for projects in Colorado, Wyoming, and Oregon.  
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39 **Scope of Analysis**

40 **Q. What were you asked to do in connection with the Desert Claim Project?**

41 **A.** I was retained to identify and describe the existing conditions and potential impacts  
42 to vegetation and wildlife expected to result from the construction and operation of  
43 the Project and evaluate cumulative impacts from wind projects in the area.  
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3 **Q. At Tab 5 of the Revised Application for Site Certification (Exhibit 1) is a**  
4 **document entitled “Update on Vegetation and Wildlife Impacts from the New**  
5 **Desert Claim Project Area.” What is that document?**  
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9 **A.** This is one of the reports we prepared in connection with the Project. It describes the  
10 analysis we performed and the conclusions we reached regarding the revised Project.  
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15 **Q. Will you please summarize your overall conclusions?**  
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17 **A.** We conclude that the Project will not result in significant adverse effects on  
18 vegetation, birds, bats or other wildlife, and further that the potential cumulative  
19 effects of the Project and other wind projects that have been built, permitted, or  
20 proposed in the region will not be significant.  
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27 **Impacts on Vegetation**  
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29 **Q. Please describe the existing vegetation in the Project Area.**  
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31 **A.** The revised Project Area is approximately 5,200 acres, and includes a combination  
32 of private property and land leased from the Department of Natural Resources.  
33 Consistent with the 2003 *Washington Fish and Wildlife (WDFW) Wind Power*  
34 *Guidelines*, **Exhibit 16.2**, and the 2009 *WDFW Wind Power Guidelines* §§ 1.2 and  
35 1.3, **Exhibit 16.3**, and in connection with the County’s Final Environmental Impact  
36 Statement, **Exhibit 3**, we mapped the vegetation in the original Project area  
37 according to vegetation types characterized by the dominant plants in 2003. We  
38 updated this mapping in fall 2006 and again in fall 2008 to address changes in the  
39 Project Area. The Project site is predominantly grassland, with shrub-steppe  
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1 covering about one third of the Project site. More details about the vegetation are  
2 provided in our report.  
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7 **Q. You mentioned the 2003 and 2009 WDFW Guidelines. Do you have an**  
8 **understanding about which guidelines the WDFW intends to apply to the Desert**  
9 **Claim Project?**  
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12 **A.** Yes. Based on meetings I have had with WDFW staff, I understand that the agency  
13 intends that the new Guidelines that the agency finalized in April 2009 are to be  
14 prospective. In other words, for projects under development such as Desert Claim,  
15 the 2003 Guidelines would apply to pre-project assessment work that has already  
16 been performed, but that the agency intends that the new 2009 Guidelines would  
17 apply as the Project moves forward through the construction, operational monitoring,  
18 and mitigation phases.  
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28 **Q. Will the Project have a significant impact on vegetation?**  
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30 **A.** No. We estimate that the Project will permanently impact about 87 acres of  
31 vegetation and temporarily disturb an additional 230 acres. I understand that Desert  
32 Claim intends to provide compensatory mitigation for these impacts and is in  
33 discussions with WDFW about this mitigation.  
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#### 41 Impacts on Birds

42 **Q. Did you evaluate the Project's likely impact on raptors?**  
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44 **A.** Yes. As described in more detail in our report, we conducted avian use surveys and  
45 a raptor nest survey consistent with the 2003 *WDFW Wind Power Guidelines* and the  
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1 2009 *WDFW Wind Power Guidelines* §§ 1.4 and 1.5 to determine the extent of raptor  
2 use of the Project Site. We also evaluated the data available from 11 operating  
3 projects in Washington and Oregon and used this data to estimate the expected  
4 impacts from the Desert Claim Project on raptors.  
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10 **Q. What did you conclude about the Project's impacts to raptors?**  
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12 **A.** Using a per-megawatt (MW) raptor mortality rate determined from the other  
13 monitoring studies of projects in the region, we concluded that the Desert Claim  
14 Project might result in raptor mortality ranging from 0 to 29 birds per year. Taking  
15 into account the estimated raptor use of the Project Area, we conservatively  
16 estimated that the Project might result in up to 23 raptor fatalities a year. Of those,  
17 we expect about half to be American kestrels and half to be red-tailed hawks.  
18 We concluded that this number of fatalities is not significant relative to the size of  
19 the species' populations. For example, there are more than 7,000 breeding red tailed  
20 hawks in the Columbia Plateau ecoregion, and we estimated that the Project would  
21 result in approximately 12 red-tailed hawk fatalities. Given that this fatality rate is  
22 only 0.17% of the Columbia Plateau red-tail hawk population, the background  
23 fatality estimates for red-tails is between 20-30% annually, and that some of the  
24 fatalities would likely be of non-Columbia Plateau birds, the effects of the Project  
25 are expected to be minimal.  
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42 We also used the same data to conservatively estimate the potential raptor fatalities  
43 that could occur if all of the wind projects that are currently operating, are permitted,  
44 or even proposed in the region, went into operation. We concluded that even the  
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1 total number of fatalities estimated under this scenario would not be significant  
2 relative to the regional population size of these species. This cumulative analysis is  
3 presented in **Exhibit 16.4** (*Final Report: Avian and Bat Cumulative Impacts*  
4 *Associated with Wind Energy Development in the Columbia Plateau Ecoregion of*  
5 *Eastern Washington and Oregon*), and is discussed in the Draft Supplemental  
6 Environmental Impact Statement, **Exhibit 4**.  
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15 **Q. Did you evaluate the potential impacts of the Project on bald eagles?**

16 **A.** Yes. During the avian studies, we determined that bald eagles are likely to occur in  
17 the Project Site during the winter season, but potential impacts are not expected to be  
18 significant. Any mortality that might occur over the Project life would be at a low  
19 level and would not have a measurable impact on the bald eagle population. Existing  
20 information from the annual Ellensburg Christmas Bird count suggests that the  
21 number of wintering bald eagles in the Ellensburg area is increasing. Operation of  
22 the Project should have minimal disturbance effect on the bald eagle population,  
23 based primarily on their relatively low use of the Project area and the fact that the  
24 bald eagle occupation period overlaps the least windy time of year. In addition, no  
25 impacts to bald eagles have been reported from monitoring studies of other wind  
26 projects throughout the United States, indicating that this species is apparently at  
27 lower risk than other species of raptors.  
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42 **Q. In WDFW's comments to the Draft Supplemental Environmental Impact**  
43 **Statement, WDFW suggests that the Project site has higher concentrations of**  
44 **bald eagles as compared to other wind power projects and that we should**  
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1 **expect a higher chance of bald eagle mortality associated with this Project.**

2 **What is your response?**

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5 A. During the baseline studies for Desert Claim, bald eagles were recorded in the  
6 Project area during the winter and early spring months. Thirteen bald eagles were  
7 observed during the avian use surveys which was approximately 8% of all the raptor  
8 observations and ranked bald eagle 5<sup>th</sup> among 9 raptor species observed during the  
9 study. The majority of the bald eagles were observed during the winter and a few  
10 were observed in early spring; no bald eagles were observed in the summer or fall.  
11 When compared to other wind resource areas in the Pacific Northwest where similar  
12 studies have been conducted, the number of bald eagles at the Project site is very  
13 similar. To standardize survey results for comparisons among sites, “use” estimates  
14 are calculated as the number of individuals of a species per 20-minute survey. Bald  
15 eagle use estimates for 23 wind resource areas in the Columbia Plateau Ecoregion  
16 ranged from 0 to 0.05 birds/20-minute survey. Bald eagle use at the Project site was  
17 0.04 and the difference in use estimates with the other sites was very small. In  
18 general, based on the study results and the results of monitoring studies throughout  
19 the United States, we would not expect the chance of bald eagle mortality associated  
20 with the Project to be any different from that at other wind projects. In addition, risk  
21 to bald eagles at Desert Claim is primarily confined to only the winter season.  
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40 **Q. Did you estimate the Project’s impact on other bird species?**

41 A. Yes. As described in more detail in our report, we conducted avian use surveys  
42 consistent with the 2003 *WDFW Wind Power Guidelines* and the 2009 *WDFW Wind*  
43 *Power Guidelines* § 1.5 to determine the extent of other bird species’ use of the  
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1 Project Site. We also used data from the 11 operating projects in Washington and  
2 Oregon to evaluate impacts to other bird species.  
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7 **Q. What did you conclude?**

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9 **A.** Avian mortality rates at the wind projects in the region ranged from 0.9 to 3.2  
10 fatalities per MW, with a mean fatality rate of 2.1 per MW. Using this range, we  
11 estimated avian mortality at the Project would be between 171 and 608 birds per  
12 year. Passerines compose more than 70% of total avian mortality at wind-energy  
13 projects. Considering the large population sizes of the commonly impacted  
14 passerines in the region, we concluded that these impacts would not be significant.  
15 As with raptors, we also considered the potential bird fatalities associated with all of  
16 the wind projects operating, permitted, or proposed in the region and concluded that  
17 even the total number of bird fatalities is insignificant relative to the regional  
18 population size of the species. Details of this analysis are provided in **Exhibit 16.4**.  
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31 **Q. Will the Project have a significant impact on threatened or endangered birds?**

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33 **A.** No. Based on a review of federal and state lists of threatened and endangered bird  
34 species, as well as on avian use surveys conducted in 2002 at the Project Site, there  
35 are currently no state or federally threatened or endangered bird species potentially  
36 occurring or expected to occur in the project area.  
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42 **Impacts on Bats**

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45 **Q. Did you evaluate the Project's potential impact on bats?**  
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1 A. Yes. As with avian impacts, in order to determine the Project's potential impact on  
2 bat populations, we evaluated the data available from other wind projects. Our  
3 report discusses that data in detail. We did not conduct bat surveys when we  
4 conducted our other baseline studies in 2002-2003 because available data from  
5 monitoring studies in Washington and Oregon did not suggest bats were at high risk,  
6 and the 2003 version of the *WDFW Wind Guidelines* applicable at the time did not  
7 recommend pre-project bat surveys.  
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16 **Q. What did you conclude?**

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18 A. Based on fatality estimates from other regional wind projects, bat mortality at the  
19 Project is expected to range between 76 and 475 bats per year. Most of these  
20 fatalities are expected to be hoary and silver-haired bats. To the best of our  
21 knowledge, it appears that hoary bat and silver-haired bat populations are large and  
22 likely stable. Therefore, we determined that the Project's impacts would not be  
23 significant to the total bat population. We also considered the potential bat fatalities  
24 associated with all of the wind projects operating, permitted, or proposed in the  
25 region and concluded that even the cumulative number of fatalities would likely be  
26 insignificant.  
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#### 39 **Impacts on Other Wildlife**

40 **Q. Will the Project have a significant impact on any other wildlife?**

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42 A. No. In our report, we discuss potential impacts to other wildlife, including big game,  
43 small mammals, reptiles, and amphibians. We conclude that the Project will not  
44 have a significant impact on these species.  
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**Q. Does that conclude your testimony at this time?**

**A. Yes.**