

**NOTES | Tuesday, 9/18/2007**

**Altamont Pass Wind Resource Area Scientific Review Committee  
Conference Call**

Prepared by the Center for Collaborative Policy  
Reviewed & Approved by the SRC 10/16/2007

**Agenda Items**

AWI Black Blade Painting Study Sample Size  
Updates:  
American Kestrel and Burrowing Owl Study  
Settling Parties Meeting

**Action Items**

**SRC Consideration of AWI Black Blade Painting Study Sample Size**

**Related Materials**

[AWI Draft Black Blade Study Plan 8-21-07 \(P47\)](#)

[P57 Julie Yee: Power Analysis to Determine Sample Size for Blade Painting Study, 9/16/07](#)

Julie Yee presented the power analysis completed to assist in determining the appropriate sample size for the blade painting study. She presented power results for several different combinations of test and control turbine sample sizes. The data suggested that sufficient power to detect a 50% reduction would be achieved with a sample size of 135 control and 170 painted turbines, which is consistent with the AWI proposal.

SRC members supported this sample size if they will be able to detect the 50% reduction with an acceptable degree of confidence. Julie clarified that if there's only a 25-30% reduction, the SRC may not be able to detect the reduction with high confidence, but might observe the reduction to potentially be in that range. Bill Damon, from AWI, reminded all that AWI determined a 25% reduction in fatalities for focal species in its preliminary analysis of turbines that AWI has already painted, based on WRRS data.

Julie clarified that the sample would be able to detect a 50% reduction, except for Golden Eagles.

**Public Comment**

One person questioned the meaning of over-dispersion. Julie Yee clarified that over-dispersion has to do with how much variance there is in reality, as represented by the data, as it compares to theoretical Poisson distributions on which the power analyses are based. Of the various levels of over-dispersions that were presented (1.0, 1.5, and 2.0), Julie felt that the 1.5 level is most realistic based on over-dispersion levels she observed in the data.

A monitoring team member asked if the SRC might want to compare painted blades that feather to those that lock down. The SRC agreed that it would need to test some of the ideas related to lock down, but because the blade painting proposal being reviewed by the SRC does not include a shut-

down of turbines, the effect of feathering – which occurs when turbines are shut down – could not be tested as part of the blade painting study.

### **SRC Discussion Continued**

**Facilitator Proposal:** Would you implement the study with 135 Control and 170 Painted?

The question addresses the specific issue of sample size. However, there was some additional discussion regarding other related issues that would contribute to a decision regarding approval of the blade painting study. These include: 1) the long-term application of the study results related to new-generation turbines; and 2) the winter shut-down exemption.

Members generally supported the sample size of 135 control and 170 painted turbines. However, it was agreed that Julie would conduct two additional analyses to evaluate the effects of the sample size: 1) power analysis assuming a 4-month winter shutdown; and 2) power analysis combining the four focal species. Thus, a final decision on sample size was postponed until these additional analyses were conducted.

Additional discussion in response to the facilitator's question included the following: One member was in favor of going forward with the study as a starting point. A second member, while interested in analyzing the effects of blade painting, questioned the long-term applicability of the blade painting study as a result of future repowering of the Altamont with larger new-generation turbines. This member also raised the issue of the trade-off between the blade painting study and the proposed shut-down exemption, which could affect the ability of the parties to achieve a 50% reduction. The third member agreed that the long-term application may be negligible but generally supported going forward with the study. A fourth member also expressed support for going forward. This member believes that the SRC, AWI, and interested parties will learn something about the effects and is hoping that this study will contribute to achieving the 50% reduction in mortality, thereby offsetting the impact of the shut-down exemption. The fifth SRC member also supported going forward with the study. However, this member recommended that AWI should compensate for not having to do the 4-month shutdown, rather than the 2.5-month shutdown currently required, if that proves to be the case.

One SRC member mentioned the continuing confusion related to how to treat AWI since they are not a settling party. For example, does the 4-month winter shutdown apply to AWI? County Deputy Planning Director Sandra Rivera clarified this question by indicating that the shutdown recommendation applies to AWI. The County would be responsible for changing the permits to require AWI to comply with the 4-month winter shutdown. AWI had requested a three-year exemption from the winter shutdown in exchange for conducting the blade painting study. This three-year stipulation assumed a 2.5-month shutdown since the SRC had not yet issued its 4-month shutdown recommendation. Ultimately, the County is responsible for AWI's permit and the decision on whether the exemption should be granted. Sandra Rivera would welcome an SRC recommendation on the exemption if the SRC has an opinion. The SRC did not issue an opinion on this matter during the call.

### **Next Steps**

- Yee to do an additional power analysis assuming a 4-month winter shutdown by other parties
- Yee to do an additional power analysis for the combined four focal raptor species

- SRC to revisit the sample size with this new information and make a recommendation 9/24/07

## Updates

### **American Kestrel and Burrowing Owl Study**

Four team members have been able to finish the 125 turbine searches each day since Sept 24, 2007. The volunteer is working 5 days each week and may be available in the spring.

The Monitoring Team is still trying to hire one additional person and to acquire the funds to pay the volunteer. The team has found no fresh fatalities since the Sept. 24 date.

### **Settlement Parties**

The settling parties would like to ask questions of the SRC regarding statistics. The settling parties thought a meeting with the subcommittee who worked on refining the shutdown data would suffice. The SRC prefers to meet as a group with the settling parties. Since questions would likely go to the recommendation for the 4-month winter shutdown, SRC members think it only appropriate for the entire committee to be present to respond to questions since it is a SRC consensus decision.

The SRC has the following availability:

- Thurs, Morning 9/27: Joanna must end by 10:45
- Thurs, Afternoon 9/27: Joanna available after 2:00; afternoon better for Shawn and Jim; Gina unavailable.
- Fri, 9/28 Morning
- Fri, 9/28 Afternoon: Shawn prefers. Gina prefers

## Next Conference Call

9/24 Conference Call at Noon Monday to Finish Discussing the Sample Size for AWI blade painting study

## Participants

### **SRC**

Joanna Burger  
Jim Estep  
Sue Orloff  
Shawn Smallwood  
Julie Yee

### **Identified Members of Public**

John Mormon, EnXco

Bill Damon  
Julia Sorenson  
David Cleary, FPLE

### **Monitoring Team**

Brian Latta  
Dawn Larae Gable  
Brian Karas

Sandi Rivera, County of Alameda

Facilitator Gina Bartlett,  
Center for Collaborative Policy, CSUS