

NOTES | 6/29/2010 Conference Call**Altamont Pass Wind Resource Area Scientific Review Committee**

Prepared by the Center for Collaborative Policy

Reviewed and Approved by the SRC

All SRC Members Present**Discussion Topics****KB Study****Future Monitoring****Meeting Outcomes**

- SRC reconsidered their June 21 consensus agreement on KB datasheets. Three members reaffirmed the June 21 agreement that the Monitoring Report should not use the 48-Hour Search Interval (KB) Study data as the basis for small bird adjustment factors, but should discuss the KB data and its implications for small raptor fatalities. One member recommended that the Monitoring Team consider taking a mean value between the Smallwood (2007) removal rates, the Vasco Caves (Smallwood et al. 2010) removal rates, and Smallwood's estimated removal rates using the Monitoring Team's determinations of days to removal in the KB study. One member recommended that two SRC members with differing views on the issue meet in the next week to attempt to reach consensus. The Monitoring Team indicated it would follow the June 21 recommendation.
- In regards to the new approach to measuring the baseline that the SRC recommended June 14-15, SRC members confirmed the new baseline would be October 1, 2005 to September 30, 2008, with no analysis or adjustments needed for the 500 turbines added to the sample size during that period. They agreed the Monitoring Team would develop estimates for both permitted capacity and installed capacity during the baseline period.

Action Items

Party	Due Date	Action
Julie Yee	7/21	Develop approach to adjusting proposed new baseline for winter shutdown
Monitoring Team	7/21	Develop estimates of new baseline (2005-2008 bird years) for permitted and installed capacity

Next Meeting

In-person meeting, July 28-29

KB Study**Related Documents/Web Links**[KB Datasheets.zip](#)<http://ecosystems.icfi.com/windenergy/altamontpass/default.aspx>[P154 Smallwood KB Removal Rates](#)

[M32 APWRA Draft 48-Hour Search Interval \(KB\) Study, June 2009](#)
[P171 Smallwood KB Removal Rates Follow-Up](#)

At the June 21 SRC conference call meeting, after discussion and review of data sheets with the Monitoring Team, SRC members on the call recommended that the Monitoring Team not use the KB data to generate a scavenger removal curve for small bird fatality adjustments in the Monitoring Report, and instead go back to the adjustment estimates in Smallwood 2007. After the call, an SRC member reviewed his and the Monitoring Team's data and produced a new document ([P171 Smallwood KB Removal Rates Follow-Up](#)), which recommends taking a different approach than that previously agreed upon by the SRC, of using a mean between the Smallwood (2007) removal rates, the Vasco Caves (Smallwood et al. 2010) removal rates, and Smallwood's estimated removal rates using the Monitoring Team's determinations of days to removal in the KB study (thin black line in Figure 2).

SRC and Monitoring Team Discussion

One SRC member said the new evaluation and the Monitoring Team's evaluations are similar, and the new recommendation would allow use of the KB study for the Monitoring Report. Another SRC member was pleased with the new evaluation and said it would avoid throwing away the KB data.

Doug Leslie, Monitoring Team Project Manager, said he does not view the data as being thrown away under the Monitoring Team's recommended approach. The primary objective of the report was not to devise a carcass removal curve. The Team expects to revise and produce a final report that expands on its findings and highlights issues with carcass removal trials and the fact that the efficiency of searchers has an effect. He is concerned that this new approach could be seen as very ad hoc, and could be viewed as attempting to arrive at a desired result, as the suggestions arose after the results were seen. The Team believes that other factors not addressed by the KB study, such as seasonal variation, impact carcass removal and searcher efficiency.

An SRC member said there would be value added in using the KB data, as it is locally based. Another said this was one of the reasons the SRC wanted the KB study undertaken, because they were uncomfortable with getting site-specific information and it not being used.

An SRC member concurred with the Monitoring Team that the data is not being thrown out, and was concerned about continuing to tweak the approach and trying to force a particular formula.

Another SRC member said she appreciated the additional look at the data and that the analysis might not be as sensitive as previously thought. She is concerned that the SRC had agreed they would use a survival curve approach, while the latest recommendation arises from using a logistic regression approach. The approaches have different assumptions. It's possible that the KB data is sensitive to analytical approaches. She would feel more comfortable if she was able to look at the data used in P171 and come to an understanding of why each analysis sees the data so differently, in order to consider the new approach more thoroughly. For consistency reasons, she feels comfortable with the Monitoring Report using the same adjustment rate.

Jesse Schwartz of the Monitoring Team said he has not done a formal analysis, but agrees that the sensitivity between the two analytical approaches is very significant. The Smallwood paper on Vasco Caves is great, as it shows that removal rates are affected by seasonality. The KB study did not look at that. A design could be developed that is more like the Vasco Caves/Buena Vista approach, so ambiguous data with questionable results would not be produced.

An SRC member said the removal curves are almost the same, and don't change the removal rates, so it might be best to use the KB data.

Monitoring Team members said they are concerned that the group has not come to agreement on the basic data. They can't write up an objective methods section based on the new recommended approach. The Monitoring Team ought to write about why the group is not able to come to any conclusions. There was a rigorous protocol for field determinations, but a lot of problems between the field determinations and the analytical outcomes.

One SRC member said the Team should be able to use professional judgment. SRC Member Shawn Smallwood said the studies reviewed in his 2007 report all use professional judgment.

Monitoring Team and SRC members agreed that there is great value in the KB study in the issues that have surfaced with field methods, which should be written up, and considered in future studies.

There was no public comment.

One SRC member suggested that the SRC subcommittee of Shawn Smallwood and Julie Yee could meet once more to try to resolve the differences.

One SRC member was concerned that it could take some time to figure out how to account for the first two days of KB searches, an issue raised in P171. Why delay the Monitoring Report if the curves are similar?

With no consensus developing, SRC members agreed to vote. The results:

- Three members reaffirmed the June 21 recommendation;
- One member supported the P171 recommendation; and
- One member supported having the subcommittee meet in the next few days to try to resolve the issue.

Next Steps

- The Monitoring Team affirmed it will go with the June 21 recommendation.
- The Monitoring Team will write a final KB study.

Future Monitoring

Status Update

Doug Leslie of the Monitoring Team said SRC members have provided great comments on the first draft Study Plan for Future Monitoring, and the Monitoring Team will provide an updated draft in two weeks.

Assumptions for measuring SRC-recommended baseline after September 2010

Jesse Schwartz of the Monitoring Team said from 2005 to 2009, the Monitoring Team monitored fatalities per megawatt for every turbine type in the Altamont. The approach for the new baseline would be to apply the estimates of fatalities per megawatt to the baseline installed capacity (MW) for each turbine type. He asked the SRC the following questions:

- Would baseline megawatts be represented by 2003 or 1998?
- Would the represented years be 2005-2008?
- What installed capacity configuration would represent a pre-settlement agreement timeframe?
- Would there be any issue about the added 500 turbines in 2007?

His strawman approach would be the following:

1. Winter shutdown could be ignored, as its effect does not show up on annual or three-month statistics;
2. Hazardous turbine removal could be ignored because it did not overlap with monitored sites, and therefore did not affect fatalities per megawatt;
3. The repowering effect would be captured by using fatality rates for the turbines removed prior to repowering.

It will be important to understand the kind of biases that could occur, and to look at how to adjust them.

SRC Discussion

SRC members confirmed that the new baseline represented by the current study period would be October 1, 2005 to September 30, 2008.

They did not see any issue arising from the additional 500 turbines added in 2007.

In regards to ignoring winter shutdown and hazardous turbine removal, some SRC members did not think it would be a big issue, given the lack of statistical effects seen.

Two SRC members thought it was important to look at the effects of the management actions to the extent possible. If hazardous turbine removal and winter shutdown are ignored, it would preclude developing an adjustment for these removals.

In response, an SRC member was concerned that it might take a great deal of work to investigate all the potential biases.

SRC member Julie Yee said she will look at her statistical modeling for winter shutdown and see if she can develop an approach.

The issue of a timeframe to represent baseline megawatts was more complex, given the changes that occurred on the ground during the baseline timeframe.

One SRC member suggested that an approach could be to use permitted capacity, a number that remains static through the baseline and current study periods. Other SRC members supported exploring the idea.

Monitoring team members said that approach might work. However, there would need to be a default configuration, an analysis based on turbine type and specific turbine risk.

SRC members suggested it might be possible to use CEC data to develop project by project information.

Public Comment

Emre Ergas of NextEra asked why permitted capacity data would be used.

Jesse Schwartz responded that theoretically, the fatalities are a reduction from permitted capacity, which is the permitted level of impact. An SRC member clarified that the permitted capacity would only be used for the baseline megawatt estimate.

Emre Ergas said from his perspective, it does not matter what the companies are permitted, it matters what actually existed. In the future, he wants to make sure to look at installed capacity.

In response to a question, Monitoring Team members clarified that only those decommissioned turbines that continue to have a tower are surveyed after decommissioning.

Next Steps

- Julie Yee will look at the possibility of applying her winter shutdown modeling approach to developing an adjustment for the new baseline.
- Shawn Smallwood will send CEC data to Jesse Schwartz to develop a project-by-project configuration for analyzing permitted capacity.
- Jesse Schwartz will develop installed and permitted capacity estimates

ATTENDEES

SRC

Joanna Burger
Jim Estep
Sue Orloff
Shawn Smallwood
Julie Yee

Consultants

Doug Leslie
Brian Karas
Jesse Schwartz

Identified Public

Renee Culver, NextEra
Kris Davis, Drinker Biddle
Emre Ergas, NextEra
Ryan McGraw, AWI
Joan Stewart, NextEra
Bill Warren-Hicks, Eco-Stat, Inc.

Staff

Sandra Rivera, Alameda County
Ariel Ambruster, CCP