Questions -
Draft Altamont Pass Wind Resource Area Bird Fatality Study December 2009
Date 1-11-10

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In an effort to make the upcoming SRC meeting on January 13-14 more productive we have put together a list of preliminary questions that once answered will resolve some basic inconsistencies in the draft report and better help others in understanding its results. These are only preliminary/basic questions and we would greatly appreciate as fast a turnaround as possible, before the meeting itself. We are having a difficult time understanding the report at this time. We will follow up with further questions/comments that will help the monitoring team prepare for the upcoming meeting.

Page 2-2

- Table 2-1 uses the term "2003 Bird Year". On page 2-4 the definition of "*bird year*" is given as October through September. Are we to assume that would mean the 2003 Bird Year runs from October 2003 through September 2004?
- Response: Yes

Buena Vista

- Were mortality data and MW installed/nameplate information from the repowered Buena Vista (38 MW turbines) included in the analyses? In Tables 3-3 to 3-6?
- Response: The fatality data was not included in the analyses. The megawatt capacity information was included in the analyses.

Table 3-2

- The percentages for the subgroups under the current study add up to greater than 100%.
- Response: This is a typo. Large birds should be 39%

Table 3-6

- For the All Strings Dataset/String-Level Analysis, the point estimates for the individual four focal species do not add up to the Total focal species figures listed. Which numbers are correct?
- Response: The point estimates are correct. The totals are incorrect. They are actually averages but should have been changed to totals.
- For both the All Strings Dataset/String-Level Analysis and All Strings Dataset/Operating Group-Level Analysis how is it possible that the Total focal species figure is higher than the Total raptor figure?
- Response: I'll have to check with Jesse on that one.
- It seems odd that in comparing the unadjusted and adjusted figures from Tables 3-5 to 3-6 for each of the focal species, that the scaling factor between those figures is pretty consistent between the BUOW/AMKE (small raptors) and GOEA/RTHA (large raptors). Knowing that there is a consistent difference between the searcher efficiency and carcass removal rate estimates between small and large/medium raptors, we would have expected very different scaling factors for the small versus large/medium raptors (for clarification - scaling factor is the ratio by which the unadjusted numbers in Table 3-5 get multiplied to get the figures in table 3-6). This also applies to the rates between table 3-3 and 3-4. How is this so?
- Response: You can see in the section on adjustment factors that the carcass removal rates estimated from the KB and Scavenger removal studies were both quite high relative to the Smallwood estimates, and this is at least part of the reason why the "scaling factors" seem to be more similar than expected, because the carcass removal portion of the adjustment factors was similar. Ultimately the reason for this lies in the definition of a fatality used in the KB study.

Because the definition of a carcass was so minimal, and the searchers knew where the carcasses were and tracked them every two days, many carcasses just don't disappear completely.

- Why are the error rates (-/+ figures next to the point estimates) for the current study figures not significantly (at least in proportion to the point estimate) lower for the baseline figures? We thought the current study was more tightly designed.
- Response: These are not error rates per se, but standard deviations, which describe the variability from string to string in the string-level mortality rates. We did not calculate confidence intervals for this draft in part because there wasn't time, but also because we know that they are likely to be so wide that they cease to be useful. We will include them in the next version so people can see how the more intensive sampling in the current study affected these intervals.

Figure 3-4

- Comparing your graph to the table in the Smallwood 2007 paper I notice a discrepancy. I may not be reading it correctly. The regression line in the figure 3-4 starts at a proportion of 1 at 0 days and trails off to ~.94 at 90 days. Yet in Smallwood's paper, in the Appendix, the proportion of carcasses remaining at 90 days is .88.
- Response: This graph depicts the carcass removal rate we derived from the scavenger removal study and not that of Smallwood (2007). As noted in the text, it is similar, but not identical to the rates in Smallwood (2007).

Figure 3-5, 3-6, 3-7

- Can we tie the yearly figures in these graphs to the averages in Table 3-6; i.e. can I take the GOEA mortality totals for 2005, 2006, 2007, and 2008, average them, and expect to get the value listed in Table 3-6 for Current Study? We need this in order to understand yearly analysis.
- Response: Yes

Figure 3-5, 3-6, 3-7, 3-8

- Are the years listed on the figures "Bird Years" or calendar years? It would be helpful to specify on the figures since someone could miss the note on page 2-4.
- Response: Yes

Page 4-2

- Effect of Seasonal Shutdown: When assessing mortality during the time turbines were "shut down," were the different lengths (and therefore months) of shutdown accounted for in the analysis?
- Response: No