

Review of M55

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I support the overall recommendations in this memo to the County. I suggest, however, that Table 9 be revised so that it clearly conveys the intended message. Also, the characterization of the baseline period 199-2003 could be more accurate. Specific comments follow.

Para. 1, last sentence: The permit extensions of 2005 were not based on terms of a 2007 settlement agreement. This description of events could be worded differently to prevent anyone misunderstanding the sequence of events.

Provision 1. The deadline for achieving a 50% fatality reduction was not September 2009. It was three years from the date of the agreement, which was January 11, 2007.

Provision 2. The baseline in the settlement agreement was 1,300 *raptor* fatalities per year.

Provision 5. This is not the case for AWI. See first comment above.

Page 2, para. 2: Should explain that the 1,300 value was the upper end of a range, and so should never have been used as the baseline. Smallwood and Thelander did not recommend 1,300 as a baseline.

Page 2, para. 3: This entire paragraph is vague and somewhat misleading. For example, which baseline turbines had disproportionately higher fatality rates compared to the current study? I suggest rewriting this paragraph or deleting it.

Table 1: Baseline values in the table are inaccurate. The number of turbines we monitored (those with more than the two visits during 2002-2003) was 1,526, as reported in all of my reports. It was not 1,133. The nameplate capacity was 155.7 MW, and not 121 MW. We monitored 10 turbine models, not 7. The average number of searches per string was 18.3, not 6.1. The average number of searches per MW was 8.5, not 7.3. The average search interval was 46.9 days, not 67 days. All of the values representing the baseline monitoring in this table are wrong, and some are so wrong that I believe the monitoring team combined the 2-search effort of 2002-2003 with the longer-term monitoring of 1998-2002. How else could one arrive at a 67-day search interval?

Page 3, para. 1: I disagree with most of what is written in this paragraph, which over-generalizes.

Page 4, Assumption 1: There is no scientific basis for assuming that turbine type predominantly influences fatality rates; turbine size, sure, but not turbine type. Also, turbine siting will have little to do with estimating fatality rates over the next several years, because only the Buena Vista turbines were sited to minimize bird kills.

Also, how will this approach, based on this assumption, be implemented with repowering? A major change in turbine size will occur.

Page 4, Assumption 3: I'm confused by this one.

Table 2: I question some of the numbers in this table. For example, the average turbine size for the Howdens could not have been 540 KW. There was one 750 KW "Howden", but the rest were 300 KW. Also, the Flowinds were mostly 150 KW and only a few were 250 KW, so the average of 200 was unlikely. We stopped searching the Flowinds in April 2000 because they were not functioning anymore. Fatality monitoring at most of the Flowinds ceased even earlier. The Mitsubishis were operational in 2007, but they were not monitored until 2008. Please check all these numbers.

Page 7: I could not read Eq. 1.