07/04/2006 10:11 AM

To: ashley.stephens@dse.vic.gov.au

cc:
Subject: OBP modelling

Tabled by Senator Carr, 25/5/06 Budget Estv Hearing

Hi Ashley,

The process used to determine *cumulative* annual mortality from all wind farms we modelled, entailed calculating a *mean* annual mortality rate of wind turbine collisions for the entire population of 150 birds. That rate was calculated from the mean annual survivorship/mortality calculated for each of the four geographic regions we subdivided the population into. So for cumulative effects on the species the annual number of predicted mortalities is the product of the mean mortality rate multiplied by the annual average population of 150 OBPs.

Note that the intent of our work was to assess possible cumulative effects of collisions across the species' range and the known mean population size of 150 birds in that range is an accurate reflection of real knowledge about the bird (demographic information was provided by the OBP Recovery Team). To find the number of birds that might be killed at any one wind farm such as Bald Hills, was not the intent of our work and thus the scenario for a particular site - although it contributes to the cumulative impact assessment - is simply a scenario for the purposes of modelling. It should not be construed as being anything other than a possibilty within the context of the overall cumulative modelling project.

For the pupose of the excercise, the process of finding a number of birds modelled as likely to be killed at any one wind farm within our model would be to multiply the annual mortality rate (inverse of survivorship rate in Table 4 of our report) for that site by the number of individual birds modelled as interacting with that wind farm per annum.   However, the only really meaningful way to assess potential impacts of any one wind farm is to base it on real bird utilisation data - if that can be obtained - from the particular site in question.

Hope that clarifies things.

Cheers,
Ian

<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

<?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:office:smarttags" />Ian Smales MSc

Senior Zoologist
mobile: 0427 807 935
mailto: ismales@biosisresearch.com.au

Biosis Research Pty. Ltd.
Natural and Cultural Heritage Consultants
38 Bertie Street (PO Box 489)
Port Melbourne Vic 3207
ph: (03) 9646 9499
fax: (03) 9646 9242

Ian

For Bald Hills, if I multiply (1 - 0.9999392) from table 4 by the number 15 from table 3, I get 0.000912. This means about one mortality every 1,000 years. Is this right?

Regards
Ashley

ISmales@biosisresear
ch.com.au

07/04/2006 10:52 AM

To: ashley.stephens@dse.vic.gov.au
cc:
Subject: RE: OBP modelling

Yes you've calculated correctly.

Cheers,

Ian