



Office of Environment & Heritage

Your reference: 10/17452
Our reference:
Contact: Garry Germon
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Manager, Energy Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
Sydney, NSW 2011

Attention: James Archdale

6 August 2012

Dear Mr Archdale

RE: Bodangora Wind Farm Project (10_0157)

The Office of Environment Heritage (OEH) has reviewed the exhibited Environmental Assessment for the Bodangora Wind Farm Project, and provides the following submission at Attachment A - Biodiversity for consideration by the Department of Planning and Infrastructure.

In summary OEH raise the following issues with regard to the biodiversity assessment:

- insufficient detail is provided to support the assessment of impacts on native flora and fauna;
- insufficient detail is provided with regard to avoidance measures;
- inadequate details are provided with regard to options for mitigating impacts on biodiversity;
and
- the EA does not include a detailed offset proposal.

If you have any questions regarding this matter further please contact Garry Germon on 02 6883 5338.

Yours sincerely,

PETER CHRISTIE
Coordinator, North West Region
Conservation and Regulation Division

ATTACHMENT A

BIODIVERSITY

OEH has assessed the Environmental Assessment (EA) against the NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects.

Our review of the EA has concluded that the requirements of the Department have not been met. In summary:

- a) **Avoid** - The EA does not contain sufficient detail regarding avoidance measures
- b) **Mitigate** - Mitigation measures have not been adequately detailed
- c) **Offset** - The EA does not include a sufficiently detailed Offset Strategy

Overall the EA does not contain sufficient information to support the conclusions of the impact assessment. Further details and recommendations are provided below.

1. Assessment of Impacts

Issues:

The proponent has not provided sufficient detail to support the assessment of impacts on native flora and fauna. The reliability of the assessment is uncertain and as such it is difficult to reach conclusions regarding the acceptability of impacts or the need for modification of the proposal.

Background:

There is no vegetation map that could be used to independently assess impact and avoidance. The EA suggests that "*The general extent of the woodland and remnant tress can be appreciated in Figure 2.*" Figure 2 is either Landsat imagery or aerial photography and the vegetation is not delineated. As such, no firm conclusions can be drawn as to the nature, or extent, of any impact to vegetation. If anything, Figure 2 suggests that there may be greater than the 1.32ha loss of native vegetation suggested in the EA.

The EA states that the "worse case" loss of native vegetation is 1.32ha based on 11, of 33 proposed, turbines having at least some native vegetation. Other than the limited detail provided in Appendix 4 there is no supporting material to describe this native vegetation or where on the development the impact occurs. Despite Figure 2 suggesting that infrastructure such as access tracks and underground cabling or overhead transmission lines may traverse treed areas there is no discussion regarding these impacts

The EA states that "*the NSW Wildlife Atlas was searched for threatened species previously recorded in the local area, i.e. within about 10 kilometres of the study area*" it then goes on to state that "*No threatened plants have apparently been recorded within 20 kilometres of the Study Area*". The NSW Wildlife Atlas contains 19 records of the Endangered *Zieria obcordata* (Appendix 7 of the EA) in the general Bodangora area. Known populations of *Z. obcordata* occur within 10 kilometres of the southern boundary of the development where they occur at 500m ASL on granite outcrops in undulating terrain surrounded by low hills where the dominate vegetation *Eucalyptus blakelyi* -

Brachychiton populneus - *Acacia implexa* woodland. The plants occur in crevices between boulders with a westerly to northerly aspect. Similar habitat appears to occur on the development site. It is not clear in the EA whether adequate surveys of such habitat were conducted for *Z. obcordata*.

The EA also appears to have overlooked NSW Wildlife Atlas records for Little Eagle on the development site although it acknowledges that this species is "*likely to occur in the area from time to time*". Similarly, the EA makes reference to Koala records "*to the north-west of the study area*" but, while acknowledging that food trees occur in the area, states that a lack of local records suggests it is not present. The NSW Wildlife Atlas contains a 2002 record of a Koala some 5 kilometres from the northern boundary of the development. OEH acknowledges that this development will have negligible impact on these two latter fauna species; however there is potential for impact on *Z. obcordata* should it occur on site.

Recommendation:

That the Proponent:

- include details of the site selection assessment of all infrastructure with regard to ecological considerations; and
- consider the potential for *Z. obcordata* to occur on site and conduct surveys for this species.

2. Avoidance

Issues:

The EA does not contain sufficient detail regarding avoidance measures.

Background:

The OEH acknowledges that the landscape in which this development occurs has been greatly altered by clearing and subsequent agricultural practices. However, some intrinsic biodiversity values remain that must be addressed.

The EA states that "*The development will be mitigated in those areas where there could be some native vegetation loss by minimizing the footprint of the development and micro-siting components to avoid local habitat features such as rock outcrops*" and that "*infrastructure has been located to avoid local habitat features, including creeks, high quality remnant woodland, rocky outcrops or other features which could be important to flora and fauna.*". However, Appendix 4 provides details of sites of least 4 turbines (WTG 24, 30, 34, 35) that are described as being granite knolls or granite outcrops, generally with native vegetation and/or trees. Despite suggestions in the EA that "*the importance of rocky areas in supporting native animals in rural environments should not be underestimated*" there is no discussion as to why these areas have not been avoided.

Recommendation:

That the Proponent:

- ensure that all avoidance measures implemented in finalising the location and design of the facility are provided; and
- justify the level of avoidance implemented.

3. Mitigation

Issues:

The EA does not adequately detail available options for mitigating impacts on biodiversity.

Background:

The EA includes a number of "recommendations" should there be direct impacts to habitat. Some of these recommendations (e.g. *excavated rock should be deposited nearby in a 'natural' formation to re-create rocky habitat*) contradicts other statements (e.g. *Large rock outcrops should be avoided, because they provide valuable habitat ...*). The establishment of such artificial rock outcrops is unlikely to re-create the conditions required by many smaller fauna, particularly reptiles, as they will lack the microhabitat features, such as natural fissures caused by exfoliation, required by these species.

The suggestion regarding initiation of a field survey for Superb Parrots to confirm that the area is not a breeding site is unnecessary. It is well established that the northern-most breeding sites are near Molong, some 85 kilometres to the south.

The EA proposes monitoring of bird impacts that consist simply of on-site staff recording birds found during their day to day work. Such a simplistic approach is flawed. Strikes are generally only found by chance with key species such as small bats likely to be completely missed or carcasses may be quickly removed by foxes. Monitoring programs need to be capable of detecting any changes to the population of birds and/or bats that can reasonably be attributed to the operation of the project. This may require data to be collected prior to the commencement of construction. Furthermore, the OEH maintains that monitoring is a core requirement; it should not be regarded as a mitigation measure.

Recommendation:

That the proponents explore the range of mitigation measures that would be genuinely considered for implementation at the site to mitigate any known impacts, including information on the level of success of these measures at other sites (where known).

3. Offset Proposal

Issues:

The EA does not include a detailed offset proposal. Offset commitments should be demonstrated prior to the approval of the impact.

Background:

The EA states that the "worse case" loss of native vegetation is 1.32 hectares of White Box – Yellow Box – Blakelys Red Gum Woodland. Other than what is alluded to in Appendix 4, there is no detail concerning where the impact may occur and certainly no breakdown of the area of impact in each instance. Without this level of detail OEH is unable to assess the adequacy of any proposed offset.

A suggested offset of 5.28 hectares is proposed but there are no concrete assertions as to where such an offset may be located.

Recommendation:

A detailed offset strategy should be provided to OEH so that it's likely effectiveness in maintaining or improving biodiversity can be analysed. The offset strategy should:

- propose an offset which is supported by a suitable metric and which addresses the OEH 'Principles for Biodiversity Offsets in the NSW'; and

- locate the offset sufficiently remote from the influence of the turbines, while maintaining adequate consideration of the principle of "like for like" offsets.