



DOC18/942089  
SSD 09\_0103

Mr Tim Stuckey  
Senior Environmental Assessment Officer  
Department of Planning and Environment NSW

Dear Tim,

### **Boco Rock Wind Farm Modification 1 Environmental Assessment**

As requested, we have reviewed Boco Rock Wind Farm's Modification Application (Mod 1) Environmental Assessment (EA).

The most notable issue is that the impact of the modification and the resulting offset requirement was not determined using the Biodiversity Assessment Method (BAM) as required by section 7.17 of the *Biodiversity Conservation Act 2016* (BC Act).

There are savings provisions that allow SSD modification applications to be considered under the previous legislation but only if:

- substantial environmental assessment was undertaken before 25 August 2017 (as determined in writing by the Secretary of the Department of Planning and Environment) and the application is made within 18 months of the Secretary's determination, or
- environmental assessment requirements were issued before 25 August 2017 and the application is made before 25 February 2019. If the environmental assessment requirements are reissued, the application must instead be made within 18 months of the reissue, but no later than 24 August 2020.
- if the authority or person determining the application for modification (or determining the environmental assessment requirements for the application) is satisfied that the modification will not increase the impact on biodiversity values.

### Biodiversity

While I have no information on whether the first two requirements have been met, it is OEH's view that the mod will result in an increased impact on biodiversity values, through increased likelihood of bird and bat strike and potential increased vegetation clearing. Appendix 1 details the biodiversity impacts of this Mod along with two tables with OEH's comments on the proposed changes.

Given this it is OEH's opinion that a Biodiversity Development Assessment Report (BDAR) is necessary to assess both the on-ground impacts and the prescribed impacts of bird and bat strike in a manner which complies with s7.17 of the BC Act.

Aboriginal Cultural heritage

We note the area of Mod 1 is within an area previously surveyed under the 2009 archaeological assessment. The proposed modification will increase harm to Aboriginal objects, but the harm has already been considered during the 2009 assessment. OEH cannot comment on any possible impacts to Aboriginal cultural values as no information has been supplied regarding whether the Registered Aboriginal Parties have been consulted as part of the proposal. OEH support the preparation of a Heritage Management Plan to ensure all construction impacts, including unexpected finds, are managed appropriately during construction and throughout the life of the Project.

Please do not hesitate to contact me on 0427 231477 if you would like to discuss these comments.

Yours sincerely

A handwritten signature in purple ink, appearing to read 'Michael Saxon', with a long horizontal flourish extending to the right.

13.12.2018

**MICHAEL SAXON**

**Director**

**South East Branch**

**Conservation and Regional Delivery Division**

## Appendix 1 – Detailed OEH comments on biodiversity impacts of BRWF Mod1

### Rotor Swept Area (RSA) increase

There will be a 48% increase in the RSA in the Yandra cluster of 130,288 m<sup>2</sup>. Bird and bat strike is a prescribed impact in the BAM, and should be assessed accordingly. While the Mod states that this is an increase of 8% in RSA across the entire wind farm, it is a significant increase in impact at Yandra. The Yandra cluster is situated in a patch of Ribbon Gum – Snow Gum open forest with a much higher proportion of trees than Stage 1 of the wind farm, providing very different fauna habitat

### Road width and impact calculations

The EA states that the impact of the roading will be halved as the road width will be reduced to six metres reducing the impact by 13.2 hectares of road area. The EA states that this reduction is based on the developer's experience constructing stage 1 (page 10). However, it is difficult to understand how this can be the case as the rotors are much longer than those used in stage 1 and OEH staff observed road widths of 20-30 metres on this wind farm when attending a compliance inspection on 17/12/14. We are concerned that these adjustments may not be realistic and that the reduction in clearing may be significantly over-estimated.

OEH notes that Appendix G (transport assessment) shows no change to the approved road width of 12m (page 6).

It is unlikely that the fringing disturbance area along roadsides will be rehabilitated to its original vegetation type, thus making them permanent impacts. Cut and fill and shoulder areas should also be considered in impact calculations.

We recommend that clarification be sought as to exact road widths and total vegetation clearing.

### Adaptation of Table 9 from Mod1 EA (page 28): Proposed changes to on-ground components with OEH comments (yellow)

Project Infrastructure (Yandra only)	Project Approval	Modification	Comparison	OEH comments
WTGs (Yandra)	Up to 32	Up to 20	Reduced by 12	Increase of RSA at Yandra by 48%
Hardstands (total area)	4 ha	4.2 ha	Increase of 0.20 ha	
Footings (total area)	0.72 ha	0.9 ha	Increase of 0.18 ha	
Access road length <sup>1</sup>	21.2 km	20.7 km	Reduced by 0.5 km	Reduced by 0.6ha
Access road width (excludes cut and fill) <sup>2</sup>	12 m	6 m	Reduced by 50 %	No evidence provided to substantiate halving road widths. We note however that there will be a reduction of 0.6ha due to the removal of 0.5km of road length.
Access road area (excludes cut and fill) <sup>3</sup>	25.5 ha	12.3 ha	Reduced by 13.2 ha	
Temporary construction compound	N/A	150 x 200 m	Increase of 3.00 ha	

<sup>1</sup> Reduction in access road length accounts only for the two WTGs which have been removed from the plans. It does not account for any additional reductions in access roads when the final 20 WTG sites are selected.

<sup>2</sup> The original road width calculated in the EA was based on a permanent road of 6m plus a temporary 6 m disturbance, plus cut and fill. Based on experience it is now considered adequate to construct a 6m wide road plus cut and fill.

<sup>3</sup> This calculation is based on the premise of notes 1 and 2 above.



## Adaptation of Table 11 from Mod1 EA (page 31):

## Vegetation impact comparison of approved project and modification with OEH comments (yellow)

	Derived Grassland (Low)	Derived Grassland (Mod-Good)	Ribbon Gum-Snow Gum Open Forest (Low)	Ribbon Gum-Snow Gum Open Forest (Mod-Good)	Total (ha)	OEH comments
<b>Approved layout (32 WTGs)</b>						
Roads (12 m)	3.03	12.32	2.71	7.89	25.96	
Cut/fill	4.30	16.98	3.06	10.72	35.05	
Footings (14m diameter)	0.08	0.24	0.05	0.12	0.49	
Concrete batch plant	0.44	0.06	0.00	0.00	0.50	
Hardstands (25 x 50 m)	0.75	2.07	0.29	0.89	4.00	
Total (ha)	8.60	31.67	6.10	19.62	65.99	
<b>Modification worst-case layout (30 WTGs)</b>						
Roads (6 m)	1.27 3.03	6.02 12.32	1.22 2.71	3.66 7.89	12.16 25.96 (same area as in 12m wide roads as approved)	No evidence provided to substantiate halving road widths. We note however that there will be a reduction of 0.6ha due to the removal of 0.5km of road length.
Cut/fill	3.05	16.19	2.12	9.24	30.60	Cut and fill should be recalculated for the approved road width, for the proposed length
Footings (24m diameter)	0.18	0.71	0.09	0.38	1.35	Area of footings increased
Concrete batch plant	0.44	0.06	0	0	0.50	
Hardstands (35 x 60 m)	0.96	3.28	0.27	1.42	5.93	Area of hardstands increased
Construction compound	0	0	0.13	2.87	3.00	Additional impact
Total (ha)	7.66	32.56	532	21.8	67.34	
Balance of change	Reduced	increased	reduced	increased	increased	Increased impacts in Mod-Good veg