

# Implications under the *Environment Effects Act 1978* for the proposed Darlington Wind Farm, Darlington, Victoria

**Date:** 14 September 2022

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**Ref:** 14908

## 1 Introduction

Ecology and Heritage Partners Pty Ltd has been assisting Global Power-generation Australia (herein referred to as GPGA) with the assessment of ecological values, and likely and potential impacts associated with the proposed Darlington Wind Farm, Darlington, Victoria.

In 2007, a wind farm development proposal for Darlington, proposed by TME Australia Pty Ltd, was referred to the Minister for Planning (Referral Number 2007R00021) under the EEA Act. In 2008, the Minister's decision was that an Environment Effects Statement (EES) was not required for that proposed wind farm development. However, this decision, was subject to a condition for further ecological assessments for significant species and targeted Brolga surveys, including during their breeding, migration, and flocking seasons.

To meet this condition, several ecological assessments have been undertaken within the study area and surrounds since this 2007. These assessments include reviews of the relevant flora and fauna databases, detailed field assessments over multiple survey years (2007, 2008, 2009, 2010, 2012, 2013, 2019, 2020 and 2021, 2022), seasons, and conditions and targeted surveys (Ecology and Heritage Partners 2022).

In 2021, the number and layout of turbines proposed, as well as the project boundary was revised. As such, a review of the Minister's 2008 EES Referral Decision was undertaken, to determine whether the revised wind farm proposal would require a new EES Referral. The project team engaged with DELWP in early 2022 to discuss the changes to the project boundary and number of turbines proposed. It was agreed that additional assessment would be required to enable DELWP to determine whether the existing EES decision could be upheld, or whether EES re-referral would be required. GPGA ultimately decided to submit a new EES Referral. During the preparation of the new EES Referral, the project area was reduced to approximately 7,6000 hectares. Specifically, the land closest to known Brolga flocking sites (in the north and east) was removed from the study area boundary.

A separate referral will be made to the Victorian Government under the EE Act. The Minister for Planning will decide if an EES is required for the proposed wind farm under the EE Act. The Existing Conditions report will be submitted with the EES Referral to inform of the ecological impacts that are associated with the proposed wind farm development. The report also addresses the changes in the proposed development since the last EES decision and how the original conditions were implemented.

## 2 EE Act Referral Triggers

### 2.1 Potential clearing of 10 ha or more of native vegetation from an Ecological Vegetation Class that is identified as *Endangered* or has a conservation significance of *Very High*

A total of 1.04 hectares of Plains Grassy Wetland (EVC 125) and 0.04 Plains Grassy Woodland (EVC 55\_61) occurs within the development footprint and will be impacted by the proposed development. The combined loss of 1.08 hectares of Endangered EVCs is below the threshold that triggers a referral under the EE Act.

However, 31.35 hectares of Current Wetlands (DELWP Modelled) is within the development footprint and its associated buffers. These modelled wetland areas are considered native vegetation even though they no longer contain any native vegetation as they have been heavily modified through agricultural practices.

Therefore, the total loss of native vegetation is 32.43 hectares (including one small, scattered tree).

### 2.2 Potential Long-term loss of a significant proportion (1-5%) of known remaining habitat or population of threatened species

The loss of 1.08 hectares of native vegetation does not exceed 1-5% of the overall habitat of any threatened species. Similarly, the proposed wind farm will not result in the long-term loss (1-5%) of the population of any threatened species. No threatened species populations were recorded within the development footprint as the footprint was revised following ecological assessments to avoid native vegetation wherever possible.

### 2.3 Matters listed under the *Flora and Fauna Guarantee Act 1988*

One FFG Act-listed ecological community (Western (Basalt) Plains Grassland Community) is also present in the study area. The development footprint will avoid all impacts to this area.

The native patches of Plains Grassy Wetland and Plains Grassy Woodland that are proposed to be impacted do not meet the descriptions of any FFG Act-listed ecological communities.

It is not considered that the study area supports a genetically important population of, or critical habitat for any FFG Act-list species.

While several migratory and wetland bird species were recorded during ecological assessments, the wetlands, dams/ lakes and low-lying areas within the study area do not provide important or limiting habitat for the species. The use of these areas is likely to be infrequent and opportunistic given the availability of higher quality habitat in the surrounding landscape.

**Table 1.** Individual potential environmental effects that may warrant a referral

Item	Criteria	Response
1	<p>Potential clearing of 10 ha or more of native vegetation from an area that:</p> <ul style="list-style-type: none"> <li>is of an Ecological Vegetation Class identified as <u>endangered</u> by the DELWP (in accordance with Appendix 2 of Victoria’s Native Vegetation Management Framework); or</li> <li>is, or is likely to be, of <u>Very High</u> conservation significance (as defined in accordance with Appendix 3 of Victoria’s Native Vegetation Management Framework); and,</li> <li>is not authorised under an approved Forest Management Plan or Fire Protection Plan.</li> </ul>	<p>The development footprint will impact on a total of 1.08 hectares of Endangered EVCs, including:</p> <ul style="list-style-type: none"> <li>1.04 hectares of Plains Grassy Wetland (EVC 125); and</li> <li>0.04 hectares of Plains Grassy Woodland (EVC 55_61)</li> </ul> <p>In addition, 31.35 hectares of current wetlands (DELWP modelled) will also be impacted.</p> <p>The total extent of native vegetation proposed to be removed is 32.43 hectares which is above the 10-hectare threshold that triggers a recommendation for referral under the EE Act.</p> <p>As it stands currently this criteria for an EES referral is met.</p>
2	<p>Potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria</p>	<p><b>Threatened or Significant Flora -</b></p> <p>The known occurrence of four Nationally significant flora species within the study area:</p> <ul style="list-style-type: none"> <li>Hoary Sunray <i>Leucochrysum albicans</i> ssp. <i>tricolor</i>.</li> <li>Matted Flax-lily <i>Dianella amoena</i>,</li> <li>Clover Glycine <i>Glycine latrobeana</i>, and</li> <li>Spiny Rice-flower <i>Pimelea spinescens</i> ssp. <i>spinescens</i></li> </ul> <p>The known occurrence of three State-significant flora species:</p> <ul style="list-style-type: none"> <li>Small Milkwort <i>Comesperma polygaloides</i>;</li> <li>Wavy Swamp Wallaby Grass <i>Amphibromus sinuatus</i>;</li> <li>Pale Swamp Everlasting <i>Coronidium gunnianum</i>.</li> </ul> <p>The impact of the proposed development on species listed under the EPBC Act or listed and protected under the FFG Act is expected to be low as the development footprint has been revised based on the results of targeted surveys to avoid known populations and areas of habitat for significant flora and fauna species. Most significant flora species are located in the road reserve along the Hamilton Highway, which is not proposed to be impacted.</p> <p>The long-term loss of habitat will not exceed 1% of overall habitat for any of the State significant species recorded within the study area.</p> <p><b>Fauna</b></p> <p>Eight State-significant fauna species (Brolga, Little Eagle, Musk Duck, Australian Shoveler, Australian Gull-billed Tern, Wood Sandpiper, Common Greenshank and Tussock Skink) were recorded during the site assessment.</p> <p>There is suitable habitat within the study area for all State listed species, however most species are highly mobile and habitat within the study area is likely to be used irregularly, and on a seasonal basis. This applies for highly mobile species (e.g. Black Falcon <i>Falco subniger</i> Grey Goshawk <i>Accipiter novaehollandiae novaehollandiae</i>), and wetland-reliant species including ducks (seven species), migratory</p>

Item	Criteria	Response
		shorebirds (four species), Gull-billed Tern <i>Gelochelidon nilotica macrotarsa</i> and the Eastern Great Egret.  This criteria for an EES referral is not met.
3	Potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'	The nearest wetland listed under the Ramsar Convention is Western District Lakes, which occurs 12.7 kilometres from the study area boundary (DCCEEW 2022).  This criteria for an EES referral is not met.
4	Potential extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term	The study area contains wetlands, lakes/ dams, and seasonally inundated drainage lines and pasture. These provide habitat for waterbirds and other water-dependent species.  The proposed development will avoid these areas wherever possible for environmental and logistic reasons.  Any works within wet areas will be undertaken in accordance with Construction Techniques for Sediment Pollution Control (EPA 1991) and Environmental Guidelines for Major Construction Sites (EPA 1996), the ensure that aquatic and estuarine ecosystems are not impacted.  As such, extensive or major effects to aquatic, estuary or marine system over the long-term is not expected to occur.

**Table 2.** A combination of two or more environmental effects that may warrant a referral

Item	Criteria	Response
1	Potential clearing of 10 hectares or more of native vegetation, unless authorised under an approved Forest Management Plan or Fire Protection Plan	A total of 1.08 hectares of native vegetation is proposed to be impacted.  31.35 hectares of current wetlands (DELWP modelled) may also be impacted. Additional wetland assessments are proposed to determine areas where the modelled wetland layer can be revised (i.e. through an application to DELWP to remove modelled wetland).  This criteria for an EES referral is met.
2	Matters listed under the <i>Flora and Fauna Guarantee Act 1988</i> : <ul style="list-style-type: none"> <li>• potential loss of a significant area of a listed ecological community; or,</li> <li>• potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including as a result of loss or fragmentation of habitats; or</li> <li>• potential loss of critical habitat; or</li> <li>• potential significant effects on habitat values of a wetland supporting migratory bird species</li> </ul>	There are no FFG Act-listed communities being impacted within the study area.  It is not considered that the study area supports a genetically important population of, or critical habitat for any FFG Act-list species.  Migratory and wetland bird species are not considered likely to use wetlands, dams/ lakes or ephemeral waterbodies within the study area on a regular or permanent basis given higher quality foraging habitat is located in the surrounding landscape.  Based on the above, no thresholds relating to FFG Act criteria will be exceeded.  This criteria for an EES referral is not met.
3	Potential extensive or major effects on landscape values of regional importance, especially where recognised by a planning scheme overlay or within or adjoining land reserved under the <i>National Parks Act 1975</i>	No landscape values of regional importance are proposed to be impacted. The proposal is not within or adjoining land reserved under the <i>National Parks Act 1975</i> . Based on the above, this threshold will not be exceeded.

### 3 Conclusion

Only one of the thresholds relating to any of the ecological criteria identified in Table 1 and Table 2 (Item 1. Potential clearing of 10 hectares or more of native vegetation), have been exceeded, with 32.43 hectares of native vegetation proposed to be impacted. However, 31.35 hectares of this is current modelled wetlands and many of these modelled wetlands have been extensively modified through drainage and agricultural practices.

### References

- DELWP 2022. NatureKit Map [www Document]. URL: <http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit>. Victorian Department of Environment, Land, Water and Planning, Melbourne, Victoria.
- Ecology and Heritage Partners 2022. Detailed Ecological Investigations of the Proposed Darlington Wind Farm, Darlington, Victoria. Report prepared for GPG Australia. Draft Report V2. 09 September 2022.
- EPA 1991. Construction Techniques for Sediment Pollution Control. Published document prepared by the Victorian Environment Protection Authority, Victoria.
- EPA 1996. Environmental Guidelines for Major Construction Sites. Published document prepared by the Victorian Environmental Protection Authority (EPA).