

15 January 2021

Department of Environment, Land, Water and Planning

brolgawind.standardsreview@delwp.vic.gov.au

Re: Draft Brolga Assessment and Mitigation Standards: For wind energy facility permit applications (the Standards)

BirdLife Australia is an independent non-partisan grassroots charity with over 185,000 supporters throughout Australia. Our primary objective is to conserve and protect Australia's native birds and their habitat. Our organisation is the national partner of BirdLife International, the world's largest conservation partnership.

Thank-you for the opportunity to comment on the Brolga Assessment and Mitigation Standards for wind energy facility permit application (the Standards).

BirdLife Australia understands that DELWP will develop additional Standards for other species/groups. As the first biodiversity Standard for the wind industry, it is important that the Brolga Standards are exemplary, establishing a very high benchmark for subsequent wind industry Standards.

Summary

The draft Standards will not provide adequate protection for the Victorian Brolga population from the impacts of wind farms. The simplistic combination of 'Brolga no-go flocking sites' and a 'cookie cutter' approach to buffers at breeding sites indicates that the key objective of the Standards is to facilitate the development of the Victorian wind industry not to protect and recover Victoria's Endangered Brolga population.

Key weaknesses of the Standards include:

- A vague objective that cannot be used to measure the efficacy of the Standards or be used as a trigger for review and amendment of the Standards.
- No commitment to long-term monitoring of Victoria's Brolga population and therefore no accurate way to determine whether the Standards are meeting stated objectives.
- A singular focus on the use of buffers at breeding sites to mitigate risk.
- Inadequate consideration of collision risks to breeding adult Brolgas and newly fledged Brolga from turbines, powerlines and fences.

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- Proposed buffer distances for breeding sites that are based on data from a small sample size of pre-fledged chicks
- A proposed buffer distance of 900m for breeding sites; this is much less than the 2000m precautionary buffer proposed by Veltheim et al (2019) and is therefore not supported by peer-reviewed scientific evidence.
- No requirement for developers to avoid, mitigate or offset impacts from a range of threats associated with wind farm construction and operation.

The one strength of the Standards is the inclusion of 'Brolga no-go flocking areas'. This could be further strengthened by inclusion of criteria or 'triggers' for recognising additional flocking sites.

The *Interim Guidelines for the Assessment, Avoidance, Mitigation and Offsetting of Potential Wind Farm Impacts on the Victorian Brolga Population 2011* (the Guidelines) provide greater protection for Victoria's threatened Brolga. The Guidelines should remain in place pending the development of effective Standards to protect Brolga, with measurable objectives and an acceptable framework for monitoring, evaluation and review.

Our key concerns are outlined in more detail below. If you require further information please contact me via jenny.lau@birdlife.org.au.

Sincerely,

A handwritten signature in black ink, appearing to be 'jl'.

Dr Jenny Lau

Preventing Extinctions Program Manager.



About BirdLife Australia

BirdLife Australia has played a major role in the conservation and monitoring of Australia's bird life throughout our almost 120-year history. We have invested in long-term threatened bird conservation programs, often in partnership with other organisations and communities, bringing together research, education, on-ground remediation, advocacy and campaigning. The organisation relies on thousands of volunteers and citizen scientists who play a key role in delivering our bird conservation programs.

Our core programs adopt a long-term, multi-species and landscape scale approach to conservation for Coastal Birds, Woodland Birds, Mallee Birds and others. Our Key Biodiversity Areas program does the same for sites of recognised global importance for birds and biodiversity more broadly. Our Preventing Extinctions program focuses on threatened birds that are most likely to become extinct and require leadership from BirdLife Australia.

BirdLife Australia curates Australia's largest environmental dataset, Birddata, which is used to inform conservation priorities and actions, as well as update threatened species status. The data has been collected by many thousands of volunteers for over 30 years.

Comments on the Standards

More specific objectives required

The draft Standard's objective, that *the Victorian Brolga population does not become more threatened, at the state-wide level, from the impacts of wind energy facilities*, lacks specificity and cannot be used as a basis for determining whether the Standards are effective in protecting Brolga. In particular, the meaning of 'become more threatened' is unclear.

DELWP's recent *Conservation Status Assessment Project* determined that Brolga meets IUCN criteria for being considered Endangered. If 'become more threatened' means a change in conservation status, from Endangered to Critically Endangered, then this is a very low bar for the industry. Victoria's Brolga population would need to suffer a significant, possibly irreversible, decline with the associated loss of genetic diversity before this objective was **not met**. Clearly, this is contrary to the objectives of the FFG Act.

The objective(s) of the Standards must be clearly defined to facilitate the development and adoption of indicators that allow an objective assessment of their efficacy. Given the Endangered status of the Victorian Brolga population, and the



very real threat of the species' extinction in the state, we suggest the objective of the *Interim Guidelines for the Assessment, Avoidance, Mitigation and Offsetting of Potential Wind Farm Impacts on the Victorian Brolga Population 2011* (the Guidelines) is appropriate; that individual wind farms have, at a minimum, a zero net impact on the Victorian Brolga population. This objective is clearly defined, measurable and could be used to drive the avoidance, mitigation and offsetting of wind farm impacts on Brolga by the wind industry.

No commitment to ongoing population monitoring

Victoria's Brolga population is poorly monitored and BirdLife Australia has low confidence in current population estimates. It is critical that Victoria commits resources to rigorous, long-term monitoring of Victoria's Brolga population to inform recovery action, track the species' conservation status, and to form the basis of metrics that may be used to determine whether the Standards are meeting stated objectives.

Absence of triggers for Standards review and amendment

The Standards must include provisions for review and amendment if there is 1. clear evidence that the Standards are failing to protect Brolga and 2. new scientific information that will inform and strengthen the Standards. It is unacceptable that the draft Standard simply states they '... may be revised as new published scientific information'.

Clearly defined objectives for the Standards should be used to set thresholds or targets that trigger review and amendment of the Standards.

Simplistic approach to buffers at breeding sites, inadequate minimum buffer distances.

BirdLife Australia does not support the approach to breeding sites outlined in the draft Standards; the proposed 900m buffer around breeding sites is not supported by scientific evidence and the Standard wrongly focuses solely on the movements of pre-fledged chicks.

It is not clear why the Standards propose a simplistic 900m buffer that ignores the evidence (and recommendation) in Veltheim et al (2019) that a 2000m buffer would provide greater certainty that chicks will fledge successfully. Veltheim states:



Thus, breeding wetlands and non-wetland habitat within home ranges should be incorporated into turbine-free buffers and to allow barrier-free movement between wetlands and non-wetland foraging areas (e.g. Fig. 2). Turbine-free buffers of 1600m are likely to protect all of the 50% UD core brolga breeding home range, which contains nesting and night roost wetlands (Fig. 4). Furthermore, 2000m buffers would encompass additional foraging habitat and movement corridors within the 95% UD (Fig. 4), which are likely to be important in ensuring that brolga chicks fledge successfully.

The focus on movements of pre-fledged, walking chicks also ignores the fact that juvenile Brolga are likely to be more at risk of collision with turbines, powerlines and fences during their early flights.

Veltheim et al (2019) clearly state that further studies, particularly of the movements of breeding adults are required to inform buffer sizes. They advise against setting buffers for breeding sites based on the results of their study, given its focus on the movement of pre-fledged chicks.

This study was limited to pre-fledged chick movements at breeding sites. We recognise that breeding adults may range further to forage during nest building, incubation and chick rearing. Studies focusing on GPS telemetry of breeding adult pairs are recommended, to identify if larger buffers are required to avoid potential disturbance and mortality effects from turbines during the entire breeding season from nest building and incubation, to chick fledging. Further GPS tracking studies at wind farms pre- and post-operation are warranted.

Further, Veltheim et al (2019) clearly state that conservation of Brolga is most likely to be successful if efforts are focussed on the management of complexes of multiple wetlands.

Single wetland management around a nest is unlikely to protect breeding brolgas from potential wind farm impacts. Brolga chicks in this study used multiple wetlands within their home ranges before fledging. Given that all chicks survived to fledging, this is the most important consideration for breeding site protection and enhancement at wind farms and in a broader conservation context.

The adoption of a simplistic, 900m buffer to individual wetlands ignores the available scientific evidence and the recommendations of experts.

Given the acknowledged limitations of the Veltheim study and the considerable gaps in our knowledge of Brolga breeding requirements and vulnerability to impacts from



wind farms at breeding sites, BirdLife Australia urges DELWP to take a precautionary approach to buffers at breeding sites and set these at a minimum of 2000m.

No mitigation of additional risks associated with wind farms

BirdLife Australia is concerned that the Standards ignore a range of other threats wind farms pose to Brolga including increased mortality due to collision with fences and powerlines and the impacts of changes in hydrology due to the construction of roads and other infrastructure on wetlands.

Powerlines are a known collision risk for Brolga (Goldstraw and Du Guesclin 1991), yet the Standards do not include any requirement for new wind farms to assess or mitigate this risk. Similarly, built infrastructure can alter the movement of surface and groundwater, impacting on wetland hydrology, often over very long distances.

The Standards must include a requirement for wind farm proponents to assess, mitigate and offset the impacts of built infrastructure on Brolga collision risk and on wetland hydrology.

Need for designation of Brolga breeding wetlands by independent assessors.

There is a clear conflict of interest in allowing wind industry consultants to 'self assess' wetland suitability as a Brolga breeding site. This will likely lead to a new area of conflict between industry and Brolga advocates.

Any assessment of wetland suitability as breeding habitat should be undertaken by independent hydrological experts appointed by government in consultation with suitability qualified ecologists and hydrologists.

No triggers for mitigation or offsetting.

It is unacceptable that breeding wetland buffers are the only form of mitigation included in the Standards. The absence of any triggers for mitigation or offsetting of wind farm impacts will lead to an acceptance of Brolga mortality and decline as a consequence of the development of a wind industry in Victoria.

Veltheim et al (2019) provide a strong rationale for investment in wetland management to improve conservation outcomes for Brolga and mitigate/offset impacts of the Victorian wind industry.



The Standards must include a requirement for wind farm proponents to mitigate and offset all wind farm impacts.

Validation of Brolga records

BirdLife Australia curates Birddata—Australia’s largest and longest running national biological database. Birddata represents tens of thousands of hours of survey effort by thousands of volunteers. It is a trusted source of information on Australia’s birds, and is used to assess the conservation status of Australia’s birdlife at the global level. All data is validated by our Birddata team (<https://birddata.birdlife.org.au/frequently-asked-questions-faqs>).

We note three key issues regarding the proposed procedure for validating new Brolga records:

1. BirdLife was not consulted in the development of the procedure, despite Birddata being explicitly named as a key part of the procedure.
2. While understanding why photographic evidence might be desirable for new breeding or flocking site records, BirdLife is concerned that a strict requirement for photographs will undermine the trust between our organisation and our volunteers. We are confident our validation process is sufficiently robust to exclude spurious records.
3. It is well recognised that DELWP does not allocate sufficient resources to the curation of records in the VBA. This must be addressed if the proposed procedure becomes a central feature of the Standard.

Supported approach to flocking sites

We support the designation of ‘Brolga no-go flocking areas’ and the inclusion of many well-known flocking sites in the draft Standards. This is a strength of the Standards. However, the Standards should include criteria or triggers for designation of new flocking sites, particularly as climate change may lead to changes in the Brolga’s range in Victoria. The Standards must include a clear process for designation of new flocking sites that must include a role for public nomination of new flocking sites.

References

Goldstraw, P. W., and Du Guesclin, P. B. (1991). Bird casualties from collisions with a 500 kv transmission line in southwestern Victoria, Australia. In: Proceedings from the 1987 International Crane Workshop, 219-224.



Veltheim I., Cook, S., Palmer, G. C., Hill R., and McCarthy, M. A. (2019). Breeding home range movements of pre-fledged broilga chicks, *Antigone rubicunda* (Gruidae) in Victoria, Australia – Implications for wind farm planning and conservation. *Global Ecology and Conservation* vol 20 e00703