



Brolgas at Point Wilson, Wadawurrung Country
TRAKKA53/INATURALIST

SUBMISSION TO

***A better approach to
managing biodiversity
impacts of renewables***

Victorian National Parks Association

Level 3, 60 Leicester Street, Carlton VIC 3025 • 03 9341 6500 • vnpa@vnpa.org.au • vnpa.org.au

ABN 34 217 717 593



A better approach to managing biodiversity impacts of renewables

Submission by the Victorian National Parks Association

The Victorian National Parks Association (VNPA) is an independent member-based organisation, working to improve protection of Victoria's biodiversity and natural areas, across land and sea. The VNPA has been actively working to protect Victoria's national parks and biodiversity for 70 years.

The VNPA welcomes the chance to make a submission on the *Draft Guidance to Better Manage Biodiversity Impacts of Renewable Energy* and for having us contribute to the workshop.

We make the following comments in relation to the draft handbook, broilga, and marine and coastal areas.

Draft Handbook

There is no-doubt that the climate crisis requires fast and meaningful transitions to non-fossil fuel based energy sources, but the rushed nature of the provided document is seeking to sprint when the need to understand where we are running and who is being run over in the rush to develop critical areas home to native wildlife who have lived in these landscapes for millions of years.

The development of areas of critical habitat for species such as Broilga, Southern Bent Wing Bat and Grey Headed Flying fox that are already under pressure from habitat loss, invasive species encroachment may not be able to tolerate the industrialisation of their homelands in order to create electricity for humans. This is an issue we are placing on them, an issue they had no hand in creating, but they will bare the greatest risk of harm.

Further information is needed on the movements and impacts on local wildlife to make an informed and useful submission. This information if it exists has not been made public and can only be drawn on from species that have a likeness to native Victorian wildlife.

There is a need to assess the landscape as a whole on the impact of wind energy development not-project by project as the impacts are cumulative in nature. For

example the Whooping Crane (*Grus americana*) a species much like our Brolga are 20 times more likely to select a "rest stop" during their migrations at locations at least 5 km away from wind turbines than those closer to turbines^[6]

Question 1. *Do you think there should be delayed commencement for the guidance and/or transitional provisions?*

The guidelines should be implemented as soon as practical to do so and current projects/development should have regard to the guidelines.

Scope to be broadened to include non-threatened species

Question 5. *Should species that are not listed as 'threatened' under the Flora and Fauna Guarantee Act or the Environment Protection and Biodiversity Conservation Act be considered as part of this guidance?*

Yes, to reduce the risk of more species being added. It is important to include culturally significant species.

Weight should also be given to regionally significant species too. E.g. those at risk of local extinction.

Scope to be broadened to include ecological communities

We are surprised there is no mention of EPBC- or FFG-listed ecological communities in the draft Guidelines. This is a substantial omission. It is prioritising threatened species over threatened communities. There is no logical basis for taking such a position since both have equal protection under the law.

In fact, by focusing only on species, it is likely the Guidelines could increase the impact to ecological communities in those instances where no threatened species are recorded as present. Development will be pushed towards areas where there are no threatened species. But in many cases development will occur where there are threatened ecological communities that have no specific threatened species.

It also likely to confuse potential developers, who could be left with an impression that these important threatened habitats are not important. This is likely to be the case for many examples of Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP), Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains, White box - yellow box - Blakely's red gum grassy woodlands and derived native grasslands, during the siting phase of renewable energy developments.

Mitigation Hierarchy

Clear measure of avoidance should be the first preference and this needs to be made very clear in the guidance. Time and time we see how avoidance does not get prioritised with developers skipping to mitigation and offsetting. Offsets should always be last resort. Regarding offsetting, it is important that the principle of 'like for like' is adopted, with the locality thought about in proximity to the areas where being offset.

Quality of habitat values mapping

The Guidelines use data on habitat and biodiversity quality as a basis for determining the risk of a project. However, it is not clear the quality of that data. It would be good to have some idea of the "error bars". We have had very poor outcomes when modelled data is used to make biodiversity decisions, the Melbourne Strategic Assessment being the most notable failure.

We are concerned that areas such as roadsides might not be well-mapped. Roadsides are one of the last places high-quality examples of Victoria's grasslands can be found. Roadsides often have high biodiversity values, and their biodiversity is often at significant risk of being lost due to lack of data, lack of protection and lack of awareness. Many renewable projects have significant impacts on roadsides, requiring road widening, or alterations at intersections to accommodate oversized vehicles.

Roadside biodiversity is particularly important in areas where little biodiversity remains, e.g. in extensively cropped landscapes. We are concerned that mapping will lack the detail to show the small but highly significant patches of roadside biodiversity (for example) in a landscape otherwise bereft of conservation values.

In responding to EPBC Referrals, we have noticed that the relative impacts to roadsides appear in some cases to be ignored, e.g. transport routes are decided by economic matters rather than biodiversity matters.

Seasonal herbaceous Wetlands are another often-overlooked feature of the landscape. We are not confident that mapping currently captures the presence of this critically endangered ecosystem.

Quality of consultants and survey data

One of the biggest risks to a project is the quality of its consultants. We have heard from many stakeholders, especially those in local government, about the time wasted by consultants failing to supply accurate and full documentation.

Poor consultants can provide misleading data. Surveys are surprisingly often undertaken at the wrong time of year, in the wrong conditions and using poor methodology.

Some data is subjective, e.g. the size of a patch of grassland. Poor consultants will skew their conclusions in favour of their client.

Some consultants promote questionable science, for example that native grasslands will prosper under solar panels.

We suggest the Guidelines include recommendations for how to select and brief consultants to ensure their data is suitable and will not be contested if the project comes under scrutiny, e.g. through an EES process.

We also suggest that, in parallel with the development of the Guidelines, DEECA improves its accreditation process for ecological consultants and introduces a system of independent spot checks to verify their data and or survey standards to improve timing and effort.

Risk with relying on VBA data

VBA records reflect areas where survey has previously recorded. However, many renewable energy projects occur in areas unlikely to have been previously surveyed, e.g. heavily cropped landscapes. Absence of data should not be taken to mean absence of conservation values.

“Balance” and a risk-based approach

In risk-based approaches to guidance, it is the environment that always bears the risk, while developers get certainty. These Guidelines could easily slip towards reinforcing this unacceptable “balance,” and we urge DEECA to foreground the security of irreplaceable biodiversity assets.

The Guidelines also emphasise the climate emergency. While understandable, given this is about renewable energy, it is critical to recognise the single and synergistic character of the combined climate and biodiversity crises.

Weak language to be strengthened

“Contributing to species persistence” is a poor characterisation of a biodiversity goal unless the definition of a species’ persistence is provided. Without clear definition, this could be taken to mean a few individuals just managing to survive, rather than a healthy population. We do not want species to just persist, we want them to be strengthened.

Brolga

We put forward a strong recommendation for birds to have a 5km buffer, opposed to the 900m proposed.

Brolga *Antigone rubicunda* (originally listed as *Grus rubicundus*) is listed as Endangered under Victorias Flora and Fauna Guarantee Act 1988.

The Victorian Brolga population is independent to the northern Brolga population^[1] and further genetic work is needed to understand if the species across Victoria and should be managed as a genetically distinct population here in Victoria.

As highlighted by Miller (2006) “*The potential self-recruiting nature of the Victorian population also emphasises its vulnerability to negative demographic factors and stochastic processes. Small isolated populations (less than 500 breeding individuals) are particularly prone to rapid losses of genetic diversity and the negative effects of inbreeding*”.

Southern Brolga are also dependent on wetlands. Without wetlands Brolga will not survive. Wetlands across Victoria are in declining ecological health^[2]

Suttle changes in hydrology through roading, compaction and development can impact suitable wetlands for Brolga.

Victoria should address the overall loss of suitable Southern Brolga habitat and breeding conditions by restoring natural wetland flooding, reducing fox predation, and expanding protected areas to include more Brolga habitat. These actions should be carried out in addition to the offsets provided by proponents, helping to enhance the species' ability to adapt to the installation of wind turbines and related infrastructure within their habitats.

The current Southern Brolga population is small and isolated and will be less resilient to cumulative changes and increased development of infrastructure in their home ranges but also the increasing impact if climate warming and continued habitat loss.

Having to degrade, damage or destroy Brolga habitat to initiate recovery of an endangered species is morally and ecologically wrong and not in line with community expectations.

Planning of renewable energy development and associated infrastructure in Southern Brolga habitat requires further understanding of the species genetics, movements, requirements and how climate change will affect them.

This study work has only been done briefly by Veltheim (2019) who stated “*Avoiding impacts and implementing mitigation strategies is difficult when movement and home range information is lacking. Impact at breeding sites may negatively affect population recruitment. The number of wind farm developments is increasing in southern Australia within the core range of the south-eastern brolga (Antigone rubicunda) population. The main threats to this wetland bird include habitat loss, chick predation and collisions with power lines and fences. Wind farms may increase collision and mortality risk, and habitat displacement but the impact is difficult to assess or mitigate, as movement patterns and home range size are unknown*^[3]”.

Below we will respond to the Workshop-Proposed Brolga guidance (Environmental Stakeholders by DEECA (2025) and the Workshop-Handbook for the development of renewable energy in Victoria (Environmental Stakeholders), DEECA, January 2025

Brolga Area of Interest

The Brolga Area of Interest used to trigger guidance from DEECA must also include the small but very important populations of Brolga populations around Mildura, Wentworth and Swan Hill. Some of the records occur just within NSW but these animals no doubt use Victorian waters and airways.

Criteria 2-Proximity to areas of significant conservation value should also include privately owned lands that are covenant under Trust for Nature covenants.

The 5km buffer around National Parks must be kept and extended to all Protected Areas as recognized under the Collaborative Australian Protected Areas Database (CAPAD).

Brolga Flocking Site Protections

Large birds need large and safe areas to live and move safely across their homelands. The proposed policy from DEECA need further work on the movements of Brolga across

the landscape as well as between recognised No Go Flocking Areas. To move forward in a precautionary way these knowledge gaps must be understood.

Intact and connected habitat is critically important for the on-going survival of Brolga and for allowing them the space to adapt to our warming climate and avoid the threat of extinction into the future. This includes unimpeded flyways or flight corridors from dangerous infrastructure to allow Brolga safe passage through the landscape. This will require further study on their movements and corridor requirements.

Habitat fragmentation as a threatening process for fauna in Victoria is a listed Potentially Threatening Processes under the Flora and Fauna Guarantee Act. Development between flocking sites will lead to fragmentation of Brolga habitat.

There is a need to link the recognised No Go Flocking Areas together to allow Brolga to move safely across their home ranges and ensure they can adapt to changes in habitat such as predators, water accessibility and climate change.

Reliance on VBA data as a source for decision making decisions on meeting criteria is flawed as the data set is largely out of date and does not include the most up to date records from areas, the issue of access to many of the areas Brolga reside also doesn't allow bird observation to occur over many years but only during the immediate time surrounding proposed developments due to most of the land being private and inaccessible to the public, academics and conservationists.

Brolga Breeding Wetlands

There is a need to protect all known nesting sites and their natural hydrology as well as restoring areas that were formally nesting sites or have the potential to be nesting sites through restoration of native vegetation and water flows meet the needs of Broga to nest.

DEECA needs to clarify what “*historical Brolga breeding records that cannot feasibly function as Brolga breeding sites are not to be buffered*” means, does it only consider the planting of trees and permanent draining of wetlands as areas not to be buffered.

Areas now under trees cannot be reestablished but areas that have been drained can be restored and should be restored to increase the amount of accessible habitat for Brolga or changes can be made prior to development that may make these wetlands unusable for Brolga.

With a change of land use from farming to energy production the need to keep wetlands drained is no longer needed and should be reversed.

In regard to the proposed guidance on the areas and records that do not require a breeding habitat buffer, section A cannot be supported. All known nesting sites including those over 20 years old should be protected to allow for Brolga movements

from disbursing young, changes in water flows and allow animals to adapt to changes.

In regards to Sections B to D there is a need for on ground survey work to verify the use of these site by Brolga over a number of seasons to ensure they no longer can use the sites be it for flocking or nesting.

The proposed 900m buffers are completely unacceptable around breeding wetlands.

Nesting areas, as well as movement corridors between suitable breeding wetlands, should be adjusted from within 2 km of each other to within 5 km. This change will accommodate the variability in Brolga movements and their ability to travel further due to extreme weather patterns, rainfall, and fluctuating water levels.

Veltheim et al. (2019) stated “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.

Furthermore, 2000m buffers would encompass additional foraging habitat and movement corridors within the 95% UD, which are likely to be important in ensuring that brolga chicks fledge successfully”.

A minimum 2km buffer is needed around breeding wetlands and non-wetland habitat areas within the Brolgas homes range as per the recommendation by Veltheim et al. (2019).

There is also a need to link wetlands with safe fly way corridor between nesting, roosting and flocking sites. Any studies done by Arthur Rylah Institute (ARI) should be publicly released.

Other preferred Brolga breeding wetlands and buffers

On the ARI research project, it would be great if the model would also look into the amount of habitat that that could be restored to be suitable for Brolga once again.

The suitable habitat seems to corelate closely to the Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains a Federally listed ecological community.

The intrusion of construction activities including “temporary deleopment” into Brolga buffers cannot be supported due to the fragile nature of suitable Brolga habitat. Small changes caused by heavy machinery, drainage lines or roading will cause harm not only to the native vegetation present in the wetlands but the fragile hydrology of the wetlands.

The under grounding of powerlines is supported as this will reduce risk for the Brolga and other wildlife but we believe these types of operations should be done via tunnelling technology rather than the digging of trenches.

There is a need for long term and independent monitoring of Brolga numbers and distribution changes due to developments should be instituted across all Brolga habitat in Victoria. The development of this study should reflect the findings of Lindenmayer et. al (2022) who lays out the most important roles of ecological monitoring projects^[4];

- (1) documenting responses to environmental change
- (2) answering key ecological questions
- (3) testing existing ecological theory and developing new theory
- (4) quantifying the effectiveness of management interventions
- (5) informing environmental prediction systems
- (6) engaging citizen scientists and the general public
- (7) contributing data and other insights to environmental initiatives

This type of monitoring was highlighted by DEECA in the Handbook which states “DEECA will continue to monitor the impacts of renewable energy development on biodiversity and will update the species of concern list as appropriate. DEECA is committed to conducting a transparent process in relation to such a critical issue and not the industry and the community stakeholders will be consulted prior to any changes^[5]”

This long-term monitoring project must be at arm's length of the wind farm developers, operators and government but funded by them through an independent university or local conservation organisation.

Marine and coastal areas

It is our understanding that offshore wind is not within the remit of these guidelines, however certain components of the guidance could apply to onshore development associated with offshore wind. This includes the transmission lines, connection hubs, and the ports that will support offshore wind, such as the Victorian Renewable Energy Terminal at the Port of Hastings.

It is our view that in the absence of any other guidelines that these draft guidelines should be applied to the marine and coastal environment until a period when there are further guidelines developed that cover marine and coastal areas associated with offshore wind.

Specifically, regarding the port areas, particularly Western Port Bay, the location of the proposed Victorian Renewable Energy Terminal (VRET), we have concerns. As Victoria's second-largest bay and the only wetland designated as both an internationally

protected Ramsar wetland and a UNESCO Biosphere Reserve, an area such as this should not be left without any guidelines, particularly when there is not commitment to develop them.

We preference that:

1. These guidelines include aspects of the onshore components of offshore wind (transmission, connection points and ports) located within Victoria's marine and coastal environment, and;
2. That in the absence of any planning arrangements for Western Port Bay where the Victorian Renewable Energy Terminal (VRET) is proposed that marine spatial planning (MSP) be implemented alongside the current planning and environmental assessment processes. We make comments on both below.

We comment on both in more details below:

1. Marine and coasts and ports to be included in this guidance

We argue that the species of concern list be expanded to include priority coastal species that are within the areas of port proposals and connection hubs. We have drafted up an indicative list for Western Port Bay marine area, including within 5km of the high-water mark (defined as the marine and coastal environment) for consideration. See the attached list which refers to 88 species of fauna, 40 species of flora listed under the FFG Act (and also species listed federally under the EPBC Act). See the attachment for a full list of species.

Figure 1 below shows the boundaries for which this species were considered.

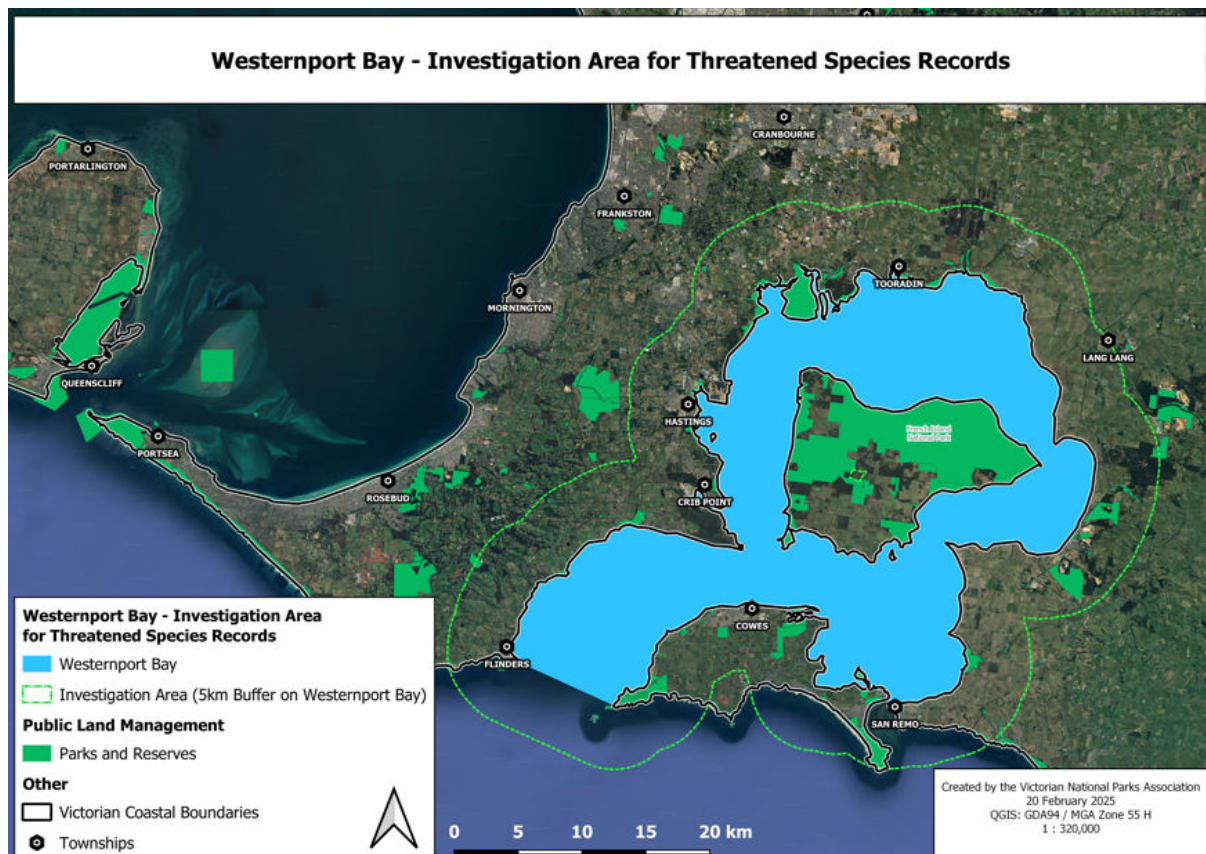


Figure 1: map of Western Port Bay Investigation Area for Threatened Species Records.

It is clear in the absence of any planning for the marine environment at this point, Western Port would benefit from marine spatial planning, a tool under the marine and coastal act.

2. Marine Spatial Planning for Western Port Bay: The need for a strategic planning for Western Port

Western Port Bay, Victoria's second largest bay, outdoor recreation destination, UNESCO Biosphere Reserve, and internationally significant wetland, currently does not have an overarching bay wide plan to protect and manage it. Despite its best intentions, Western Port has seen inconsistent planning, inadequate oversight and monitoring, poor accountability, and governance. A bay-wide strategic plan i.e. a marine spatial plan is required to consolidate all the different planning and management pieces currently siloed.

What planning tool is proposed to develop and implement the plan?

There are two planning tools under the Marine and Coastal Act which we recommend being used to develop the plan and partnership. The first is a marine spatial plan (MSP). The second is the Regional and Strategic Partnership (RASP), which is the tool whereby partners will be brought together to develop the plan. Developing an MSP for Western

Port Bay would help the Minister meet commitments under Victoria's Marine and Coastal Strategy which is to undertake Victoria's first MSP between 2023-2027. Guidelines to develop an MSP have already been developed and the framework for creating a RASP (the mechanism which the plan can be developed through) has already been rolled out in various places across the state.

Proposed spatial scope

The marine and coastal environment as defined under the Marine and Coastal Act 2018 within the Western Port Bay planning Area (5). This would consider the influences from the catchment and immediately outside Western Port's Ramsar boundaries on the open coast. Broad support for the plan Consultation between DEECA, Melbourne Water, Western Port Biosphere and the Victorian National Parks Association on the mechanism to develop the plan and partnership has occurred. This proposal has broad support across Traditional Custodians, MPs, and business, tourism, environment and local community groups and has been formally supported by the four Western Port local councils. We urge the Minister for Environment, Tourism and Outdoor Recreation, along with the Victorian Government, to commit to developing and implementing a comprehensive strategic plan, supported by the necessary partnerships and funding to ensure its success.

Other comments and questions

Principles

- Principle 10 refers to monitoring and reporting requirements - it states that they should be made publicly available. *How is this principle applied to install confidence and transparency in this process?*
- Principle 5 - *how will it be decided whether species of concern are likely to be significantly impacted by a development? Who decides this?*
- *Will risk ratings apply to whole projects or parts of projects? How can the risk rating process itself provide incentives for developers to change the design for the better?*
- *Does a low risk rating set the expectation that assessors and decision makers can apply less scrutiny? As risk-based regulation and the like is partly aimed at using government resources more efficiently (and this can incentivise less scrutiny).*
- *Has there been work done on developer practices when they are at the site-finding stage and how these guidelines will change those practices?*
- For The Southern Bent Wing Bat, unchecked mortalities are occurring and monitoring is not adequate to fully capture the extent of it. Mitigation needs to

happen for this species and would become an umbrella to protect so many others. The fact that a Southern Brolga has not been reported as killed at a site is not necessarily relevant, as our surveys are not sufficient to detect this.

- *Do the guidelines consider the cumulative risks to the species or are they only referring to project specific risks?* A cluster of sperate wind farms developed at various times by different developers would magnify impacts.
- Clarity around what does heightened risk mean in reality is needed
- The IFC and other major money lenders are requiring all wind energy that they fund to budget 10% for energy loss into their project feasibility for shutdowns to protect birds and bats. As part of that, mandatory curtailment during high-risk periods for bat collisions is part of planning. Changing the onus to the proponent to demonstrate when it is safe to operate, rather than having to prove there is an impact after operations.
- Regional planning can be a solution to the many issues discussed here. Until this time site-by-site decisions will continue to be an issue. We encourage any effort DEECA could make to progress this with the Federal Government.

References

- [1] Miller, A (2016). The development of microsatellite loci through next generation sequencing, and a preliminary assessment of population genetic structure for the iconic Australian crane, Brolga (*Antigone rubicunda*). Nature Glenelg Trust, Warrnambool, Victoria
- [2] Victorian State of the Environment 2023 Report – Report Indicators. Commissioner for Environmental Sustainability
- [3] Inka Veltheim, Simon Cook, Grant C. Palmer, F.A. Richard Hill, Michael A. McCarthy, Breeding home range movements of pre-fledged brolga chicks, *Antigone rubicunda* (Gruidae) in Victoria, Australia – Implications for wind farm planning and conservation, Global Ecology and Conservation, Volume 20, 2019, e00703, ISSN 2351-9894, <https://doi.org/10.1016/j.gecco.2019.e00703>.
- [4] Lindenmayer, D.B., Lavery, T. & Scheele, B.C. Why We Need to Invest in Large-Scale, Long-Term Monitoring Programs in Landscape Ecology and Conservation Biology. *Curr Landscape Ecol Rep* 7, 137–146 (2022). <https://doi.org/10.1007/s40823-022-00079-2>
- [5] Public Consultation Draft- Handbook for the development of renewable energy in Victoria. Guidance minimisation and compensation of impacts on biodiversity (DEECA 2025).
- [6] Aaron T. Pearse, Kristine L. Metzger, David A. Brandt, Jill A. Shaffer, Mark T. Bidwell, Wade Harrell. Migrating whooping cranes avoid wind-energy infrastructure when selecting stopover habitat. *Ecological Applications*, 2021; DOI: 10.1002/eap.2324