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Environmental & Social Consultants

NEOEN

PUBLIC COMMENT RESPONSE REPORT (2021-9137)

Mount Hopeful Wind Farm

FINAL

March 2024

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Prepared by
Umwelt (Australia) Pty Limited
on behalf of
Neoen Australia Pty Ltd

Report No. 22753/R14
Date: March 2024

Environmental & Social Consultants

This report was prepared using Umwelt's ISO 9001 certified Quality Management System.

Acknowledgement of Country

Umwelt would like to acknowledge the traditional custodians of the country on which we work and pay respect to their cultural heritage, beliefs, and continuing relationship with the land. We pay our respect to the Elders – past, present, and future.

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1.0 Introduction

Pursuant to section 95A(3) of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the public were invited to comment on the draft Preliminary Documentation for the Mount Hopeful Wind Farm Project (2021/9137). Public comments were sought over a period of 40 days, with a submission close date of 17 October 2023.

The provision of draft Preliminary Documentation was provided online, hard copies were also made available without charge at the Rockhampton Regional Library, Banana Shire Library and State Library of Queensland.

This report presents a summary of the submissions received, as well as providing a response. Where relevant, this report also identifies where updates to the Preliminary Documentation have been made in response to public commentary.

1.1 Public Submissions

The project received 13 submissions during the notification period. These submissions are itemised below, and complete copies are provided in **Appendix A**.

Table 1.1 Public Submissions

Submission Number	Date Received	Submission Subject Heading
1	10/14/2023	Objection for Mount Hopeful Wind farm
2	10/15/2023	Gawara Baya Wind Farm
3	10/16/2023	Urgent Request for an extension - Mount Hopeful Wind 2021-9137
4	10/16/2023	See Email "Mount Hopeful Wind, Rockhampton OBJECTION SUBMISSION"
5	10/16/2023	See Email "Comments on Mount Hopeful Wind Farm Preliminary Documentation"
6	10/16/2023	Mount Hopeful Wind development, Rockhampton EPBC 2021/9137
7	10/17/2023	See Email: "Invitation to comment on the Preliminary Documentation for Mount Hopeful Wind Farm (EPBC 2021_9137)"
8	10/17/2023	See Email: "Mt Hopeful Wind Industrialisation submission EPBC 2021/9137 from Dr Michael Seebeck"
9	10/17/2023	See Email: "FW_ Objection to_ MOUNT HOPEFUL WIND FARM (EPBC 2021_9137)"
10	10/17/2023	See Email: "Submission Comment on Draft Environment Report"
11	10/17/2023	See Email: "Mount Hopeful Preliminary Documentation EPBC 2021/9137"
12	10/18/2023	2021/9173 Objection Mt Hopeful Wind Farm
13	10/17 2023	COMMENT ON THE PRELIMINARY DOCUMENTATION FOR PROPOSED MOUNT HOPEFUL WIND FARM - EPBC NUMBER: 2021/9137

1.2 Concerns Raised

The approach taken to respond to public comments was to identify and catalogue submissions concerns or themes. This enables a direct and robust response to the issue at hand. In total, 24 concerns were raised through Public Comment, summarised below in **Table 1.2**.

Table 1.2 Concerns Raised

	Number of Submissions
Public Comment Process	3
General comments on renewable energy and wind farms	6
General comments on HSE of Wind Farms	7
Project Location and Siting	8
Cumulative impacts	7
Methodology and Survey Approach	3
Desktop assessment	2
Assessment of state matters	1
Remnant vegetation	6
Threatened species – likelihood of occurrence	1
Greater glider	3
Koala	4
Yellow-bellied glider	2
Northern quoll	2
Squatter pigeon	1
Macropods	1
Wildlife mortality and animal welfare	2
Insufficient monitoring effort or planned monitoring effort of bird and bat strikes	5
Biodiversity Corridors and Fragmentation	4
Offsets / Compensation	8
Weeds	1
Species decline and significant impact assessment process	2
Groundwater	6
Great Barrier Reef – degradation	2

1.3 Response to Concerns

A full response to all concerns raised is provided in **Table 1.3**. Where updates to the draft Preliminary Documentation have been made to address a submission, this has been identified within the relevant response item.

Table 1.3 Response to Concerns

Concerns Raised	Submission Number	Response
Public Comment Process		
Concerns on the public notification and comment process not being equitable between renewable energy projects and other types of projects.	1	DCCEEW confirmed to Neoen that the public comment process is the same for all projects when the project is being assessed by Preliminary Documentation under the EPBC Act, and that it is generally the same process for all assessment approaches. Under the Bilateral Agreement between Queensland and the Commonwealth it is possible that if a project is given Coordinated Project status by the Queensland Government, the Office of the Coordinator-General elect to receive public comments directly (see section 5 of Class 2 of the bilat). This is not the norm, though. The Mount Hopeful Wind Farm does not have the status of Coordinated Project and has therefore had to follow the standard assessment process.
Concerns that the public will have the opportunity to comment on a comprehensive weed management plan.	7	Attachment F - Preliminary Vegetation Management Plan presents the key measures that will be implemented to prevent the spread of weeds resulting from the Project. The detailed weed and pest management plan will form part of the detailed Construction Environmental Management Plan which will be prepared by the Contractor during the detailed design phase prior to construction. Public comment on Project aspects, post approval, are not required by the EPBC Act. DCCEEW will be consulted with as required, and as part of the various post approval elements (for example the offset area management plans).
Concerns that the public will have the opportunity to comment on the results of the Pre-Clearance surveys.	7	Pre-clearing surveys have been commissioned by Neoen, and are the subject of ongoing focus as part of Project design optimisation. Public comment on Project aspects, post approval, are not required by the EPBC Act. DCCEEW will be consulted with as required, and as part of the various post approval elements (for example the offset area management plans).
Concerns that the allotted time for public comment on the PD was insufficient.	3	In Accordance with the Direction to publish issued by DCCEEW for Mount Hopeful Wind Farm, the information was available for public comments for 20 business days, from 20 September 2023 to 17 October 2023, which is twice as long as the minimum statutory period prescribed in the EPBC Act. The invitation to comment was published in the Courrier Mail (paper and online versions) and on the Project's website. It was also published on Banana Shire Council's website and in Gladstone today. The information was made available to the public on the Project's website and at the Banana Shire Council library, the Rockhampton Regional Council library and at the State Library of Queensland. Only one comment (12) was received after 17 October 2023 and it has been addressed in this response.

Concerns Raised	Submission Number	Response
General comments on renewable energy and wind farms		
Concerns that the Project is not a strategic necessity for the transition to renewable energy.	6	In the Queensland Energy and Jobs Plan (QEJP) released in September 2022, the Queensland government made strong commitments including reducing electricity emissions by 90% by 2035–36, lowering electricity bills for households and businesses, and creating 64,000 jobs in clean energy infrastructure. To achieve these objectives, the QEJP sets ambitious targets for the development of renewable energy generation: 70% by 2032 and >80% by 2035. The Queensland government estimates that a total of 25 GW of large-scale wind and solar generation capacity will be required by 2035 to achieve these targets. With a capacity of approximately 400 MW, Mount Hopeful Wind Farm has the potential to address a significant part of this demand by providing clean and affordable electricity equivalent to the consumption of approximately 240,000 households.
Concerns that there is currently not enough capacity in the grid for the energy produced by the Wind Farm.	6	In 2019, Neoen lodged a Connection Enquiry to Powerlink, to check the feasibility of the connection to the transmission network of up to 500 MW at Mount Hopeful. In their response, Powerlink confirmed that there is sufficient capacity at this location on the transmission network for the Project to export up to 500 MW. Neoen and Powerlink have worked closely together on this Project since then, leading to the submission by Neoen of a Connection Application for Mount Hopeful Wind Farm in November 2022.
Concerns that the Project will not result in an overall reduction of CO_2 emissions or have a beneficial impact on climate change.	2, 7, 8, 11	Recent Life Cycle Assessments (LCA) undertaken for wind turbines similar to the ones proposed for Mount Hopeful Wind Farm calculate total emissions to be well below 10gCO_2eq/kWh[1,2], considering whole-life impacts including turbine manufacturing, installation and operation. Note that these assessments also take into account that a small part of the SF6 contained in turbine and substation switchgears, which may be released during operation or at end-of-life during the switchgear reclamation and recycling process. In comparison, the estimated emissions associated with the grid electricity mix in Queensland is 800gCO_2eq/kWh[3]. With an expected electricity production of 1,115,000 MWh/year, the Project is expected to displace more than 892,000 tonnes of CO_2eq/year (see 5.7.3 and 5.7.4 of Preliminary Documentation), i.e., 26.8 m tonnes of CO_2eq over 30 years of operation. According to Carbon Neutral, this is equivalent to the carbon sequestration of 70,000 to 223,000 ha of Biodiverse Reforestation Carbon Offsets plantings over 50 years[4].

[1] https://www.vestas.com/content/dam/vestas-com/global/en/sustainability/reports-and-ratings/lcas/LCA%20of%20Electricity%20Production%20from%20an%20onshore%20EnVentus%20V162-6.2.pdf.coredownload.inline.pdf

[2] https://www.nordex-online.com/en/2023/04/two-new-lifecycle-analyses-of-delta4000-product-portfolio-available/

[3] https://www.dcceew.gov.au/sites/default/files/documents/national-greenhouse-accounts-factors-2021.pdf

[4] https://carbonneutral.com.au/reforestation-and-habitat-restoration/#ACCU-info

Concerns Raised	Submission Number	Response
Concerns that renewable energy supply chains rely on modern slavery practises.	4	Neoen's Human rights policy[5] strictly prohibits forced or compulsory labour. This commitment is implemented through obligations within Neoen's engineering, procurement, and construction (EPC) contract, in accordance with Australia's Modern Slavery Act, which include: • The EPC Contractor and each subcontractor must ensure that there are no Modern Slavery Practises in the Contractor's operations or supply chains. • The EPC Contractor must keep appropriate records evidencing the steps taken to ensure compliance with the above. • The EPC Contractor must ensure that none of its subcontractors have been or is the subject of any investigation, inquiry or enforcement proceeding by any Government Agency regarding an offence or alleged offence in Connection with Modern Slavery Practises.
General comments on HSE of Wind Farms		
Concerns that the Project will increase the risk of bushfire in the area.	2, 4, 8, 11, 13	Incidences of wind turbines catching fire are very rare, however, a detailed assessment of the risks associated with each project must be undertaken. A Bushfire Management Plan (BMP) has been prepared for Mount Hopeful Wind Farm by a suitability qualified expert, in consultation with the Queensland Fire Emergency Services (QFES) and made available to the public as part of Neoen's application for a Development Application Minor Change currently under assessment by the Queensland State Assessment and Referral Agency (ref 2305-34727 SPD). The BMP presents a detailed assessment of the specific bushfire hazards associated with the Study Area and outlines the bushfire mitigation measures which must be implemented during construction and operation of the wind farm. These measures include design and maintenance specifications for Asset Protection Zones around wind farm infrastructure, access requirements for firefighting services and design requirements for fire-fighter water supply. The Wind Farm will also need to be designed and operated in compliance with the Queensland *Electrical Safety Act 2002* and its regulations and the electrical safety codes of practice by the Electrical Safety Office of Queensland (ESO 2020a, ESO 2020b and ESO 2021). Generally, a wind farm provides advantages to firefighting and prevention, including additional access tracks and lightning conductors through the landscape, fire breaks, and better monitoring and communications. A separate Emergency Response Plan will be prepared by the EPC Contractor prior to construction and a fire-fighter operation plan will be prepared before commencement of the operational phase, in consultation with the local Rural Fire Brigades.

[5] https://neoen.com/app/uploads/2022/11/2022-Neoens-Human-Rights-Policy-1.pdf

Concerns Raised	Submission Number	Response
Concerns that the Project will have Health impacts to the local community population, including due to visual disturbance, noise and electromagnetic emissions.	4, 8	There are nearly 200,000 wind turbines installed worldwide — many of them in more densely populated areas close to houses. Some 17 reviews of research literature conducted by leading health and research organisations from all over the world, including the World Health Organisation, Australia's National Health and Medical Research Centre, the UK Health Protection Agency and the US National Research Council, have concluded there is no published evidence to positively link wind turbines with adverse health effects. Neoen has commissioned the following technical assessment studies for the Mount Hopeful Wind Farm undertaken by suitably qualified experts: • A Noise Impact Assessment was prepared for the Project by Sonus, which included background noise monitoring and predictive noise modelling of the worst-case scenario, considering the latest 63-turbine layout and the noisiest turbine technology potentially available for the Project. This modelling confirmed that the Project is compliant with the applicable Queensland regulations with respect to maximum noise threshold allowed at sensitive receptors around the project. A Noise Monitoring Plan has been prepared since then and includes noise measurements to be undertaken pre and post construction to verify that the Project complies with the approved noise limits at key sensitive receptors. • An Electromagnetic Interference (EMI) assessment has been prepared by WSP. The studies analysed potential interferences to radio communications in the areas, including to existing point-to-point radio links, radar, mobile phone and TV and radio broadcasting and reception. It confirms that the Project complies with Queensland's Wind Farm State Code 23 and associated guidelines. The report also concludes that wind turbines will have to satisfy the requirements of several standards including IEC 61400-1, meaning that Electromagnetic Field (EMF) emissions will pose minimal risk the general public. • A Landscape and Visual Impact Assessment (LVIA) was prepared by LatStudios, which describes the potential impacts on scenic amenity or landscape values and considers mitigation measures to reduce visual impacts. The assessment concludes that the design of the Project is consistent with the requirements of Queensland's Wind Farm State Code 23 and associated guidelines. These studies were made available to the public as part of the State Development Approval process ref 2305-34727 SPD. In the lead up to construction, a formal complaints management process will become available through the Mount Hopeful Wind Farm website where neighbours can raise issues.

Concerns Raised	Submission Number	Response
Concerns that the Project will release toxic waste in the environment.	4, 8, 9, 10, 13	Prior to construction, a detailed Construction Environmental Management Plan will be prepared by the EPC Contractor which will include a waste management plan. As described in Attachment D of the Preliminary Documentation, the plan will use a hierarchical approach to waste management, from the most preferable (reduce, reuse or recycle) to the least preferrable (disposal), and prioritise waste management strategies to avoid waste generation. Where waste cannot be avoided, waste materials will be segregated by type for collection and removal (for processing or disposal) by licensed contractors. As presented within Attachment D of the Preliminary Construction Environmental Management Plan, the During construction and operation, all chemicals, fuel and oil will be stored in above ground tanks in bunded areas, with accurate records maintained of volumes purchased and stored, to ensure any contamination of land or water is prevented, and any spill is detected quickly. An Emergency Spill Containment Plan will be developed detailing the clean-up and mitigation measures to be implemented in the event of a spillage or leak of potentially hazardous substances. Spillages of all dangerous goods and contaminated materials will be rendered harmless through investigation, collection and disposal at a suitable disposal facility. Regular groundwater quality sampling will be conducted during construction, using the existing registered bore hole network, and also following a major spillage/leakage event. Fill material imported from offsite will be procured from a licensed quarrying facility and accompanied by relevant documentation to verify it is contaminant/acid sulfate soil free. Contaminated fill material exported from site will be disposed at a facility licensed for the disposal of such material. A Preliminary Waste Management Plan was already prepared specifically for the workers' camp and made available to the public as part of the Stage Development Approval process (ref 2305-34727 SPD). Wasterwater produced by the camp is expected to be treated and disposed of on site. This is typically via a Biomax, OzziKleen or similar treatment facility. The treatment facility will typically generate sludge from the waste treatment process. While a majority of the waste generated will be treated and discharged via a fenced off spray field or treated water holding pond, the sludge will be required to be removed on a periodic basis. This is typically removed via a waste management company, and the design can include some other waste minimisation processes for the sludge such as drying beds or a dewatering unit. There may also be opportunity to utilise treated water for dust suppression (depending on the level of treatment). The construction and operation of a wastewater facility would be subject to appropriate approvals being obtained by Neoen or the camp provider. This process will occur following the selection of the wastewater treatment facility.

Concerns Raised	Submission Number	Response
		At the end of the operation of the Project, wind turbines and all above-ground components will be removed and either reused, recycled or transported to a licenced facility for disposal. A Preliminary Decommissioning Management Plan was prepared for Mount Hopeful Wind Farm and was included in the Preliminary Documentation for public comments. It lists the likely decommissioning materials classified by category, expected quantity and expected end use.
Concerns that turbine blade erosion releases large quantities of bisphenol A (BPA) into the surrounding environment.	4, 8, 13	The independent research to which these comments refer comes from a report which was self-published by a group in Norway and has not been peer-reviewed or published in any academic journals. A recent factsheet[6] published by the American Clean Power Association recently addresses the claims made in this report. According to American Clean Power Association, wind turbine blades contain only microscopic traces of residual BPA and are designed with protective coatings to prevent erosion and operate in harsh weather conditions for up to 30 years. If released to a natural environment, the trace amounts of BPA will rapidly undergo biodegradation and do not pose a risk to the environment or people.
Concern that the PD is not clear in regards to the objectives and timeframes of the post decommissioning rehabilitation	13	Section 6 of Appendix I of the Preliminary Documentation states that a Rehabilitation Management Plan (RMP) is required to be prepared prior to construction works commencing. The RMP is to detail the rehabilitation goals and objectives of the Project, site rehabilitation plans, the rehabilitation strategy to achieve the rehabilitation goals and objectives and a maintenance period of at least 5 years. The overall objective of the rehabilitation activities will be to return the site to pre-construction conditions, however specific rehabilitation will be developed in consultation with the landowners prior to the decommissioning process. Section 7 of Appendix I of the Preliminary Documentation also states that substantial decommissioning activities will commence within six months of turbines no longer generating permanently. It is anticipated that all major onsite decommissioning activities would occur within a period of ten to twelve months. Ongoing site monitoring, maintenance and rehabilitation activities will continue beyond this time.
Concerns that the project will be harming agricultural productivity.	4	Wind farms in Australia and around the world are commonly sited on agricultural land. Neoen owns and operates several wind farms on agricultural land including the Hornsdale wind farm in South Australia – in operation since 2016 – and the Bulgana wind farm in Victoria – in operation since 2020 – both of which coexist successfully with cropping and sheep grazing and on which no impacts on farming productivity have been reported. Grazing or cropping can usually continue during the operation of the wind farm on all areas that are not directly used for tracks, turbine hardstands and other ancillary infrastructure. There are no documented effects on livestock production and sheep and cattle are known to benefit from the shade from wind turbine towers during summer.

[6] https://cleanpower.org/wp-content/uploads/2023/03/ACP_MicroplasticsFactSheet_March-2023.pdf

Concerns Raised	Submission Number	Response
Concerns that if the Project is sold, the new owner of the Project will not be responsible for compliance with commitments set out in the Preliminary Documentation.	13	If the Project is sold, the new owner of the Project will have to comply in full with all obligations set out in the Preliminary Documentation and in any of the State and Federal Approval Conditions.
Project Location and Siting		
Concern about the location of the Project, and possible alternative locations, such as cleared or degraded areas were not fully considered. Concern that the selection of the Project location has resulted in unjustified interference with threatened species.	1, 5, 6, 7, 8, 9, 10, 11	Mount Hopeful Wind Farm is part of the Central region identified by the Queensland government as one of the three priority regions to establish Renewable Energy Zones. According to the QEJP, 8 GW of large-scale wind and solar generation is strategically required in this region to support heavy industry to switch to renewable energy and decarbonise their operations. Gladstone has also been identified by the Queensland government as a key industrial hub for the production of clean hydrogen. Mount Hopeful Wind Farm's Study Areas was selected by Neoen after a thorough comparative analysis of prospective sites in the region. It presents many advantages for the development of a Wind Farm, which include: • High wind resource. • Proximity to a strong point of connection to Powerlink's transmission network, with an existing 275 kV line located less than 6 km away from the Project's Northern substation, and sufficient capacity to export the Project's generation. This point of connection is conveniently located close to large load centres in Gladstone and Rockhampton. As part of the QEJP and TAPR, Powerlink is also planning to undertake significant grid reinforcement works in the Gladstone region, which will facilitate the export of the Project's generation to heavy load centres and further reduce the risk of congestion on this part of the network. • Low population density, with no turbine being located within less than 3 km of any non-host dwellings. This allows the Project to minimise impacts to local populations. • Opportunities for micro-siting into already cleared or regrowth vegetation types. With all host properties managed as grazing properties, large areas of lower ecological value are available. An internal assessment undertaken by Neoen seeking for alternative sites in the region shows that other sites with similar wind resource where there is not already a proposed wind farm are either within a National Park or a State Forest, or are located too close to densely populated areas or too far from the existing transmission network to be economically viable.

Concerns Raised	Submission Number	Response
		Following site selection, Neoen has conducted thorough studies including wind monitoring, civil and electrical engineering and environmental impact assessments focusing on flora and fauna, bushfire and flood risks, visual impact, noise, electromagnetic interference, aviation, transport and traffic. Based on the findings of those studies, the Project's infrastructure was sited to harvest the best wind resource available within the Project Area, while seeking to minimise environmental impacts and costs. The avoidance of MNES values has been demonstrated through both selection of the Study Area and the design and siting of the Development Corridor. Revisions to both have occurred throughout the life of the Project as a result of community and landholder consultation, wind resource data, grid connectivity options and an understanding of on-ground constraints including MNES. The Development Corridor shown within Preliminary Documentation has been subject to an ecological constraint analysis. The purpose of the constraint analysis was to determine priority avoidance areas based on the presence (potential and known) of flora and fauna values with varying sensitivity levels and environmental significance including MNES status. For example, this avoidance process has prioritised ecological values considered unique or uncommon in the landscape (e.g. breeding and denning habitat for northern quoll (*Dasyurus hallucatus*)). More available or widely distributed ecological values were also prioritised, however given the broadness of requirements coupled with the nature of their distribution, avoidance was generally more difficult. This process has directed infrastructure towards pre-disturbed areas, avoiding MNES values to the greatest extent possible.
Cumulative impacts		
Concern that preliminary documentation excludes a comprehensive section on cumulative impacts, particularly for threatened species.	7, 2, 3, 5, 11, 10, 13	Whilst the specific assessment of the cumulative impact of other proposed and approved development was beyond the scope of the Preliminary Documentation, there are factors of the approval process which ensures past, ongoing and potential future impacts to the species is considered. These include: • The EPBC conservation status of the species reflects the historic cumulative impact. • Latest Conservation Advice documents for koala, greater glider (southern and central) and yellow-bellied glider accounts for the habitat loss and directly mortality of the 2019–2020 bushfire season. • Assessment and minimisation of the impact to ecological corridors ensuring sufficient remnant vegetation will be retained within the corridor to facilitate wildlife movement and flora dispersal throughout the landscape. • *Cycas megacarpa* impacts were reviewed in the context of the population, including those contained within or adjacent to the Project.

Concerns Raised	Submission Number	Response

		• Statistical collision modelling was completed for white-throated needletail which considered the site population size when estimating annual number of collisions.
		• The significant impact assessment evaluates factors at a regional and even species-level such as identifying, avoiding and minimizing impacts to:
		  ○ **Habitat critical to the survival of a species** such as breeding and denning habitat, refuge habitat.
		  ○ **Important population** of a species necessary for genetic diversity or maintain the species' extent of distribution.
		  ○ **Important migratory habitat** of critical importance to the species at particular life-cycle stage, utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, utilised by a migratory species which is at the limit of the species range.
		These reasons stated above demonstrate how the cumulative historical and ongoing impact, threats and pressures to each species have been integrated into the Preliminary Documentation.

Methodology and Survey Approach		
Concerns that the fauna surveys were inappropriate in scale and methodology.	7, 8, 13	The fauna survey is considered comprehensive and suitable for the Project, conducted in accordance with State and Commonwealth guidelines. In total, a minimum of 17 field surveys have been completed (with further surveys scheduled to inform management planning), incorporating a mix of survey techniques appropriate for the species likely to occur. The fauna survey effort is presented within Section 3.1 of the Preliminary Documentation and included: • 58 hours of diurnal collared delma searches • 27 pitfall trap nights • 115 hours of diurnal bird surveys • 206 hours of BBUS vantage point surveys • 269 habitat assessments • 81 habitat quality assessment • 490 camera trap nights • 320 Elliot trap nights • 62 hours of spotlighting • 6 hours of call playback • 20 Spot Assessment Technique

Concerns Raised	Submission Number	Response
		• 14 harp trap nights • Anabat call detector of 111 nights. In accordance with assessment guidelines, the Project field assessments targeted a representation of habitat within the Study Area, including the proposed clearing footprint. The field assessments were conducted over several years and seasons. Field surveys were required to be completed within the bounds of ethical and health and safety guidelines, limiting the deployment of pitfall traps, which can result in injury or mortality to fauna. However, given the level of survey across other methods, alignment with fauna survey guidelines in Queensland, alignment of threatened species survey guidelines, the approach is considered adequate. Threatened species such as northern quoll was confirmed from the Study Area, demonstrating the appropriateness of survey in the area for cryptic and rarely recorded fauna. In addition to the comprehensive field surveys undertaken to date, preclearance surveys and seasonal surveys associated with the bird and bat adaptive management plan will be implemented by Neoen.
Concerns that the flora survey methodology was inappropriate.	8, 13	Surveys for threatened plant species rely on visual searches in suitable habitat. This includes targeted threatened flora surveys, typically undertaken as meanders in suitable habitat, and opportunistic surveys during all other survey effort. This maximises the changes of finding threatened flora and is the accepted approach for flora surveys in Queensland. The vegetation and flora survey effort is presented within Section 3.1 of the Preliminary Documentation and included: • 7 secondary plots and 341 quaternary plots were completed to determine floristic characteristics and vegetation communities. • Opportunistic *Cycas megacarpa* searches throughout the survey program. • Targeted searches for *Cycas megacarpa* throughout the disturbance footprint plus an additional 5 m. • Targeted searches for *Cossinia australiana, Decaspermum struckoilicum* and *Samadera bidwillii* throughout the development corridor. • Protected plant surveys were undertaken in accordance with the Protected Plant Flora Survey Guidelines – *Nature Conservation Act, 1992.*

Concerns Raised	Submission Number	Response
Concerns on the effectiveness of translocation of threatened flora species.	8	A translocation plan has been proposed for *Cycas megacarpa* only and the Preliminary *Cycas Megacarpa* Translocation Plan has been developed in accordance with the *National Multi-species Recovery Plan for Cycads* (Queensland Herbarium, 2007), the *Guidelines for the Translocation of Threatened Plants in Australia* (Commander *et al* 2018) and with consideration to learnings from other translocation programs for the species. This species has been successfully translocated in the past with survival rates greater than 90%. Due to this species toxicity to cattle stock, it is often removed by landholder from otherwise suitable habitat, presenting opportunities for reintroduction and protection within suitable habitat. Potential recipient sites have been assessed for suitability which included the slope, access, existing vegetation structure and susceptibility to flooding events.
Desktop Assessment		
Concerns that the desktop assessment search was not demonstrated with a map and not conducted at an appropriate scale and therefore potentially failed to include EPBC listed matters found throughout the landscape.	7	A desktop search extent of 10 km was conducted and incorporated into the Assessment of Matters of National Environmental Significance – Preliminary Documentation (2021/9137). The search extent was based on a buffer from the Study Area boundary – rather than a central coordinate. This distance is considered conservative, and thus suitable for the assessment. The search extent captures a range of species and communities, for which a likelihood of occurrence was completed. Further, the limitations of the Protected Matters Search Tool, inherently provide a conservative search and species list for review. Given the availability of the Protected Matters Search Tool, along with the description provided of the Project desktop methodology provided in Section 4.1 of Attachment B of the Preliminary Documentation, a map designating the 10 km buffer of the Project is not considered needed.
Concerns that additional, thorough on-ground surveys targeting additional EPBC threatened flora and fauna surveys are required but will not be conducted to determine each species' likelihood of occurrence.	7, 13	Flora surveys are considered adequate as they comprehensively encompass the Study Area and Development Corridor. The surveys were informed by adequate desktop assessment, which incorporated 10 km buffer of the Study Area. The survey program included the following vegetation and flora surveys: • 105 BioCondition assessments. • 7 secondary plots and 341 quaternary plots were completed to determine floristic characteristics and vegetation communities. • Opportunistic *Cycas megacarpa* searches throughout the survey program. • Targeted searches for *Cossinia australiana*, *Decaspermum struckoilicum* and *Samadera bidwillii* throughout the development corridor. • Subsequent protected plant surveys were undertaken in accordance with the Protected Plant Flora Survey Guidelines – *Nature Conservation Act, 1992.*

Concerns Raised	Submission Number	Response
		The vegetation and flora survey methodology and effort were consistent with the guidelines specified within the BioCondition Assessment Manual (v2.2), Methodology for Surveying and Mapping Regional Ecosystems and Vegetation Communities in Queensland (v6.0), Protected Plant Flora Survey Guidelines. In addition and as detailed in Attachment F, Preliminary Vegetation management Plan, the Project has committed to preclearance surveys for threatened flora within 12 months prior to clearing, and preclearance constraints protocol, which comprises actions should a threatened flora species (beyond *Cycas megacarpa*) be identified. Preclearance surveys include all habitat types from which threatened flora may be known, including Eucalypt woodland habitat types. A summary of this protocol includes the immediate halt of construction in the area, an investigation into potential impacts, update and review of habitat mapping, significant impact assessment and avoidance strategies. DCCEEW will be consulted on the proposed avoidance and mitigation, as well as next steps for Project. The following threatened plant species were assessed as low within the likelihood of assessment and therefore were not targeted within the survey scope. *Bosistoa transversa* was assessed as a low likelihood of occurrence as there are no records of the species within 10 km of the northern and southern boundaries of the study area. The species is associated with rainforest species including *Argyrodendron trifoliolatum*, *Syzygium hodgkinsoniae*, *Endiandra pubens*, *Dendrocnide photinophylla*, *Amena ingens*, *Diploglottis australis* and *Diospyros mabacea.* Habitat in the study area was considered marginal for the species. *Marsdenia brevifolia/ Leichardtia brevifolia* was assessed as a low likelihood of occurrence No records of this species are known from the desktop search extent, with the closest records occurring north of Rockhampton. It grows on serpentine rock outcrops or crumbly black soil derived from serpentine in eucalypt woodland, often with broad-leaf ironbark (*Eucalyptus fibrosa*) and *Corymbia xanthope*. The species was not detected during field surveys and habitat within the study area is considered marginal. The following plant species weren't included within the likelihood of assessment as there were no records within the desktop assessment search extent (10 km buffer from the northern and southern boundaries of the study area): • *Bertya opponens*: Closest record more than 30 km away, species was not detected during field surveys, habitat within study area is considered marginal. • *Polianthion minutiflorum:* Closest record surrounds the Callide Timber Reserve more than 30 km for the study area. Species was not detected during field surveys. • *Rhaponticum australe:* Closest record is more than 60 km south of the study area. Species was not detected during field surveys.

Concerns Raised	Submission Number	Response
		Regarding EPBC Act listed fauna, the desktop assessment and corresponding likelihood of occurrence assessment meet State and Commonwealth assessment guidelines. The assessment incorporates public databases and species records, as well as robust field survey effort across multiple seasons. Further baseline fauna surveys are not proposed or warranted at this time. However, the Project has committed to range of threatened species mitigation measures and adaptive measures, including but not limited to a range of non-detected threatened species such as collared delma, koala and red goshawk.
Assessment State Matters		
Concerns that Matters of State Environmental Significance were not assessed within the scope of the PD and should be assessed at an appropriate scale in the landscape with the search extent presented in a figure.	7	As part of the State approval (2109-24892 SDA), the Project has presented a thorough account of impacts to Matters of State Significance, and provided mitigation measures as relevant to the matter. Relevant ecological reports and assessment reports have been provided for public review as part of this process. Matters of State Environmental Significance are not the focus of the MNES report. These matters have been addressed and approved as part of the State approval (2109-24892 SDA). For reference, a desktop search extent of 10 km was conducted and incorporated into the ecological assessment. The search extent was based on a buffer from the Study Area boundary – rather than a central coordinate. This distance is considered conservative, and thus suitable for the assessment. The search extent captures a range of species and communities, for which a likelihood of occurrence was completed. Given the availability of the Protected Matters Search Tool. Other State mapping products, along with the description provided of the Project desktop methodology (Section 4.1 of Attachment B of the Preliminary Documentation), a map designating the 10 km buffer of the Project is not considered needed.
Concerns that additional, thorough on-ground surveys targeting additional state-threatened flora and fauna surveys are required but will not be conducted to determine each species' likelihood of occurrence.	7	The Project has committed to preclearance surveys for threatened flora (see Preliminary Documentation and Attachment F of Preliminary Documentation), on top of protected plant assessments required by the State approval (2109-24892 SDA). The Project has developed and committed to preclearance constraints protocol, which comprises actions should a threatened flora species (beyond *Cycas megacarpa*) be identified. This protocol extends to State listed species. Regarding State listed fauna, the desktop assessment and corresponding likelihood of occurrence assessment meet State and Commonwealth assessment guidelines. The assessment incorporates public databases and species records, as well as robust field survey effort across multiple seasons. Further baseline fauna surveys are not proposed or warranted at this time. However, the Project has committed to range of threatened species mitigation measures and adaptive measures, including but not limited to a range of non-detected threatened species such as collared delma and red goshawk.

Concerns Raised	Submission Number	Response
Remnant Vegetation		
Concerns on the negligence to the project's impact on scarce mature/ remnant and high-value ecological communities and MNES.	1, 6, 7, 11, 13	The Project has completed numerous field surveys and conducted ecological assessment from field validated vegetation mapping. Based on the field validated mapping, the Project will result in the removal of up to 347.9 ha of remnant vegetation, 292.4 ha of regrowth vegetation and 243.3 ha of non-remnant cleared vegetation within the Disturbance Footprint. Of the remnant vegetation within the Disturbance Footprint, 98 % of impact comprises Least Concern Regional Ecosystems, these ecosystems occur widely in the broader landscape. Whilst the impact to remnant vegetation is unavoidable for this Project, project optimisation away from Of Concern or Endangered Regional Ecosystems has been undertaken and continues as part of detailed design. The optimisation of Project infrastructure toward regrowth or non-remnant vegetation also continues. Furthermore, the Development Corridor shown within Preliminary Documentation has been subject to an ecological constraint analysis. The purpose of the constraint analysis was to determine priority avoidance areas based on the presence (potential and known) of flora and fauna values with varying sensitivity levels and environmental significance including MNES status. This avoidance process has prioritised ecological values considered unique or uncommon in the landscape (e.g. breeding and denning habitat for northern quoll (*Dasyurus hallucatus*). This process has directed infrastructure towards pre-disturbed areas, avoiding MNES values to the greatest extent possible. The avoidance of MNES values has been demonstrated through both selection of the Study Area and the design and siting of the Development Corridor. Revisions to both have occurred throughout the life of the Project following community and landholder consultation, wind resource data, grid connectivity options and an understanding of on-ground constraints including MNES. Throughout the life of the Project, potential impacts on MNES will be directly or indirectly managed via Project Management Plans. Extensive mitigation and management measures relevant to MNES will be captured in one or multiple of the Project management plans. Mitigation and management measures stated within Project Management Plans have been developed utilising available best practice guidance or informed by statutory or policies, where available. Performance criteria, mitigation and management measures for risks associated with the introduction and exacerbation of weeds is outlined in the preliminary Vegetation Management Plan, provided as part of Preliminary Documentation. Measures include pre-construction surveys as well as ongoing construction and operation weed inspections and management. For example, pre-construction surveys will serve to identify areas requiring treatment and establish baseline conditions prior to construction such that impacts from the Project can be monitored throughout the Project lifecycle. Areas containing infestations will be treated prior to the commencement of site disturbance and any construction activities.

Concerns Raised	Submission Number	Response
		The Project will rehabilitate temporary ancillary infrastructure locations. With current design details, it is estimated approximately 20% of the total Disturbance Footprint (i.e. the area that will be cleared for the Project) may be able to be rehabilitated following construction. In locations where the integrity of infrastructure will not be compromised, opportunities to create supplementary habitat for MNES values will be investigated. As required under the EPBC Act, the Project will provide offsets for significant and unavoidable impacts to MNES. The proposed approach to securing offsets for the Project is the securement of land within the region that supports habitat for the impacted MNES and is suitable to deliver offsets in accordance with the Offset Policy. Securement of suitable land proximal to the Project is the preferred option, due to proximity to impact value (i.e. offset will benefit locally impacted values) and a high degree of confidence that target MNES values or habitat is present.
Concerns that a greater area than approved was cleared by Neoen on Kaban Wind Farm and that this will happen again on Mount Hopeful Wind Farm.	8, 13	At Kaban Wind Farm, the actual Disturbance Footprint was approximately 24% smaller than the Approved Disturbance Footprint, see Table 3, Condition 1 and Appendix 2 of Kaban Wind Farm's annual compliance reports 2022[7] and 2023[8]. To ensure all Project activities are within the finalised Disturbance Footprint the following measures will be implemented, see Table 5.2 of Attachment F, Preliminary Vegetation Management Plan: • Final clearing extents within the Disturbance Footprint will be demarcated with flagging tape and fencing. • Spatial files (shapefile format) will be provided detailing the Disturbance Footprint and clearing extents. • The Environment Officer will inspect this area on a weekly basis to ensure work is being undertaken within the final clearing extents within the Disturbance Footprint, and that the fencing/ flagging tape is still within the correct location. 'No-go' areas, including clearing limits will be clearly demarcated including the implementation of signage and fencing. Information fact sheets will also be given to applicable land holders. 'No go' areas will include the following: • Where watercourses intersect linear areas of the Project (i.e. access tracks and reticulation cabling), the clearing width will be reduced to 25 m or less wherever it is feasible. The full implementation of this measure is subject to final design, and safe transport of Project components. • Refer to the Preliminary *Cycas megacarpa* Species Management Plan (Attachment E of the Preliminary Documentation) for specific details pertaining to the management of *Cycas megacarpa* and delineation of no-go areas for this species.

[7] https://kabangreenpowerhub.com.au/wp-content/uploads/2023/02/QEJ21046_EPBC-Act-Compliance-Report_Rev0.pdf
[8] https://kabangreenpowerhub.com.au/wp-content/uploads/2023/08/QEJ21046_FY23_EPBC-Act-Compliance-Report_Rev1_Redacted.pdf

Concerns Raised	Submission Number	Response
		• Where Of Concern remnant REs occur immediately adjacent to areas of earthworks, tree protection measures will be installed in accordance with Australian Standard: Protection of trees on development sites (AS 4970–2009). • Personnel will be informed of the sensitive areas within the Disturbance Footprint as well as the procedures for minimising ecological impacts through site inductions, training, and toolbox talks.
Concerns that Neoen will not be liable if it does not comply with its obligations.	13	As the Proponent, Neoen must comply with all obligations set out in the Preliminary Documentation and with any of the State and Federal Approval Conditions. Neoen is liable for any non-compliance and will have the obligation to report any such event to the Department.
Threatened Species – Likelihood of occurrence		
Concerns that the likelihood of occurrence for threatened species does not accurately assess diamond firetail and *Dichanthium Queenslandicum.*	6	The likelihood of occurrence considered both the diamond firetail and *Dichanthium queenslandicum* and considered them both as low. Some suitable habitat for the diamond firetail may exist within eucalypt woodlands within the Study Area, however, the species was not detected during field surveys throughout the study area and there are no records proximal to the Project. *Dichanthium queenslandicum* occurs on black clay soils with the main concentration of populations in central Queensland in the Emerald region. The species was not detected during field surveys and the habitat type on site is marginal with no brigalow woodland, weeping myall woodland or black-soil communities throughout the study area.
Threatened Fauna		
The following concerns were raised for individual MNES species included within the PD.		
Greater Glider		
Concerns that the proposed clearing of regionally important greater glider habitat has not been justified.	7, 13	A maximum of 627.9 ha of greater glider habitat would be directly impacted for construction by the Project. Suitable habitat for the greater glider is widely distributed within and beyond the Study Area, and generally not considered unique or high quality due to the rocky substrate and low water availability (resulting in stunted tree growth and low hollow abundance), historical clearing for agricultural works and ongoing disturbance from weeds and pests. Avoidance and minimisation of breeding and denning habitat was prioritised, including locations where the species is known. Habitat fragmentation impacts have been considered in the design and siting of the Disturbance Footprint. Through the use of pinch points and the installation of glide poles at select locations, movement opportunities for the species will be provided across the Disturbance Footprint.

Concerns Raised	Submission Number	Response
Concerned that the the Central Greater Glider has not been assessed or assessed as per its previous EPBC class of vulnerable.	10	*Petauroides volans* refers to both greater glider (southern and central) as described in the Conservation Advice. The species was reclassified as endangered on the 5/07/22 during the project's assessment. As per the EPBC Act and as the Controlled Action Decision Date (CADD) for the Project is 7th March 2022, the project must assess the species as Vulnerable, as the uplisting occurred after the CADD. However, the offset liability for the species is informed by the current probability of extinction and, as such, is based on its reclassification as endangered. This increases the required offset area as per the Offset Assessment Guide.
Koala		
Concerns that the proposed clearing of koala habitat has not been justified.	7	A maximum of 646.9 ha of potential koala habitat will be directly impacted for construction of the Project, including 641.6 ha suitable for breeding, foraging and dispersal and 5.3 ha of potential climate refugia. Potential habitat for koala is widely distributed throughout the Study Area and is not considered unique or of particularly high quality due to the ongoing disturbance from cattle grazing, weeds and pests. Potential habitat associated with the non-remnant vegetation communities especially, is highly disturbed and often contains a low abundance of koala food trees. The Development Corridor shown within Section 1.4 of the Preliminary Documentation has been subject to an ecological constraint analysis. The purpose of the constraint analysis was to determine priority avoidance areas based on the presence (potential and known) of flora and fauna values with varying sensitivity levels and environmental significance including MNES status. This process has directed infrastructure towards pre-disturbed areas, avoiding MNES values to the greatest extent possible. Moreover, all host properties are managed as grazing properties containing large areas of lower ecological value. An internal assessment seeking for alternative sites in the region shows that other sites with similar wind resource where there is not already a proposed wind farm are either within a National Park or a State Forest, or are located too close to densely populated areas or too far from the existing transmission network to be economically viable.
Concerned that clearing works and subsequent noise emanating from operational turbines will interrupt male koala mating calls during breeding season.	6, 13	Night works within or adjacent to areas of MNES habitat will be avoided where possible to reduce impacts from construction light and noise on MNES species (i.e. by interrupting male koala mating calls during breeding season). Where night works are required, lights will be directed to minimise light spill into adjacent habitats and the use of alternative, low-noise construction equipment considered.

Concerns Raised	Submission Number	Response
		Koalas produce a low frequency bellowing call typically made by a male as a mating call at approximately 27 Hz[9]. This falls within the same low frequency level expected from wind turbine operation between 20–200 Hz. Based on the conservative noise threshold contours developed as part of the Noise Impact Assessment, the severity of noise impact to koalas and other wildlife is low as the increase in ambient noise volume compared to the background noise level of 38 dB is limited to 2 dB/ 5% at 0.5–3 km and 7 dB/ 15% within 0.1–1 km from the WTGs. Therefore, the overall predicted ambient noise level will remain below typical noise thresholds of a rural area (50–55 dB) and other scenarios where koalas and other wildlife persist. An analysis of the behaviour, physiology and ecology of the koala was conducted to deduce the noise impact and assess the species' capacity to respond. This analysis concluded there are three factors of the Mount Hopeful Wind Farm koala population that contribute to its capacity to adapt to the potential limited operational noise impact of the wind turbines. These include a high dispersal range during breeding season, alternative and non-impacted olfactory communication method through scent marks and the non-reliance of audio communication for foraging. In conclusion, the noise impact is not expected to reduce the ecosystem function of nearby vegetation nor prevent communication between koalas or other wildlife. Potential noise impacts on wildlife and koala were further considered as part of updates to Preliminary Documentation (Refer Section 8.25 of Attachment B, Assessment of Matters of National Environmental Significance).
Concerns that the project's impact will degrade koala habitat and cause ongoing stress to the local koala population, particularly in times of drought when they depend on climate refugia habitat.	10	• A maximum of 646.9 ha of potential koala habitat will be directly impacted for construction of the Project, including 641.6 ha suitable for breeding, foraging and dispersal and 5.3 ha of potential climate refugia. Potential habitat for koala dominates the Study Area and is not considered unique or of highest quality due to the ongoing disturbance from cattle grazing, weeds and pests. Overall, the climate refuge (vegetated riparian zones) was in low to moderate condition throughout the impact and offset sites due to historic and ongoing land use. • Potential habitat associated with the non-remnant vegetation communities especially is highly disturbed and, in places, contains a low abundance of koala food trees. The continued optimisation of Project infrastructure toward regrowth or non-remnant vegetation is being completed by Neoen. • Although the koala is considered highly mobile and is known to disperse through cleared areas, it is while making these movements that they are most susceptible to vehicle collision and attack by dogs and other predators. Siting of the Development Corridor and Disturbance Footprint has considered the location of MNES values in the landscape and the use of existing disturbed or cleared areas has been prioritised.

[9] Teff-Seker, Y, Berger-Tal, O, Lehnardt, Y and Teschner, N, 2022, Noise pollution from wind turbines and its effects on wildlife: A cross-national analysis of current policies and planning regulations.

Concerns Raised	Submission Number	Response
		• A Vegetation Management Plan and Fauna Management Plan will be implemented throughout the site to mitigate habitat degradation around the impact footprint and include the following measures: o Micro-siting of Project infrastructure will maximise the use of existing breaks in vegetation and areas of previously cleared land as much as practical. o Where watercourses intersect linear areas of the Project (i.e. access tracks and reticulation cabling) the clearing width will be reduced to 25 m or less wherever it is feasible. The full implementation of this measure is subject to final design and safe transport of Project components. o To minimise further loss of vegetation, trees will be felled away from areas of retained vegetation where practicable. Where trees unavoidably fall into retained areas, they will be left in-situ to mimic natural tree fall and provide habitat for ground-dwelling fauna. • The following mitigation measures will be implemented to reduce stress to koalas during clearing: o A qualified fauna-spotter will be present at all times during clearing and pre-clearance surveys. o Habitat trees and features that can be avoided will be demarcated. If construction is planned to occur in proximity to a habitat tree/s to be retained, a tree protection zone (TPZ) may be established if deemed necessary by the spotter-catcher. The TPZ will be calculated using Australian Standard (AS) 4970-2009. o Movement within the Study Area will be via approved access tracks only with speed limits enforced. The requirement to enter and traverse the Study Area will be minimised and limited to those required for essential Project activities. o Night works within or adjacent to areas of MNES habitat will be avoided where possible to reduce impacts from construction light and noise on MNES species (i.e. by interrupting male koala mating calls during breeding season). Where night works are required, lights will be directed to minimise light spill into adjacent habitats and the use of alternative, low-noise construction equipment considered. o Fauna exclusion fencing will be installed around infrastructure that may pose a hazard such as the substation and laydown areas. Elsewhere, fencing will only be installed as required and will be 'fauna-friendly' (i.e. not barbed wire). o The following weed and pest management objectives will be implemented within the disturbance footprint and 5 m buffer as part of the Weed and Pest Management Plan:

Concerns Raised	Submission Number	Response
		▪ Maintain (or improve) the condition of retained habitat compared against baseline condition in terms of disturbance from weeds and pests. ▪ No introduction or proliferation of invasive weed species or pest fauna species.
Yellow-bellied Glider		
Concerns that field surveys and assessment of impact to the yellow-bellied glider will not be conducted.	7	The Preliminary Documentation (Section 6.4.2 of the MNES Preliminary Documentation) provides assessment of the Yellow-bellied glider. Baseline field surveys for the species and associated habitat were completed, and are provided for within the report. The yellow-bellied glider (south-eastern) is known to the Study Area, having been recorded on four occasions, during nocturnal surveys in Autumn, 2021. One record was confirmed via vocalisation, during a call playback survey in October 2021, while the remaining individuals were observed visually during spotlight searches. All records occur in the far-northern extent of the Study Area where the sub-species was recorded utilising *Eucalyptus moluccana* woodland. Potential impacts to the yellow-bellied glider (south-eastern) were assessed and included habitat clearing, fragmentation of remaining habitat, increasing edge effect and direct mortality during construction phase. Avoidance and mitigation measures are presented within Section 5 of the Preliminary Documentation and include stage clearing to allow for individual dispersal, installation of glide poles at pinch points to allow dispersal across roads, micrositing and retaining hollow-bearing trees, developing and implementing a Vegetation management plan (Attachment F – Preliminary Vegetation Management Plan).
Concerns that the proposed clearing of yellow-bellied glider habitat has not been justified.	7, 13	The Development Corridor was situated and refined to determine priority avoidance areas based on the presence (potential and known) of flora and fauna values with varying sensitivity levels and environmental significance including MNES status. Notwithstanding, a maximum of 322 ha of yellow-bellied glider (south-eastern) habitat will be directly impacted for construction of the Project, including 163.3 ha suitable for breeding and denning and 158.7 ha suitable for foraging and dispersal. Suitable habitat for the yellow-bellied glider (south-eastern) is generally common within the Study Area and has been the subject of historical clearing for agricultural works and ongoing disturbance from weeds and pests. Habitat fragmentation impacts have been considered in the design and siting of the Disturbance Footprint and installation of glide poles at select locations have been proposed ensuring movement opportunities for the sub-species will be provided within the Disturbance Footprint. Furthermore, habitat availability is expected to be high in the wider local area.

Concerns Raised	Submission Number	Response
Northern Quoll		
Concerns that the proposed clearing of northern quoll habitat has not been justified.	7, 13	The purpose of the constraint analysis was to determine priority avoidance areas based on the presence (potential and known) of flora and fauna values with varying sensitivity levels and environmental significance including MNES status. This avoidance process has prioritised ecological values considered unique or uncommon in the landscape (e.g. breeding and denning habitat for northern quoll (*Dasyurus hallucatus*). Significant survey effort was undertaken within the Study Area in accordance with the EPBC Act referral guidelines for the northern quoll (Department of the Environment 2016) to determine the potential presence and density of northern quoll within the Study Area as demonstrated within Section 3.1 of the Preliminary Documentation. The field survey program included a reconnaissance survey in 2019 and targeted trapping survey in 2020 which employed both camera traps (total of 490 trap nights) and Elliot traps (total of 320 trap nights). Sampling locations for the species including representative habitat types, such as ridgelines and knolls. The northern quoll was detected on camera traps on two occasions within fringing riparian woodland. As a result, only 22.1 ha critical breeding and denning habitat will be cleared whilst 574.8 ha of more common northern quoll foraging habitat will be cleared.
Squatter pigeon		
Concerns that potential impacts on squatter pigeon are not justified, nor are mitigation measures adequate.	13	Neoen acknowledges that potential impacts on this species as a result of the Project could comprise habitat loss and degradation, mortality due to vehicle or turbine collision, weed incursion and exacerbation of pest populations including foxes and feral cats. Vegetation clearing required for the construction of the Project will result in direct impacts of up to 5.9 ha of breeding habitat, 1.2 ha of foraging habitat and 361.4 ha of dispersal habitat. This impact on habitat is the avoidable component after a rigorous avoidance and minimisation process. It is also acknowledged the process directs Project impacts toward cleared areas, of which portions are known to overlap with squatter pigeon habitat. In addition to the general mitigation and management measures outlined in Section 9.3.1 of Attachment B of the Preliminary Documentation which include weed and pest management, the following species-specific mitigation measures will be implemented: • Where clearing is proposed for areas of squatter pigeon (southern) breeding, foraging or dispersal habitat, pre-clearance surveys must include flushing to encourage the movement of individuals out of the clearing area. • As squatter pigeon (southern) nests on the ground and is at high risk of direct mortality, nests should be identified and clearly demarcated by a spotter catcher during pre-clearance surveys. If the spotter-catcher determines a nest to be active, it will be managed in accordance with an approved High-risk SMP.

Concerns Raised	Submission Number	Response
		• To reduce vehicle or plant collision or crushing of nests, all vehicles and pedestrians will remain within designated access tracks in areas of squatter pigeon (southern) breeding habitat. • To minimise the chances of a collision, in known squatter pigeon (southern) habitat speed limits will be reduced to 40 km/hr or less (in private areas) and signage will be instated that indicates subspecies' presence (in both private areas and local roads i.e. the access road corridor). • The construction contractor will not conduct water extraction activities at any location that provide suitable resources for squatter pigeon (southern) (i.e. suitable watercourses and reservoirs mapped on Figure 7.13 of Attachment B of the Preliminary Documentation). • As outlined in the Preliminary BBAMP (Attachment G of the Preliminary Documentation), a single squatter pigeon (southern) death will be a reportable incident to DCCEEW and trigger further investigation with regard to causation. Dependent on the outcome of the investigation, the overall collision risk determination for the species may be revised. • Other operational measures relevant to squatter pigeon (southern) are detailed in the Preliminary BBAMP (Attachment G of the Preliminary Documentation). Further, in areas of squatter pigeon (southern) habitat, the progressive rehabilitation actions taken by the Project may benefit the species by: • Re-establishing appropriate ground cover to facilitate safe dispersal opportunities in the short-term. • Providing and protecting groundcover (and therefore food sources and dispersal opportunities) from erosion and sedimentation. • Ensuring weeds are not established (which is a high risk in the early stages of re-vegetation) beyond the historical condition of the site to provide suitable dispersal habitat without prevention of movement. • Improving and maintaining the condition of water sources and associated riparian vegetation impacted by the Project back to historical condition. This will support access for the squatter pigeon (southern) to the permanent water sources this species is known to depend on. • Re-establishing other relevant vegetation strata to provide improved habitat condition and function in the longer term.

Concerns Raised	Submission Number	Response
Macropods		
Concerns that threatened macropods and non-threatened macropods were not included within the desktop assessment or field surveys as part of the PD.	8	No macropod species classified as critically endangered, endangered or vulnerable were returned from the PMST desktop assessment as 'known to occur', 'may occur' or 'likely to occur' within the search area – 10 km north and south of the study area boundaries. This includes the bridled nailtail wallaby with the closest recorded observation >50 km for the proposed development footprint. Therefore, targeted surveys were not required for these species however, multiple non-listed macropods were detected during the baseline surveys as presented within Appendix B of the MNES Preliminary Documentation. These species include eastern grey kangaroo, black-striped wallaby, whiptail wallaby, Herbert's rock-wallaby, unadorned rock-wallaby and swamp wallaby.
Wildlife mortality and animal welfare		
Concerns that the project doesn't account for the direct wildlife mortalities during construction and operation of the windfarm.	8, 13	A preliminary fauna management plan (FMP) has also been prepared to comply with the conditions of the initial development approval (2109-24892 SDA). The final FMP will be prepared by the EPC. The aim of the preliminary FMP is to reduce the potential impact on fauna species and their habitat within the Study Area by outlining mitigation and management measures to be implemented throughout the duration of the Project. With regard to fauna mortality, the preliminary FMP details a procedure for the identification of fauna habitat including breeding places or other shelter that may harbour fauna individuals. It also sets out a procedure for actions to be completed by a fauna spotter catcher, prior to and during vegetation clearing. These actions include: • Inspection to be undertaken by a fauna spotter catcher prior to the commencement of any vegetation clearing activities to identify and communicate the presence of potential fauna habitat. • A fauna spotter catcher will be present at all times during clearing activities. The fauna spotter catcher will inspect habitat features (including but not limited to: hollowing-bearing trees and stags, caves and rocky boulder piles) for threatened and migratory fauna prior to felling, using work platforms, inspection cameras or other methods deemed safe and suitable. Fauna spotters will also be present during earthworks where exposed trenches and holes will be left for periods greater than 24 hours. • A fauna spotter catcher will be present during all vegetation clearing and mulching activities to ensure harm to threatened, migratory and least concern fauna is reduced. Under no circumstances is vegetation clearing or mulching to occur without a fauna spotter catcher present.

Concerns Raised	Submission Number	Response
		• Fauna handling avoided in the first instance and limited to a fauna spotter catcher where fauna species are required to be relocated outside of the Disturbance Footprint. Release of fauna to occur in nearest adjacent retained vegetation in areas that provide suitable dispersal capacity for the species. Release of fauna must consider the behaviours of the animals (i.e. nocturnal animals are not to be released prior to dusk and diurnal animals not be released later than 2 hours prior to sunset to ensure they have time to seek refuge). A range of other measures, including for threatened species and the retention of habitat are also outlined in the preliminary FMP. Corrective actions and reporting requirements to be implemented by the Environment Officer are provided for in the preliminary FMP. Regarding operational wildlife mortalities associated with collision risk, the preliminary BBAMP, provided as Attachment G of the Preliminary Documentation, sets out the proposed monitoring and adaptive management strategies for the Project. This has been prepared with consideration to DCCEEW onshore wind farm guidance documents, as well threatened species survey guidelines and relevant MNES conservation or listing advice. With regard to carcass searches, these are proposed monthly between October–April, with searches during alternating months between May–September. Carcass searches would examine 50% of turbines during any one event, alternating searches between survey events. A register of collision mortalities will be maintained and reported on annually.
Insufficient monitoring effort or planned monitoring effort of bird and bat strikes		
Concerns that bird and bat strikes won't be monitored or modelled sufficiently, and that carcass search effort for birds and bats is insufficient.	5, 8, 9, 11, 13	Monitoring as part of the BBAMP will be conducted in accordance with DCCEEW onshore wind farm guidance. Should the Project be approved, a final BBAMP would be prepared and submitted to DCCEEW for suitability and approval. The Project is unable to proceed without this approved management plan. The preliminary BBAMP, provided as Attachment G of the Preliminary Documentation, sets out the proposed monitoring and adaptive management strategies for the Project. This has been prepared with consideration to DCCEEW onshore wind farm guidance documents, as well threatened species survey guidelines and relevant MNES conservation or listing advice. Timing of the bird monitoring program has been provided based on the southern (October/November) and northern (February/March) migration of EPBC Act listed swifts including white-throated needletail (*Hirundapus caudacutus*) and fork-tailed swift (*Apus pacificus*). Timing of the bat monitoring program coincides with the optimal seasonality for surveying for microbats based on an increase in prey abundance and coincides with the flowering of eucalypts in spring and the period post breeding for flying foxes. Carcass searches are proposed monthly between October -April, with searches during alternating months between May and September. The monitoring will bird monitoring will include observation data made all listed EPBC listed species, as well as records of non-listed species at the time of the survey.

Concerns Raised	Submission Number	Response
		A carrion removal program will run for the operational lifetime of the project and will apply to any carcass found within 200 m of turbines in accessible areas. All bird or bat carcasses should be stored in a double-wrapped plastic bag and placed in a freezer located on site with the appropriate information labelled for identification. The following information will be collected for each bird or bat carcass: specimen number, GPS location, species, date and time, visible signs of injury, photographs of the carcass, weather conditions. This will be in addition to the bird and bat strike monitoring and thereby increases the frequency of monitoring effort. Reporting requirements include an annual compliance report that will include a summary of any bird and bat monitoring program implemented throughout the year. It is anticipated that relevant information may comprise: • Provision of information regarding all turbine strikes, including method of detection, factors regarding the presence of a species, prevailing conditions at the time of collision. • Estimations of annual mortality and injury for each relevant threatened and migratory species. • Listed species occurrence records. • Evaluation regarding the effectiveness of measures implement to avoid and mitigate mortality and or injury to threatened and migratory species. Based on the reasons above, the adaptive nature of the monitoring and the requirement to continually liaise and report with DCCEEW, the ongoing utilisation and collision monitoring, as well as carcass search program is considered sufficient.
Biodiversity Corridors and Fragmentation		
Concerns on impacts to a State biodiversity Corridor which contains large tracks of intact vegetation including areas of high diversity, climate adaptation zone and refugia which also provide terrestrial and aquatic connectivity,	7, 8, 12	The Project is situated on the Great Dividing Range and remnant vegetation within the Study Area provides connectivity through biodiversity corridors that facilitate north-south movement of fauna at a regional scale. Internal fauna movement is likely afforded by waterways, ridgelines and gullies. The clearance of habitat within the Disturbance Footprint may temporarily disrupt fauna movement internally, as well as to adjacent high-quality areas outside of the Study Area. Although the Project is primarily linear in nature and will have few hard dispersal barriers (i.e. fencing), clearing widths of up to 100 m for linear infrastructure (i.e. 275 kV transmission lines) and up to 165 m for turbines will reduce functional connectivity for a number of species (i.e. greater glider (southern and central) (*Petauroides volans*) and yellow-bellied glider (south-eastern) (*Petaurus australis australis*)). Siting of the Development Corridor and Disturbance Footprint has considered the location of MNES values in the landscape and the use of existing disturbed or cleared areas has been prioritised.

Concerns Raised	Submission Number	Response
		A host of avoidance measures have been undertaken as part of the submitted design. A number of mitigation measures will be implemented for fauna, including threatened fauna. These are documented within the Preliminary Documentation and incorporate general and MNES species specific measures. MNES species specific measures relevant to fauna movement include the use of pinch points, glider poles, and habitat clearing staging. General measures relevant to fauna movement include: • Micro-siting of Project infrastructure will aim to retain habitat trees (including hollow-bearing trees or stags, trees with DBH >30 cm, and trees containing potential animal breeding places) and terrestrial habitat features (including complex boulder piles, hollow logs). Habitat trees and features that can be avoided will be demarcated. If construction is planned to occur in proximity to a habitat tree/s to be retained, a tree protection zone (TPZ) may be established if deemed necessary by the spotter-catcher. The TPZ will be calculated using Australian Standard (AS) 4970-2009. • Where they cannot be retained in situ, habitat features (i.e. ground timber including hollow logs, large stones and boulders) will be relocated to adjacent areas of suitable habitat if safe and practical (i.e. the relocation of habitat features must not cause unnecessary disturbance). • Movement within the Study Area will be via approved access tracks only with speed limits enforced. The requirement to enter and traverse the Study Area will be minimised and limited to those required for essential Project activities. • Night works within or adjacent to areas of MNES habitat will be avoided where possible to reduce impacts from construction light and noise on MNES species (i.e. by interrupting male koala mating calls during breeding season). Where night works are required, lights will be directed to minimise light spill into adjacent habitats and the use of alternative, low-noise construction equipment considered.
Concerns that the state-mapped terrestrial corridor will be so severely impacted by the project that it will no longer function as a landscape corridor and revoked of classification.	7, 12	The corridor mapped over the impact area is classified as a statewide terrestrial corridor. These corridors are classified according to its capacity to connect large tracts/patches of remnant vegetation. Whilst the impact area does occur within the corridor buffer, it is limited to the southwest side of the centreline leaving the northeastern half of the corridor undisturbed. As a result, the impact does not reduce the length of the corridor or reduce the width of the corridor to less than 600 m. This width remains wider than the corridor width further south due to current and historic landuse. In summary, sufficient remnant vegetation will be retained within the terrestrial corridor to maintain and facilitate wildlife movement and flora dispersal between large tracts/patches of remnant vegetation.

Concerns Raised	Submission Number	Response
		The offset area will be situated within the same biodiversity corridor as the impact to maintain connectivity to the nearby State Forests and Reserves including Bouldercombe Gorge, Gelobera, Ulam Range and Don River. The offset strategy is consistent with the Offset Policy Principles in that it provides a land-based direct offset of suitable size and scale to the impacted matters as calculated by the Offsets Assessment Guide which will be legally protected in perpetuity and managed to achieve a conservation gain for each of the significantly impacted species.
Concerns that the proposed disturbance footprint will also degrade adjacent habitat through fragmenting patches, desiccation and proliferation of invasive weeds and pest species.	8, 13	A host of avoidance measures have been undertaken as part of the submitted design. A number of mitigation measures will be implemented for fauna, including threatened fauna. These are documented within Section 9 of the MNES Preliminary Documentation and incorporate general and MNES species specific measures. MNES species specific measures relevant to fauna movement include the use of pinch points, glider poles, and habitat clearing staging. General measures relevant to fauna movement include: • Habitat fragmentation impacts have been considered in the design and siting of the Disturbance Footprint. Through the use of pinch points and the installation of glide poles at select locations, movement opportunities for the species will be provided across the Disturbance Footprint. • Micro-siting of Project infrastructure will aim to retain habitat trees (including hollow-bearing trees or stags, trees with DBH >30 cm, and trees containing potential animal breeding places) and terrestrial habitat features (including complex boulder piles, hollow logs). Habitat trees and features that can be avoided will be demarcated. If construction is planned to occur in proximity to a habitat tree/s to be retained, a tree protection zone (TPZ) may be established if deemed necessary by the spotter-catcher. The TPZ will be calculated using Australian Standard (AS) 4970-2009. • Where they cannot be retained in situ, habitat features (i.e. ground timber including hollow logs, large stones and boulders) will be relocated to adjacent areas of suitable habitat if safe and practical (i.e. the relocation of habitat features must not cause unnecessary disturbance). • Movement within the Study Area will be via approved access tracks only with speed limits enforced. The requirement to enter and traverse the Study Area will be minimised and limited to those required for essential Project activities. • Night works within or adjacent to areas of MNES habitat will be avoided where possible to reduce impacts from construction light and noise on MNES species (i.e. by interrupting male koala mating calls during breeding season). Where night works are required, lights will be directed to minimise light spill into adjacent habitats and the use of alternative, low-noise construction equipment considered. • Impacts of the road will be monitored and managed for the duration of operation to control and mitigate weeds, pests erosion and fire risk.

Concerns Raised	Submission Number	Response
Offset / Compensation		
Concern that impacts to threatened plant species will not be appropriately compensated.	7	Threatened flora species known to the Project include *Cycas megacarpa* and *Samadera bidwillii*. For *Cycas megacarpa,* avoidance of individuals continues to be investigated as part of ongoing Project optimisation. For unavoidable impacts to individuals, a translocation plan and offsets (delivered in accordance with the EPBC Act) are proposed. The objective of the translocation plan is a no net reduction in the total number of Cycas megacarpa plants. With a demonstrated high success rate, the translocation of *Cycas megacarpa* is a recognised measure to mitigate impacts on the population. For *Samadera bidwillii*, only one small population was detected during protected plant surveys. This population and habitat within 25 m will be avoided by the Project. A non-significant impact outcome resulted for this species and further compensation in the form of offsets is not appropriate. Whilst potential habitat for several threatened flora has been conservatively mapped, the relevant species are not known and thus significant impacts on these MNES are not anticipated. Moving forward, the Project will continue to address unexpected, threatened flora finds through the preclearance constraints protocol, which includes consultation with DCCEEW as per Section 9 of the MNES Preliminary Documentation.
Concerns that the preliminary documentation report excluded a significant residual impact assessment, offsets or other detailed mitigation measures for Cycas megacarpa, Greater Glider, Yellow-bellied Glider and Northern Quoll	7	A full habitat assessment, impact assessment, mitigation measures, significant impact assessment and offset proposal has been provided within sections 9 and 10 of the MNES Preliminary Documentation for *Cycas megacarpa*, greater glider, yellow-bellied glider and northern quoll. In the case of *Cycas megacarpa*, a translocation program is also proposed, with a preliminary translocation management plan provided in the Preliminary Documentation.
Concerns the public will not have an opportunity to comment on whether the development will have dire consequences for *Cycas megacarpa* without having access to a significant impact assessment and offset proposal for *Cycas megacarpa*.	7	A full significant impact assessment and offset proposal has been provided for *Cycas megacarpa*. A translocation program is also proposed, with a preliminary translocation management plan provided in Attachment J of the Preliminary Documentation, available for public comment. Whilst ongoing public consultation is not required, further consultation with DCCEEW and approval of plans is required.

Concerns Raised	Submission Number	Response
Concerns that clearing of threatened Ecosystems (threatened in both Biodiversity Status and Vegetation Management Status) will not be offset.	7	The clearance of Threatened Ecological Communities listed under the EPBC Act is not proposed. Proposed impacts to state listed communities (Vegetation Management Status only of relevance) is outlined in public documents associated with State approval (2109-24892 SDA) and is therefore not relevant to the EPBC Preliminary Documentation.
Concerns that suitable offset land was not presented within the PD.	7	As presented in Attachment K of the Preliminary Documentation – the offset management strategy presents 5 properties under assessment. Several of these options have been field validated and suitability as an offset demonstrated. The offset management strategy presents a host of options available to Neoen, for which environmental investigations and commercial aspects are being finalised. The offset management strategy findings demonstrate that an offset is available, adequate and suitable in the context of the EPBC Act offset policy. The offset land will be protected in perpetuity. As per the Attachment K of the Preliminary Documentation, Offsets will be delivered in accordance with the EPBC Act Environmental Offset Policy 2012.
Concerns that the proposed offset areas won't increase habitat connectivity within the region	5, 11, 12	Potential offset properties intersect mapped biodiversity corridors, including areas of state and regional biodiversity significance. Habitat corridors are contiguous with protected areas including State Forest. Habitat connectivity extends to species records (known and historical) of greater glider (southern and central), yellow-bellied glider (south-eastern), northern quoll and collared delma. As demonstrated in Section 5 of Attachment K of the Preliminary Documentation, the offset options presented, are situated within the same biodiversity corridor as the impact to maintain connectivity to the nearby State Forests and Reserves including Bouldercombe Gorge, Gelobera, Ulam Range and Don River. The offset management strategy is consistent with the Offset Policy Principles in that it provides a land-based direct offset of suitable size and scale to the impacted matters as calculated by the Offsets Assessment Guide which will be legally protected in perpetuity and managed to achieve a conservation gain for each of the significantly impacted species.
Concerns that the impact to biodiversity is too severe to be avoided or effectively offset.	6, 10, 12, 13	The disturbance footprint has been revised several times to avoid high quality habitat and threatened plants where possible. Moreover, the implementation of the cycad translocation plan will further reduce individual mortality and lessen the time-lag between impacted and offset habitat. The offset strategy will compensate for the impacted habitat by procuring suitably larger expanses of habitat up to 4.7 times of what is to be disturbed for endangered species. This has strategically included a range of habitat conditions from high-quality remnant/ mature habitat to degraded lower quality/ young regrowth habitat that is expected to develop into habitat commensurate with that impacted within 20 years. Finally, the offset will be secured and managed to avoid degrading processes currently impacting the proposed offset area related to current land practices such as grazing, inappropriate fire regimes and ongoing management/ clearing of regrowth vegetation.

Concerns Raised	Submission Number	Response
		Therefore, the offset strategy will achieve a conservation gain by: A. Immediate legal protection of unregulated Category X vegetation. B. Improve the habitat quality of emerging and existing habitat for threatened species, including non-remnant regrowth and remnant vegetation. C. Ongoing surveys and data relevant to the each threatened focal species and the biodiversity corridor. D. Addressing current and active threats on MNES through an Offset Area Management Plan.
Weeds		
Concerns that environmental weeds will not be sufficiently surveyed or managed,	7	Of 220 flora species, 32 introduced flora were recorded (representing 15.5% of total). As per the preliminary Vegetation Management Plan (VMP), provided as part of Preliminary Documentation, the Project will complete comprehensive weed surveys prior to construction. Audits will also be conducted during construction and operation. Weed species classified as high biomass grasses, restricted matter class 3 (*Biosecurity Act, 2014)* and/or weeds of national significance will be treated and managed as a priority due to the potential for these species to spread throughout vegetation, structurally transform and degrade habitat value. Notwithstanding, an objective of the VMP includes the management of weed species, to ensure there are no new species or infestations identified within the Disturbance Footprint. Moreover, areas containing infestations will be treated prior to the commencement of site disturbance and any construction activities. Performance criteria, mitigation and management measures for risks associated with the introduction and exacerbation of weeds is outlined with Attachment F – Vegetation Management Plan, provided as part of Preliminary Documentation. Measures include Pre-construction surveys as well as ongoing construction and operation weed inspections and management. For example, pre-construction surveys will serve to identify areas requiring treatment and establish baseline conditions prior to construction such that impacts from the Project can be monitored throughout the Project lifecycle. Areas containing infestations will be treated prior to the commencement of site disturbance and any construction activities. Annual compliance reporting to DDEEW will be completed in accordance with Project approval conditions.

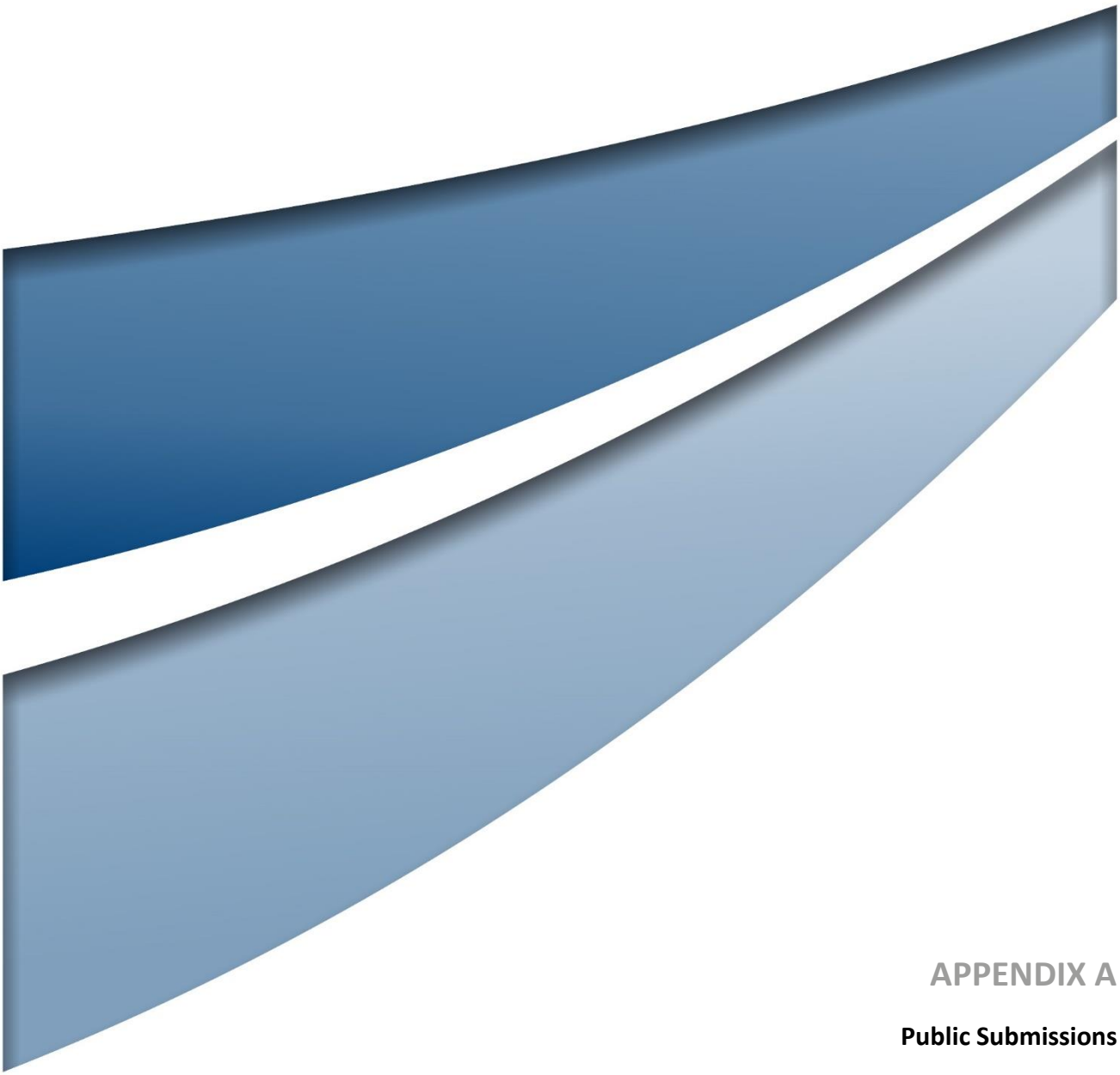
Concerns Raised	Submission Number	Response
Species Decline and Significant Impact Assessment Process		
Concerns that the project will destroy intact forests and vegetation and will drive wildlife to extinction.	2, 13	The Development Corridor shown within Preliminary Documentation has been subject to an ecological constraint analysis. The purpose of the constraint analysis was to determine priority avoidance areas based on the presence (potential and known) of flora and fauna values with varying sensitivity levels and environmental significance including MNES status. As a result, much of habitat within the terrestrial ecological corridor is retained and will continue to provide connectivity between remnant vegetation to the north and south of the study area. Following avoidance design, mitigation and management measures were developed to address indirect impacts on the species including habitat degradation via weed incursion, noise impact, erosion and sediment control and altered fire regimes and are stated within Attachment D – Construction Environmental Management Plan, Attachment H – Conceptual Erosions and Sediment Control Plan and Attachment F – Preliminary Vegetation Management Plan of the Preliminary Documentation. These include performance criteria, developed from pre-construction surveys to identify areas requiring weed treatment and establishing baseline conditions prior to construction such that impacts from the Project can be monitored throughout the Project lifecycle. Following all avoidance and mitigation measures, significant impacts assessments (threatened species with a moderate or high potential of occurrence or known occurrence) were conducted in accordance with EPBC Act significant impact guidelines and are detailed within Section 10 of Attachment B4 – Assessment of MNES. This significant impact test considers, amongst other aspects, the real chance or potential for species population decline, reduction in area of occupancy, fragmentation such that populations are split into two more populations, as well adverse impacts on habitat critical for survival and breeding places. The Project will provide offsets for each matter assessed as significant and unavoidable impacts to MNES as detailed within the Offset Management Strategy – Attachment K of the Preliminary Documentation. The proposed offset approach for the Project is the securement of land within the same biodiversity corridor that supports habitat for the impacted MNES and is suitable to deliver offsets in accordance with the Offset Policy.
Groundwater		
Concerns of leaching plastics and other toxic material into the groundwater during operation and post disposal.	4, 8, 9, 10, 13	As set out in Attachment D of the Preliminary Documentation, all chemicals, fuel and oil will be stored in above ground tanks in bunded areas, with accurate records maintained of volumes purchased and stored, to ensure any contamination of land or water is prevented, and any spill is detected quickly. An Emergency Spill Containment Plan will be developed detailing the clean-up and mitigation measures to be implemented in the event of a spillage or leak of potentially hazardous substances. Spillages of all dangerous goods and contaminated materials will be rendered harmless through investigation, collection and disposal at a suitable disposal facility.

Concerns Raised	Submission Number	Response
		Regular groundwater quality sampling will be conducted during construction, using the existing registered bore hole network, and also following a major spillage/leakage event. Fill material imported from offsite will be procured from a licensed quarrying facility and accompanied by relevant documentation to verify it is contaminant/acid sulfate soil free. Contaminated fill material exported from site will be disposed at a facility licensed for the disposal of such material. It is currently not known where or when the turbines will be disposed of / buried. However, it is considered highly unlikely that any pollutants would reach the GBR for a number of reasons: • The groundwater flow direction in the near surface follows that of the surface topography. The site is on the westward side of the watershed i.e. the topography falls to the west and there is higher elevation (a ridgeline) to the east. Therefore, near surface groundwater flow will be to the west away from the ocean and GBR. • "Wonky holes" are a source of submarine groundwater discharge (SGD) into the near shore ocean. Stieglitz at James Cook University in Townsville has conducted research into the hydrogeology of "wonky holes" and concluded that they are associated with riverine palaeochannels that were incised into the current sea floor during periods of lower sea level in the geological past. These palaeochannels were infilled with coarse sediment and subsequently covered by finer material during the sea level rise following the end of last glacial period. They provide a pathway for groundwater flow from the coastal plain to the inner/mid GBR shelf and have a spatial scale in the range of 10 km. The project site is not located on the coastal plain and is approximately 50 km from the ocean. As noted above, groundwater flow at site will be towards the west and so any link between the site and "wonky hole" SGDs is highly unlikely. • The "microplastics" used in turbine blades are bisphenol A (BPA) which is present in the resin and in very miniscule quantities once the resin is hardened. Hardening occurs prior to delivery at site. It is also noted that the erosion of the blades is in fact far less than has been reported. In addition, BPA quickly undergoes biodegradation and has a half-life in water of no more than 15 days i.e. within 15 days only half of the original amount is left, within 30 days only a quarter is left and so on. Groundwater movement through the subsurface occurs in the range of millimetres to tens of metres per day. Therefore, even if the groundwater is flowing to the coast, any BPA entering the groundwater will effectively decay away long before it reaches the ocean. • Another source of pollution to groundwater that is mentioned is concrete. Cement which is a constituent of concrete is considered a pollutant and the manufacture of cement is not a "green" process. However, once the cement is combined with other constituents into concrete, it is no longer available as a pollutant. The concreting process would be handled by the Construction Management Plan.

Concerns Raised	Submission Number	Response
Concerns on the water source for the construction of the project.	11	It is estimated that the Project will require between 700 and 1,100 ML of water during construction. Sources of water for the construction of the Project are yet to be determined. The EPC Contractor will engage with local landowners and with the Department of Regional Development, Manufacturing and Water (DRDMW) and seek the appropriate Water Licence(s).
Great Barrier Reef degradation		
Concerns on erosion from the wide roads and sediment entering into watercourses and the Great Barrier Reef.	8, 13	The Project is situated within the Fitzroy Basin catchment, recognised as a catchment of the Great Barrier Reef. The Project is split across two drainage sub-basins, being Dawson River and Fitzroy River. The Project recognises the risk to the environment from erosion and sedimentation. This risk has been considered early as part of design and demonstrated through approval documentation, including a Conceptual Erosion and Sedimentation Plan, provided as part of the State approval and as Attachment H of the Preliminary Documentation. The intent of the plan is to guide the management, reduction and mitigation of erosion and sediment transport in the planning phase of the Project. The Plan presents soil erosion vulnerability, as well as erosion hazard assessment for the various project stages. Potential control measures are noted for potential hazards. Final control measures employed on the Project will be specific to the site location and phase of the Project, and installed by a suitably qualified person, following best practice guidelines and industry standards. As the Project continues through its design and development stages and details are finalised, erosion and sediment control requirements will be reviewed and a detailed Erosion and Sedimentation Control Plan (ESCP) will be prepared by a suitably qualified person prior to the commencement of any construction activities. Key actions include: • Detailed geotechnical investigations are carried out (as required) to determine site characteristics prior to construction (including EMR / CLR searches). • Site specific soil information should be collected and assessed by a suitably qualified person. • A detailed Construction ESCP plan is prepared and certified by an RPEQ in accordance with relevant guidelines such as the Best Practice Erosion and Sediment Control Guidelines (IECA, 2008) and Queensland Urban Drainage Manual (DEWS, 2013). • A CEMP is prepared which integrates requirements of the Construction ESCP and stormwater management plan where appropriate.

2.0 Conclusion

This public comment response addresses all comments provided by the public, following a 40-day consultation period which ended on 17 October 2023. All comments were considered, and where relevant, updates to the Preliminary Documentation have been made.



APPENDIX A

Public Submissions

From: [redacted]
To: contact@mounthopefulwindfarm.com.au
Subject: Objection for Mount Hopeful Wind farm
Date: Saturday, 14 October 2023 2:55:26 PM

Dear Neoen Australia
I would like to make comment on the proposed above development as it will be destroying our natural wonders.
I am strongly against this proposal and would not like to see this proposal at this location given that it will destroy virgin forest. It will destroy native flora and fauna and will continue to destroy them if constructed.

I recently watched a yacht racing series in Syndey Harbour and there appeared to be plenty of wind in the Harbour and would suggest that the 63 turbines proposed for the Mount Hopeful Wind Farm would be better placed in Sydney Harbour.
This would make sense given that there is a large population in Sydney and the electricity generated by the turbines could be fed directly into the Sydney grid. It would save the cost on transmission lines and battery storage systems.

It is interesting that the comment process for this goes directly back to the company and not to some independent body. I am sceptical that my comments will be ignored and regardless of whatever I say or whatever anyone else comments none of this will see the light of day. Unlike the approval process for a coal mine where an independent body oversees any comments before the approval this feels like you are just ticking a box as you already have approval from the government. (Interesting, the disparity between "clean green energy" and other approval processes.)

I fear that I will not even have an acknowledgement reply from the company that my concern has been noted.
I am hopeful that this windfarm will not proceed but I fear that our governments have let our environment down and they are really wanting to destroy the environment by approving as many wind and solar farms as possible in the regions. Why not put the wind farms where the majority of our population resides? Eg in your case: Sydney Harbour would be great.

Kind regards

[redacted]

[redacted] [redacted]

To: contact@mounthopefulwindfarm.com.au
Cc: Minister.Plibersek@dcceew.gov.au
Subject: Gawara Baya Wind Farm
Date: Sunday, 15 October 2023 8:39:05 PM

I unequivocally request you reject outright the proposed Gawara Baya wind development. Its ecological impacts are far too great. The cumulative impacts posed in the Gawara Baya wind farm's Public Environment Report are incomplete and an underestimate of what will be lost. Entire species will be driven to extinction if we clear and fragment what's left of critical habitat. I am strongly advocating for Australian native wildlife, and state that the siting of wind developments, which clear, blast and bench, on greenfield sites full of threatened wildlife is utter madness.

In addition, leaving remnant habitat intact is a key strategy to abate climate warming. We desperately need to save what's left of our forests in Queensland, to protect our climate and our threatened species.

I believe that Australians would be appalled if they knew that vast intact forests and unique Australian vegetation was to be carved up for renewable energy proposals. These turbines are known to catch on fire and the devastation that would bring to such an area would be catastrophic.

There is nothing 'green' about destroying intact forests and vegetation, and where habitat destruction drives wildlife to extinction.

Kind Regards
[redacted]

From: [redacted]
To: Minister.Plibersek@dcceew.gov.au; contact@mounthopefulwindfarm.com.au
Cc: [redacted]
Subject: Urgent Request for an extension - Mount Hopeful Wind 2021-9137
Date: Monday, 16 October 2023 11:11:20 AM

URGENT:

(2021-9137) Mount Hopeful Wind Farm

Dear Minister

Due to time restraints, [redacted] and other community members are requesting an extension be granted for making submissions re Mount Hopeful Wind Farm

We note that there is significant public interest in ensuring rigorous, transparent and accountable assessment of environmental risks in relation to major projects that propose to destroy and fragment landscape-scale areas of wilderness due to the magnitude of impacts to Indigenous, local communities and matters of national environmental significance (MNES).

The cumulative impacts of environmental harm that the Mount Hopeful proposal will cause needs more time for the community to respond.

We thank you for your consideration.

Yours faithfully

[redacted]

From: [redacted]
To: contact@mounthopefulwindfarm.com.au; EPBC Referrals
Cc: [redacted]
Subject: Mount Hopeful Wind, Rockhampton OBJECTION SUBMISSION
Date: Monday, 16 October 2023 6:23:52 PM

I ABSOLUTELY OBJECT TO THE TOXIC BISPHENOL A SHEDDING - 63 TURBINE - OBNOXIOUS MONSTROSITY - **Mount Hopeful** WIND ELECTRICITY GENERATING WORKS - ROCKHAMPTON.

****CONNECTING SUBSIDISED & MANDATED, INTERMITTENT SOLAR & WIND POWER TO THE GRID IS THE WORST POLICY BLUNDER IN OUR HISTORY!! DUNKELFLAUTES WILL BE POTENTIALLY CATASTROPHIC!!**
https://www.spectator.com.au/2022/11/the-voice-of-energy-realism/

It is abundantly clear that an **IMMEDIATE MORATORIUM & INDEPENDENT INQUIRY** is absolutely essential to honestly clarify the **PUBLIC HEALTH & SAFETY RISKS & MORAL HAZARD**, to include an accurate, **INDEPENDENT FULL COST BENEFIT ANALYSIS for what is Obscene RenewaBULL & Transmission Costs, Loss of Industry/Manufacturing & NO Productivity, a COMPLETE AUDIT of CRITICAL ENERGY (& OTHER) INFRASTRUCTURE - WHO REALLY ARE ALL THE VESTED INTERESTS? HOW ARE THE CONSULTANCY COMPANIES, THE PREDATORY WIND/SOLAR INDUSTRY, POLICY MAKERS & POLITICIANS ALL CONNECTED & BENEFITING FROM THIS PUBLIC RIP-OFF? WHO IS SUBJECT TO THE CCP'S NATIONAL INTELLIGENCE LAW, etc. A COMPREHENSIVE, INDEPENDENT INQUIRY INTO ALL ASPECTS OF THE 'RENEWABLE' ENERGY TRANSITION/TRANSMISSION NIGHTMARE IS ESSENTIAL WITH ANY PLANS SUBJECT TO ETHICAL PROCESSES & APPROVALS WITH INTEGRITY, USING REPUTABLE, INDEPENDENT, PEER REVIEWED RESEARCH INFORMING EXPERT ENGINEERING FACTS & RIGOROUS SCIENTIFIC DETERMINATIONS THAT ENSURE THE OBSERVABLE PRACTICAL REALITY OF PRIORITISING PUBLIC HEALTH & SAFETY, ENVIRONMENTAL, ECONOMIC, SOCIAL & INTERGENERATIONAL BENEFIT TO THE PEOPLE OF QLD/AUSTRALIA.**

Wind/Solar Electricity Generating Works, BESS & Multiplication of Transmission Line Infrastructure Plans & Irresponsible Approvals Have Neglected to Accurately Address All of the Following:-
**Food Security + Australian Energy Security = National Security
**Australian Independent Energy = Coal, Gas & a clean, safe, Nuclear SMR Power future.
**Which companies involved & all of their Solar/Wind/BESS connections are subject to the CCP's National Intelligence Law?
**Public Health & Safety Risks - Electric Force & Electromagnetic Radiation, Soil/Food/Water Contamination, Energy Deprivation.
**Proper Research Needed - No Scientific Rigour.
** Engineering Facts Have Been Ignored.
**Connecting Subsidised, Mandated Weather Dependent - Intermittent Solar/Wind to the Grid is the Worst Policy Failure in History.
**Fake Green - Not Clean & Green or Sustainable at all - as the Full Lifecycle of Solar/Wind/BESS has to be accounted for.
At least 1,000% more Mining + intensive energy & toxic pollution during processing.
**Power Sources Needed in major City areas instead - avoiding long distance transmission loss, ruination of rural Australia & harming Agricultural productivity.
**Unconscionable scale of Industrialised Solar/Wind land mass required.
Michael Shellenberger says it's approx 300-800 times more land required for Solar/Wind than for far superior conventional power generation.

**Massive Toxic Waste Burden being intentionally created for future generations that will NEVER be economically viable to recycle - if ever even possible.
**Energy Security risks from inferior, unreliable, weather dependent, Dunkelflaute based Solar/Wind which will NEVER be base-load power available on demand.
**Economic Suicide - Skyrocketing Energy Prices = Cost of Living Crisis. The more Mandated, Subsidised Solar & Wind in the system = the Higher the Prices.
**National Security Risks - we need to rely on our own AUSTRALIAN Energy Sources rather than our Most Hostlie Enemy - the CCP.
**Fake Green Wokeness = Weakness
**Unethical Slave Labour Supply Chain Reliance - Solar's cruelly tortured Xinjiang Uyghurs & Cobalt for Wind Turbines + Batteries reliant on shocking treatment of the Congolese - with Child Labour - children as young as 6 years old forced to mine toxic cobalt in the Congo with their bare hands!
**No Social Licence - Failed Consultation process by GOVERNMENTS, AEMO, NETWORKS & DEVELOPERS.
**Immediate Moratorium & Federal Independent Inquiry is Essential.

I DO NOT CONSENT TO MY FAMILY OR MYSELF BEING DETRIMENTALLY HARMED IN ANY WAY BY MOUNT HOPEFUL WIND & ANY OTHER LARGE-SCALE INDUSTRIALISED SOLAR/WIND ELECTRICITY GENERATING WORKS & ASSOCIATED UNNECESSARY MULTIPLICATION OF TRANSMISSION LINE/INTERCONNECTOR INFRASTRUCTURE IN QLD/AUSTRALIA - including but not limited to:-
**Public Health & Safety Risks - Personal Discomfort & Health Impacts from Electrical Force/ EMR & Deprivation.
**Contamination of Life Sustaining Food Resource Land, Food Supplies & Water Sources.
**Unplanned for, Not Even Researched & Not Appropriately Assessed, Toxic Carcinogenic & Teratogenic Fire/Smoke Hazard Risks.
**Energy Deprivation - Lack of Reliable, Affordable Electricity - Resulting from Inferior, Unreliable Solar/Wind Generation causing Austerity, Suffering, ill Health & Loss of Basic Services.
**Consequential Skyrocketing Electricity Prices - Causing Unnecessary Cruelty & Hardship, Cost of Living Crisis & Potential Death from Hyperthermia.
**Unjust Mistreatment of Landholders & Rural Communities Forced to Endure Such Detrimental Plans - Causing Extreme Distress, Anxiety, Depression, Grief, Family/Social Fracturing & Loss.
**Deprivation of Rural Outlook & Quality of Life - With Unhealthy, Distressing Noise, Infrasound & Visual Pollution.
**Emotional Distress, Anxiety & Fear Caused by Government Inflicted Skyrocketing Energy/Cost of Living Crisis.
**Damaging Consequences of Increased SF6 emissions.
**Increased Economic Hardship due to Failure of Councils to do their Due Diligence, to Address Compliance, to be Transparent & to be Honest, to Address the Facts & Community Concerns, ie. Additional Council charges for Flawed Assessments & Wrong Approvals - Leading to Unplanned for Clean up & Remediation Costs for Abandoned, Derelict, Contaminating Solar/Wind EG Works & BESS.
**Any Detrimental Cost Implications for Ratepayers from the Council's & any NSW/Federal Government Body's Persistence in Ignoring Their Duties Regarding the Unethical Hosting, Procurement & Power Purchase Agreements With Energy Generation Reliant on Unethical Slave Labour Supply Chains.
**Loss of Productivity & Income Due to Contamination, Increased Fire Risk & Heat Island Impacts from Solar/Wind EG Works & BESS.
**Any Cyber Security Breaches or National Security Threats & Harm Caused.
**Any Costs Incurred for Ratepayers & Taxpayers by Dealing With the Obvious, Economic Suicide - the Financial Consequences for the Future of Making Seriously Retrograde Decisions by Hosting & Approving Such Harmful, Industrialised Solar/Wind Electricity Generating Works, BESS & Associated Unnecessary
Transmission Infrastructure - none of which is FOR THE GREATER GOOD.

There is nothing in this plan to **ensure that energy infrastructure and the production of wind and solar infrastructure, comply and adhere to the Modern Slavery Act, with a focus on**

international imports, & there is not an independent scientific body as Labor Policy requires. It is essential that there is an independent scientific body to review, examine and investigate resource industries and large scale power generation impacts, including industrial solar, battery and wind installations at every stage of operation, i.e. planning, operational and rehabilitation prior to this Assessment & any thought of Approval as the Precautionary Principle would deem this irreversibly contaminating plan far too risky for our life sustaining food resource land & vital water sources as Bisphenol
A is as toxic as blue asbestos & lethal to young children!

****WIND TURBINES ARE A FAKE GREEN SCOURGE - SHEDDING TONNES OF MICROPLASTICS FROM WIND TURBINE BLADES (KNOWN AS 'LEADING EDGE EROSION') - AFTER ONLY A FEW YEARS OF OPERATION.**

Mark Twichell spells out the poisonous truth - why Wind Turbines are a dangerous idea.
The Buffalo News October 2022.

"Wind Turbine Blades leave a toxic waste legacy for centuries to come, but there is an even more immediate threat - their blades naturally erode during operation - spreading tonnes of microplastics far & wide.
The epoxy compounds they shed contain toxins that are finding their way into our oceans & drinking water.

The particles eroded from Wind Turbine blades includes epoxy resin which is 40% Bisphenol (BPA) - a frequently banned endocrine disrupter & neurotoxin" - equally as toxic as blue asbestos & lethal to young children.

"Academic research has shown the potential for 137 pounds of epoxy micro particles to be shed per turbine per year.
The resulting annual BPA release can potentially contaminate 17 million gallons of drinking water per turbine while threatening aquatic & terrestrial life.

Minimising the shedding depends on specialised blade coatings that contain toxic ingredients from the PFAS family of 'forever' chemicals which are biologically cumulative & non-degradable.
These coatings likely need replacement after a few years.
PFAS is a common ingredient in lubricants & hydraulic fluids which routinely leak from Wind Turbines."

**18th August 2022 - Dr Eric Blondeel says:-
"That the plastics in the blades are toxic - is without doubt!"

As far back as 2012 the World Health Organisation warned about potential carcinogenic properties of endocrine disrupters & concluded that these substances pose a global threat to public health.
Unborn & young children are especially vulnerable because their hormone system is still developing.

**https://stopthesethings.com/category/bisphenol-a-wind-turbine-blades/

****The 'Sunk Cost' Trickery That Makes Renewables Seem Cheaper Than They Are - 23rd July 2023.**
https://www.fresheconomicthinking.com/p/the-sunk-cost-trickery-that-makes?utm_medium=web
AIDAN MORRISON (Entrepreneurial data scientist based in Sydney. Physics background, interests in military technology, economics and energy.)
How CSIRO justifies the exclusions: "Sunk Cost"
But wait, this deception is so brazen and transparent…….
All of these tens of billions of dollars of projects are explicitly excluded from the cost of integrating renewables.

****The $10 billion cabal of renewable subsidies killing coal - Alan Moran - 24th July 2023**
https://www.regulationeconomics.com/_files/ugd/b6987c_a76d14823d6342a298b70841f99b7f71.pdf

**Rising Chorus of Renewable Energy Skepticshttps://thetyee.ca/Analysis/2023/04/07/Rising-Chorus-Renewable-Energy-Skeptics/

The Unbearable Lightness of Renewables – In Time – Watts Up With That?
https://wattsupwiththat.com/2023/04/18/the-unbearable-lightness-of-renewables-in-time/

Does China's rapid rise in the Australian car market pose a security risk? | The Strategist
https://www.aspistrategist.org.au/does-chinas-rapid-rise-in-the-australian-car-market-pose-a-security-risk/

Simon Orme - IEEFA Report
https://ieefa.org/media/3234/download?attachment

Energy Vandalism and Impossible Dreams – Peter Smith - Quadrant Online 16th April 2023
https://quadrant.org.au/opinion/doomed-planet/2023/04/energy-vandalism-and-impossible-dreams/

**Australia's Self Inflicted Wind/Solar Calamity Demands Permanent Nuclear Power Solution!

https://stopthesethings.com/2023/04/30/australias-self-inflicted-wind-solar-calamity-demands-permanent-nuclear-power-solution/

China's Dream - Patricia Adams

https://www.thegwpf.org/content/uploads/2021/12/Adams-Chinas-Energy-Dream.pdf

Australians are Unjustly Forced to Subsidise Unethical, Contaminating, anti-Australian Electronic Junk!
Energy Drowning in Subsidies
https://www.regulationeconomics.com/_files/ugd/b6987c_91012ad6a64b401e8e915a45c79911b4.

[redacted]

From: [redacted]
To: contact@mounthopefulwindfarm.com.au
Cc: [redacted]
Subject: Comments on Mount Hopeful Wind Farm Preliminary Documentation
Date: Monday, 16 October 2023 6:51:37 PM
Attachments: QCC Comment on Mount Hopeful Wind Farm PD.pdf

Hello,

[redacted] are working to reduce carbon emissions and also protect nature. We believe that we can achieve a rapid decarbonisation while protecting nature and communities. However, we are concerned that our current planning frameworks including the EPBC Act are not facilitating this.

Please find attached our comments on the Mount Hopeful Preliminary Documentation.

Kind regards,
[redacted]

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[redacted]

[redacted]

Comment on the Mount Hopeful Preliminary Documentation EPBC 2021/9137

[redacted] welcome the opportunity to comment on the Preliminary Documentation for Mount Hopeful Wind Farm (EPBC 2021/9137). QCC is the peak environment body in Queensland, currently representing 51 member groups and has been supporting communities to protect our natural environment since 1969. CCC has been advocating for better environmental policy and protection for Central Queensland's natural landscape and marine environments for 50 years.

We recognise the need to reduce our emissions as soon as possible to protect unique and irreplaceable Queensland ecosystems including the Gondwana and Wet Tropics World Heritage Areas, where every incremental increase in temperature rises significantly reduces habitat range for endemic species.

Renewable energy is one of the best and fastest ways we can reduce emissions. However, building the renewable energy we need cannot come directly at the expense of the species and habitats we are attempting to save and protect.

Queensland's terrible land clearing and nature protection record means that the areas of remaining vegetation and threatened species habitat must be protected. The Mount Hopeful Wind Farm will impact the habitat of 17 threatened flora and fauna species. All except one of these will lose more than 100 hectares of habitat. Neoen anticipates a likely significant residual impact on six species: *cycas megacarpa,* koala, greater glider, yellow-bellied gilder, northern quoll and collared delma. The fact that the project has been repeatedly revised down in size indicates the high value of the environment it will impact.

We remain concerned that Neoen haven't:

- Adequately assessed cumulative impacts of other wind farms in the area.
- Modelled or plan to monitor bird and bat strikes comprehensively enough.
- Demonstrated how offset areas will increase connection of habitat within the region.

There are currently nearly 8 GW of wind projects in Queensland being assessed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) with a total clearing footprint of more than 10,000 hectares. We believe that effective Renewable Energy Zone Planning from the Queensland Government can prioritise the most suitable of these sites and ensure that they are managed to create a positive biodiversity impact.However, ahead of this planning, we urge Neoen to consider the regional impact.

There are several projects close to Mount Hopeful which will impact the same threatened species and we urge Neoen to work with other proponents to develop a cumulative impact assessment and ensure that these threatened species are not pushed closer to the brink by wind development in the region.

[redacted]

In December 2022, the Federal Government released the *Nature Positive Plan: better for the environment, better for business.* This plan outlines the government's response to Professor Samuel's independent review of the EPBC Act which found that the EPBC Act is flawed and required significant reform. In particular, it acknowledged that "current offset arrangements are failing to prevent environmental decline."[1] Offsets have been demonstrated to be ineffective in obtaining robust conservation outcomes. The government has committed to reforming the EPBC Act and will introduce legislation to give effect to this response in 2023.

It is important to create outcomes at Mount Hopeful wind farm that are able to proactively address the current extinction crisis by addressing the latest criteria in the *Nature Positive Plan.* The detail in the Offset Management Plan doesn't address connectivity or specify details of the proposed offsets. This must be provided before a decision is made.

Further, the project must be required to:

- Conduct long term collision monitoring and reporting post construction of at least 10 years to ensure a robust analysis of turbine incidences.
- Make Bird and Bat Mortality Monitoring Program reports publicly available.
- Investigate turbine design options to reduce impact to wildlife including countershading blades and other new technologies.

The Kaban wind farm in North Queensland has already reported five migratory bird collisions in less than a year since commissioning[2], which calls into question the low numbers of collisions expected in this modelling. The modelling needs to be backed up by comprehensive and consistent surveys during operation.

We also take this opportunity to urge Neoen to increase its social impact assessment to determine the capability of road, sewerage networks, internet access and other services to cope with the influx of workers and also to maximise local employment and working with other developers and Stanwell as the PPA holder to create long term employment opportunities.

Kind regards

[redacted]

[redacted]

[1] DCCEEW 2022, Nature Positive Plan: better for the environment, better for business, Department of Climate Change, Energy, the Environment and Water, Canberra, December. CC BY 4.0.
[2] E2M (2023) *Kaban Green Power Hub - Second Annual Compliance Report*

From: [redacted]
To: Minister.Plibersek@dcceew.gov.au; minister.plibersek@awe.gov.au; contact@mounthopefulwindfarm.com.au
Subject: Mount Hopeful Wind development, Rockhampton EPBC 2021/9137
Date: Monday, 16 October 2023 9:24:33 PM
Importance: High

Dear Mount Hopeful Wind Farm and Minister Tanya Plibersek,
I do not support the destruction of critical habitat for the Mount Hopeful Wind Rockhampton wind development.
The likelihood of occurrence assessment has conservatively determined the following ten threatened and/or migratory species have a moderate or high potential to occur within the access road corridor:

Squatter pigeon (southern) (Geophaps scripta scripta); Vulnerable under the EPBC Act.

White-throated needletail (Hirundapus caudacutus); Vulnerable and Migratory under the EPBC Act.

Greater glider (southern and central) (Petauroides volans); Endangered under the EPBC Act.

Yellow-bellied glider (south-eastern) (Petaurus australis australis); Vulnerable under the EPBC Act.

Koala (Phascolarctos cinereus); Endangered under the EPBC Act.

Fork-tailed swift (Apus pacificus); Migratory under the EPBC Act.
Oriental cuckoo (Cuculus optatus); Migratory under the EPBC Act.
Black-faced monarch (Monarcha melanopsis); Migratory under the EPBC Act.
Satin flycatcher (Myiagra cyanoleuca); Migratory under the EPBC Act.
Rufous fantail (Rhipidura rufifrons); Migratory under the EPBC Act. The two MNES newly identified as per the desktop assessment were not considered potential occurrences within the McDonald's/Playfield's Rd wider area as described below.
Diamond firetail (Stagonopleura guttata); the road corridor is close to the limit of the species distribution and some suitable habitat, comprising eucalypt woodlands, is present (although marginal), no records of the species occur within the desktop search radius.
King blue-grass (Dichanthium queenslandicum);

The complete lack of consideration of biodiversity in the siting of the project is not acceptable. These impacts can not be avoided effectively or offset. Offsets are a loophole to enable environmental destruction. Saplings do not replace decades-old or century-old trees!!!

Lastly, it is not a strategic necessity for the transition to renewable energy, and there is currently not enough capacity in the grid for the energy produced by the Wind Farm.

The proposed wind farm threatens Koalas, Greater Gliders all Endangered species, and many migratory species inhabit this remote landscape. The clearing of the forest as well as the noise emanating from wind turbines both constitute significant threats to them. Koalas in low abundance populations rely on their low frequency vocalizations to locate each other during the breeding season.

The scientific literature suggests that these large wind turbines emit significant amounts of infrasonic and low frequency noise so there is strong possibility that koalas and migratory

species contact calls will be dampened or totally overridden by it.
While we agree for the transition from fossil fuel to renewable energy, we must ensure that we protect the important natural areas, and biodiversity. The biodiversity is essential for a safe climate and liveable planet, and we must ensure the transition doesn't come at an unacceptable cost to nature. The Mount Hopeful Wind, Rockhampton does not reflect the energy and climate future that we need, therefore I object strongly to this proposed project.
Mount Hopeful Wind farm , Rockhampton is not green or clean energy this is environmental destruction of threatened flora and fauna.
I strongly declare that there is no justification for the extinction of threatened species and the decimation of intact forest for renewable energy in Queensland to state otherwise is to greenwash.
I believe that Australians would be appalled if they knew that vast intact forests and unique Australian vegetation was to be carved up for renewable energy proposals.
There is nothing 'green' about destroying intact forests and vegetation, and where habitat destruction drive wildlife to extinction!
For the reasons stated above, I strongly object and I urge to reject the Mount Hopeful Wind, Rockhampton.
Please save this unique intact forests from environmental destruction.
Thank you for considering my submission.
Yours sincerely.
[redacted]

[redacted]

To Neoen Australia,

contact@mounthopefulwindfarm.com.au.

cc: Minister Tanya Plibersek Minister.Plibersek@dcceew.gov.au
cc: info@rainforestreserves.org.au

Subject: Invitation to comment on the Preliminary Documentation for Mount Hopeful Wind Farm (EPBC 2021/9137)

I am opposed to a wind farm in this location due to environmental concerns. My comments and concerns are listed under the subjects below:

Cumulative impacts

Wind farm developers, government and the general public are now aware that there are severe cumulative impacts on the environment due to the unprecedented roll-out of industrial size renewable developments in the coastal ranges of Queensland. This preliminary documentation must include a section on cumulative impacts, and this must include facts and figures on habitat effected of all threatened plants, animals and regional ecosystems. It should also include the proportion of each Queensland regional ecosystem (not just threatened ecosystems) to be cleared (with 200 m likely disturbance buffer) across all known renewable footprints. In addition, it should include an estimate of the effect of blade-strike on birds and bats across multiple wind farms. This information will enable assessors and the public to judge whether in fact these developments may cause the change of status of these entities to a more threatened status. It also provides better understanding of the large-scale impact of these developments.

Question 1. How will Neoen ensure that this preliminary documentation includes a comprehensive section on cumulative impacts and that this new information will be available for the general public to provide comment?

Protected Matters Search Tool

The Protected Matters Search Tool (Appendix B) does not indicate from which area the search was conducted. Records of flora and fauna in this region are notoriously poor due to lack of previous survey effort. Therefore, it should be standard practice to encompass a much larger area of similar habitat within the search tool request area. This should extend to the north and south of the project area, aligned along the same mountainous range. Although it is not illustrated, it is possible that the

Protected Matters Search Tool presented in the preliminary documentation report was a based on a given radius from the centre of the development footprint. A more scientific approach would be to ensure the same area of habitat along the actual mountain range is included (ie draw a polygon that encompasses only the mountain range and extends at least 15 km from the northern and 15 km from the southern end of the development).

When the above approach is used, EPBC-listed plant species that should be included (which have not been) are:

Bertya opponens
Bosistoa transversa
Leichhardtia brevifolia
Polianthion minutiflorum
Rhaponticum australe

Similarly, there will be additional EPBC-listed fauna encompassed in such a search.

Detailed field surveys should therefore be conducted for the above additional species.

Question 2. Have you adequately provided for the possibility of other local EPBC listed matters by extending the search area within the Protected Matters Search Tool by at least 15 km north of the northern end of the development, and at least 15 km south of the southern end of the development, along the same coastal mountain range? Can you provide a map of the area which was searched?

Question 3. Will Neoen Australia ensure that the above five plant species and other relevant EPBC-listed fauna species are included within additional thorough on-ground surveys?

Matters of State Environmental Significance

The preliminary documentation report lists plant species of State Significance likely to occur in the area. Similarly for National Matters, State records of flora and fauna in this region are notoriously poor due to lack of previous survey effort. Therefore, it should be standard practice to encompass a much larger area of similar habitat within a Matters of State Environmental Significance request. This should extend to the north and south of the project area, aligned along the same mountainous range. Although it is not illustrated, it is possible that the search area presented in the preliminary documentation report was a based on a given radius from the centre of the development footprint. A more scientific approach would be to ensure the same area of habitat along the actual mountain range is included (ie draw a polygon that encompasses only the mountain range and extends at least 15 km from the northern and 15 km from the southern end of the development).

Matters of State significance must be accounted for in the wind farm proposal. Targeted searches for State listed threatened species should have been conducted. The preliminary documentation has excluded some State listed species such as Grevillea hockingsii, so it is likely there were no targeted searches for this species in the flora surveys.

Question 4. Has Neoen Australia adequately provided for the possibility of other State listed matters by extending the search area within the Protected Matters Search Tool by at least 15 km north of the northern end of the development, and at least 15 km south of the southern end of the development, along the same coastal mountain range? Can you provide a map of the area which was searched?

Question 5. Will Neoen Australia ensure that additional plant species and other relevant State-listed fauna species are included within additional thorough on-ground surveys?

Fauna survey techniques

Very little of the actual clearing footprint was trapped for fauna (e.g. Anabat, camera, elliot, pitfall, koala SAT, harp trapping) instead most of this occurred along roads away from the footprint (Fig. 4.2 Pt 1 Report Body). Bear in mind that the footprint occurs on the highest ridges and knolls and is therefore often in different micro-habitats to the surrounds. Indeed, the document states that "*Due to the location of the Study Area, terrain difficulties, ethical requirements and remote access, intensive trapping methodologies were limited to a few locations and remote sampling techniques were adopted, including the use of cameras and acoustic monitoring devices*". In addition, the locations of cameras and acoustic monitoring devises were also extremely limited (Fig. 4.2 Part 1 Report Body). This tiny degree of survey coverage over the fauna footprint is not acceptable.

Pitfall sampling appears to have been woefully inadequate with apparently only one site erected for a few nights. Similarly, Elliot trapping was conducted at very few sites (it's unclear from the map and data, but possibly only 2 sites? or perhaps up to 6 sites for three nights). Cameras were mostly not placed within the clearing footprint. Camera traps could have been left in place for many months, but clearly they were not, as there were only 490 camera trap nights. Koala SATs were very sparse. Only 60 hours of spotlighting was conducted. For safety reasons this was likely done with 2-3 people which equates in reality to only 20 or 30 hours of search time. This is completely inadequate – it is impossible to cover much ground in this amount of time, especially when walking, which is what should be required to survey the more remote parts. The location of spotlighting surveys does not appear to be illustrated.

Question 6. How will Neoen Australia ensure that a thorough fauna survey including the on-ground techniques of spotlighting, Elliot trapping, pitfall trapping, Koala SAT surveys, camera trapping, Anabat and harp trapping, all conducted at several different times of year is conducted comprehensively along the clearing footprint?

Question 7. How will Neoen Australia ensure that the results of the above surveys will be available for public comment as part of a significantly revised preliminary documentation report?

Greater Glider (Endangered EPBC)

The location of the 60 hours of spotlighting is not illustrated. It is unclear why Eucalyptus moluccana dominated vegetation was the only vegetation type considered to be breeding habitat despite a low to moderate abundance of tree hollows in other habitat types on the site. Statements in Appendix H regarding the likely abundance of Greater Gliders are invalid given the extremely limited number of spotlighting sites sampled. In particular, the conclusion (Section 5.2) cannot state that there is a low-density population. It does however state that "given the high degree of connectivity, the area of habitat available including preferred, higher elevation woodlands with abundant hollow bearing trees, the habitat within the Study Area is considered to hold relative importance to the species in the broader context of the region".

Question 8. If the area is considered to be important to Greater Gliders, a Federally listed Endangered species, how can Neoen justify, and the Federal Government allow, clearing of 948.6 Ha of its habitat, and fragmentation of a regionally important area for this species?

Koala (Endangered EPBC)

The reference Unwelt 2021 has not been provided so it is difficult to determine whether the field surveys for koala within the site were adequate. If it is referring to information provided in this preliminary documentation report, then the field surveys are clearly inadequate. Figure 4.2 (Pt 1 Report Body) shows only a very limited number of Koala SAT searches which could not be adequate to determine koala density across the site. Spotlighting according to the preliminary documentation report was only 60 hours in a very limited area.

Question 9. Koalas clearly occur in the area, and they are a high profile, Federally listed Endangered species - so how can Neoen justify, and the Federal Government allow, clearing of 1028.2 Ha of its habitat?

Yellow-bellied Glider (south-eastern) (*Petaurus australis australis*) (Vulnerable EPBC)

It appears the status of this species in this preliminary documentation has not been updated (this species was upgraded from not-listed, to Vulnerable, in March 2022), therefore the information provided in this preliminary documentation report is incorrect, and surveys for this species are completely inadequate. A comprehensive survey for this EPBC listed Vulnerable species must be undertaken within the project area including along the development footprint, and at several different times of year. Subsequent mitigation and offset measures must be described, and the general public must be allowed to comment on this revised information.

Question 10. How will Neoen ensure that a comprehensive field survey for this EPBC listed species is conducted at several different times of year along the clearing footprint, and that the general public will be able to comment on the results including proposed mitigation and offsets?

Question 11. If the area does turn out to be important for Yellow-bellied Gliders, a Federally listed Vulnerable species, how can Neoen justify, and the Federal Government allow, clearing of its habitat?

Northern Quoll (Endangered EPBC)

Camera traps, the best method for surveying northern quolls, were extremely limited in the survey area, and mostly were not placed on the ridgelines and knolls that are often preferred by quolls. There is therefore no way of knowing whether a very significant population of these animals occurs in the area.

Question 12. If the area is considered to be important to Northern Quoll, a Federally listed Endangered species, how can Neoen justify, and the Federal Government allow, clearing of 1106.3 Ha of its habitat?

State Significant Biodiversity Corridor

In Section 4.1.1.1 of Appendix H (Biodiversity Planning Assessment Mapping) there is a clear statement and map that shows that State Biodiversity Planning Assessment (BPA) mapping (DES 2018) indicates that a state-significant terrestrial corridor passes through the eastern half of the Study Area in a north-south direction. The corridor covers 11,643 ha or 70% of the Study Area. It provides a high degree of connectivity throughout the state, particularly to the east of the Great Dividing Range. To the south of the site, the corridor passes through Don River State Forest and Kroombit Tops National Park before advancing past Bundaberg via several State Forests and National Parks. To the north of the site, the corridor passes through State Forests before intersecting Goodedulla National Park near Yeppoon. The extent of this corridor in the context of the Study Area and Regional Study Area is provided in Figure 4.1

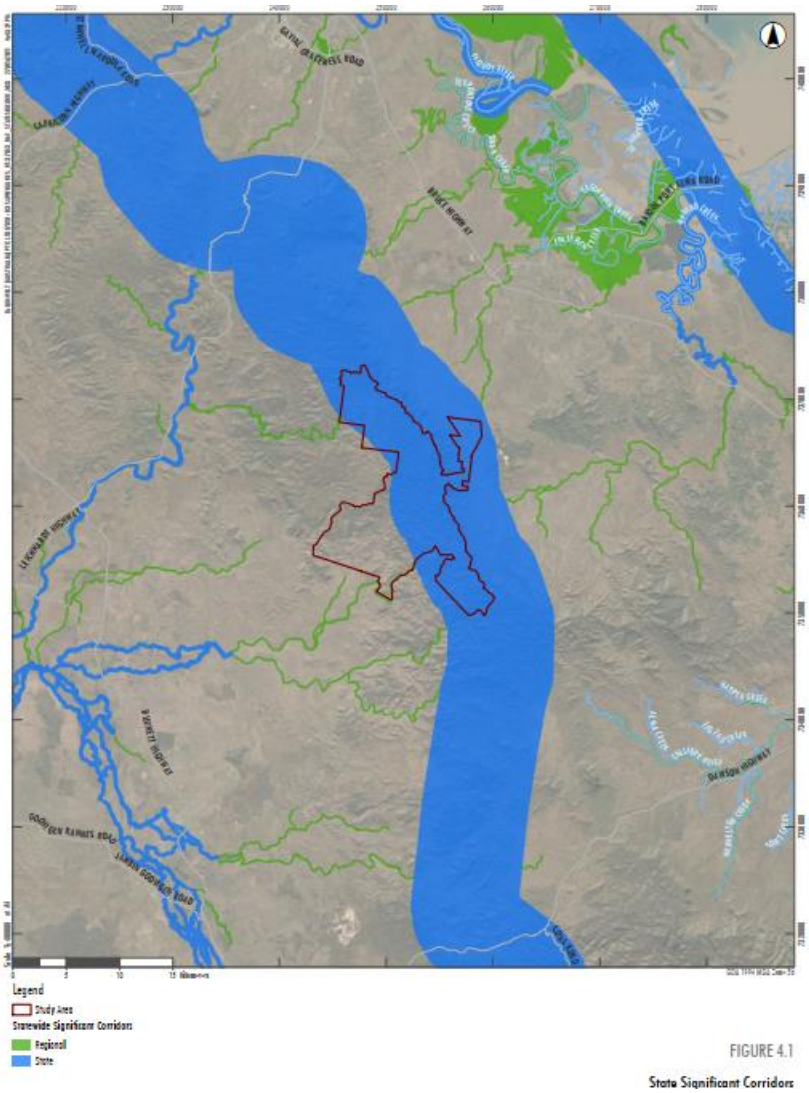

FIGURE 4.1
State Significant Corridors

Question 13. How can Neoen Australia be allowed to create significant disturbance and fragmentation within a documented State Biodiversity Corridor has been documented as such because it contains:

- large tracts of vegetation
- intact terrestrial and aquatic connectivity
- areas of high species richness and diversity
- unique ecosystems and representativeness

- climate adaptation zones and refugia.

Question 14. How can Neoen Australia demonstrate that the sections of above corridor within the wind farm property will, once developed for a wind farm, not be compromised to the point where it will no longer qualify as a State significant Corridor?

Terrestrial Flora

Terrestrial flora surveys are especially inadequate. Secondary and Quaternary site locations (for vegetation mapping purposes) are provided on a map and these are clearly mostly aligned with tracks. This is acceptable for a vegetation mapping exercise providing there is also good representation of inaccessible habitats – for example on rocky knolls. There is no way of determining whether this was the case from the information provided.

However, it appears that targeted surveys for threatened flora occurred on only a tiny proportion of the development footprint. This is completely unacceptable. Incredibly there is no map provided of where these limited targeted flora surveys were conducted. **The entire development footprint must be searched for threatened flora.** This is especially important in an area as poorly surveyed for plants as this. It is quite possible that significant range extensions of threatened flora could occur in the area, especially on such unique micro-habitats such as ridgelines and knolls.

Table 7.1 in the Report Body indicates that 46.1 Ha of Cossinia australiana, 46.1 Ha of Decaspermum struckoilicum and 330 Ha of Samadera bidwillii will potentially be destroyed.

The content of Section 8.2.2 (threatened flora) is completely unacceptable, stating that only threatened flora with “high” to “moderate” likelihood of occurrence in vine thicket communities will be searched for, and even then, only in pre-clearance surveys. All possible threatened flora which could occur in the area (as determined by a broad MNES and MSES search including at least 15 km north of the northern end of the development, and 15 km south of the southern end of the development along the coastal range) must be including in detailed comprehensive surveys of the entire clearing footprint and the results should be presented in this preliminary documentation report.

Question 15. How will Neoen Australia ensure that a comprehensive survey for all possible threatened plants will be conducted along the entire clearance footprint?

Question 16. How will Neoen compensate for destroyed habitat of threatened plant species?

Cycas megacarpa

The information provided in the preliminary documentation report clearly states that there is a the population within the Study Area is considered an important population and has very large areas of habitat critical to the survival of the species It also states that “Once a final development footprint has been established, a significant impact assessment under the EPBC Act and a significant residual impact assessment under the Queensland *Environmental Offsets Act 2014* will be required to identify if the Project is likely to have a ‘Significant Impact’ or a ‘Significant Residual Impact’ on the species”. It then goes on to state that “After all avoidance and management measures have been taken, offsets may be required to mitigate any unavoidable impacts. The requirement for offsets will be

determined following the detailed design of the Project and will be administered in accordance with the *Environmental Offsets Act 2014*." Why is this information not completed already and provided in the preliminary documentation report?

Question 17. Why has Neoen not provided a significant residual impact assessment and offset proposal for Cycas megacarpa in this preliminary documentation report?

Question 18. How can the public comment on whether the development will have dire consequences for Cycas megacarpa without having access to a significant impact assessment and offset proposal for Cycas megacarpa?

Weeds

The very tiny total number of weeds (21 species) provided in the preliminary documentation report shows either that the place is in excellent environmental condition, or that the surveys were inadequate. Normally in these areas there may be around 50 or more species, though often they are uncommon and limited to roadsides, powerlines or small disturbed areas.

It is completely unacceptable that this preliminary documentation report focuses only on addressing weeds of National Significance. The tiny section in the report for weeds indicates a disregard for what is likely the most significant impact this development will have on the environment. Weed invasion caused by the very substantial earth moving activities during the construction and operational phase of the development will be very significant. Weeds already occurring along the powerline or road edges will be pushed into new parts of the development. The newly disturbed road edges will provide the perfect environment for them to establish. New weeds will be brought into the area on machinery, vehicles, boots and clothing.

Weeds of National Significance (WoNs) are a very small select list for the purpose of channeling funds and research into weeds that often are a threat to the pastoral or agricultural industry. Here at Mount Hopeful, weed assessment must focus on environmental weeds. That is weeds that A) impact the natural environment causing loss of biodiversity, B) can escape into natural bushland, and C) can occupy multiple natural habitats. There are a long list of weeds fitting this category that occur in the local area. It is of utmost important that a thorough weed survey be performed across the entire development area and surrounding areas, particularly entrance roads and the transmission line. A comprehensive report on how weed spread will be mitigated must also be presented.

Question 19. How will Neoen ensure that a comprehensive survey of environmental weeds is carried out before any further consideration of this development by the Federal Government.

Question 20. How will Neoen mitigate for the unavoidable spread of environmental weeds throughout the clearing footprint.

Weed Management

This section is sorely lacking in detail and does not explain terms such as “high biomass grasses”. In fact, there is no indication that Neoen Australia has any understanding of the actual weed issues on the ground at the site, or the weed issues that are likely to arise. A comprehensive weed management plan including weed species level information, maps of current weed occurrence (all

environmental weeds, not just Weeds of National Significance) and information stating where and how weed control and weed spread prevention will occur. The preliminary documentation report must clearly state that a comprehensive weed control program must be operational for the entire duration of the project. In addition, it must state how the proponent will prevent continual spread of weeds after the life of the project due to the new roads and disturbance that will remain in perpetuity.

Question 21. How will Neoen ensure that a comprehensive weed management plan is presented in the preliminary documentation report for the public to provide comment?

Remnant Vegetation

According to the preliminary documentation report, the project may result in the disturbance of up to 1080.2 Ha of Remnant vegetation. In reality this probably means “clearing”. However real disturbance measures should include weed invasion, siltation from run-off etc, and so there should be a 200m buffer added to this figure of “disturbance”. Furthermore, it is likely that this damage will be irreversible.

It appears that the preliminary documentation report does not present the Vegetation Status and Biodiversity status of regional ecosystems in the study area. This information is essential if the general public is to assess the impact on Remnant vegetation. The clearing of Of Concern and Endangered Biodiversity Status Regional Ecosystems is completely unacceptable.

Question 22. How is Neoen offsetting the clearance of threatened Ecosystems (threatened in both Biodiversity Status and Vegetation Management Status)?

Micro-siting

The term “micro-siting’ and associated information including “pre-clearance surveys” seems to be a way of avoiding proper thorough surveys well in advance which are therefore not properly accounted for in the environmental assessment process. Pre-clearance surveys are likely to be rushed and inadequate.

Question 23. Will the public be able to comment on pre-clearing surveys, and therefore request a halt to development if an unacceptable impact is revealed?

Offsets

I am unsure as to why this wind farm has not triggered much in the way of offset requirements. Nonetheless, all wind farm offsets I have seen to date are unfortunately likely to be completely ineffective. I believe the damage caused by a development that involves clearing and fragmenting very large areas of Remnant vegetation cannot be offset, since the fragmentation will be widespread, encompassing most of the range area that is not already included in State Forest. State Forests are also not protected, being utilised for multiple purposes including grazing and timber harvesting. They are also not protected from mining. The only acceptable offsets are purchase of land of equivalent size of the entire property on which the wind farm is located, of similar ecological condition, and

then legislating that property as National Park. This will protect that land in perpetuity from clearing and mining.

Question 24. Can you provide a reason as to why offsets or other detailed mitigation measures were not described up front in this report, especially for Cycas megacarpa, Greater Glider, Yellow-bellied Glider and Northern Quoll.

Question 25. If suitable offset land was not available, why is this not justification that this wind farm should not go ahead?

Significant Impact Assessment

For all species, one of the evaluation criteria in the preliminary documentation report is "**Result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat**". The response "No" has been provided for all, is not necessarily correct. In particular, the "Response" statement: "*Invasive species, particularly weeds, were recorded throughout the study area. The project employs best practice control methods for weeds and pests and is unlikely to introduce or exacerbate weeds or pests beyond existing levels*" is completely erroneous. It is a fact, that increased fragmentation, increased vehicular traffic, and increased access to cattle (likely due to the better which gives cattle easy access to more country) creates substantially greater opportunities for weed invasion. No best practice management will prevent the spread of many weeds, including those that are very harmful to the environment but not considered a weed of priority by "best practice" standards. Weeds which transform ecosystems can and do have significant effects on fauna.

Question 26: How can the proponent morally justify interfering with the recovery of threatened species, when the wind farm could be placed in other areas that do not contain threatened species?

Large continuous tracts of Queensland legislated "Remnant" vegetation.

Large continuous tracts of Queensland State legislated "Remnant" vegetation in this local region are now very uncommon. Science tells us that intricate fragmentation such as that cause by wind farms will accelerate weed invasion and habitat change, creating a risk of significant impact on species and ecosystems.

Question 27. Can you prove that you have considered, in detail, all alternative, previously cleared or degraded areas as alternatives for this wind farm, weighing up all the environmental and social impacts against potential monetary costs?

Question 28. Are you aware of the very serious environmental consequences of placing wind farms in intact Remnant vegetation, especially when there is so little of this left in this particular region, and especially when the cumulative impact of all the (latest surge of) wind farm and other renewable developments are considered together?

Question 29. Are you aware of the consequences of not considering the potential impact on Matters of State Significance and not providing mitigation measures for these matters that can be reviewed by the public? Despite it not being a legal requirement, it should be a moral obligation of a wind farm company to do so.

Question 30. Can you truly show us that the destruction of intact Remnant Vegetation (including habitats of Federally listed Endangered species) will make us better off? That is, will it result in significantly less green-house gases in the atmosphere? This should include providing us the true cost (and quantity of green-house gas emissions) of planning and building the wind farm, the area/quantity of mining required to obtain the minerals needed for construction, the cost and emissions required to truly connect all these wind farms to the grid, and therefore the true degree of greenhouse gas reduction that the renewable certificates scheme enables. And finally, this question must include the consideration of the permanent loss of an intact, large stretches of relatively remote country which will (if the wind farm goes ahead) become yet another industrial development. Is it worth it?

From: [redacted]
To: contact@mounthopefulwindfarm.com.au
Cc: Minister.Plibersek@dcceew.gov.au; [redacted]
Subject: Invitation to comment on the Preliminary Documentation for Mount Hopeful Wind Farm (EPBC 2021/9137)
Date: Tuesday, 17 October 2023 12:35:52 AM
Attachments: 2021_9137_Mt Hopeful Windfarm_Comments Jeanette Kemp.pdf

To Neoen Australia Pty Ltd.
cc Hon. Tanja Plibersek
cc [redacted]

Please find attached my comments on the preliminary documentation for the Mount Hopeful Wind Farm (EPBC 2021/9137).

Thanks,
[redacted]

[redacted]

16/10/23

[redacted]

Neoen
RE: Mt Hopeful Wind Farm

SUBMISSION RE: MT HOPEFUL WIND DEVELOPMENT

Dear Sir/Madam,

Herewith my submission regarding the Mt Hopeful Wind Development

This industrialisation project should not proceed due to unacceptable cumulative impacts on both threatened and non-threatened wildlife species, and inevitable destruction and fragmentation of ecosystems.

ECOSYSTEM DESTRUCTION

There will be 883.4 hectares of ecosystem destruction, as well as fragmentation of existing ecosystems. There will be significant edge effects of 200m, and maybe even up to 900m of ecosystems on either side of haulage roads, turbine pads, substations, concrete batching plants, and workers' camps and offices. This will be devastating for wildlife which exists in the area and will obviously lead to deaths of individuals of many species, including koalas, greater gliders, yellow-bellied gliders, northern quolls. The MNES report claims that offset areas somehow make up for the destruction of habitat. This is clearly not the case; the overall impact is severely negative, and there will clearly be a net effect of habitat destruction and further restriction and erosion of habitat for many species.

At Neoen's Kaban wind industrialisation site, Neoen actually EXCEEDED their stated area of land clearing, so it is quite possible that in this case, Neoen will also exceed the amount of land-clearing. Will there be 1000ha of clearing? Or maybe more? How will we know? Can we trust Neoen and the Queensland State Government on this?

BIODIVERSITY STATE CORRIDOR

> "State Biodiversity Planning Assessment (BPA) mapping (DES 2018) indicates that a state-significant terrestrial corridor passes through the eastern half of the Study Area in a north-south direction. The corridor covers 11,643 ha or 70% of the Study Area. It provides a high degree of connectivity throughout the state, particularly to the east of the Great Dividing Range. To the south of the site, the corridor passes through Don River State Forest and Kroombit Tops National Park before advancing past Bundaberg via several State Forests and National Parks. To the north of the site, the corridor passes through State Forests before intersecting Goodedulla National Park."

So this wind energy proposal will severely impact the high degree of connectivity of habitat and biodiversity, with fragmentation and destruction of ecosystems. It should

by rights be refused on this point alone.

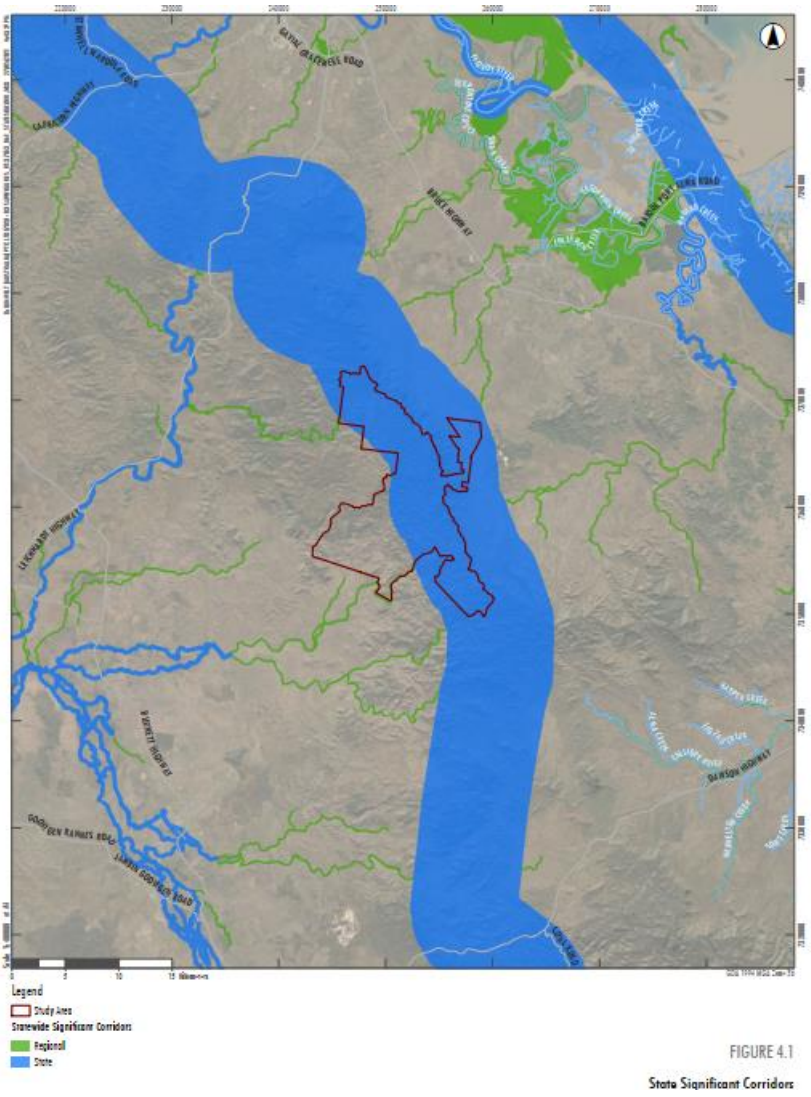

FIGURE 4.1
State Significant Corridors

ROADS and EFFECTS

There will be 175km of roads. These will be wide roads due to the necessity of hauling large wind turbine components into hilly and mountainous country. These are not typical dirt roads in rural properties but wide roads up to 50-100m wide in places, including wind turbine pads. The roads themselves need to be wide to accommodate the passage of trucks carrying large turbine components. Turbine blades will be close to 100m long, and this will necessitate straightening of roads, often requiring further clearing of forests, followed by blasting, excavation and widening of roads. Many species are unlikely to cross such a wide open barren piece of gravel and dirt due to risk of predation and exposure, and trauma due to vehicle impacts. Obviously this will cause microclimate effects in surrounding forests, leading to dessication and habitat change, and loss of carbon uptake. There will be increased risk of invasive pest species, increased fire risk, and considerable erosion and run-off from such areas. The erosion will cause increased siltation and sedimentation of draining watercourses and may culminate in increased sedimentation in the Great Barrier Reef areas as a result of this disturbance. Interestingly the wind industry is

not accountable to the same set of rules and regulations that other land-holders have to abide by.

GBR CATCHMENT – SUBMARINE GROUNDWATER DISCHARGE

Research has shown toxic chemicals from agriculture and industrialisation affect inshore reefs of the Great Barrier Reef not just by flow of such chemicals and sediment in watercourses, but also via submarine discharge via what are known as “Wonky Holes”. Wind industrialisation in GBR catchment will inevitably further poison reefs by release of toxic chemicals found in concrete (large quantities needed for the base of wind turbines) and via microplastics and component chemicals. (1) (2)

MACROPODS

In addition, no mention is made of the presence of species of macropods in the area. Eastern grey kangaroos and whiptail wallabies are known to be in the area. (I have sighted them myself). There may also be rock wallaby species such as Herbert's Rock Wallaby and the Unadorned Rock-Wallaby. Typically these rock-wallaby species occur in rocky habitat on ranges. I'm at a loss to understand why at least one rock wallaby species was not identified in this area, being on a rocky mountainous area as it is. In addition one would expect black-striped wallaby and red-necked wallaby to be possibly present in this area – they were not identified. And it is even possible for the endangered Bridled Nailtail Wallaby to be in this area. (3) They were not apparently identified by the ecologists but that does not exclude their presence. Other species such as Wallaroos and Rufous Bettong would be expected to be in this area, but no mention is made of them in the ecological report. Even if not “threatened”, the individuals of these species in this area will be killed by habitat destruction and fragmentation, and roadkill trauma, which will inevitably lead to deaths and significant injuries culminating in deaths of these individuals. There certainly may be other species of macropods in the area not listed in the environmental report, such as swamp wallabies, black-striped wallabies, and bettongs, all of which will suffer as a result of habitat destruction and fragmentation, and roadkill. As well as being of grave concern regarding biodiversity, this wind energy project is of profound animal welfare concern.

OTHER MARSUPIALS

The Common Brushtail Possum, Central Greater Glider (endangered), Koala (endangered), Squirrel Glider, Krefft's Glider, Northern Brown Bandicoot, Long-nosed Bandicoot, Northern Quoll (endangered), Common Planigale, Fat-tailed Dunnart, and Short-Beaked Echidna, are known to be in the area (3). No mention is made of the presence of some of these species. Again that may indicate deficiencies in the ecological surveys. Any proposed offsets for the destruction and degradation of ecosystems will not negate the overall detrimental effects that this industrialisation will have in these ecosystems. Habitat is inevitably lost and never replaced. The ecological report admits to about a 60% reduction of available habitat for most species of marsupials identified as occurring in the Mt Hopeful project area.

ECOLOGICAL SURVEY DEFICIENCIES

The surveying seems to have been woefully inadequate. Many areas that will be impacted were not surveyed, and only about 60 man hours of spotlighting was undertaken, for example. That equates to only about 20-30 hours of spotlighting for a 2 person team. This is woeful for such a large project area. Most of the surveying occurred along roads away from the footprint, not actually on the footprint itself. The writer of the report admits that due to remote access, ethical requirements and terrain difficulties, intensive trapping, camera traps and acoustic monitoring devices were limited to only a few locations. This is clearly unacceptable. Pitfall sampling and Elliott trapping were extremely limited and woefully inadequate. Koala SATS were also very sparse.

RAPTORS

No clear mention is made of the inevitable deaths of raptors known to be in the area. These include wedge-tailed eagles, white-bellied sea eagle, whistling kites, black kites, little eagles, Brahminy Kite, Pacific Baza, and black-shouldered kites. It's quite possible that red goshawks are in the area – the report does consider that their available habitat in this area will be severely reduced. In addition, various species of other goshawks and falcons are quite likely to traverse this area, including the Australian Peregrine Falcon, Australian Hobby, Black Falcon, Collared Sparrowhawk, Brown Goshawk, and Grey Goshawk. Obviously these are all quite likely to be killed on impact with rotating wind turbine blades as has happened elsewhere, for example in Tasmania, and at Mt Emerald wind farm, as well as is likely in the Neoen Kaban Wind Industrialisation. How does one "offset" the detrimental and cumulative effect these wind turbines will have on individuals and populations of these species? One clearly cannot.

BATS

Bats are known to be incredibly vulnerable to impacts with wind turbine blades, and are known to die in thousands due to pressure effects when flying in close proximity to wind turbines. 10-20 bat deaths per turbine per year can be expected (probably more – this figure is from Victoria (4) and bats are expected to be more prolific in tropical areas), which will have catastrophic effects on local bat populations, as bats are slow breeders. Many caves, overhangs, and old underground mines are known to occur in the Mt Hopeful area, and thus many bats will be killed by this project, and their populations may never recover, leading to local extinctions. There 17 species of bats known to be in the Mt Morgan area, including the vulnerable Ghost Bat (3). In addition there are two species of flying fox. All will be impacted by the construction of the wind industrialisation, which may include blasting of boulder crevices and caves which the bats nest in, in addition to the direct

collision and barotrauma impacts of rotating turbine blades. How does one “offset” the detrimental and cumulative effect these wind turbines will have on individuals and populations of these species? One clearly cannot.

MITIGATION AND MONITORING

I note there is a monitoring and mitigation aspect to the project (BBAMP). There may be some monitoring of bird and bat deaths, but there will be absolutely no attempt at mitigation unless the Identiflight system is used to prevent eagle deaths, and increasing cut-in wind speeds is used as an effort to prevent microbat deaths. As far as I know there is no evidence that such measures are useful in preventing flying fox deaths. These measures are not proposed by the proponent, so there

The monitoring consists of carcass searches only once per month during the warmer months for two years, and every second month during the cooler months. And even then only 50% of turbines will be searched for carcasses. There is absolutely no government and independent oversight of this, and a high likelihood that carcasses will not be found unless the birds and bats are killed in only the previous few days before the survey. Prior to that it is likely the carcasses will be eaten and displaced by predators. Surveys once a month a totally insufficient to identify the true number of deaths of birds and bats, especially given the fact they are not independent.

Visual surveys are also totally inadequate and not independent.

The monitoring is a joke, and will not identify the true burden of deaths of birds and bats caused by the wind turbine development.

INSECTS

Insects are also known to be killed in numbers of millions by wind turbines (5), adding to the list of impacts suffered by insect species, including habitat destruction, night lights, urbanisation and insecticides. Its likely many flying insects will be killed by these turbines in the area, and their populations may never recover. This will lead to ecosystem collapse of surrounding ecosystems, as insects are foundational species in food webs and the terrestrial web of life. In addition, many flowering plants such as native eucalypts and grevilleas require insects for pollination and thus for reproduction. Without insects, their populations inevitably will crash, leading to a barren wasteland in the Mt Hopeful area in future decades. In addition, insects are food species for countless bird, reptile, mammal, and amphibian species. Significant reductions in insect numbers will have profound effects of myriad other species. How does one “offset” the detrimental and cumulative effect these wind turbines will have on individuals and populations of these species? One clearly cannot.

MICROPLASTICS

It's known from independent research that turbines typically lose 60kg of microplastics into surrounding ecosystems per turbine per year, as a consequence of leading edge erosion (6). These plastics contain high proportions of Bisphenol-A which is a known endocrine disrupter. The consequence of this in susceptible wildlife including amphibians is that the sexual development of young animals is disrupted, leading to infertility. The long term effects of this has not been studied in Australian amphibian populations, and certainly the effect of wind turbines in terms of microplastics and Bisphenol A has not been studied in general. However, like a lot of environmental toxicities, it's safe to assume that the overall impacts of microplastics and related chemicals will be negative on wildlife populations.
"We show that overall BPA exposure affected aquatic organisms negatively. It increased abnormalities, altered behaviour and had negative effects on the cardiovascular system, development, growth and survival. Early life stages were the most sensitive to BPA exposure in invertebrates and vertebrates, and invertebrates and amphibians seem to be particularly affected." (7)

NOISE POLLUTION and INFRASOUND

The wind turbines also are known to emit constant low frequency sound and infrasound when in operation. There are 63 proposed wind turbines and the cumulative sound burden of this project is massive and widely dispersed over a large area. Such low frequency sound is thought to interfere with many species. Koalas rely on low frequency sound to find a mate, especially in habitat of relatively low population density. This wind turbine industrialisation will most likely significantly reduce the reproductive success of koalas in the area and lead to local extinctions of koalas, adding to the many areas that once held populations of koalas but no longer do so. (8) In addition the sound of wind turbines deter many other species of animals and birds, denying them the Mt Hopeful ecosystem area. The consequences of wind turbine sound on the behaviour of greater gliders and yellow-bellied gliders has not been studied either. It is quite possible that they may also lead to local extinctions.

In humans it is known that chronic industrial noise exposure has detrimental health effects, especially on the cardiovascular system, leading to increased morbidity and mortality. Why would we not expect similar effects on wildlife species which are completely unaccustomed to such impacts?

I note that only 6 hours of acoustic recordings were performed to identify koalas and other species. This is not sufficient time obviously to identify the presence of individuals of many different species in the project area. It is not clear whether this includes just one recorder or multiple recorders?

PLANT SPECIES

I note the threatened plant species were identified by “opportunistic” means and “random meanderings”. This does not appear to be a scientifically objective way to establish the presence of many threatened plant species. Perhaps the aim was not to find them? Any attempt at translocation of threatened plant species is doomed to failure. Individuals are only growing in certain habitats which have specific and suitable microclimates and soils. They simply cannot in most cases be translocated to other areas and survive. Often the 'other areas' simply are not suitable, otherwise the plants would be growing there already.

CLIMATE EFFECTS

883.4 hectares of ecosystem destruction is likely to have climate effects which largely or totally negate any beneficial climate effects this development may have in reducing fossil fuel usage. There will inevitable CO2 emissions from the direct destruction of biomass. Dry-moist sclerophyll forest has above ground biomass of around 100-300t of carbon per hectare, and a similar amount of below ground biomass. Clearing this forest means that almost all the embodied carbon ends up as CO2. In addition there may be more potent greenhouse gasses released, including CH4 and N2O.

If we assume that there is 200t carbon above and 200 t carbon below ground biomass, that equates to 400 x 883.4 t = 353 360 tons carbon, which becomes roughly 1.3 million tons of CO2 when the forest is cleared (9). If we assume the forest sequesters 5 tons of CO2 per hectare year (a reasonable amount for moist-dry sclerophyll forests), the lost carbon uptake is the equivalent of 88 340 tons of CO2 emissions over 20 years. Obviously that lost carbon uptake goes on for an indefinite period into the future. So the total emissions resulting from ecosystem destruction are around 1.39 million tons CO2 over 20 years only. This obviously does not include loss of carbon uptake from ecosystem degradation due to edge effects, which can be considerable.

The project consists of 400MW nameplate capacity. The stated turbine size is a massive 6.5MW, of which there are proposed to be 63 turbines. I am unaware as to what the embodied emissions are of the materials of each turbine. However we do know what the approximate embodied emissions are of a 2MW turbine – around 1900t CO2 (10). If we assume that this project is the equivalent therefore of 200 x 2MW turbine, the embodied emissions of the materials only for the 63 turbine project are 380 000t CO2.

If we include the emissions of manufacturing of components, transport of components by trucks and ships, onsite earthworks, fabrication, fly-in-fly-out workers and their transport, diesel powered workers’ camps, the emissions will be easily double that. So conservatively we will use around 800 000t CO2 as the upfront emissions of the turbines themselves – not including substation and extra high voltage powerlines and battery storage emissions. Ecocide emissions of 1.39 m t CO2 plus upfront turbine emissions of 0.8m t CO2 = 2.19m t CO2; = 2 190 000 000 000 g CO2. Power output over 20 years = 400MW x 1000 x 8760 x

0.84 (loss of power output over 20 years) x 0.25 median CF x 20 years = 14 716 800 000 kWh.

CO2 emissions / kWh = 148g CO2/kWh – remember though that this is only reached at 20 years, and does not include various facets including edge effects, maintenance, high V power lines, and substation emissions.

At 1 year age, emissions will be >3000g CO2/kWh.
At 2 years' age, emissions will be >1500g CO2/kWh
At 5 years' age, emissions will be >600g CO2/kWh
At 10 years' age, emissions will be >300g CO2/kWh
At 15 years' age, emissions will be >220g CO2/kWh

At before 20 years, there needs to be more mining & manufacturing to start the whole process again, to replace the existing turbines. Remember that the above calculated emissions values do not include the emissions of decommissioning, and recycling. Recycling of various components can be very energy-intensive, and therefore CO2 intensive.

In addition, if there is considerable renewables penetration of the grid, curtailments, and capacity credit issues can mean in effect the capacity factor may be only 7-9% in terms of electricity actually delivered to the consumer. *("An analysis of the Australian system shows wind yields a CC of 7%-24% but much lower (7%-9%) in the long run with continued wind deployment."* (11)) If we assume the real capacity factor is 8% in terms of the amount of electricity delivered to the consumer as a proportion of nameplate capacity, we should multiply the above g CO2/kWh values times THREE (25%CF/8%CF).

Therefore at 1 year age, emissions of 9000g CO2/kWh, 2 years: 4500g CO2/kWh, 5 years: 1800g CO2/kWh, 10 years: 900g CO2/kWh, 15 years: 660g CO2/kWh, 20 years: 450g CO2/kWh.

So, given that natural gas emissions are quoted as 490g CO2/kWh and coal is 880g CO2/kWh, there is clearly NO CLIMATE BENEFIT. In fact there are even more emissions, at considerable cost to ecosystems and biodiversity.

The IPCC quotes onshore wind as having emissions of only 11g CO2/kWh (12), but this figure is given by the manufacturer, Vestas, and seems to only include embodied emissions of materials and assumes optimal wind conditions, and no transport, no earthworks, no ecosystem destruction and a myriad other sources of emissions of wind turbine deployment, operation, and decommissioning. Also it assumes that the emissions at 20 years' life expectancy are the same as the emissions throughout its life cycle, which is clearly wrong.

But it gets worse. Research in other countries shows that when natural gas is used to balance the variable output of renewable energy providers, gas consumption can increase

so much that there is no significant emissions benefit. (13) And that is not including the ecosystems carbon loss that I have calculated above.

SF6

Wind turbines are known to normally contain about 5kg of SF6 gas each; this gas is used to insulate the electrical connections including switchboxes, to help reduce the incidence of short circuits and fires (14). Supposedly most of this gets recycled at the end of life of turbines, but there are inevitable leaks. It's also used in other grid switchboxes. Hypothetically if a wind turbine's SF6 gas escapes to the atmosphere, that is the equivalent of 115 tons of CO2. The quoted rate for leaks is only about 0.9%, but any leak is too much, as SF6 takes 1000s of years to degrade, and the atmospheric concentration is beginning rise exponentially. More climate safe alternatives to SF6 exist but SF6 is still used due to relatively low cost. Of course this industry is not about the climate, but the money. This is further proof.

CO2 is just one aspect of climate change.

Renewables offer nothing to address other potent greenhouse gasses, CH4 and N2O. Their emissions are mainly due to agriculture, dams and freshwater, positive feedbacks, and fossil fuel mining, which renewables actually do little to reduce, because both wind turbines and solar panels are dependent on coal and gas for both materials and energy (15) (16), and have difficulty replacing without astronomically expensive amounts of battery storage. Which require minerals which are in short supply and increasingly low grade.

ECOSYSTEMS CLIMATE BENEFITS

As well as carbon sequestration, forests and other ecosystems have profound effects on climate by alteration of weather patterns (17), release of chemicals that promote cloud formation, increase rainfall (18), increase shading (19) and directly store energy via the carbon bonds generated by photosynthesis. The effect of intact forests in promoting rainfall actually helps photosynthesis and tree growth, and improves carbon uptake. Wind turbines do none of this. In fact, due to their air mixing effects (20), they increase surface temperatures, and reduce rainfall due to destruction and degradation of forests, leading to further reduced carbon uptake.

CONCLUSION

The Mt Hopeful Wind Industrialisation Project should clearly not proceed due to unacceptable cumulative impacts on many threatened and non-threatened species, due to cumulative and permanent ecosystems destruction and degradation, and due to its adverse climate effects. In reality there is little difference compared to fossil fuels with respect to its overall emissions effects, in fact, the emissions are likely to be worse, with added damage to ecosystems and biodiversity.

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From: [redacted]
To: contact@mounthopefulwindfarm.com.au
Cc: Minister.Plibersek@dcceew.gov.au
Subject: Mt Hopeful Wind Industrialisation submission EPBC 2021/9137 from [redacted]
Date: Tuesday, 17 October 2023 2:35:13 PM
Attachments: Mt Hopeful submission [redacted]

Sent from my iPhone

[redacted]

To Neoen Australia,

contact@mounthopefulwindfarm.com.au.

cc: Minister Tanya Plibersek Minister.Plibersek@dcceew.gov.au
cc: [redacted]

Subject: Invitation to comment on the Preliminary Documentation for Mount Hopeful Wind Farm (EPBC 2021/9137)

I am opposed to a wind farm in this location due to environmental concerns. My comments and concerns are listed under the subjects below:

Cumulative impacts

Wind farm developers, government and the general public are now aware that there are severe cumulative impacts on the environment due to the unprecedented roll-out of industrial size renewable developments in the coastal ranges of Queensland. This preliminary documentation must include a section on cumulative impacts, and this must include facts and figures on habitat effected of all threatened plants, animals and regional ecosystems. It should also include the proportion of each Queensland regional ecosystem (not just threatened ecosystems) to be cleared (with 200 m likely disturbance buffer) across all known renewable footprints. In addition, it should include an estimate of the effect of blade-strike on birds and bats across multiple wind farms. This information will enable assessors and the public to judge whether in fact these developments may cause the change of status of these entities to a more threatened status. It also provides better understanding of the large-scale impact of these developments.

Question 1. How will Neoen ensure that this preliminary documentation includes a comprehensive section on cumulative impacts and that this new information will be available for the general public to provide comment?

Protected Matters Search Tool

The Protected Matters Search Tool (Appendix B) does not indicate from which area the search was conducted. Records of flora and fauna in this region are notoriously poor due to lack of previous survey effort. Therefore, it should be standard practice to encompass a much larger area of similar habitat within the search tool request area. This should extend to the north and south of the project area, aligned along the same mountainous range. Although it is not illustrated, it is possible that the

Protected Matters Search Tool presented in the preliminary documentation report was a based on a given radius from the centre of the development footprint. A more scientific approach would be to ensure the same area of habitat along the actual mountain range is included (ie draw a polygon that encompasses only the mountain range and extends at least 15 km from the northern and 15 km from the southern end of the development).

When the above approach is used, EPBC-listed plant species that should be included (which have not been) are:

Bertya opponens
Bosistoa transversa
Leichhardtia brevifolia
Polianthion minutiflorum
Rhaponticum australe

Similarly, there will be additional EPBC-listed fauna encompassed in such a search.

Detailed field surveys should therefore be conducted for the above additional species.

Question 2. Have you adequately provided for the possibility of other local EPBC listed matters by extending the search area within the Protected Matters Search Tool by at least 15 km north of the northern end of the development, and at least 15 km south of the southern end of the development, along the same coastal mountain range? Can you provide a map of the area which was searched?

Question 3. Will Neoen Australia ensure that the above five plant species and other relevant EPBC-listed fauna species are included within additional thorough on-ground surveys?

Matters of State Environmental Significance

The preliminary documentation report lists plant species of State Significance likely to occur in the area. Similarly for National Matters, State records of flora and fauna in this region are notoriously poor due to lack of previous survey effort. Therefore, it should be standard practice to encompass a much larger area of similar habitat within a Matters of State Environmental Significance request. This should extend to the north and south of the project area, aligned along the same mountainous range. Although it is not illustrated, it is possible that the search area presented in the preliminary documentation report was a based on a given radius from the centre of the development footprint. A more scientific approach would be to ensure the same area of habitat along the actual mountain range is included (ie draw a polygon that encompasses only the mountain range and extends at least 15 km from the northern and 15 km from the southern end of the development).

Matters of State significance must be accounted for in the wind farm proposal. Targeted searches for State listed threatened species should have been conducted. The preliminary documentation has excluded some State listed species such as Grevillea hockingsii, so it is likely there were no targeted searches for this species in the flora surveys.

Question 4. Has Neoen Australia adequately provided for the possibility of other State listed matters by extending the search area within the Protected Matters Search Tool by at least 15 km north of the northern end of the development, and at least 15 km south of the southern end of the development, along the same coastal mountain range? Can you provide a map of the area which was searched?

Question 5. Will Neoen Australia ensure that additional plant species and other relevant State-listed fauna species are included within additional thorough on-ground surveys?

Fauna survey techniques

Very little of the actual clearing footprint was trapped for fauna (e.g. Anabat, camera, elliot, pitfall, koala SAT, harp trapping) instead most of this occurred along roads away from the footprint (Fig. 4.2 Pt 1 Report Body). Bear in mind that the footprint occurs on the highest ridges and knolls and is therefore often in different micro-habitats to the surrounds. Indeed, the document states that "*Due to the location of the Study Area, terrain difficulties, ethical requirements and remote access, intensive trapping methodologies were limited to a few locations and remote sampling techniques were adopted, including the use of cameras and acoustic monitoring devices*". In addition, the locations of cameras and acoustic monitoring devises were also extremely limited (Fig. 4.2 Part 1 Report Body). This tiny degree of survey coverage over the fauna footprint is not acceptable.

Pitfall sampling appears to have been woefully inadequate with apparently only one site erected for a few nights. Similarly, Elliot trapping was conducted at very few sites (it's unclear from the map and data, but possibly only 2 sites? or perhaps up to 6 sites for three nights). Cameras were mostly not placed within the clearing footprint. Camera traps could have been left in place for many months, but clearly they were not, as there were only 490 camera trap nights. Koala SATs were very sparse. Only 60 hours of spotlighting was conducted. For safety reasons this was likely done with 2-3 people which equates in reality to only 20 or 30 hours of search time. This is completely inadequate – it is impossible to cover much ground in this amount of time, especially when walking, which is what should be required to survey the more remote parts. The location of spotlighting surveys does not appear to be illustrated.

Question 6. How will Neoen Australia ensure that a thorough fauna survey including the on-ground techniques of spotlighting, Elliot trapping, pitfall trapping, Koala SAT surveys, camera trapping, Anabat and harp trapping, all conducted at several different times of year is conducted comprehensively along the clearing footprint?

Question 7. How will Neoen Australia ensure that the results of the above surveys will be available for public comment as part of a significantly revised preliminary documentation report?

Greater Glider (Endangered EPBC)

The location of the 60 hours of spotlighting is not illustrated. It is unclear why Eucalyptus moluccana dominated vegetation was the only vegetation type considered to be breeding habitat despite a low to moderate abundance of tree hollows in other habitat types on the site. Statements in Appendix H regarding the likely abundance of Greater Gliders are invalid given the extremely limited number of spotlighting sites sampled. In particular, the conclusion (Section 5.2) cannot state that there is a low-density population. It does however state that "given the high degree of connectivity, the area of habitat available including preferred, higher elevation woodlands with abundant hollow bearing trees, the habitat within the Study Area is considered to hold relative importance to the species in the broader context of the region".

Question 8. If the area is considered to be important to Greater Gliders, a Federally listed Endangered species, how can Neoen justify, and the Federal Government allow, clearing of 948.6 Ha of its habitat, and fragmentation of a regionally important area for this species?

Koala (Endangered EPBC)

The reference Unwelt 2021 has not been provided so it is difficult to determine whether the field surveys for koala within the site were adequate. If it is referring to information provided in this preliminary documentation report, then the field surveys are clearly inadequate. Figure 4.2 (Pt 1 Report Body) shows only a very limited number of Koala SAT searches which could not be adequate to determine koala density across the site. Spotlighting according to the preliminary documentation report was only 60 hours in a very limited area.

Question 9. Koalas clearly occur in the area, and they are a high profile, Federally listed Endangered species - so how can Neoen justify, and the Federal Government allow, clearing of 1028.2 Ha of its habitat?

Yellow-bellied Glider (south-eastern) (*Petaurus australis australis*) (Vulnerable EPBC)

It appears the status of this species in this preliminary documentation has not been updated (this species was upgraded from not-listed, to Vulnerable, in March 2022), therefore the information provided in this preliminary documentation report is incorrect, and surveys for this species are completely inadequate. A comprehensive survey for this EPBC listed Vulnerable species must be undertaken within the project area including along the development footprint, and at several different times of year. Subsequent mitigation and offset measures must be described, and the general public must be allowed to comment on this revised information.

Question 10. How will Neoen ensure that a comprehensive field survey for this EPBC listed species is conducted at several different times of year along the clearing footprint, and that the general public will be able to comment on the results including proposed mitigation and offsets?

Question 11. If the area does turn out to be important for Yellow-bellied Gliders, a Federally listed Vulnerable species, how can Neoen justify, and the Federal Government allow, clearing of its habitat?

Northern Quoll (Endangered EPBC)

Camera traps, the best method for surveying northern quolls, were extremely limited in the survey area, and mostly were not placed on the ridgelines and knolls that are often preferred by quolls. There is therefore no way of knowing whether a very significant population of these animals occurs in the area.

Question 12. If the area is considered to be important to Northern Quoll, a Federally listed Endangered species, how can Neoen justify, and the Federal Government allow, clearing of 1106.3 Ha of its habitat?

State Significant Biodiversity Corridor

In Section 4.1.1.1 of Appendix H (Biodiversity Planning Assessment Mapping) there is a clear statement and map that shows that State Biodiversity Planning Assessment (BPA) mapping (DES 2018) indicates that a state-significant terrestrial corridor passes through the eastern half of the Study Area in a north-south direction. The corridor covers 11,643 ha or 70% of the Study Area. It provides a high degree of connectivity throughout the state, particularly to the east of the Great Dividing Range. To the south of the site, the corridor passes through Don River State Forest and Kroombit Tops National Park before advancing past Bundaberg via several State Forests and National Parks. To the north of the site, the corridor passes through State Forests before intersecting Goodedulla National Park near Yeppoon. The extent of this corridor in the context of the Study Area and Regional Study Area is provided in Figure 4.1

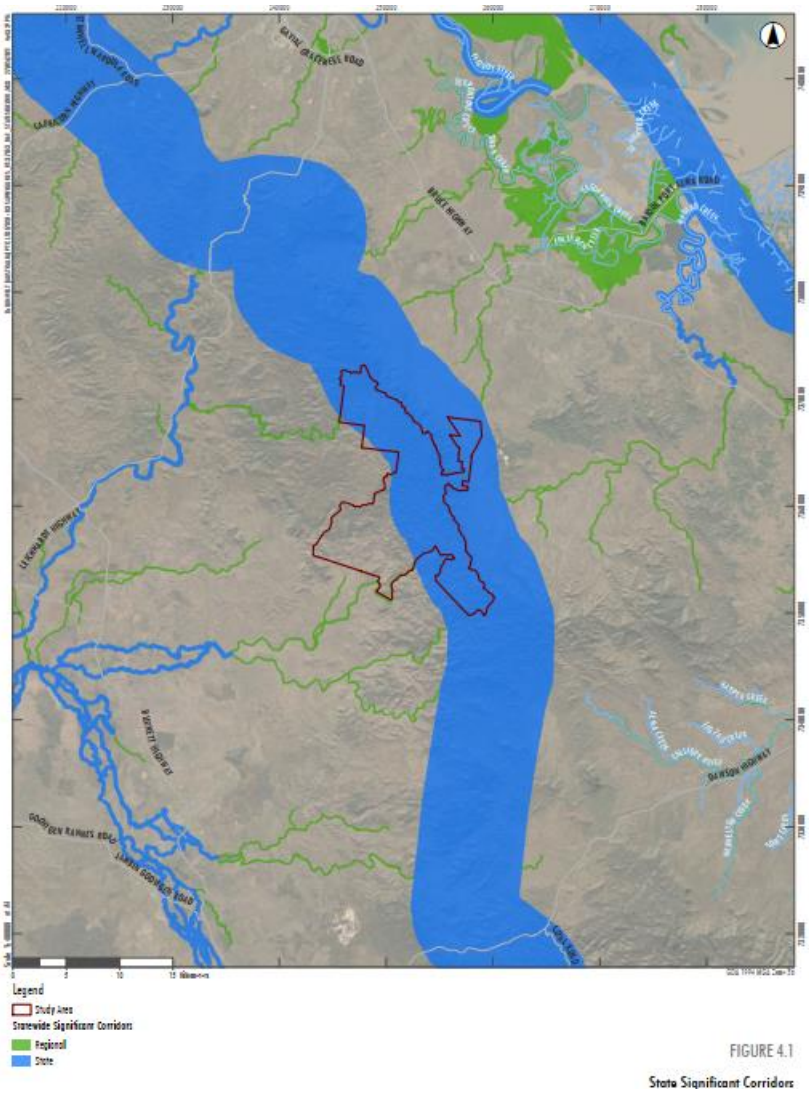

FIGURE 4.1
State Significant Corridors

Question 13. How can Neoen Australia be allowed to create significant disturbance and fragmentation within a documented State Biodiversity Corridor has been documented as such because it contains:

- large tracts of vegetation
- intact terrestrial and aquatic connectivity
- areas of high species richness and diversity
- unique ecosystems and representativeness

- climate adaptation zones and refugia.

Question 14. How can Neoen Australia demonstrate that the sections of above corridor within the wind farm property will, once developed for a wind farm, not be compromised to the point where it will no longer qualify as a State significant Corridor?

Terrestrial Flora

Terrestrial flora surveys are especially inadequate. Secondary and Quaternary site locations (for vegetation mapping purposes) are provided on a map and these are clearly mostly aligned with tracks. This is acceptable for a vegetation mapping exercise providing there is also good representation of inaccessible habitats – for example on rocky knolls. There is no way of determining whether this was the case from the information provided.

However, it appears that targeted surveys for threatened flora occurred on only a tiny proportion of the development footprint. This is completely unacceptable. Incredibly there is no map provided of where these limited targeted flora surveys were conducted. **The entire development footprint must be searched for threatened flora.** This is especially important in an area as poorly surveyed for plants as this. It is quite possible that significant range extensions of threatened flora could occur in the area, especially on such unique micro-habitats such as ridgelines and knolls.

Table 7.1 in the Report Body indicates that 46.1 Ha of Cossinia australiana, 46.1 Ha of Decaspermum struckoilicum and 330 Ha of Samadera bidwillii will potentially be destroyed.

The content of Section 8.2.2 (threatened flora) is completely unacceptable, stating that only threatened flora with “high” to “moderate” likelihood of occurrence in vine thicket communities will be searched for, and even then, only in pre-clearance surveys. All possible threatened flora which could occur in the area (as determined by a broad MNES and MSES search including at least 15 km north of the northern end of the development, and 15 km south of the southern end of the development along the coastal range) must be including in detailed comprehensive surveys of the entire clearing footprint and the results should be presented in this preliminary documentation report.

Question 15. How will Neoen Australia ensure that a comprehensive survey for all possible threatened plants will be conducted along the entire clearance footprint?

Question 16. How will Neoen compensate for destroyed habitat of threatened plant species?

Cycas megacarpa

The information provided in the preliminary documentation report clearly states that there is a the population within the Study Area is considered an important population and has very large areas of habitat critical to the survival of the species It also states that “Once a final development footprint has been established, a significant impact assessment under the EPBC Act and a significant residual impact assessment under the Queensland *Environmental Offsets Act 2014* will be required to identify if the Project is likely to have a ‘Significant Impact’ or a ‘Significant Residual Impact’ on the species”. It then goes on to state that “After all avoidance and management measures have been taken, offsets may be required to mitigate any unavoidable impacts. The requirement for offsets will be

determined following the detailed design of the Project and will be administered in accordance with the *Environmental Offsets Act 2014*." Why is this information not completed already and provided in the preliminary documentation report?

Question 17. Why has Neoen not provided a significant residual impact assessment and offset proposal for Cycas megacarpa in this preliminary documentation report?

Question 18. How can the public comment on whether the development will have dire consequences for Cycas megacarpa without having access to a significant impact assessment and offset proposal for Cycas megacarpa?

Weeds

The very tiny total number of weeds (21 species) provided in the preliminary documentation report shows either that the place is in excellent environmental condition, or that the surveys were inadequate. Normally in these areas there may be around 50 or more species, though often they are uncommon and limited to roadsides, powerlines or small disturbed areas.

It is completely unacceptable that this preliminary documentation report focuses only on addressing weeds of National Significance. The tiny section in the report for weeds indicates a disregard for what is likely the most significant impact this development will have on the environment. Weed invasion caused by the very substantial earth moving activities during the construction and operational phase of the development will be very significant. Weeds already occurring along the powerline or road edges will be pushed into new parts of the development. The newly disturbed road edges will provide the perfect environment for them to establish. New weeds will be brought into the area on machinery, vehicles, boots and clothing.

Weeds of National Significance (WoNs) are a very small select list for the purpose of channeling funds and research into weeds that often are a threat to the pastoral or agricultural industry. Here at Mount Hopeful, weed assessment must focus on environmental weeds. That is weeds that A) impact the natural environment causing loss of biodiversity, B) can escape into natural bushland, and C) can occupy multiple natural habitats. There are a long list of weeds fitting this category that occur in the local area. It is of utmost important that a thorough weed survey be performed across the entire development area and surrounding areas, particularly entrance roads and the transmission line. A comprehensive report on how weed spread will be mitigated must also be presented.

Question 19. How will Neoen ensure that a comprehensive survey of environmental weeds is carried out before any further consideration of this development by the Federal Government.

Question 20. How will Neoen mitigate for the unavoidable spread of environmental weeds throughout the clearing footprint.

Weed Management

This section is sorely lacking in detail and does not explain terms such as “high biomass grasses”. In fact, there is no indication that Neoen Australia has any understanding of the actual weed issues on the ground at the site, or the weed issues that are likely to arise. A comprehensive weed management plan including weed species level information, maps of current weed occurrence (all

environmental weeds, not just Weeds of National Significance) and information stating where and how weed control and weed spread prevention will occur. The preliminary documentation report must clearly state that a comprehensive weed control program must be operational for the entire duration of the project. In addition, it must state how the proponent will prevent continual spread of weeds after the life of the project due to the new roads and disturbance that will remain in perpetuity.

Question 21. How will Neoen ensure that a comprehensive weed management plan is presented in the preliminary documentation report for the public to provide comment?

Remnant Vegetation

According to the preliminary documentation report, the project may result in the disturbance of up to 1080.2 Ha of Remnant vegetation. In reality this probably means “clearing”. However real disturbance measures should include weed invasion, siltation from run-off etc, and so there should be a 200m buffer added to this figure of “disturbance”. Furthermore, it is likely that this damage will be irreversible.

It appears that the preliminary documentation report does not present the Vegetation Status and Biodiversity status of regional ecosystems in the study area. This information is essential if the general public is to assess the impact on Remnant vegetation. The clearing of Of Concern and Endangered Biodiversity Status Regional Ecosystems is completely unacceptable.

Question 22. How is Neoen offsetting the clearance of threatened Ecosystems (threatened in both Biodiversity Status and Vegetation Management Status)?

Micro-siting

The term “micro-siting’ and associated information including “pre-clearance surveys” seems to be a way of avoiding proper thorough surveys well in advance which are therefore not properly accounted for in the environmental assessment process. Pre-clearance surveys are likely to be rushed and inadequate.

Question 23. Will the public be able to comment on pre-clearing surveys, and therefore request a halt to development if an unacceptable impact is revealed?

Offsets

I am unsure as to why this wind farm has not triggered much in the way of offset requirements. Nonetheless, all wind farm offsets I have seen to date are unfortunately likely to be completely ineffective. I believe the damage caused by a development that involves clearing and fragmenting very large areas of Remnant vegetation cannot be offset, since the fragmentation will be widespread, encompassing most of the range area that is not already included in State Forest. State Forests are also not protected, being utilised for multiple purposes including grazing and timber harvesting. They are also not protected from mining. The only acceptable offsets are purchase of land of equivalent size of the entire property on which the wind farm is located, of similar ecological condition, and

then legislating that property as National Park. This will protect that land in perpetuity from clearing and mining.

Question 24. Can you provide a reason as to why offsets or other detailed mitigation measures were not described up front in this report, especially for Cycas megacarpa, Greater Glider, Yellow-bellied Glider and Northern Quoll.

Question 25. If suitable offset land was not available, why is this not justification that this wind farm should not go ahead?

Significant Impact Assessment

For all species, one of the evaluation criteria in the preliminary documentation report is "**Result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat**". The response "No" has been provided for all, is not necessarily correct. In particular, the "Response" statement: "*Invasive species, particularly weeds, were recorded throughout the study area. The project employs best practice control methods for weeds and pests and is unlikely to introduce or exacerbate weeds or pests beyond existing levels*" is completely erroneous. It is a fact, that increased fragmentation, increased vehicular traffic, and increased access to cattle (likely due to the better which gives cattle easy access to more country) creates substantially greater opportunities for weed invasion. No best practice management will prevent the spread of many weeds, including those that are very harmful to the environment but not considered a weed of priority by "best practice" standards. Weeds which transform ecosystems can and do have significant effects on fauna.

Question 26: How can the proponent morally justify interfering with the recovery of threatened species, when the wind farm could be placed in other areas that do not contain threatened species?

Large continuous tracts of Queensland legislated "Remnant" vegetation.

Large continuous tracts of Queensland State legislated "Remnant" vegetation in this local region are now very uncommon. Science tells us that intricate fragmentation such as that cause by wind farms will accelerate weed invasion and habitat change, creating a risk of significant impact on species and ecosystems.

Question 27. Can you prove that you have considered, in detail, all alternative, previously cleared or degraded areas as alternatives for this wind farm, weighing up all the environmental and social impacts against potential monetary costs?

Question 28. Are you aware of the very serious environmental consequences of placing wind farms in intact Remnant vegetation, especially when there is so little of this left in this particular region, and especially when the cumulative impact of all the (latest surge of) wind farm and other renewable developments are considered together?

Question 29. Are you aware of the consequences of not considering the potential impact on Matters of State Significance and not providing mitigation measures for these matters that can be reviewed by the public? Despite it not being a legal requirement, it should be a moral obligation of a wind farm company to do so.

Question 30. Can you truly show us that the destruction of intact Remnant Vegetation (including habitats of Federally listed Endangered species) will make us better off? That is, will it result in significantly less green-house gases in the atmosphere? This should include providing us the true cost (and quantity of green-house gas emissions) of planning and building the wind farm, the area/quantity of mining required to obtain the minerals needed for construction, the cost and emissions required to truly connect all these wind farms to the grid, and therefore the true degree of greenhouse gas reduction that the renewable certificates scheme enables. And finally, this question must include the consideration of the permanent loss of an intact, large stretches of relatively remote country which will (if the wind farm goes ahead) become yet another industrial development. Is it worth it?

Objection to Mt Hopeful Wind Farm

The Project Officer
NEOEN Australia
Level 21
570 George Street
SYDNEY NSW 2000

17th October 2023

By email: contact@mounthopefulwindfarm.com.au.
Cc: Minister.Plibersek@dcceew.gov.au

Dear Sir,

Objection to: EBPC 2021/9137 – Mt Hopeful Wind Farm

The continuing destruction of the Australian countryside and its unique flora and fauna is unacceptable to Australian citizens who support farmers, graziers and regional Australians in their campaign against the irrational development of wind projects which are environmentally destructive.

When determining any planning application, primary consideration should be given to the principles of ecologically sustainable development as stated in:

Federal Legislation - Environment Protection and Biodiversity Conservation Act 1999

3A Principles of ecologically sustainable development

> The following principles are ***principles of ecologically sustainable development***:
>
> (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
>
> (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
>
> (c) the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
>
> (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;

Considering each of the aforementioned principles:

3A (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations

Wind projects are short term installations and the push for nuclear energy in Australia and the rest of the world to provide reliable, sustainable, affordable energy while not emitting carbon dioxide will, in my opinion, see this project, if approved, become a stranded asset.

The United States has approved the development of Small Modular Reactors (SMR). Nuscale, an American company, has contracted with the Utah Associated Municipal Power Systems, to construct a 924Mwe power plant at Idaho Falls, Idaho, which will be fully operational in 2030. Nuscale have

also proposed the use of SMRs to repurpose coal fired power stations in the United States. https://www.nuscalepower.com/newsletter/nucleus-fall-2020/featured-topic

When considering environmental issues there is a dark side to renewable energy. Much emphasis is placed on the worldwide production of carbon dioxide by the burning of fossil fuels. What isn't discussed is the life cycle of wind turbines which includes the sourcing and mining of raw materials to enable the manufacture of wind turbines and their associated infrastructure.

Social impacts include, what is increasingly being reported as the use of forced labour by some wind turbine manufacturers in the production of wind turbines.

3A (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation

Again, there are threats of serious and irreversible environmental damage associated with the manufacture, installation and decommissioning of wind turbines.

Wind turbine blades are not recyclable and are currently buried. Toxic elements in the blades then leak into the water table and poison the groundwater. Currently there is no effective waste management plan for the decommissioning of wind turbines. The bases of wind turbines containing tons of concrete and steel are left in the ground effectively preventing any ongoing use of that area.

Mining leases are required to provide bonds for the rehabilitation of mined areas at the completion of mining operations. No such rehabilitation bonds are currently required for wind projects which has resulted in many abandoned wind projects overseas being left as ghost structures dotting the landscape.

3A (c) the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;

Wind projects are short-term installations and will not provide meaningful jobs for the local community during their short lifetime as opposed to ongoing employment for locals.

As noted in 3A (b), the inground bases of decommissioned wind turbines prevents the land they're built on to be effectively reused. Thousands of tonnes of concrete and steel will remain as a testament to the folly of those who believe wind projects and solar projects are the answer to Australia's energy needs.

With coal, gas and uranium, Australia has energy sovereignty. With wind projects, PV solar projects and batteries we cede our energy generation to a foreign power. Energy security is national security. This is providing meaningful inter-generational equity and security.

There is an ancient Indian saying:

> "We do not inherit the earth from our ancestors, we borrow it from our children"

Intergenerational equity for our children, grandchildren and the descendants of all Australians must be foremost in our minds.

3A (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;

The conservation of biological diversity and ecological integrity should not only be considered in relation to the local areas. The life cycle of wind projects should always be considered in relation to ecologically sustainable development elsewhere.

Wind turbines are bird killers. The bird carcasses attract foxes and other feral animals such as feral cats. Foxes and feral cats don't discriminate and kill domestic animals, small livestock and small native mammals.

The four videos below show why wind projects need to be stopped to prevent the destruction of Australia's fauna and flora. They were prepared by Steven Nowakowski an environmentalist and supporter of renewable energy until he saw the destruction wrought on the environment by the Kaban Wind Project.

Short Upper Burdekin Film	https://vimeo.com/706882264
Short Kaban Film	https://vimeo.com/633451905
Short Chalumbin Film	https://vimeo.com/582415839
Kaban destruction	https://vimeo.com/775033740

It is ridiculous that Australia is currently not effectively using its abundant coal, gas and uranium resources to provide an affordable, sustainable and reliable energy generation network for its citizens and businesses.

In conclusion, the Federal Government needs to legislate to remove the prohibition on nuclear energy, which is required to meet Australia's national security needs and not rely on supply chains that use forced labour and are becoming more tenuous.

Yours faithfully,

[redacted]

From: [redacted]
To: Ruby Heard
Cc: contact@mounthopefulwindfarm.com.au
Subject: FW: Objection to: MOUNT HOPEFUL WIND FARM (EPBC 2021/9137)
Date: Tuesday, 17 October 2023 4:08:08 PM
Attachments: 230910 - Objection to EBPC 2021 9137 - Mt Hopeful Wind Farm .pdf

From: [redacted]
Sent: Tuesday, October 17, 2023 4:01 PM
To: 'contact@mounthopefulwindfarm.com.au.' <contact@mounthopefulwindfarm.com.au.>
Cc: 'Minister.Plibersek@dcceew.gov.au' <Minister.Plibersek@dcceew.gov.au>
Subject: Objection to: MOUNT HOPEFUL WIND FARM (EPBC 2021/9137)

Dear Sir,

Objection to Mount Hopeful Wind Farm attached.

The collective approval of solar projects, wind projects and HV transmission projects is a threat to the survival of Australia's unique flora and fauna. Currently a documentary is being produced by Steve Nowakowski, a noted environmentalist. The documentary is entitled "Transition to Extinction". No one wants our unique flora and fauna to meet the same fate as the "Tasmanian Tiger". We have to speak for them.

Table 7.1 Likelihood of Occurrence Assessment Results: Threatened Flora

Cycas megacarpa	Endangered
cossinia Cossinia australiana	Endangered
Decaspermum struckoilicum	Endangered
quassia Samadera bidwillii	Vulnerable

Table 7.2 Likelihood of Occurrence Assessment Results: Threatened Fauna

greater glider (southern and central) Petauroides volans	Vulnerable
yellow-bellied glider (south-eastern) Petaurus australis australis	Vulnerable
northern quoll Dasyurus hallucatus	Endangered
squatter pigeon (southern) Geophaps scripta scripta	Vulnerable
white-throated needletail Hirundapus caudacutus	Vulnerable
collared delma Delma torquata	Vulnerable
koala Phascolarctos cinereus	Endangered

Table 7.3 Likelihood of Occurrence Assessment Results: Migratory Fauna

rufous fantail Rhipidura rufifrons

spectacled monarch Symposiarchus trivirgatus	
fork-tailed swift Apus pacificus	
High black-faced monarch Monarcha melanopsis	
oriental cuckoo Cuculus optatus	Threatened
satin flycatcher Myiagra cyanoleuca	

Yours faithfully,

[redacted]

The Project Officer
NEOEN Australia
Level 21
570 George Street
SYDNEY NSW 2000

17th October 2023

By email: contact@mounthopefulwindfarm.com.au.
Cc: Minister.Plibersek@dcceew.gov.au

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>
> (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;

Considering each of the aforementioned principles:

3A (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations

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When considering environmental issues there is a dark side to renewable energy. Much emphasis is placed on the worldwide production of carbon dioxide by the burning of fossil fuels. What isn't discussed is the life cycle of wind turbines which includes the sourcing and mining of raw materials to enable the manufacture of wind turbines and their associated infrastructure.

Social impacts include, what is increasingly being reported as the use of forced labour by some wind turbine manufacturers in the production of wind turbines.

3A (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation

Again, there are threats of serious and irreversible environmental damage associated with the manufacture, installation and decommissioning of wind turbines.

Wind turbine blades are not recyclable and are currently buried. Toxic elements in the blades then leak into the water table and poison the groundwater. Currently there is no effective waste management plan for the decommissioning of wind turbines. The bases of wind turbines containing tons of concrete and steel are left in the ground effectively preventing any ongoing use of that area.

Mining leases are required to provide bonds for the rehabilitation of mined areas at the completion of mining operations. No such rehabilitation bonds are currently required for wind projects which has resulted in many abandoned wind projects overseas being left as ghost structures dotting the landscape.

3A (c) the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;

Wind projects are short-term installations and will not provide meaningful jobs for the local community during their short lifetime as opposed to ongoing employment for locals.

As noted in 3A (b), the inground bases of decommissioned wind turbines prevents the land they're built on to be effectively reused. Thousands of tonnes of concrete and steel will remain as a testament to the folly of those who believe wind projects and solar projects are the answer to Australia's energy needs.

With coal, gas and uranium, Australia has energy sovereignty. With wind projects, PV solar projects and batteries we cede our energy generation to a foreign power. Energy security is national security. This is providing meaningful inter-generational equity and security.

There is an ancient Indian saying:

> "We do not inherit the earth from our ancestors, we borrow it from our children"

Intergenerational equity for our children, grandchildren and the descendants of all Australians must be foremost in our minds.

3A (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;

The conservation of biological diversity and ecological integrity should not only be considered in relation to the local areas. The life cycle of wind projects should always be considered in relation to ecologically sustainable development elsewhere.

Wind turbines are bird killers. The bird carcasses attract foxes and other feral animals such as feral cats. Foxes and feral cats don't discriminate and kill domestic animals, small livestock and small native mammals.

The four videos below show why wind projects need to be stopped to prevent the destruction of Australia's fauna and flora. They were prepared by Steven Nowakowski an environmentalist and supporter of renewable energy until he saw the destruction wrought on the environment by the Kaban Wind Project.

Short Upper Burdekin Film	https://vimeo.com/706882264
Short Kaban Film	https://vimeo.com/633451905
Short Chalumbin Film	https://vimeo.com/582415839
Kaban destruction	https://vimeo.com/775033740

It is ridiculous that Australia is currently not effectively using its abundant coal, gas and uranium resources to provide an affordable, sustainable and reliable energy generation network for its citizens and businesses.

In conclusion, the Federal Government needs to legislate to remove the prohibition on nuclear energy, which is required to meet Australia's national security needs and not rely on supply chains that use forced labour and are becoming more tenuous.

Yours faithfully,

[redacted]

From:	[redacted]
To:	contact@mounthopefulwindfarm.com.au
Cc:	Minister.Plibersek@dcceew.gov.au; EPBC.referrals@environment.gov.au; environment@ministerial.qld.gov.au; [redacted] minister.bowen@dcceew.gov.au
Subject:	Submission Comment on Draft Environment Report (Response Comment Draft Public Environment for Proposed Mount Hopeful Industrial Wind Turbine Development) EPBC: (2021/9137).
Date:	Tuesday, 17 October 2023 4:58:46 PM
Attachments:	Submission for Proposed Mount Hopeful Wind Turbine Development EPBC.docx

Dear Sir/Madam,
Please find attached my submission in a Word Document, regarding the proposed Mount Welcome Industrial Wind Turbine Development EPBC 2021/9137.

Thank you very much for your Time and Consideration,
Best Regards,
[redacted]

Submission Comment on Draft Environment Report (Response Comment **Draft Public Environment** for Proposed Mount Hopeful Industrial Wind Turbine Development) EPBC: (2021/9137).

[redacted]

To:
Neoen Australia,
Level 21,
570 George St,
Sydney
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CC Minister.Plibersek@dcceew.gov.au
EPBC.referrals@environment.gov.au
environment@ministerial.qld.gov.au
[redacted]

This particular submission will focus on Koala (Phascolarctos cinereus), Greater Central Glider (Petauroides armillatus), and Yellow Bellied Glider (Petaurus australis australis); Population, Ecology and Habitat.
In addition Surface water and Groundwater in the Water Catchment Area of the Great Barrier Reef. PER Response (Comment **Draft Public**

Environment Report (Mount Hopeful EPBC Act Referral 2021/9137)
2.1.2.2 Environmental
3.0 Habitat Assessment
3.2.3, 4.2.3, 5.1.2 Greater Glider (Petauroides volans) – Endangered
3.2.4,4.2.4 Koala (Phascolarctos cinereus) – Endangered
2.2, 3.0, 3.1.3, 4.2, 4.3, 5.1 Yellow-Bellied Glider (Petaurus australis australis); – Vulnerable
Greater Central Glider (Petauroides armillatus) – Endangered.

Dear Sir/Madam,
I am writing a submission in opposition to the proposed Mount Hopeful Wind Turbine Industrial development.

I oppose it because of the amazing native remnant vegetation in the area.
The area is home to the below species of native animals, who, I believe will be negatively impacted if there were to be an Industrial Wind Turbine development in the proposed area.
I also oppose the proposed development because of the potential harm the proposed development could inflict on the Great Barrier Reef.

The likelihood of occurrence assessment in the developer's PER has conservatively determined the following ten threatened and/or migratory species have a moderate or high potential to occur within the project area, including access roads:

- Squatter Pigeon (southern) (Geophaps scripta scripta); Vulnerable under the EPBC Act.

- White-throated Needletail (Hirundapus caudacutus); Vulnerable and Migratory under the EPBC Act.

- Greater Glider (southern) (Petauroides volans); Endangered under the EPBC Act.
- Central Greater Glider (*Petauroides armillatus*); Endangered under the EPBC Act.

- Yellow-bellied Glider (south-eastern) (Petaurus australis australis); Vulnerable under the EPBC Act.

- Koala (Phascolarctos cinereus); Endangered under the EPBC Act.

- Fork-tailed swift (Apus pacificus); Migratory under the EPBC Act.

- Oriental cuckoo (Cuculus optatus); Migratory under the EPBC Act.

• Black-faced monarch (Monarcha melanopsis); Migratory under the EPBC Act.

• Satin flycatcher (Myiagra cyanoleuca); Migratory under the EPBC Act.

• Rufous fantail (Rhipidura rufifrons); Migratory under the EPBC Act.

• Diamond firetail (Stagonopleura guttata); the road corridor is close to the limit of the species distribution and some suitable habitat, comprising eucalypt woodlands, is present.

• King blue-grass (Dichanthium queenslandicum);.

Habitat mapping was developed for all known threatened and migratory species, as well as threatened or migratory species with a moderate or high likelihood of occurrence. To ensure consistency with the assessment of the wind farm area, habitat mapping within the road corridor has also been developed in the developer's PER for three additional aerial species considered to have a low likelihood of occurrence:

• Ghost Bat (Macroderma gigas)
• Grey-headed flying-fox (Pteropus poliocephalus)
• Red Goshawk (Erythrotriorchis radiatus).
These three species were included in the assessment as they may be at risk of mortality as a result of turbine collision. This risk will not be altered or increased as a result of the proposed variation.

Due to very little time to make the submissions, the submission was open for comment for just less than one month; I only have time to concentrate of the Koala, the Central Greater Glider, and the Yellow-Bellied Glider in this submission.
Although I wish I could address all thirteen of the above species in more detail.
They all deserve to be studied and researched to see any potential impacts that the proposed development would cause to them.

I am also adding some of my own research into the Great Barrier Reef Water Catchment Areas and Wonky Holes, which I believe is relevant because surface water and groundwater flow from the Rockhampton area to the Great Barrier Reef; and Rockhampton is in the Water Catchment Area of the Great Barrier Reef.

Koalas in the Area of Potential Development.

In Neoen's PER Document on page 27, it lists the Koala in table 3.1. [1]
In this table under the column 'Relevant Guidelines'. It mentioned the following resources:

A Review of Koala Habitat Assessment Criteria and Methods (Australian National University 2021) and Survey Guidelines for Australia's Threatened Mammals (DSEWPaC 2011a).

I think in addition, the Government's own Koala Recovery Plan would be an invaluable tool to employ in all sections of the PER and not just in selected areas. [2]

I believe that any area containing remnant native vegetation such as this proposed development area, that is habitat for the Endangered Koala, needs to be preserved as Koala habitat and not developed for an Industrial Wind Turbine development.

We have plenty of cleared land in Australia and not very much remnant vegetation remaining, especially not Koala habitat.

My objections will be stated in my submission below:

This habitat in the proposed development area is a unique and contains unspoilt remnant forested vegetation.
This is so rare in Australia, where more than 85% of our forests have been already felled. I believe that it is so very important not to destroy any more remnant vegetation or forests; and imperative to keep these pristine high biodiversity areas undeveloped.

The project site is located 13 kilometres southeast of Mount Morgan and lies approximately 50 kilometres south of Rockhampton and 70 kilometres west of Gladstone; the proposed area for this development, has a special and unique biodiversity that is an ideal location and habitat for the endangered Koalas (Phascolarctos cinereus).
This area is habitat for Northern Koalas, which differ in several ways from the Southern Koalas and compared to the Southern Koalas, there seems to be less research and information on Northern Koalas.

All Koalas have white fur on their chests and ears and lighter coloured fur on their rumps. However, Northern Koalas have light silvery-grey fur, while their southern cousins have longer, thicker, reddish-brown fur and more layers of fat to protect them from the cooler weather [1].
Climate dictates their breeding cycle too. In Southern Australia, Koalas breed from September to February, with births between October and April. In Queensland this happens between June and December, with births from November to February.
A 2018 study, by the Australian Museum Research Institute, sequenced the entire Koala genome. It found greater genetic diversity in Northern Koalas than in the southern populations. [3].

The Koala is a semi-arboreal species, spending most of its time in the tree branches of eucalypt forests; however, unlike other arboreal species such as gliders, the Koala mainly uses the ground, rather than the canopy, to travel between trees. The Koala is a largely sedentary, solitary and primarily nocturnal marsupial, with adults having limited social interactions. [4]

Koala development follows a pattern of sexual bi-maturism with females obtaining reproductive age between two and three years of age, and males at four years. [4]
Mature females generally produce one Joey a year with births occurring between October and May, following a 35-day gestation period. [2]

Koalas may not breed every year if conditions are unfavourable; breeding can also be unsuccessful due to poor body condition or disease. [2]
The baby Joey feeds from inside the pouch for approximately nine months (240–270 days) and is then carried on the mother's back for an estimated three months, until they are weaned at about one year of age. [2]

Weaning of the baby Joeys coincides with periods of high food availability and favourable climatic conditions. This helps to create the best survival conditions for the young Koalas as they approach independence.
Joeys remain near the mother for another year before reaching sexual maturity, at which time they may go away from their mother.
As is usual with mammals, the species exhibit male bias dispersal.
Koalas have been recorded as travelling up to 20 kilometers away from where they were born.
Male Koalas do not contribute to the raising of the Joeys. [2]

The ability to disperse among habitat patches is critical for Koalas in maintaining metapopulation persistence. [2]
The amount of habitat required to support a population varies by location and will be influenced by factors such as habitat quality, spacing of trees in the landscape and the availability and use of climate refugia.

A decrease in connectivity can precipitate the local population extinction of a dispersal-limited species, like the Koala, in fragmented landscapes.
This is one important reason, why I believe that fragmentation in Koala habitat needs to be avoided if possible and one reason I think the proposed development would negatively affect Koala populations for many years.
Furthermore, even within intact landscapes, a mismatch between the scale of spatially and temporally shifting habitat suitability (shifting habitat mosaic) such as that caused

by disturbance from timber harvesting or fire, and the ability of a species to disperse and recolonise, may also have adverse impact on long-term metapopulation persistence, [2] Therefore, I believe, the less disturbance to existing Koala habitat and the more regeneration of damaged areas, the better.

The National Recovery Plan for the Koala was published in 2022.[2]
The Plan's purpose is to provide for the research and management actions necessary to stop the decline, and support the recovery, of the listed Koala; so that the chances of its long-term survival in nature are maximised. It is the Australian Government's road map to recovery.

The National Recovery Plan for the Koala *Phascolarctos cinereus* (combined populations of Queensland, New South Wales and the Australian Capital Territory) (the listed Koala) was made jointly with the NSW Government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Its goal is to stop the trend of decline in population size of the listed Koala, by having resilient, connected, and genetically healthy metapopulations across its range, and to increase the extent, quality and connectivity of habitat occupied. The Plan shares, on page 85, that: [2]

"Survival rates are high (in remnant bushlands) for both juveniles (89–96%) and adults (81%) indicating that the potential for recovery of populations is very good where threats can be mitigated or removed."

For me, this is a very important point because it shows that if we want to protect our remnant vegetation, we can have a positive impact on our National Koala population.

The Koala's diet consists of more than 120 species of Eucalyptus, Corymbia and Angophora; primarily the subgenus Symphyomyrtus and a few other genera. As the tree species composition differs between different locations so does the Koala's diet. [2]

According to the National Recovery Plan, it is the nutritional quality of the available trees, not the diversity of trees per se, that primarily drives foraging decisions and subsequently population density. [2]
Therefore, I believe that remnant vegetation containing trees grown in undisturbed soil with a healthy soil biome is very important for Koala population density.

In a given area, Koalas browse tree preference; and the palatability of leaves, is determined by plant secondary metabolites (PSMs) and nutrient content including micronutrients and digestible proteins.

The Koala has a specialised digestive tract with a much enlarged caecum to retain food for long periods to break down food to extract nutrients and degrade toxic plant metabolites by gastrointestinal microorganisms.
Gut microbiomes of Koalas vary and appear to be influenced by diet; as is the case for other mammals, including humans.
This suggests that gut microbiomes of Koalas are finely optimised to digest particular species of Eucalyptus, Corymbia, and Angophora, and dietary selection by individuals may be therefore limited by their microbiome and which strains of microorganisms they have in their digestive tract.

The proposed development, would I believe affect the quality and quantity of food trees in the development area.
In addition, toxins from cement use and other man made materials used in the development's construction, could also leech into the soil and destroy mycelium and other microorganisms essential for healthy trees with high levels of micronutrients in their leaves.

On page 88 of the National Recovery plan, it states that: [2]
"Shelter vegetation can be critical for thermoregulation, providing shaded, cooler, climate refugia on heat stress days."

Removal of non food trees in the proposed development area could therefore have a negative impact on the local Koala population because these trees are used for helping with heat regulation and Koalas are highly susceptible to extreme temperatures.

The Koala exhibits clinal variation, with individuals from its southern range being about twice as heavy as those from northern Australia (an average of 12 kg in Victoria and 6.5 kg in Queensland). [4]

In the Government's National Recovery Plan [2] it states on page xi:

"Substantial gaps exist in our knowledge of the distribution, population size and trends of the listed Koala in northern and inland Queensland."

The Government has acknowledged a lack of knowledge of the Koalas in Northern Queensland.
I believe the proposed development would reduce local Northern Queensland Koala populations, and negatively impact the potential for learning more about these beautiful and endangered creatures.

According to the IUCN, the Koala now has the status of Vulnerable. [5]

This was last reviewed in 2014 and the population has declined since then.

The Koala is on the IUCN's Red List. [5]
The population of the Koala is now decreasing. [5]

The IUCN states that Koala numbers are decreasing and there is a continuing decline of mature individuals. [5]

The IUCN states that current threats to the Koala population, include continued habitat destruction, fragmentation, and modification, which makes Koalas vulnerable to predation by dogs, vehicle strikes, and other factors. [5]

The proposed Mount Hopeful Industrial development would destroy Koala habitat and fragment and modify their habitat; therefore, I believe that it is a threat to the local Koala population.

Climate change, according to the IUCN, will likely have severe consequences for the Koala population. [5]
Given that the area of the proposed Mount Hopeful Industrial Wind Turbine development could support Koalas if Climate Change moves them from other areas, due to the elevation of the area; this is, in my opinion, another reason to not develop this area of remnant vegetation.

It also states on the IUCN's website that:
"Drought has been only one of many factors driving decline across the Koala's range. Furthermore, the ability of inland Koala populations to recover from this recent drought is likely to be severely compromised by widespread tree death and the legacy impacts of vegetation clearance which will constrain options for repopulation of now fragmented habitat." [5]

Therefore, it shows that droughts affect the Koala population; but in addition, the ability of Koala populations to recover from droughts is compromised due to a reduction in the number of trees and vegetation clearance.
The proposed development would clear vegetation and remove habitat and food trees from areas where Koalas live and it would also fragment the area.
Therefore, the proposed development would very likely impact the ability of the local Koala population to recover after a period of drought.

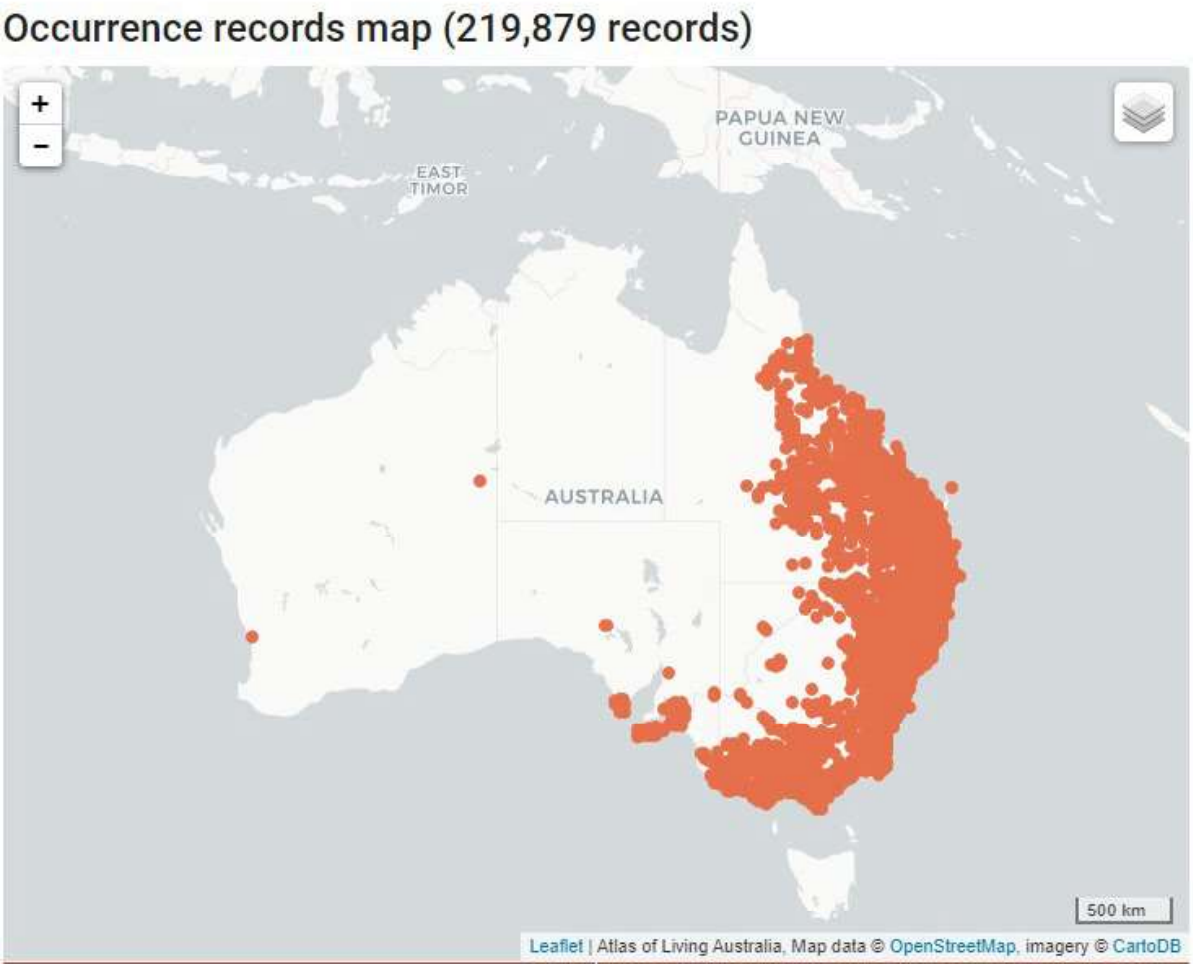
The Australian Government classified the Koala as Endangered. The Koala is listed as Endangered under national environmental law.
The Koala (combined populations of Queensland, New South Wales and the Australian

Capital Territory) was listed as endangered on 12 February 2022. [6]

There have been recent Koala sightings in the area of the proposed development location.

The Atlas of Living Australia (ALA) is a great tool for showing recent and historic Koala sightings throughout this area. [7]
Looking at the Atlas of Living Australia Sightings Map below, we can see sightings in the Mount Hopeful Area. [7]

Map 1.[7]



We can see there have been several recorded sightings in the proposed development area, and this general area has a significant population of Northern Koalas in Australia.

Looking specifically at the Mount Hopeful area, we can see there were the following records:

In the Atlas of Living Australia, Event ID 479127, and Occurrence ID: urn:catalog:QGov:DES:WildNet:2652010 recorded by the Australian Government on the 1st January 1940. [8]

With a further sighting, also on 1st January 1940 by the Australian Government, Event ID 479044, and Occurrence ID: urn:catalog:QGov:DES:WildNet:2652023 [9]

There was also a sighting close to the site in 1987 [10].
This was ID and Occurrence ID: urn:catalog:QGov:DES:WildNet:2652314.
Recorded on 1st January 1987.
The rights holder to the record is the Australian Government.

In addition, there are inferred associated occurrence details for this record.
This record has been identified as the representative occurrence in a group of associated occurrences. This means other records have been detected that seem to relate to this record and this particular record has the most detailed information on the occurrence. [10]
This means that there may have been more than one sighting in this area at this time.

According to the developer's own PER Report, page 48:
"As per the modelled species distribution in the Conservation Advice, koala is 'known or likely' to occur in the wider Rockhampton region." [1]
And on page 49:
"The koala is considered to have a moderate likelihood of occurrence based on the presence of suitable eucalypt woodland and forest habitat and scattered desktop records from the wider region." [1]

It may not be so much that there is a current high Koala population in the area, but rather that the environment is *potential* Koala habitat.

Also, on page 49 of the PER [1] it says:
"Historical accounts indicate that in the early 1900s, widespread pelt hunting practices within the Rockhampton electorate severely reduced and fragmented the regional koala population. Since then, there have been very few sightings in the area suggesting population numbers are likely low and still recovering." [1]

Surely if the population is recovering, then it needs all the help it can get, rather than

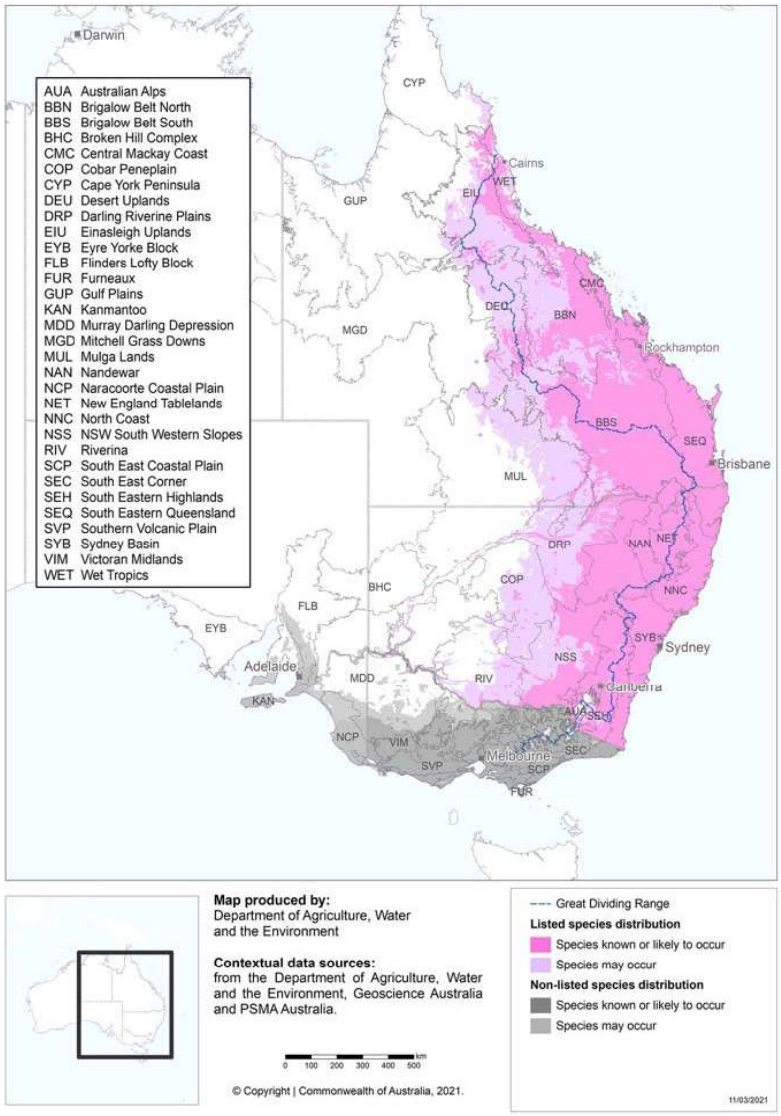
potential elevated areas of Eucalypt Forest being cut down and fragmented by this proposed Industrial development.
In addition, if this area was once home to many Koalas, as it must have been if there was once widespread pelt hunting in the area; then the unspoilt remnant vegetation within the proposed development area would be just the kind of vegetation to support a healthy Koala population.

Something else to take into account is the cumulative effect of many areas of ideal potential Koala habitat being fragmented and damaged for Industrial development.

The National Koala Recovery Plan, previously mentioned [2], is a nationally-led, landscape-scale conservation framework for recovery; therefore requiring cross-jurisdictional and multi-tenure considerations.
The Plan provides for a national approach to listed Koala conservation, and aims to coordinate fragmented actions across many national policies, disciplines and multiple jurisdictions; in addition, it aims to prioritise investment to maximise the potential for recovery. [11]
I have concerns that the development is not in alignment with "a nationally-led, landscape-scale conservation framework for recovery." [11]

In the Government's Recovery Plan, it state on page vii that:
"The overarching threats to the listed Koala are land use change and climate change." [2]
Changing the land in this proposed development from remnant vegetation and ideal Koala Habitat to heavy industrial use will, I believe, have a detrimental effect on local Koala populations.
Looking at the map on page v111 of the Recovery Plan, it can be seen that Koalas are known and are also likely to occur in the habitat of the proposed development:

Map 2



In the National Recovery Plan on page ix, it mentions the goal of the Recovery Plan:

“The goal of the recovery plan is to stop the trend of decline in population size of the listed Koala, by having resilient, connected, and genetically healthy metapopulations across its range, and to increase the extent, quality and connectivity of habitat occupied.” [2]

I believe that the proposed Mount Hopeful Industrial Wind Turbine development, if approved, is in direct contravention of this goal being met.
I believe from my research, that the proposed development would fragment existing Koala Habitat, destroy nesting and feeding trees, and reduce any local Koala

populations; and also make it less likely that the existing Koala population would increase, and less likely that new Koalas would move into the area.
In addition, I believe that the development would cause stress to any Koalas in the area and this could lead to them being more susceptible to diseases. [12]

Chronic stress to individual Koalas comes from reduced habitat quality (habitat loss, fragmentation, degradation and drought). This stress is likely to lead to the production of glucocorticoids (stress hormones), which can inhibit reproductive hormones and immune responses. [2]

If the area that a species lives in is ecologically compromised, then the species can be more susceptible to getting illnesses because their immune system is affected negatively by the environmental stresses.
A well known example of this is the prevalence of Chlamydia, a bacterial infection, in Koala populations, which is affected by compromise of the immune system.
Important new research suggests that Chlamydia is spread from domesticated grazing animals, such as Sheep to Koalas [12]

On page 8 of the National Recovery plan, it states that:

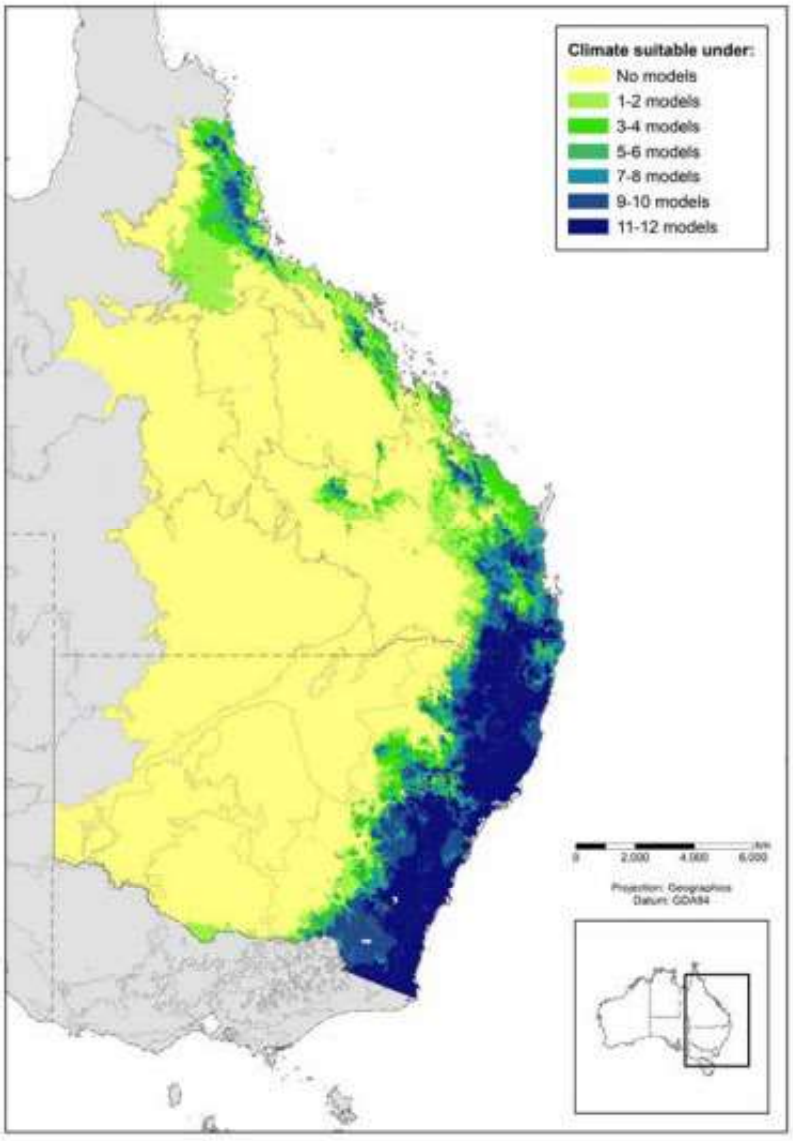
"Australia is a Party to the international Convention on Biological Diversity, which aims to conserve biological diversity and promote sustainable development. The listed Koala occurs in areas where development is occurring. A sustainable development approach is required to meet the international obligations of this treaty." [2]

The proposed development in the Mount Hopeful region, is in an area of particularly high biodiversity.
I believe that to keep in alignment with the International Convention on Biological Diversity, this development should not be permitted to go ahead.

From the Map below, from page 70 of the National Recovery Plan, it can be seen that the Mount Hopeful area is seen as effective and suitable Northern Koala Habitat in 2070 considering the potential effects of climate change:

Map 3 [2]

Figure 6. Predicted listed Koala distribution in 2070 under a high global emissions scenario (RCP8.5) considering the impacts of climate-change driven changes to droughts and heatwaves on Koalas. Colour indicates the degree of certainty that a given area will be climatically suitable for Koalas, indicated by the proportion of species distribution models that predict the area will be climatically suitable. Blue indicates high confidence that an area will be suitable for Koalas, and yellow indicates high confidence that an area will be unsuitable for Koalas. Data from Briscoe et al. (2016)



I very much believe that we need to be doing all we can to preserve remnant vegetation that is home or potential home to Koala populations, especially if that habitat is in an area that will support Koalas in 2070.

The map shows that there are more areas that will support the Southern Koala than those that will support the Northern Koala; therefore, I believe that we really do need to preserve those areas in North and Central Queensland that will support Koala populations in 2070; including the Mount Hopeful area.

Importantly, it says on page 75 of the National Recovery plan:
"No population is more important than another – for a threatened species, all populations are of value in contributing to the total population size and recovery." [2]

I strongly believe that this proposed location for the wind farm development is an inappropriate location in relation to the preservation and well-being of the local and national Koala populations, especially taking into consideration the endangered status of the Koala [13].
Koalas thrive in the Wet & Dry Sclerophyll Forests and I very much believe that the Mount Hopeful area and surrounds are home to Northern Koala populations and are also potentially ideal habitats for Koalas.

If trees are planted to compensate for felled trees in this proposed development, it is not the same at all; and the established highly biodiverse habitat cannot be recreated.
Once an area of remnant vegetation is developed for heavy industrial use, it cannot regenerate to its previous pristine condition.
The wildlife corridor is fragmented and invasive species will enter.

To help save out national icon, the Koala, it is imperative, in my opinion, that the area of Mount Hopeful remains an area of natural beauty and habitat and is not developed or changed at all.
Please see the following scientific article for information on land clearing and its effect on koala populations: [14]

The report was published on March 18, 2015 12.44pm AEDT

Quoting from the report, Page 3:

"There are many reasons to be concerned about the long-term impacts of increased deforestation. These include dire consequences for our unique biodiversity. There are 778 species listed as "Vulnerable" or "Endangered" in Queensland. Loss of habitat is a major threat to most of them. In addition, 45% of Queensland's ecosystems are threatened because of land clearing. To give just one well-known example, the current population trend of Queensland's Koalas would see them disappear from parts of the state within a decade. Maintaining sufficient habitat is critical. Koalas rely on the forest and woodland that is left to survive droughts, stay safe from ground-based predators and cars, and to have enough food." [14]
In conclusion, I believe that the proposed wind farm development in the Upper Burdekin area, will greatly negatively affect existing Koala populations.

I believe that the proposed development will also greatly negatively affect future Koala populations because it will damage and degrade ideal potential foraging and nesting

habitat.

I believe that the proposed development is also in direct opposition to the goals, objectives, and strategies in the Government's National Recovery Plan. [2]

The Central Greater Glider (Petauroides armillatus)

This Endangered Species has been spotted in the proposed Industrial Development area.
In data taken from the Atlas of Living Australia [15] it can be clearly seen on the interactive spatial maps that the Central Greater Glider has been recorded at three points in or close to the development area:

The first record is Occurrence ID: urn:catalog:QGov:DES:WildNet:5872337 [16]
Event ID: 1242243
It was recorded on 9th May 2012.[16]

The second record is: Occurrence ID: urn:catalog:QGov:DES:WildNet:2988648.[17]
Event ID: 521336.
It was recorded on 30th June 1881.

The third record is : Occurrence ID: urn:catalog:QGov:DES:WildNet:4316107 [18]
Event ID: 896148.
It was recorded on 13th November 1994.

This is a species that could easily become critically endangered or extinct.

The proposed development site provides a habitat and potential habitat for this Endangered species.

One concern I have regarding the Habitat section 3.0 in the developer's PER; is that it only mentions the Greater Glider (Petauroides volans) and says it is Vulnerable.
Section 3.2.3 Greater Glider (Petauroides volans) – Vulnerable.
It does not mention the Central Greater Glider, which has an EPBC Status of Endangered [19] and has been sighted in the development area [15] [16] [17] [18]:

According to the Queensland Government, the Central Greater Glider as the following Conservation Status [19]:
Nature Conservation Act 1992 (NCA) status - Endangered
Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status -

Endangered
Conservation significant – Yes.

The Yellow-Bellied Glider:

This species has also been recorded in or near to the proposed development area [20]
Three occurrences:

The first sighting, Occurrence ID: urn:catalog:QGov:DES:WildNet:4316054.
Event ID: 896145
The sighting was on 11th. November 1994. [21]

The second sighting, Occurrence ID: urn:catalog:QGov:DES:WildNet:4316059.
Event ID: 896147
The sighting was on 12th November 1994. [22]

The third sighting, Occurrence ID: urn:catalog:QGov:DES:WildNet:4316109.
Event ID: 896148.
The sighting was on 12th November 1994. [23]

I believe the Vulnerable status of the Yellow-Bellied Glider, and its sightings in the area are reason enough not to place Industrial Wind Turbine developments in the area of Mount Hopeful.

Water Catchment Areas and Wonky Holes, Submarine Groundwater Discharge (SDG), and Palaeochannels.

I have been doing research in this area recently.
What is a 'Wonky Hole' and how could Industrial Development in the Great Barrier Reef Catchment Area affect Wonky Holes and Pollute the Great Barrier Reef.

Simply put, a Wonky Hole is the Australian term for springs on the seabed that pump out water, draining from the land [24]

Any toxic materials that leach into the water table from concrete and any other materials used in large amounts in construction of Industrial Wind Turbine developments in the Great Barrier Reef Water Catchment Area, could potentially not only go into surface water run-off but also be discharged into the Great Barrier Reef through Submarine Groundwater Discharge (SGD). [25]

The proposed industrial Mount Hopeful Wind Turbine development and other proposed Industrial Wind Turbine Developments could cause pollution from toxic compounds in concrete, such as natural radioactive elements (Potassium, Uranium, Thorium, and Radon) which can be present in various concentrations in concrete structures, depending on the source of the raw materials used.
For example, some stones naturally emit Radon; and Uranium was once common in mine refuse.
Toxic substances may also be unintentionally used as the result of contamination from a nuclear accident. Dust from rubble or broken concrete upon demolition or crumbling may cause serious health concerns depending also on what had been incorporated in the concrete. [26]
Any toxic materials that leach into the water table from concrete and any other materials used in large amounts in construction of Industrial Wind Turbine developments in the Great Barrier Reef Water Catchment Area, could potentially not only go into surface water run-off but also be discharged into the Great Barrier Reef through Submarine Groundwater Discharge (SGD). [25]

On the 8th October 2023, a report was published, which I believe is very relevant as well as being very recent.

The document is titled:
'Submarine Groundwater Discharge Exceeds River Inputs as a Source of Nutrients to the Great Barrier Reef.' [27]
It is authored by Douglas R. Tait, Isaac R. Santos, Sèbastien Lamontagne, James Z. Sippo, Ashley McMahon, Luke C. Jeffrey, and Damien T. Maher Environmental Science & Technology Article ASAP DOI: 10.1021/acs.est.3c03725

The abstract of the article on page 1, states that [27] :
"Rivers are often assumed to be the main source of nutrients triggering eutrophication in the Great Barrier Reef (GBR). However, existing nutrient budgets suggest a major missing source of nitrogen and phosphorus sustaining primary production.
"Here, we used radium isotopes to resolve submarine groundwater discharge (SGD)-derived, shelf-scale nutrient inputs to the GBR. The total SGD was ~10–15 times greater than average river inputs, with nearshore groundwater discharge accounting for ~30% of this.
"Total SGD accounted for >30% of all known dissolved inorganic N and >60% of inorganic P inputs and exceeded regional river inputs. However, SGD was only a small proportion of the nutrients necessary to sustain primary productivity, suggesting that internal recycling processes still dominate the nutrient budget.
"With millions of dollars spent managing surface water nutrient inputs to reef systems globally, we argue for a shift in the focus of management to safeguard reefs from the

impacts of excess nutrients." [27]

Therefore, I believe that this report by Tait et al, has great implications for future Government policies aimed at protecting the Great Barrier Reef.

If groundwater is a bigger source of pollutants for the Great Barrier Reef than river water, as this article suggests, then any Heavy Industrial Land Use in the Great Barrier Reef Water Catchment Area should surely be examined as a potential source of pollutants via groundwater.

The proposed Mount Hopeful Wind Turbine development is situated in areas of remnant vegetation within the Great Barrier Reef Water Catchment Area; for this reason alone, I believe that the proposed Industrial development is inappropriately situated in regards to keeping the Great Barrier Reef healthy. [25]

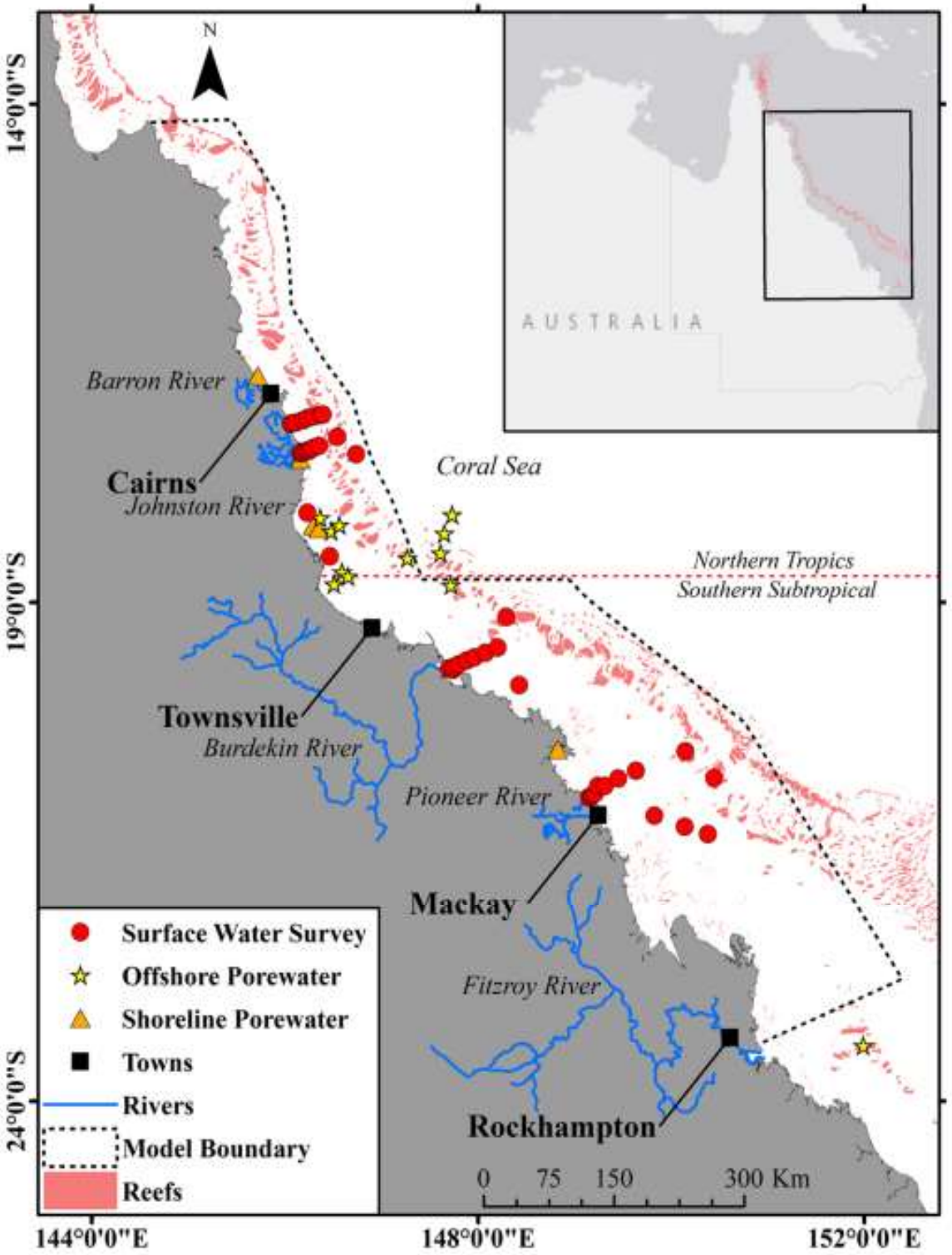
Therefore, I believe that this report by Tait et al, has great implications for future Government policies aimed at protecting the Great Barrier Reef.

If groundwater is a bigger source of pollutants for the Great Barrier Reef than river water, as this article suggests, then any Heavy Industrial Land Use in the Great Barrier Reef Water Catchment Area should surely be examined as a potential source of pollutants via groundwater.

The proposed Mount Hopeful Wind Turbine development is situated in areas of remnant vegetation within the Great Barrier Reef Water Catchment Area; for this reason alone, I believe that the proposed Industrial development is inappropriately situated in regards to keeping the Great Barrier Reef healthy.

On Page 2 of the recent paper by Tait et al [27] is a diagram (figure 1) showing the Great Barrier Reef Rivers and sampling sites.
This shows how rivers in the Great Barrier Reef Water Catchment Area are connected to the reef and it also shows the sampling sites in this research.
The rivers in the Great Barrier Reef Water Catchment Area of the Mount Hopeful are shown on this diagram; they are in the water catchment area and, as such, are part of the water flow to the Great Barrier Reef.

Figure 1: Great Barrier Reef showing sampling sites and major river systems. [27]



On page 5 of the paper, Tait et al state that previous large-scale estimates using radium isotopes revealed that shelf-scale SGD contributes between 80 and 160% of the freshwater entering the Atlantic Ocean, this study was called 'Submarine Groundwater Discharge Revealed by ^{228}Ra Distribution in the Upper Atlantic Ocean' and it was carried out by Willard S. Moore, Jorge L. Sarmiento, and Robert Key, and published in Nature Geoscience in April 2008. [28]

Tait et al, stated that the relatively large contribution of total SGD reported in their study (10–15 times river discharge) may be due to the small river discharge in Australia relative to the land area, the permeable nature of the carbonate sands on the Great Barrier Reef shelf, and the relatively shallow nature of the Great Barrier Reef. [27]

Tait et al state , on page 5, that:
"Importantly, the influence of SGD inputs may be even more significant, with 52% of the total nutrient loading in a northern GBR river system reported to come from groundwater inputs."[29].

In the implications conclusion of the paper, Tait et al state that, they put importance on SGD in Great Barrier Reef nutrient budgets and they believe that there is a need for it to be considered in future management decision-making.
SGD nutrient fluxes consist of largely dissolved inorganic nutrients as opposed to river discharge, which is largely composed of dissolved organic and particulate nutrients. [30]
Tait et al state that organic nutrients are less bioavailable than inorganic species [31] so the role of SGD in primary production may be larger than estimated here. [27]

Tait et al state on page 5:
"The legacy of past land-use practices must also be considered in the context of coastal nutrient budgets. [32] While river systems may quickly respond to excess terrestrial nutrient inputs, nutrients in groundwater can be stored for decades before being released to coastal waters via SGD". [33]

This fact that inorganic elements in groundwater can be stored for decades, is of crucial concern.
Industrial developments and proposed Industrial developments in the Water Catchment Area of the Great Barrier Reef, such as Mount Hopeful, could release toxic inorganic elements and compounds into the Great Barrier Reef decades after they were operational.
Where is the accountability to our environment and our future generations, if pollutants and harm are being created but will not be released into coastal waters for decades.

I believe the Government of Australia needs to take this research very seriously indeed

for the future health and wellness of Australia.

Another concern of the research team is that river loads of N and P from Great Barrier Reef catchments has increased by six and nine times since pre-European times. [30]

A further concern is that large inputs of anthropogenically (relating to, or resulting from the influence of human beings on nature) induced riverine organic matter [34] can also accumulate in shelf sediments before being remineralized and delivered to surface waters through PEX (pore water exchange).
This may see the gradual and ongoing release of stored groundwater nutrients in the coming decades, triggering further changes to coastal nutrient cycles and biological communities.
The authors of the paper also recommend that developing effective strategies for managing nutrient loads beyond inputs to rivers is of significant importance to minimize and mitigate eutrophication going forward. [27]

I feel in accord with their conclusion.
In my investigations, I am specifically concerned with proposed Industrial Wind Turbine developments, including Mount Hopeful; which is in the Water Catchment Area of the Great Barrier Reef.
I believe that the proposed Mount Hopeful Industrial Wind Turbine development will cause pollutants and contaminants to be released into the groundwater.
Contaminants that could potentially sit in the groundwater for decades, according to researchers. [33]
Contaminants, which could travel in SGD through Palaeochannels ((Paleochannels are remnants of river and stream channels that have been filled with sediments and overlain by younger units) and exit in Wonky Holes in our beloved Great Barrier Reef.

From my research in the area of Wonky Holes, Submarine Groundwater Discharge (SGD), and Palaeochannels; I have found significant links between The Great Barrier Reef and the Great Barrier Reef Water Catchment Areas that do not appear to have been fully researched in the Developer's PER. [1]

I believe that these omissions need to be addressed before a final decision is made on the proposed Mount Hopeful Industrial Wind Turbine development, especially in the light of the recent paper, 'Submarine Groundwater Discharge Exceeds River Inputs as a Source of Nutrients to the Great Barrier Reef', published on the 8th October 2023 by Tait et al. [27]

I also place a great importance on UNESCO and IUCN's Great Barrier Reef Report(2022) [35] regarding the Water Catchment Areas for the Great Barrier Reef .

The report states:
"Recommendation P4: Prioritise the protection of remnant native vegetation across the GBR catchments through strengthened native vegetation clauses under existing laws, and through improved identification and enforcement of permissible activities in areas of high conservation value (HCV) forests and woodlands. This would include review of sites where clearing is currently allowed without permits (Category X under the Vegetation Management Act 1999) and updating zonation and corresponding permits which limit conversion of HCV areas. Such advances should also incorporate full consideration of traditional owner land management principles." [35]

I believe that the Great Barrier Reef needs additional protection to the above UNESCO and IUCN recommendation; with the Australian Government ensuring that any underground groundwater discharging into the Great Barrier Reef via Palaeochannels and Wonky Holes is not contaminated from Industrial Wind Farm developments situated in the Water Catchment Area of the Great Barrier Reef.

I believe that to preserve the health of the Great Barrier Reef, the Government may need to not approve proposed Industrial Wind Turbine developments, including Mount Hopeful, if they will pollute the Great Barrier Reef through contaminated groundwater originating from the water catchment area, travelling through Palaeochannels and exiting through Wonky Holes; and it needs to be taken into account that these contaminants that may be stored for decades before being released.

To Conclude:

I believe that this area is an inappropriate location for an industrial Wind Turbine development because much of the proposed development site is native remnant vegetation.
At elevated heights.
Much of this vegetation is either home to or potential home to Endangered or Vulnerable native species, such as the Squatter Pigeon (southern) (Geophaps scripta scripta); White-throated Needletail (Hirundapus caudacutus); Greater Glider (southern) (Petauroides volans); Central Greater Glider (*Petauroides armillatus*); Yellow-bellied glider (south-eastern) (Petaurus australis australis); Koala (Phascolarctos cinereus); Fork-tailed swift (Apus pacificus); Oriental Cuckoo (Cuculus optatus); Black-faced Monarch (Monarcha melanopsis); Satin Flycatcher (Myiagra cyanoleuca); Rufous Fantail (Rhipidura rufifrons); Diamond Firetail (Stagonopleura guttata); King Blue-grass (Dichanthium queenslandicum); Ghost Bat (Macroderma gigas); Grey-headed

Flying-fox (Pteropus poliocephalus); and Red Goshawk (Erythrotriorchis radiatus).

To me, destroying what little is left of our remnant vegetation, which is home or potential habitat to Endangered and Vulnerable Species, for short term (20-25 year) Industrial Wind Farm developments is not looking to the long-term wellness of our Beautiful country.
We need to protect such ridge areas of high biodiversity for the plants, for the animals, and for the future generations.

We also need to protect the Great Barrier Reef, by protecting the Water Catchment Areas of the Great Barrier Reef; so that neither surface water nor groundwater causes damage to the reef.
Proposed Industrial Wind Turbine developments in the Great Barrier Reef Catchment Area, such as Mount Hopeful, may well cause pollutants to be released into the Great Barrier Reef; and do so for decades after construction.

Cumulative effects also, I believe, need to be taken into consideration, when considering approval of Industrial Wind Turbine developments.
There are so many of this developments planned for Far North, North, and Central Queensland that combined, this could have a devastating and permanent effect on our amazing environment and wildlife.

I submit my concerns for this proposed Industrial development.

Thank you very much for your Time and Consideration,
Best Regards,
[redacted]

17th October 2023.

[redacted]

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[7] https://bie.ala.org.au/species/https://biodiversity.org.au/afd/taxa/e9d6fbbd-1505-4073-990a-dc66c930dad6#tab_recordsView

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[17] https://biocache.ala.org.au/occurrences/8c9fd64f-02f7-4079-9d56-7a6db875c683

[18] https://biocache.ala.org.au/occurrences/09846b27-0082-486d-81dd-442b8046c19d

[19] https://apps.des.qld.gov.au/species-search/details/?id=2455

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[21] https://biocache.ala.org.au/occurrences/a1069f7a-50a0-4086-83e3-42168f62e636

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[24] https://www.newscientist.com/article/dn3049-wonky-holes-blamed-for-coral-death/

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Including the Water Catchment Area of Chalumbin (Wooroora Station) (EPBC 2021/8983).

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[35] Report On The Joint World Heritage Centre/IUCN Reactive Monitoring Mission To The Great Barrier Reef (Australia) From 21 To 30 March 2022.

From: [redacted]
To: contact@mounthopefulwindfarm.com.au
Cc: Minister.Plibersek@dcceew.gov.au
Subject: Mount Hopeful Preliminary Documentation EPBC 2021/9137.
Date: Tuesday, 17 October 2023 6:16:22 PM
Attachments: Mt Hopeful Objection.pdf

Please find attached my submission to the Mount Hopeful wind development EPBC 2021/9137

Regards
[redacted]

[redacted]

RE: Mount Hopeful Preliminary Documentation EPBC 2021/9137.

Dear Minister for Environment,

I am writing to provide comments around why the Mt Hopeful Wind project should be rejected on I am a concerned resident living within 30 km of the Mount Hopeful wind project, and surrounded by numerous wind and solar projects where I live with my family in a bushfire-prone area, I would like to express my thoughts on the Mount Hopeful Preliminary Documentation EPBC 2021/9137.

My family are graziers and invested in preserving the natural environment for our children, through sustainable practices that leave the environment in a better condition than we received it. We believe wind developments like the Mt Hopeful project have detrimental impacts on the environment due to the location that has been selected to be industrialised for this energy generation facility. Queensland has already experienced widespread clearing for other industries and housing, which means any attempts to reduce emissions through the introduction of green energy should protect any remnant vegetation and threatened species habitat that has escape the same fate. This, however, is not what will happen with the Mt Hopeful Wind development.

The Mount Hopeful Wind project will impact the habitat of 17 threatened flora and fauna species. All except one of these will lose more than 100 hectares of habitat. By Neoen's own reports, they anticipate a likely significant residual impact on six species including: cycas megacarpa, koala, greater glider, yellow-bellied gilder, northern quoll and collared delma. The fact that the project has been repeatedly revised down in size indicates the high value of the environment it will impact. This is not the appropriate site for this development.

Additionally, the access roads required will fell trees along waterways with circumferences greater than the armspan of three people combined. No offset strategy can ever replace these magnificent flora within our lifetime. It will never be an acceptable consequence to clear vast amounts of flora in an effort to save the environment.While I understand the significance of reducing our dependence on fossil fuels, this transition cannot come at the direct expense of remnant vegetation and threatened species habitats. The Mount Hopeful Wind Farm project has raised significant concerns. It will impact the habitat of 17 threatened flora and fauna species, with most of them losing over 100 hectares of their habitat. Neoen's project revisions indicate the exceptional value of the environment it threatens.

These cumulative impacts of wind and solar developments proposed in Queensland will have an overwhelming impact on the natural environment, particularly the mountain peaks along the Great Dividing Range. To date, here are nearly 8 GW of wind projects being assessed in Queensland under the EPBC Act, with a clearing footprint exceeding 10,000 hectares. We urge Neoen to consider the regional impact and collaborate with other proponents to assess cumulative impacts and protect our threatened species.

To proactively address the current extinction crisis and adhere to the criteria in the Nature Positive Plan, the Offset Management Plan must provide details on connectivity and proposed offsets. We must also require the project to conduct long-term collision monitoring and reporting for at least a decade post-construction, and make these reports publicly available. .

There is also an increased bushfire risk that will be introduced when habitat fragmentation occurs due to the building of haulage-sized access roads. The clearing for these roads may provide firebreaks in the event of a bushfire incident, but they also increase the fire risk by allowing more wind access to dense forest which can fuel a fire and assist in drying out vegetation more rapidly, increasing the fuel load and increasing the threat to wildlife in remaining habitat within the project's study area. As these energy generation precincts become industrial energy zones, rural fire-fighters are not permitted to enter these properties to fight a bushfire, so Neoen will need to prepare a dynamic bushfire management strategy that will be regularly updated year-on-year in response to changing fuel loads and mitigation measures. Additionally, aerial water-bombing using helicopters or fixed wing aircraft will no longer be possibly within the vicinity of wind turbines due to the risk of collisions with the turbine blades obscured by smoke. During periods of high winds, this presents an alarming risk level for surrounding properties, people, wildlife and livestock. As a resident in a bushfire-prone area, I am deeply concerned about the consequences of this project on our environment, community, and safety.

There also needs to be a clear identification of water source for the construction of the projects, including water for concrete foundations and dust suppression. Any use of ground water in drought-prone properties places the security of groundwater storage at risk for other landholders that access the same underground water storage systems to provide vital water for livestock. Any disruption of this water will have animal welfare issues for neighbouring properties. Ground water aquifers should not be a water source that is available for industrial energy generation and the Department of Natural Resources should be consulted.

It is imperative that all stakeholders take these concerns seriously and prioritize the preservation of our unique ecosystem.

Yours sincerely,

[redacted]

From: [redacted]
To: contact@mounthopefulwindfarm.com.au
Cc: tanya.plibersek.mp@aph.gov.au
Subject: 2021/9173 Objection Mt Hopeful Wind Farm
Date: Wednesday, 18 October 2023 11:55:38 AM

Please accept the following submission to EPBC 2021/9173 Mt Hopeful Windfarm

OBJECTION

Several protected areas will be affected by the wind project - these include Gelobria State Forest , Ulam Range State Forest and Dom River State Forest. They form an important biodiversity corridor.

This industrial scale development will have irreversible impact on Matter of National Environmental Significance including Koala, Greater Glider, Yellow Bellied Gliders, Norther Quolls, Red Goshawks, Eagles and 19 bat species
(https://mounthopefulwindfarm.com.au/wp-content/uploads/2023/09/Attachment-B1_Assessment-of-Matters-of-National-Environmental-Significance.pdf)

There will be 63 turbines, will require some 883 ha of clearing - this will create fragmentation and "edge effects" This project will require 175km roads - koala, greater glider, yellow-bellied gliders, northern Quolls, red goshawk, eagles, 19 species bats.

This will severe a significant biodiversity corridor and must be rejected. I strongly oppose the project and the use of flawed offset scheme to justify it.

[redacted]

Submission #13

17 October 2023

Neoen Australia Pty Ltd
Proposed Mount Hopeful Wind Farm
By email: *contact@mounthopefulwindfarm.com.au*
Cc: *Minister.Plibersek@dcceew.gov.au*

COMMENT ON THE PRELIMINARY DOCUMENTATION FOR PROPOSED MOUNT HOPEFUL WIND FARM - EPBC NUMBER: 2021/9137

We are opposed to wind turbine generator placement in this location due to serious environmental concerns.

Mt Hopeful Wind Farm is 65km south-west of Ingham, Queensland.

The related Public Environment Report clearly identifies the high biodiversity and ecological values of the proposed site by listing considerable numbers of Endangered, Vulnerable and Near Threatened species present, and notes the important biodiversity corridor which would be significantly devalued by the wind development.

The location is remote and lies in the catchment area of the Great Barrier Reef. It is home to koalas, greater gliders, and other species listed below that do not need this irreplaceable site to be fragmented and destroyed for an entirely different environmental land use.

This site should not even be under consideration. Australia is in a nature crisis and evidence is showing that carbon sink forests and vegetation need to be kept intact if we are sincere about climate action.

The site is located within a **state listed biodiversity corridor** and its waters feed into the **Great Barrier Reef Marine Park**. This is further reinforcement of this site's lack of suitability for industrial wind development, being of ecological and global significance.

2.0 The need for the Variation

Neoen states: "the variation relates to the Project's assessment under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and clause 5.08 of the Biodiversity Conservation regulations 2000. "

We note the maximum extent of clearing required for the construction of the Project was 875.3 ha. The application for a second variation would increase by a maximum 19.3 ha.'

There will also be fragmentation of intact ecosystems that will include edge effects from 100m to 900m of mountain vegetation on either side of haulage roads, turbine pads, substations, concrete batching plants, and workers' camps and offices.

The cumulative impacts to the wildlife which exist in the region may well be the death knell of individuals of many species.

These species include northern quolls, koalas, greater gliders, yellow bellied gliders, birds, bats and other species that cannot and should not be offset for this proposed destruction of habitat.

The MNES report claims that offset areas will make up for the desecration of habitat, but instead, it will lead towards the extinction of wildlife together with the ancient mountainous vegetation that they have come to rely upon for thousands of years.

The erosion impacts will also have an enormous impact that will be irreparable to our last remaining fragile mountain ecosystems.

NEOEN'S TRACK RECORD AT KABAN, FNQ

At Neoen's Kaban wind industrialisation site, Neoen exceeded their stated area of land clearing.

How can we trust Neoen and the State Government to ensure that it won't happen again?

Kaban Green Energy Hub, developed by Neoen, has caused distress to the Ravenshoe and Atherton Tablelands communities for the large-scale harm they have caused to Kaban.

The Department of State Planning (SARA) have stated that they are responsible for compliance and that Neoen would not be liable or prosecuted for being in breach of clearing more land than what was approved. It was also stated that Neoen would not be liable for prosecution for water sedimentation or contamination when we discussed water testing at a nearby creek. This sends a very clear message that this industry gets a free pass to harm our Australian environment, and can contribute to killing our wildlife without real consequences or constraints from causing serious environmental harm.

Although proponents must now issue paperwork to detail threatened species onsite and the potential impacts inflicted from a wind development, this does not in itself protect the wildlife. Proponents are offered an easy out via 'mitigation and management' - basically offsets to justify wildlife deaths and habitat destruction. This proposal places an unacceptable risk to this fragile and precious environment.

Image - habitat destruction for Kaban wind development, FNQ

We are questioning why this site is even being considered in this location given the high biodiversity. We also question if the public interest is being considered when it comes to cumulative impacts of the haulage roads, the blasting of the mountains, and the clearing of intact untouched vegetation. We believe that if the general public were to realise the full scale of damage of some of our very last intact mountain range forests, they would be horrified.

Infrastructure

The Project's design is a totally different land use that will impact this site.

The proposed infrastructure elements and associated specifications, which includes wind turbines, are not yet confirmed. The proponent states that the transportation of wind turbine blades specifically is known to be logistically challenging in most locations as the blades cannot be disassembled, and transportation requires the use of oversized vehicles.

The name Mount Hopeful Wind Farm indicates that this is going to be a green energy park. This large scale proposed industrial site will contribute to driving our flora and fauna to extinction. Our organisation does not consent to the desecration of nature and other threats to our climate that this proposal threatens.

Final Attachment K – Offset Management Strategy

The proponent states: Disturbance Footprint: The Disturbance Footprint covers approximately 883.4 ha and represents the maximum extent of clearing works and the indicative locations of Project infrastructure.

It is a 'worst case' scenario in terms of the extent of clearing works. As infrastructure will be micro-sited within the Development Corridor, the final clearing areas are anticipated to be lower than detailed in this assessment.

Our Response: The attachment K Offset Management Strategy includes an offset management plan that perhaps would look compliant with a government assessor on paper. However we question this whole process. The fact that this submission is to go to the Developer, and not to the government is an abrogation of government responsibility.

The related Public Environment Report (PER) clearly identifies the high biodiversity and ecological values of the proposed site by listing considerable numbers of Endangered, Vulnerable and Near Threatened species present, and notes the important biodiversity corridor which would be significantly devalued by the wind farm.

2.3.2.6 Burnett Highway (41E – Biloela-Mt Morgan)

The section of the Burnett Highway (41E) expected to be relevant to the Project is the 71.730km length stretching from the Dawson Highway in Biloela. We note that the study site is within close proximity to Mt Morgan which is replete with wildlife - 387 species are listed on the Queensland's Environment Department website: https://wetlandinfo.des.qld.gov.au/wetlands/facts-maps/wildlife/?AreaID=tile-100k-mount-morgan&Kingdom=animals&SpeciesFilter=Native

Question 1: How can the proponent know if the endangered Australian painted-snipe, brolgas and other species won't be impacted by wind turbine strike?

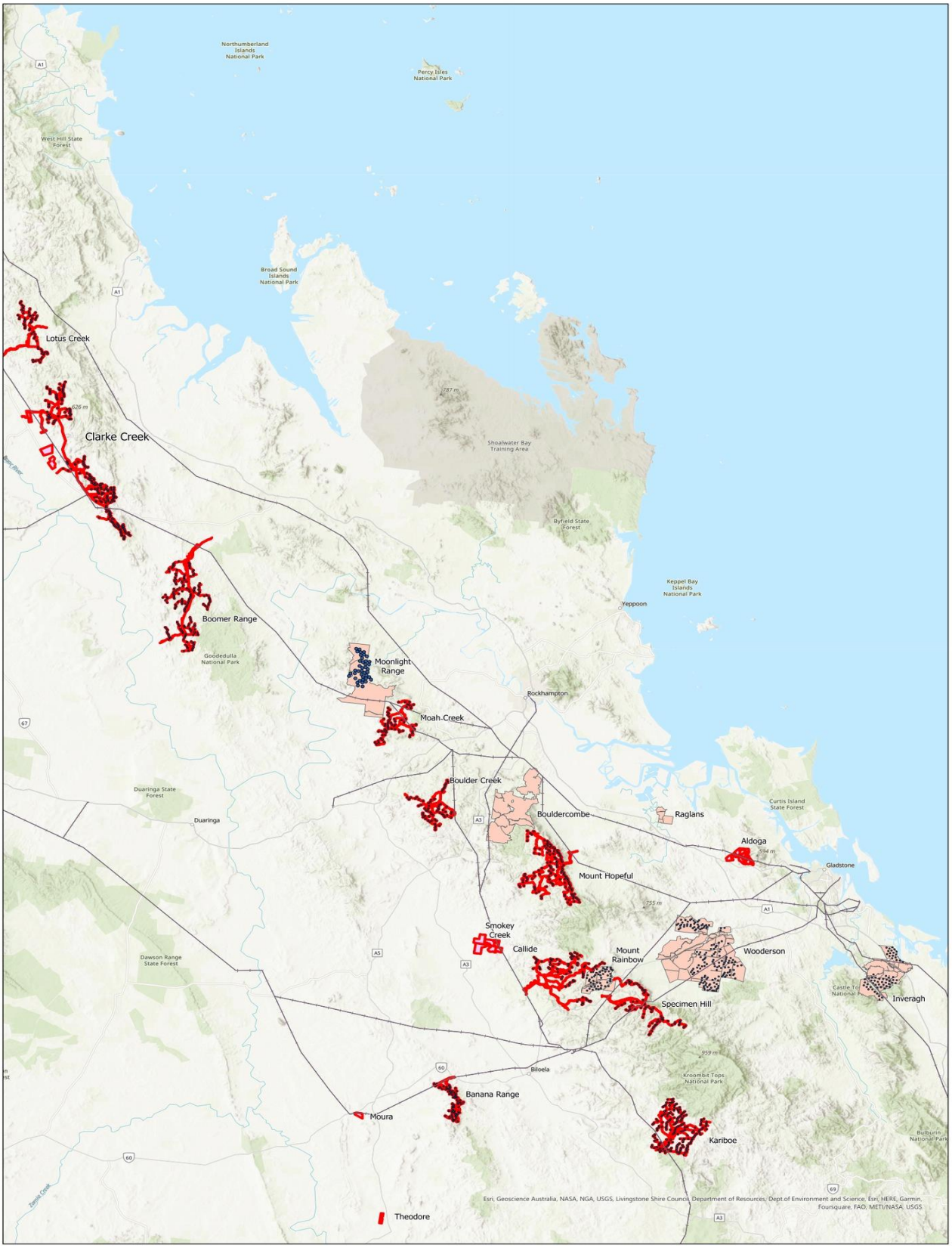
Question 2: Why should birds, bats and wildlife have to die for an industrial wind development in such a high biodiversity area?

Question 3: Can the proponent and government please provide evidence where biodiversity increases anywhere with large scale land clearing, blasting and earthworks, and killing of raptors, thousands of bats, and millions of insects by turbine blades?

We note also that any fire management will be repurposed to protect industrial infrastructure rather than improve biodiversity.

CUMULATIVE IMPACTS

The cumulative impacts from the nearby proposed wind farms that are being developed or proposed) may be catastrophic to wildlife and vegetation of State Significance. Not enough research by independent qualified scientists on individual species have been used in this remote location.



Map: some of the proposals of Central Queensland

The map above shows the proposals are really a tsunami of infrastructure which we do not believe will provide any long-term benefits to Australia, as we discover that this industry is not compatible with agriculture, tourism, long-term meaningful jobs, nor Australian biodiversity and climate.

The number of approved and currently proposed wind farms along the Great Eastern Ranges is unprecedented, unplanned and unsustainable. Our Great Eastern Ranges are precious and irreplaceable. The website *https://ger.org.au/* depicts the importance of our iconic mountain ranges which stretch longitudinally down the length of Australia's east coast. Since 2007, the Great Eastern Ranges organisation has been bringing people together to work towards a shared vision of well connected, resilient and thriving communities, landscapes and natural systems **across 3,600km of eastern Australia.**

Not only do the suite of proposals directly impact on high-value old-growth and threatened moist eucalypt forest types, but they will also substantially contribute to the extinction crisis facing many of the animal species that are restricted to that narrow, vulnerable, nationally important geographic feature. I fully expect the burgeoning wind farm industry to be listed as an EPBC Threatening Process for a number of threatened wildlife species within the next 5 years, as science catches up with this juggernaut.

6.0 Offsets and Mitigation:

Nothing can replace critical habitat once lost.

The Proponents include a rehabilitation plan detailing on-site rehabilitation works for the life of the development. They indicate that they will replant the site once it has been decommissioned via the newly required "Restoration Plan". In theory, this is positive. But in reality, revegetating hundreds of hectares on steep terrain is expensive and unrealistic. Landscape cannot be restored after being blasted with explosives for new roads and turbines. Introduced invasive weeds are virtually impossible to remove at scale. Nothing can restore lost mature forest and tall trees. Mature forests sustain endangered species by providing rare tree hollows, feeding trees and connectivity.

Question 4: If a wind farm is 'onsold', is the new proponent still responsible for what's been promised?

Project Mitigation and Management Measures – includes:

- **Preliminary Decommissioning Management Plan**

Decommissioning

Australia is still to face the challenges of wind farm decommissioning. Challenging locations like the top of the great eastern ranges in regional and remote parts of Australia, like the proposed Mount Hopeful Wind proposal, are likely to make salvage and recycling an unappealing and uneconomic option for which ever company owns the resource at end-of-life. Typically, the companies that initially develop the facility are not the owners at end-of-life. In the absence of substantial decommissioning bonds and strong legislation to ensure redundant wind farms are decommissioned in a timely and environmentally sensitive manner, it is likely the public will ultimately meet those expenses.

The degree of environmental harm necessary to construct a wind farm in remnant vegetation along the ranges and mountain tops at this location, ensures that the area cannot be restored and rehabilitated post-decommissioning. In reality, it will take several hundred years for those locations to recover to a condition close to their pre-development condition and this only after a prolonged period of erosion in this high-altitude area.

Image above shows Windy Hill blades waiting to go into landfill or be recycled.

• Preliminary Bird and Bat Adaptive Management Plan (BBAMP) 1.0 cont.

Monitoring dead bird and bat corpses is NOT mitigation!

Grey headed Bats and ghost bats (Macroderma gigas) showed potential roosts that ecologists investigated on foot or with a drone. Other methods were included. The proponent stated that efforts exceeded what is recommended.

We question these assessments are not independent and actually are often used to offset the environmental harm of imperiled biodiversity such as this large-scale proposal. A surprisingly large number of EIAs suffer from major inaccuracies and some are green-lighting projects that will have serious environmental and societal costs. There is enormous evidence that show that wind turbines and bats are not compatible. No one ever speaks about the cruelty that this industry is inflicting on our imperiled wildlife.

- Barotrauma – bat fatalities. Throughout the operational phase, the Project admits via its Draft Public Environment Report (PER) that it has the potential to impact on MNES via Barotrauma. Barotrauma means injury to animals or humans because of changes in barometric (air). Barotrauma fatalities are caused by fatal levels of internal bleeding brought on by rapid changes in atmospheric pressure—pressure changes that may occur around the blades of an operating wind turbine. Barotrauma involves tissue damage to air-containing structures caused by rapid or excessive pressure change; pulmonary barotrauma is lung damage due to expansion of air in the lungs that is

not accommodated by exhalation. Barotrauma is the cause of death in a high proportion of bats found at wind energy facilities. A 2008 study found that 90% of bat fatalities involved internal haemorrhaging consistent with barotrauma, and that direct contact with turbine blades only accounted for about half of the fatalities. Noise is similar to electromagnetic waves, which are composed of an electric and a magnetic component, sound waves are also composed of two components: dynamic pressure and particle velocity. Wind Farms can produce noise from the mechanics of the gear box, camps on site, the batching plants, earthmoving equipment and trucks, and from the aerodynamics of air passing over the blades.

• Preliminary Erosion and Sediment Control Plan – 1.0 cont.

There will be 175km of roads. These will be wide roads due to the necessity of hauling large wind turbine components into hilly and mountainous country. These are not typical dirt roads in rural properties but wide roads up to 50-100m wide in places, including wind turbine pads. Many species are unlikely to cross such a wide open barren piece of gravel and dirt due to risk of predation and exposure, and trauma due to vehicle impacts. Obviously, this will cause microclimate effects in surrounding forests, leading to desiccation and habitat change, and loss of carbon uptake. There will be increased risk of invasive pest species, increased fire risk, and considerable erosion and run-off from such areas. The erosion will cause increased siltation and sedimentation of draining watercourses and may culminate in increased sedimentation in the Great Barrier Reef areas as a result of this disturbance. Interestingly the wind industry is not accountable to the same set of rules and regulations that other landholders have to abide by.

• Preliminary Rehabilitation Management Plan

The proponent states: Throughout the life of the Project, potential impacts on MNES will be directly or indirectly managed via Project Management Plans. All mitigation and management measures relevant to MNES will be captured in one or multiple of the Project Management Plans)

"Rehabilitate" can be defined as to 'return something, especially an environmental feature to its former condition.'

- Claims made do not stack up.
- Greater Gliders utilise hollows in eucalyptus trees.
- These trees take 150-260 years to reach this stage.
- Once remnant vegetation is cleared, it will never be the same.
- Millions of dollars would be needed to revegetate the fragile Mount Hopeful vegetation, top soil would be lost or eroded

Question 5: How long will this take? Is the developer going to pay the money needed to do it properly? At the end of life will the site be 'rehabilitated to facilitate continuation of the current land use (agriculture) or an alternative land use.? (that could be taken to mean cleared pasture land, or more industrial developments?)

CAN WE RISK THE HEALTH OF THE GREAT BARRIER REEF?

Please find further detail which outlines the key reasons why we believe the area should be protected by our Minister for Environment and Water:

CATCHMENT AREA OF THE GREAT BARRIER REEF:

The long term environmental impacts to the Great Barrier Reef are not known when sedimentation run off and contamination is concerned.

We also draw your attention to the recent extensive findings that we have attached that concerns the Great Barrier Reef Catchment – **Great Barrier Reef Submarine Groundwater Discharge.**

Research has shown toxic chemicals from agriculture and industrialisation affect inshore reefs of the Great Barrier Reef not just by flow of such chemicals and sediment in watercourses, but also via submarine discharge via what are known as "Wonky Holes". Wind industrialisation in GBR catchment will inevitably further poison reefs by release of toxic chemicals found in concrete (large quantities needed for the base of wind turbines) and via microplastics and component chemicals.

Question 6: Can we afford to further risk the health of our irreplaceable Great Barrier Reef?

5.1 Direct impacts

This section includes 5.1.1 Vegetation Clearance and Habitat Loss to threatened species: This is a major heavy industrial proposal which will have a devastating impact on this area for:

- 63 wind turbines, up to 260 metres to tip. Blades 90 metres.
- Up to 175 km of gravel capped haulage road
- Up to ten temporary and ten permanent wind monitoring masts,
- Six substations, battery energy storage systems (BESS),
- temporary construction compound/laydown areas,
- three concrete batching plants,
- one temporary accommodation camp,
- 13km of high voltage (275 kilovolts (kV)) overhead powerlines, as well as overhead and/or underground power and communication cables.
- The Project includes an access road corridor which aims to upgrade approximately 30 km of existing road between the Burnett Highway at Dixalea and Glengowan Road.

IMPACTS ON THREATENED SPECIES OF FLORA AND FAUNA

Impacts on endangered and threatened species are not adequately addressed: The impact on threatened species, in part listed below should ensure that this site is not suitable for wind turbine presence. We ask for duty of care to endangered species. There is no social license that this remote koala greater glider habitats should be developed for planned construction activities that include:

- Vegetation clearing at proposed locations for relevant infrastructure.
- Site establishment (temporary site facilities, lay down areas, equipment and materials).
- Earthworks for access roads and wind turbine hardstands.
- Road upgrades to facilitate the safe transportation of Project infrastructure along the access road corridor.
- Excavations for wind turbine foundations.
- Construction of wind turbine foundations.
- Installation of electrical and communications cabling and equipment.
- Installation of substations, in parallel with electrical reticulation works.
- Arrival of wind turbine components to the Study Area.
- Installation of wind turbines.
- Commissioning of wind turbines.
- Reliability testing

❖ Northern Koala – 3.2.4 (Phascolarctos cinerus)

The area hosts Koala native vegetation. We do not support any attempt to undermine or bypass a recovery plan that is in force under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act). We consider that the National Recovery Plan for the Koala Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory) (National Koala Recovery Plan) applies to the Proposed Action.

We have enclosed statements made by Roger Martin. Roger Martin is a wildlife biologist who lives on the Atherton Tablelands in Far North Queensland. In 1996 he co-authored the book '*The Koala: Natural History, Conservation and Management*' which was published in Australia by UNSW Press and in the United States by Krieger Publishing Company. Reprinted in 1999, it is now out of print but still cited in the scientific literature as **a primary reference on the biology of the koala**.

- The koala has a very broad distribution across eastern Australia but there are now serious concerns about its long-term survival, particularly in the southern part of its range.
- In response to a rapidly deteriorating situation, the Australian Government has upgraded the Koala's status to 'endangered' and introduced a National Koala Recovery Plan (NKRP) to halt their decline. This recovery plan focuses on preserving high value populations, which are those that live in climatically suitable refugia, are genetically diverse and occupy the geographical or environmental limits of the species range.
- The upland eucalypt forests of Far North Queensland contain Australia's most northerly koala population. Most are in low abundance, except in the Upper Burdekin area where koalas are abundant and possibly more fecund compared with other northern population. This population meets the main NKRP criteria, and it could be the most important koala population in Far North Queensland.

This proposed project area that contains important habitat critical to the koala's survival needs to remain intact. I refer to Roger Martin's statements about recommendations that may have been made in the initial ecological assessment of the need for further evaluation of the population. The population obviously is in a climate refuge and is close to the geographical limit of the species' range. Investigations should have been done into the genetic diversity of this population, into whether it contains any rare genes and whether important pathogens such as *Chlamydia pecorum* are present. All these investigations are necessary to properly assess the value of this population for the future conservation of koalas in the region. They should be done before any decision is made on whether this is a suitable site for wind turbines.

- The Public Environment Report also fails to address the impact of their noise pollution on the resident koala population. It does dismiss the potential impact of wind turbine noise by asserting that it can't be heard from further away than 200 m. Anyone who has been near a wind turbine will recognize this as arrant nonsense. The low frequency sounds produced by male koalas and by wind turbines are in the same frequency range and it is highly likely that the more powerful wind turbine noise will mask the koala bellows and reduce their effective range. The footprint of this noise from the 80 turbines proposed could cover the entire 29,146 ha of the project. This could disrupt the breeding season and reduce the fertility rate of the koala population throughout the area.

❖ 3.2.5 Northern Quoll (Dasyurus hallucatus) – Endangered. The proponent states: The species' distribution is highly fragmented in Queensland and surveys by Woinarski et al. (2008) indicate severe reductions from the species' former distribution (Department of the Environment 2016a).
The Northern Quoll habitats will be impacted by the mountain blasting, haulage roads and habitat fragmentation that cannot be offset nor replaced. They require rocky habitats (such as major drainage

lines or treed creek lines) and structurally diverse woodlands with moderate to high density of denning opportunities (i.e. large diameter trees, termite mounds, large hollow logs) Mitigation and offsets are unacceptable. It is unconscionable that these endangered wildlife would be considered to be removed, or killed by this development.

- 3.2.6 Squatter Pigeon (Southern) (Geophaps scripta scripta) – Vulnerable

The proponent states:

> - The construction contractor will not conduct water extraction activities at any location that provide suitable resources for squatter pigeon (southern) (i.e. suitable watercourses and reservoirs mapped on **Figure 5A-G**).
> - A single squatter pigeon (southern) death will be a reportable incident to DCCEEW and trigger further investigation with regard to causation. Dependent on the outcome of the investigation, the overall collision risk determination for the species may be revised.

Monitoring and reporting this important vulnerable species is NOT MITIGATION.

The squatter pigeon (southern) occurs on the inland slopes of the Great Dividing Range. Their habitat needs to be kept intact. Haulage roads and fragmentation will impact this species. Squatter pigeon rely on forest or woodland areas occurring between patches of foraging or breeding habitat, and suitable waterbodies. Such patches facilitate the local movement of the subspecies between patches of foraging habitat, breeding habitat and/or waterbodies, or the wider dispersal of individuals in search of reliable water sources during the dry season or droughts. Any remnant or regrowth openforest to sparse, open-woodland or scrub dominated by Eucalyptus, Corymbia, Acacia or Callitris species, on sandy or gravelly soils with patchy perennial tussock grasses or a mix of perennial tussock grasses and low shrubs and forbs and within 1 km of a permanent or seasonal waterbody with gently sloping banks. Mitigation and offsets are not acceptable if we are serious about the survival of this species.

Question 7: What further impact studies will you do to ensure that the species will not be seriously impacted by the haulage trucks, and large-scale industrial site development?

- <u>3.1 - Red Goshawk</u> presence on the site is absolutely threatened. There is no possibility of Red Goshawk survival in a wind turbine setting. The surveys of this species is inadequate - A number of recommended survey methods were employed during peak activity periods to detect these bird species. The combination of diurnal bird surveys, vantage point surveys and incidental records across the field program provide adequate survey effort.
- <u>3.2 Greater glider (northern)</u> (Petauroides minor) are impacted by loss of den trees. During the day the greater glider (northern) shelters in tree hollows, with a particular preference for large hollows (diameter >10 cm) in large, old trees .[1]

We note: Statements in Appendix H regarding the likely abundance of Greater Gliders are invalid given the extremely limited number of spotlighting sites sampled. In particular, the conclusion (Section 5.2) cannot state that there is a low-density population. It does however state that "given the high degree of connectivity, the area of habitat available including preferred, higher elevation woodlands with abundant hollow bearing trees, the habitat within the Study Area is considered to hold relative importance to the species in the broader context of the region".

1 Greater Glider Northern - https://www environment.gov.au/biodiversity/threatened/species/pubs/92008-conservation-advice-05072022.pdf ; (Kehl & Borsboom 1984; Smith et al. 2007; Goldingay 2012)

Question 8: If the Mount Hopeful area is considered to be important to Greater Gliders, a federally listed Endangered species, how can Neoen justify, and the Federal Government allow, clearing of 948.6 hectares of its habitat, and fragmentation of a regionally important area for this species?

- The Powerful Owl is not mentioned in the species list despite this species being in the region. Powerful Owls are found in open forests and woodlands in the region. The largest of Australia's owls, the Powerful Owl usually inhabits the moist forests of eastern Australia. Its main item of prey is possums of various species, though large bats such as flying foxes are also often caught. They roost by day, perched in the dense shade of a tree, often with the previous night's prey held in their talons; this is when Powerful Owls are seen most often. Powerful Owls are an important top predator and are listed as Vulnerable in Queensland. Powerful Owls require plenty of food in their territories as well as large tree hollows for breeding. It is thought that a reduction in large tree hollows is one of the main factors in Powerful Owl population declines. [2]
- 3.2.7 White-throated Needletail (Hirundapus caudacutus) – Vulnerable - The species has not been well surveyed. The species' total population is unknown. It is described as 'abundant' in some regions of Australia during the non-breeding season (Chantler 1999).3
- Fork-tailed swift (Apus pacificus) not enough surveys have been conducted if the species visits this site. The Fork-tailed Swift is a non-breeding visitor to all states and territories of Australia (Higgins 1999). Not enough surveys have been conducted with this species. There are scattered records of the Fork-tailed Swift in the Gulf Country, and a few records on Cape York Peninsula. In the north-east region there are many records east of the Great Divide from near Cooktown and south to Townsville.4
- Yellow bellied Glider) Petaurus australis australis) (Vulnerable EPBC): 1.2 MNES-
  Their habitats are mainly found in eucalypt-dominated woodlands and forests, including both wet and dry sclerophyll forests.
  Also, this species has a range of fantastic vocalizations including shrieks, rattles and gurgles – the typical call starts with a soft hoot, is followed with a loud shriek which leads into a gurgling, throaty rattle. Please refer to the concerns of scientists about noise, nuisance, vibrations of these enormous industrial wind towers in their habitats, that just do not belong. It's obscene that our wildlife could be subjected to this torture. There is evidence that humans are affected by the sounds of the turbines. All the senses for wildlife are known to be much more acute. The precautionary principle needs to apply. This species was listed as Vulnerable in March 2022. The preliminary documentation report is therefore incorrect, and surveys for this species are completely inadequate. A comprehensive survey for this EPBC listed Vulnerable species must be undertaken within the project area including along the development footprint, and at several different times of year. Subsequent mitigation and offset measures must be described, and the general public must be allowed to comment on this revised information.

2 POWERFUL OWLS - https://www.lfwseq.org.au/powerful-owls/#:~:text=Powerful%20Owls%20are%20an%20important,in%20Powerful%20Owl%20population%20declines.

3 White throated needletail https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=682

4 Fork-tailed swift https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=678

Question 9 - How can you ensure that an independent comprehensive field survey for this EPBC listed species will not be impacted by this proposal? Can Neoen and the government ensure that the public are given the opportunity to comment on the results including proposed mitigation and offsets?
Question 10 - If the area does turn out to be important for the Vulnerable Yellow-bellied Gliders, how can Neoen justify, and the Federal Government allow, clearing of its habitat?

Image: we hope the above needs no introduction

- The Ghost bat Appendix D. 4.5 Fauna Table 4.5 Fauna Impacts and Mitigation Measures
  The proponent states : ghost bat (Macroderma gigas), grey-headed flying-fox (Pteropus poliocephalus) and red goshawk (Erythrotriorchis radiatus). Based on feedback from The Department of Climate Change, Energy, the Environment and Water (DCCEEW), despite being unlikely to occur these species were included in the assessment as they may be at risk of mortality as a result of turbine collision. This risk will not be altered or increased as a result of the proposed variation. For the relevant MNES, maps displaying the potential habitat and any records are provided in Appendix E.

> *"Scientists are also learning that vocally active species – like bats – make sounds which contain much more complex information than previously thought. Bat echolocation, for example, was discovered nearly a century ago. But only recently have researchers begun deciphering the sounds that bats make for other purposes. By recording many hours of bat vocalizations and decoding them using AI algorithms, scientists have revealed that bats remember favours and hold grudges; socially distance and go quiet when ill; and use vocal labels that reveal individual and kin identity. Male bats learn territorial songs in specific dialects from their fathers and, much like birds, sing these songs to defend territory and attract mates, which scientists characterize as culture.* [5]

5 'Science is making it possible to 'hear' nature. It does more talking than we knew,' https://www.theguardian.com/commentisfree/2022/nov/30/science-hear-nature-digital-bioacoustics

INADEQUATE ENVIRONMENTAL IMPACT ASSESSMENTS (EIA)

The EIAs that have been conducted are failing our irreplaceable flora and fauna. They are not independent and are often used to offset the environmental harm of imperiled biodiversity such as this large-scale proposal. A surprisingly large number of EIAs suffer from major inaccuracies and some are green-lighting projects that will have serious environmental and societal costs. [6]

Question 11: Why are the Environmental Impact Assessments (EIAs) failing our irreplaceable flora and fauna?

These assessments are not independent and are often used to offset the environmental harm of imperiled biodiversity such as this large-scale proposal. A surprisingly large number of EIAs suffer from major inaccuracies and some are green-lighting projects that will have serious environmental and societal costs.

THE WILDNET PROBLEM - THERE IS A HUGE BACKLOG OF WILDLIFE DATA

The Queensland Department of Environment's database for recording wildlife listing and sightings in Queensland is still not complete or up to date. The department has a significant backlog in information (approximately 10 million records) that it needs to upload. As a result, this information is not readily available to inform decisions.

Wild Net does not have the functionality to easily show trends or changes in population abundance over time for all threatened species. Where it does collect monitoring data on species, the Department has provided it to the Threatened Species Index, which provides nationally comparable measures of change in the relative abundance of Australia's threatened and near-threatened animals and plants. To date, the Department has contributed monitoring data on 11 animals to the index and no plants.

The problems with Wild Net are such that it cannot reliably be used to inform or make critical decisions. Our fauna (and flora) in Queensland deserves better.

MICROPLASTICS

It has been calculated that wind turbines shed around 60kg of microplastics per year. This has been deduced by studies of leading-edge erosion. Leading edge erosion is a major cause of degradation of wind turbine blades, and often this requires replacement blades every 10 years. The discarded blades are rarely recycled but dumped in landfill.

The quoted study was based on wind turbines in Norway, where ice and salt would have more effect than Gawara Baya/Upper Burdekin. Regardless, there will be some shedding of microplastics into the project area as a result of this windfarm. Even if the level of shedding is only half that of Norway, that's still 2.5 tons of microplastics that are discarded into the Upper Burdekin ecosystem and creek waters every year. That's 51 tons over 20 years.

> "25 tonnes of annual emissions in the form of micro- and nanoplastics are thus sprinkled over outfields, pastures, soils, water sources and eventually fjords and sea areas. How much of this will be Bisphenol A is uncertain, but 1 kilo of bisphenol A is enough to pollute 10 billion litres of water. That's 10 000 000 000 litres. Since 2017, the WHO has advised that drinking water should have a maximum of 0.1 micrograms of BPA pr. litre. This is 0.000 000 1 grams per litre of water."
>
> "The pulp loss mainly consists of two-component epoxy. A turbine wing is largely made of fiberglass reinforced epoxy where epoxy makes up approx. 40% of the pulp and fiberglass make up 60%. In

Bats can learn to copy sounds and it may teach us about human speech | New Scientist

6 https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-33642022000100067

addition, some balsa wood, divinycell (a kind of hard foam) and some other materials are used to create the profile for the wing construction. Epoxy contains 33% bisphenol A. This amounts to approx. 13 - 15% of the total weight of a rotor blade. In other words, there is a lot of microplastic, and a large part of this is bisphenol A."

"Exposure to BPA is a concern because of the possible health effects on the brain and prostate gland of fetuses, infants and children. It can also affect children's behaviour. Additional research suggests a possible link between BPA and increased blood pressure, type 2 diabetes and cardiovascular disease." [7]

"…preliminary assessments of the effects of microplastics exposure in mammalian reproduction have emerged with the publication of peer-review articles that revealed the effects on spermatogenesis and sperm quality in exposed animal models and the indirect effects on the offspring occurring via gestational exposure. This manuscript summarizes the main ecotoxicological and health risk of microplastics in mammals, the main threat for sperm quality along the lifespan and the upcoming studies on the effects of microplastics (MPs) in male fertility in mammals."14% of 51 tons of microplastics shed over 20 years at Upper Burdekin is Bisphenol A. That's 7 tons of Bisphenol A. Remember that 1 kg of Bisphenol A is enough to pollute 10 billion litres of drinking water. So significantly toxic levels of BPA are likely even if only a fraction of the BPA makes its way into watercourses.

EDGE EFFECTS AND INHIBITION OF WILDLIFE MOVEMENT

Edge effects from fragmenting forests are well known – risks increase for weeds, feral animals, sedimentation in run-off, bushfires. Less well-known is the drying effect on forests from clearing and the impact on the soil biota.

Scientific study on the effect of roads on arboreal animals is limited, but the effects are obvious. It has been studied in the case of red pandas, an arboreal mammal: "This study presents evidence consistent with the barrier effect of roads on movement of red pandas." [8]

BIODIVERSITY IS REQUIRED IF WE ARE REALLY SERIOUS ABOUT CLIMATE ACTION

Biodiversity loss and climate change mutually reinforce each other. Neither will be successfully resolved unless they are dealt with together. It is well known that climate change cannot be effectively addressed through severe deforestation and degradation of carbon-rich and biodiverse ecosystems.[9] There is significant public interest in ensuring rigorous, transparent and accountable assessment of environmental risks in relation to major projects that propose to destroy and fragment landscape-scale areas of wilderness due to the magnitude of impacts to indigenous peoples, local communities and matters of national environmental significance (MNES).

To these ends we write to alert you to the **false** claims that the numerous wind and solar developments planned for Queensland will be:

Clean, green, nature positive, and that the 'footprint' will be low, even though threatened species of flora and fauna may become extinct, in a bid to prevent climate change.

7 Microplastics: A Threat for Male Fertility, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7967748/

8 Effect of disturbances and habitat fragmentation on an arboreal habitat specialist mammal using GPS telemetry: a case of the red panda https://link.springer.com/article/10.1007/s10980-021-01357-w

9 Tackling Biodiversity & Climate Crises Together and Their Combined Social Impacts - United Nations Sustainable Development, https://www.un.org/sustainabledevelopment/blog/2021/06/tackling-biodiversity-climate-crises-together-and-their-combined-social-impacts/

In fact, the clean and green claims could not be further from the truth. To make 'nature positive' claims after fragmenting and drying out intact forests is deceitful, and nothing more than weasel words.

We strongly state that there is no justification for the extinction of threatened species and the decimation of intact forest for renewable energy in Queensland – to state otherwise is to greenwash.

DESECRATING REMNANT FORESTS AND DRIVING WILDLIFE TO EXTINCTION WILL NOT COMBAT CLIMATE CHANGE

We believe that Australians would be appalled if they knew that vast intact forests and unique Australian vegetation was to be carved up for renewable energy proposals.

There is nothing 'green' about destroying intact forests and vegetation, and where habitat destruction drives wildlife to extinction.

This is a statement by one of our local environmental scientists Pamela Jones:

> *So, the current plan is to desecrate hard-working tropical forests to build poorly performing wind turbines. This is neither effective or efficient in money terms or in climate change mitigation terms.*
>
> *The forest areas threatened by all the wind energy projects on the books or already being constructed are some of the most valuable in the world.*
>
> *https://onewomanjourney.com.au/2023/07/01/how-important-are-queenslands-forests/*

The geographical scale of high biodiversity land used for low energy density renewables is ever growing as more proposals come to the market. The **cumulative impact** of clearing and fragmenting so much critical habitat for industrial-scale wind, solar and pumped hydro will ensure we lose already threatened species.

We do not support the proposed Mt Hopeful wind development. Its ecological impacts are far too great. We believe that the cumulative impacts posed in the proposed Mt Hopeful Wind Farm's Public Environment Report are incomplete and an underestimate of what will be lost. Entire species will be driven to extinction if we clear and fragment what's left of critical habitat. We are strongly advocating for Australian native wildlife, and we state that the siting of wind developments, which clear, blast and bench, on greenfield sites full of threatened wildlife is madness.

In addition, leaving remnant habitat intact is a key strategy to abate climate warming. We desperately need to save what's left of our forests in Queensland, to protect our climate and our threatened species.

We note that there is significant public interest in ensuring rigorous, transparent and accountable assessment of environmental risks in relation to major projects that propose to destroy and fragment landscape-scale areas of wilderness due to the magnitude of impacts to Indigenous, local communities and matters of national environmental significance (MNES).

[redacted] is requesting that a precautionary principle be taken to reject this entire proposal. The cumulative impacts of environmental harm of the Mount Hopeful Wind proposal will cause is not in the public interest.

We thank you for your consideration.

[redacted]

[redacted]

[redacted]

[redacted]

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