

Hexham Wind Farm Project

*/ Minister's Assessment under
the Environment Effects Act
1978*

August 2026



Department
of Transport
and Planning

Acknowledgement of Country

We proudly acknowledge the First Peoples of Victoria. We acknowledge their ongoing strength in practising the worlds' oldest living culture. We acknowledge the Traditional Owners' lands, waters and skies on which we live and work. We also pay our respect to their Elders past and present.

Description of artwork

Aaron Duggan (Gunaikurnai) 'Movements Between the Five Clans' 2019, acrylic on canvas

'The tracks are going between the five clans of the Gunaikurnai and the hands are the symbols of my spirit travelling around the campsites.'

This artwork was created through programs provided by the Torch. The Torch provides art, cultural and arts industry support to Indigenous offenders and ex-offenders in Victoria. The Torch aims to reduce the rate of re-offending by encouraging the exploration of identity and culture through art programs to define new pathways upon release.



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Abbreviations

BAM Plan	Bat and Avifauna Management Plan
BESS	Battery Energy Storage System
CEMP	Construction Environment Management Plan
CFA	Country Fire Authority
CHMP	Cultural heritage management plan
CMA	Catchment Management Authority
CRM	Collison Risk Model
DEECA	Department of Energy, Environment and Climate Action
DELWP	Department of Land, Water and Planning
DTP	Department of Transport and Planning
EE Act	Environment Effects Act 1978
EES	Environment effects statement
EMAC	Eastern Maar Aboriginal Corporation
EMF	Environmental management framework
EMM	Environment management measure
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
ERS	Environment Reference Standard
EVC	Ecological Vegetation Class
FFG Act	Flora and Fauna Guarantee Act 1988 (Vic)
FIA	Flood impact assessment
GDE	Groundwater dependant ecosystem
GHFF	Grey-headed Flying-fox
GMTOAC	Gunditj Mirring Traditional Owners Aboriginal Corporation
ha	Hectare
HCEAG	Hexham Community Environmental Action Group Inc
IAC	Inquiry and Advisory Committee
IEA	Independent Environment Auditor
km	kilometre
LVIA	Landscape and Visual Impact Assessment
m	meter
MNES	Matters of national environmental significance
MRSD Act	Mineral Resources (Sustainable Development) Act 1990
MSA	Minimum Safe Altitude



National EPA	National Environmental Protection Agency
OEMP	Operations Environmental Management Plan
P&E Act	Planning and Environment Act 1987 (Vic)
RAP	Registered Aboriginal Party
SBWB	Southern Bent-wing Bat
SWMP	Stormwater management plan
TEC	Threatened Ecological Community
TfV	Transport for Victoria
TRG	Technical reference group
VAHR	Victorian Aboriginal Heritage Register
YBSB	Yellow-bellied Sheath-tailed Bat



Executive Summary

The Hexham Wind Farm project is a proposal to construct a wind farm consisting of up to 106 wind turbines with a maximum blade tip height of 260 m above ground level and an indicative generation capacity of 2,559 gigawatt hours per year, supporting the state's emissions reduction targets and contributing to the energy transition. The project is located in Moyne Shire in south-west Victoria, approximately 15 km west of the township of Mortlake.

On 19 April 2022, the Minister for Planning decided under the *Environment Effects Act 1978* (EE Act) an environment effects statement (EES) was required for the project, due to a number of potentially significant environmental effects requiring integrated, robust and transparent assessment, to inform statutory decision-making on the project.

The project is also a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to likely significant impacts on matters of national environmental significance (MNES). As such, the EES process has been completed as an accredited state assessment to inform the approval decision under the EPBC Act for this project.

The EES was exhibited for public comment from 27 January to 11 March 2026, receiving 66 written submissions on the EES. Following exhibition, the Inquiry and Advisory Committee (IAC) that I appointed, held a public hearing from 27 April to 22 May 2026 to examine the EES, the project's environmental effects and consider the planning permit application and submissions received. The IAC's report was submitted on 16 July 2026.

The IAC's report, along with the EES, public submissions, material tabled at the hearing, and relevant legislation, policy and guidelines have informed my assessment of the project's effects under the EE Act. Submissions demonstrated that stakeholder groups and the community hold a range of views about the project. I thank all those who took the time to participate in the EES process.

It is my assessment that the likely environmental effects of the project are acceptable and can be mitigated and managed effectively with the adoption of the recommendations of this assessment. My recommendations include some refinements to certain management and mitigation measures, which are informed by the IAC's report, EES, submissions and other documents tabled through the IAC hearing.

Consistent with the IAC's findings, my assessment concludes that likely impacts for key matters - namely biodiversity, bats and avifauna, Aboriginal cultural heritage, and landscape and visual values - are acceptable and can be appropriately mitigated.

I support the IAC's finding that the project will have acceptable impacts on native vegetation and listed threatened species and communities, with the implementation of the proposed management measures and subject to securing offsets for residual impacts.

The IAC found that the project would have acceptable impacts for the Southern Bent-wing Bat (SBWB), Brolga and other birds and bats, subject to the effective implementation of proposed mitigation and management measures. I agree with the IAC's findings about the acceptability of these likely impacts, taking account of my recommendations for refining some aspects of the proposed mitigation. This includes adopting the proposed seasonal (September to April) nocturnal low wind speed curtailment over the winter months, while the proponent satisfies Department of Energy, Environment and Climate Action (DEECA) and National Environmental protection Agency (National EPA) SBWB activity is sufficiently low during this period. I also recommend that the proposed Bird and Bat Adaptive Management Plan, which is to be prepared in consultation with DEECA and National EPA, should be approved prior to commencing construction of wind turbines specifically.

I support the IAC's finding that the project has appropriately avoided known and potential areas of Aboriginal cultural heritage significance informed by engagement with the Eastern Maar Aboriginal Corporation (EMAC). I conclude that the proposed management measures together with continued engagement and consultation



with EMAC are suitable to mitigate potential impacts and protect Aboriginal cultural heritage values, subject to the approval of a cultural heritage management plan (CHMP) by this Registered Aboriginal Party (RAP).

The project will result in changes to landscape and visual amenity of the area. However, I concur with the IAC that these impacts are not of regional or state significant and can be managed to acceptable levels.

Other matters were also examined in the EES, relevant to an integrated assessment of the project's effects, including surface water, socioeconomic, human health, land-use, agriculture, traffic, noise, vibration, fire safety, shadow flicker, electromagnetic radiation, planning and aviation. The IAC concluded that these effects are not significant and can be acceptably managed, which I support. The IAC did not examine the potential effects of the project on historic heritage, groundwater, air quality and greenhouse gas emissions. I have considered the relevant aspects of the EES and associated documents and it is my assessment that likely effects for these matters will not be significant and are acceptable, accounting for the proposed mitigation measures.

As the EES process was completed as an accredited assessment under the EPBC Act for this project, my assessment examines potentially significant impacts on MNES and is provided to the Commonwealth Minister for the Environment and Water, to inform a decision about whether and under what conditions an EPBC Act approval should be granted. I consider there is likely to be significant residual impacts on some specific MNES, however where these are likely to occur, I am satisfied that they are acceptable and can be appropriately mitigated and offset.

I have been greatly assisted by the work of the IAC and its report, the EES prepared by Hexham Wind Farm Pty Ltd, evidence presented during the hearing, submissions from stakeholders and the community, and the work of my department. The conclusions and recommendations in this assessment are informed by all of this important input.

I have considered all matters relevant to the assessment of the Project's potential environmental effects. My assessment includes specific findings and recommendations on effects and their mitigation, to inform the proponent and statutory decision-makers, responsible for approval decisions under Victorian law.

Decision-makers, including myself under the *Planning and Environment Act 1987* (P&E Act), need to consider this assessment. As a matter of good practice, I also expect decision-makers to write to me to advise how my assessment was considered and applied.

Overall, I am satisfied that the Hexham Wind Farm project can proceed with acceptable environmental outcomes, subject to effective implementation of environmental management and mitigation measures endorsed and amended through this assessment.



1. Introduction

On 16 March 2022, in light of the potential for significant environmental effects, Hexham Wind Farm Pty Ltd (the proponent) referred the Hexham Wind Farm project (the Project) to the Minister for Planning under the *Environment Effects Act 1978* (EE Act), for a decision on the need for an environment effects statement (EES).

On 19 April 2022, the Minister for Planning decided an EES was required for the Project, due to a number of potentially significant environmental effects requiring integrated, robust and transparent assessment, to inform statutory decision-making on the Project.

The procedures and requirements issued under the EE Act for the EES specified that it was to document investigation and avoidance of potential environmental effects of the project, including for any relevant alternatives, as well as associated avoidance, mitigation and management measures. In particular, the EES was to address:

- potential effects on biodiversity and ecological values including native vegetation, listed flora, fauna and communities through loss, degradation or fragmentation of habitat, collision with turbines, or other ecological effects;
- potential effects on water environments including wetlands and Mustons Creek, as a result of direct disturbance, changes to stream flows or discharge of sediments or waste during construction, operation or decommissioning of infrastructure;
- effects on Aboriginal cultural heritage values;
- effects on historic heritage values;
- effects on landscape and visual amenity values;
- effects on amenity related to construction and decommissioning;
- effects on the socioeconomic environment, at local and regional scales, including on traffic, agriculture and other direct and indirect effects; and
- cumulative effects of the project, particularly on biodiversity, ecology, social and landscape values, given the proximity to other proposed, approved and operating windfarms.

The proponent prepared an EES, which was publicly exhibited from 27 January to 11 March 2026.

On 02 February 2026, an Inquiry and Advisory Committee (IAC) was appointed to inquire into the project's effects and consider the exhibited EES, the planning permit application put on notice with the EES and submissions made on the exhibited documents. The IAC provided its report to me on 16 July 2026. The report, along with the EES, public submissions, tabled documents and relevant legislation, policy and guidelines have informed my assessment of the environmental effects of the project under the EE Act.

I thank the IAC for its considered report and advice, as well the work of my department. I also thank everyone who invested their time to make submissions and participate in the public hearing. I have considered all of the matters relevant to the environmental assessment of the project.

1.1. Purpose of this document

This document constitutes my assessment of the environmental effects of the project under the EE Act. This assessment represents the final step in the EES process and provides authoritative advice to relevant decision-makers, the proponent and all other stakeholders on the likely environmental effects of the project and their acceptability. My assessment and how the effects are to be addressed, is to be considered by relevant statutory decision-makers for the project.

While this assessment will inform the decisions required under Victorian law for the proposal to proceed, it is also informing the decision to be made by the Commonwealth Minister for the Environment and Water under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This is because the EES



process has been undertaken as an accredited state assessment for the purposes of the examining relevant Commonwealth environmental matters under the EPBC Act.

1.2. Structure of the assessment

The structure of my assessment is as follows:

- Chapter 2 provides a brief description of the project;
- Chapter 3 refers to key relevant Acts;
- Chapter 4 summarises the project's proposed planning controls, environmental management framework (EMF) and other post-approval governance arrangements;
- Chapter 5 assesses the environmental effects of the project in relation to the evaluation objectives by environmental discipline;
- Chapter 6 presents my conclusions, including responses to the recommendations of the IAC;
- Appendix A contains a consolidated assessment of impacts on matters of national environmental significance; and
- Appendix B contains my recommendations about the environmental management measures (EMMs).

2. Project description

The proponent proposes to construct a wind farm consisting of up to 106 wind turbines with a maximum blade tip height of 260 m above ground level and an indicative generation capacity of 2,559 gigawatt hours per year. The project is located in Moyne Shire in south-west Victoria, approximately 15 km west of the township of Mortlake. The EES described the project consisting of the following components:

- wind turbine generators;
- access tracks and site access from public roads;
- electrical reticulation and distribution;
- battery energy storage system;
- operations and maintenance facility;
- meteorological monitoring masts; and
- temporary infrastructure components including quarry, construction site office and compounds, staging areas, concrete batching plants and washdown facilities.

The EES stated, the project consists of four discrete phases including pre-construction, construction, operation and decommissioning and describes the project activities planned for each phase in further detail.

Subject to approvals, grid connection agreements would be secured, and detailed design and pre-construction activities would start in 2027, along with financing and other commercial activities the earliest that construction is likely to start is in the final months of 2027, with commissioning of the project in 2029.

The project site covers approximately 16,000 ha of mostly private land used for agriculture of which the total construction disturbance area is anticipated to be approximately 603 ha. Approximately 150 ha of this area would be used for the life of the project.

The project area and proposed operational project infrastructure layout assessed in the EES process is shown in Figure 1. The project is described in more detail in Chapter 6 of the EES.

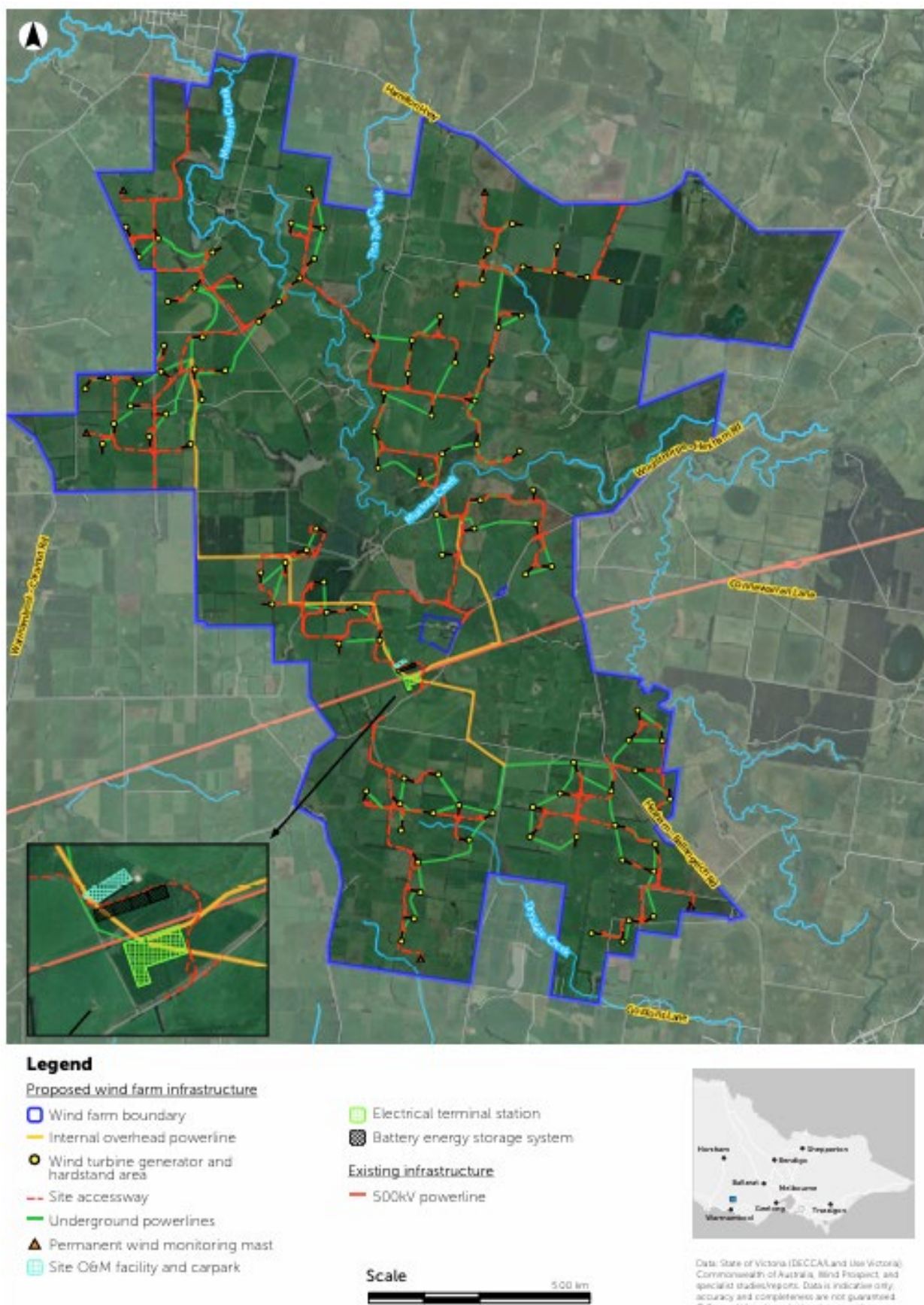


Figure 1: Proposed operational project infrastructure layout (Source: EES Chapter 6, Figure 6.1)



3. Statutory processes

This section refers to key Acts that are relevant to my assessment and delivery of the project. The proponent requires a variety of statutory approvals under Victorian and Commonwealth law before they can proceed with the project. My assessment under the EE Act will inform approval decisions under *the Planning and Environment Act 1987* (P&E Act), the *Aboriginal Heritage Act 2006* and the *Mineral Resources (Sustainable Development) Act 1990* (MRSD Act), as well as a range of other permits and consents. The project is also a controlled action requiring approval under the EPBC Act.

3.1. Environment Effects Act 1978

The EE Act provides for assessment of proposed projects that could have a significant effect on the environment. Section 8C of the EE Act provides that approvals decisions for the project may not be made until this assessment is completed and has been considered by the decision-makers who have been given notice.

Following exhibition of draft scoping requirements for public comment between 10 and 28 July 2023, the Minister for Planning issued final scoping requirements specifying the range of matters to be addressed in the EES. The former Department of Environment, Land, Water and Planning (DELWP) convened a Technical Reference Group (TRG) for the project in accordance with standard EES practice to provide advice to the proponent and DELWP/ Department of Transport and Planning (DTP) throughout the preparation of the EES.

The EES was prepared by the proponent and placed on public exhibition from 27 January 2026 to 11 March 2026. A planning permit application and a preliminary draft quarry work plan were also exhibited with the EES. The EES attracted 66 submissions.

As the decision to be made about the planning permit must be informed by this assessment, all matters raised in submissions, whether in relation to the EES or the planning permit applications, have been considered in this assessment.

On 2 February 2026, the Minister for Planning's delegate appointed an inquiry under section 9(1) of the EE Act to review submissions and inquire into the environmental effects of the proposal, in accordance with its terms of reference.

The inquiry members were also appointed as an advisory committee under Section 151 of the P&E Act to consider any objections received on the planning permit application.

Planning Panels Victoria received all the submissions made in response to the EES and submissions and objections to the planning permit application were collected by DTP and referred to the IAC for their consideration of the planning permit application.

The IAC held a directions hearing on 31 March 2026, followed by public hearings, which were held from 27 April 2026 to 22 May 2026. The panel provided its report to me on 16 July 2026.

The IAC report, along with the EES, public submissions, tabled documents and relevant legislation, policy and guidelines, has informed the preparation of this assessment of the environmental effects under the EE Act.

This assessment is the final step under the EE Act. It summarises the environmental effects of the proposed Hexham Wind Farm project for statutory decision-makers under Victorian law. Decision-makers must then consider this assessment before deciding whether and how the proposal should proceed.

3.2. Victorian statutory approvals

The project requires a number of key Victorian statutory approvals, including:

- an approved cultural heritage management plan under the Aboriginal Heritage Act;
- a planning permit under the Moyne Shire Planning Scheme for the use and development of the land for a wind energy facility, including a battery energy storage system, associated utility infrastructure and access tracks and associated approvals including removal of native vegetation, earthworks, business identification signage and alteration of access to a road in a Transport 2 Zone; and
- an approved work plan and a work authority for a quarry under the MRSD Act.

Planning and Environment Act

The P&E Act sets out processes for the consideration of planning permit applications and decision-making about granting or refusing planning permits. The proponent applied to the Minister for Planning, as the responsible authority, for planning permits for the proposed project.

The Minister for Planning is the responsible authority for planning permits approving the use and development of land for an energy generation facility with an installed capacity of 1 megawatt or greater, and utility installation used to transmit or distribute electricity or store electricity of more than one megawatt.

The Minister for Planning's delegate has appointed a joint IAC to allow concurrent assessment and consideration of the EES and planning permit applications under the EE Act and the P&E Act.

Planning permit application PA2504115, exhibited in parallel with the EES, may not be determined until the required cultural heritage management plan (CHMP) has been approved.

Aboriginal Heritage Act

The Aboriginal Heritage Act stipulates that an approved CHMP must be prepared for works for which an EES is required. The project is situated on land for which Eastern Marr Aboriginal Corporation is the Registered Aboriginal Party (RAP) under the Aboriginal Heritage Act.

A draft CHMP (no. 19602) is being prepared for the project site, which will be evaluated by the RAP.

Mineral Resources (Sustainable Development) Act

Approval under the MRSD Act is required for the temporary on-site quarry proposed to be established and operated within the wind farm project area to supply construction materials for the project. The exhibited EES included a preliminary draft quarry work plan.

Section 77T of the MRSD Act provides that, subject to certain conditions, a planning permit is not required for a quarry which has been subject to a completed EES process. Decisions about approving the quarry will be made under the MRSD Act following consideration of this assessment.

3.3. Other Victorian statutory approvals

The project also may require a range of consents and permits including:

- consent to undertake works on or across a waterway and a take and use licence under the *Water Act 1989*;
- a permit to remove listed flora and fauna from public land under the *Flora and Fauna Guarantee Act 1988* (FFG Act);
- a permit to take or handle wildlife under the *Wildlife Act 1975*; and
- consent to undertake works on roads under the *Road Management Act 2004*.



Water Act

Consent under the Water Act is required for works on designated waterways, including works such as access track crossings of waterways. The relevant sections of the Water Act are administered for the project land by the Glenelg Hopkins Catchment Management Authority.

Approval under the Water Act would be required to take or use groundwater for dewatering, should the project intercept groundwater at the on-site quarry or turbine foundation footings, or construct a bore. The relevant sections of the Water Act are administered for the project land by Southern Rural Water.

Flora and Fauna Guarantee Act

Consent under the FFG Act is required for removal of protected flora and fauna (including listed threatened ecological communities) from public land. Department of Energy, Environment and Climate Action (DEECA) administers the FFG Act.

Wildlife Act

Consent under the Wildlife Act is required to take or handle protected wildlife. This will apply if protected wildlife needs to be relocated from works sites. DEECA administers the Wildlife Act.

Road Management Act

Consent under the Road Management Act is required for works on or affecting public roads. This will apply to road improvement works required to accommodate delivery of over-dimensional loads to the project site and for electricity cables to cross public roads. Regional Roads Victoria and local government authorities administer the Road Management Act with respect to different classes of public roads.

3.4. Commonwealth statutory approval

In March 2022, the proponent referred the proposed Hexham Wind Farm project to the Commonwealth Government (referral 2022/09278) for a decision on whether the project is a controlled action requiring approval under the EPBC Act.

On 31 August 2022, the project was determined to be a controlled action requiring assessment and approval under the EPBC Act because of its potential impacts on matters of national environmental significance (MNES): listed threatened species and communities (sections 18 & 18A) and listed migratory species (sections 20 & 20A). The Commonwealth determined that the project's impacts on MNES were to be assessed under the bilateral agreement made between the Australian and Victorian governments under section 45 of the EPBC Act. The EES process is therefore serving as the assessment for this project under the EPBC Act, with the decisions about whether, and under what conditions, to approve the project to be made after consideration of this assessment. My assessment of the potential impacts on MNES is consolidated in Appendix A.



4. Planning and environmental management framework

This section examines the proposed environmental management framework (EMF) set out in the proponent's EES and the proposed planning controls.

4.1. Management of environmental effects

The project will generate both positive and negative environmental effects. A sound regulatory regime and EMF is needed to ensure that adverse effects of the project are effectively mitigated and managed. I have considered key elements of the EMF when assessing the project's environmental effects.

This section describes the proposed environmental management regime, including planning controls and environmental governance arrangements proposed for the project and my findings in relation to these. The EES proposed an EMF which would be given statutory effect through the various approvals referred to in Section 3 of this assessment.

Environmental management framework

An EMF was presented in Chapter 28 of the EES, which has been developed by the proponent to provide a transparent and integrated framework for managing environmental risk and mitigating adverse effects across the project's pre-construction, construction, operations and decommissioning phases. Figure 2 shows the proposed governance framework set out in the EMF, including environmental reporting requirements.

The EMF also provides a consolidated list of the proposed EMMs and identifies the key project approvals and compliance requirements. For this project, the EMMs will be given statutory weight via either conditions of approval or would be captured in various environmental plans required to be approved by a statutory authority.

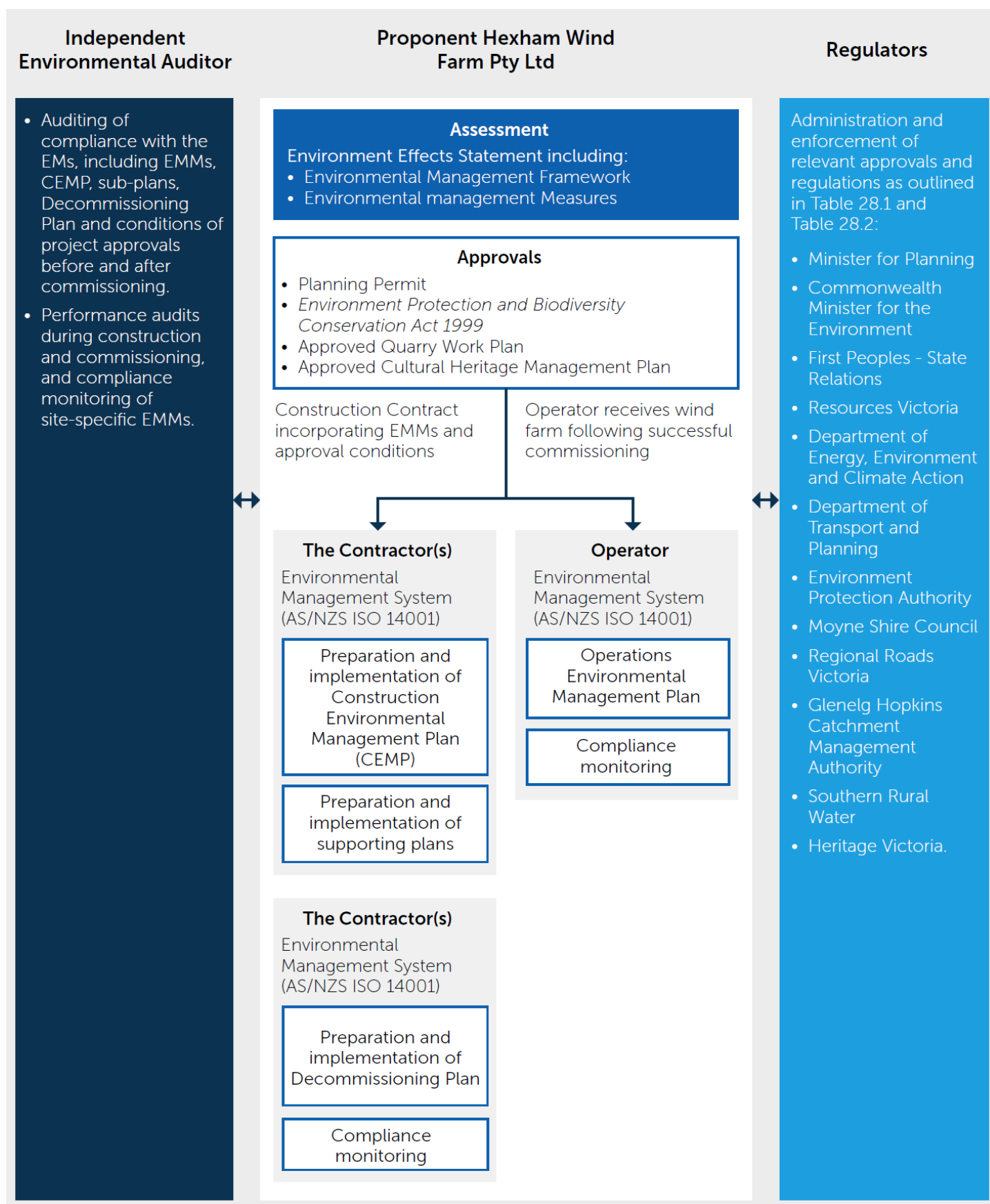


Figure 2: Governance Framework (Source: Wind Prospect, Chapter 28 of the EES)



The proponent made updates to the EMF's Table 28.8 (Environmental management measures) alongside version 3a of their proposed draft permit conditions (Tabled Documents 126 and 124, respectively).

Other than recommending an additional EMM, requiring a standalone flood impact assessment and stormwater management plan, the IAC found that the EMMs, in conjunction with their recommended planning permit conditions, provides a sound framework for managing environmental impacts to an acceptable level. Specific elements of the EMF, including many of the EMMs, are given statutory weight through statutory approvals, in particular the planning permit. Appendix F of the IAC's report comprises their recommended planning permit conditions. Subject to the recommendations of the IAC and my assessment, as detailed within chapter 5, it is my assessment that the EMF and EMMs provide a sound framework for managing the environmental effects of the project.

Independent Environmental Auditor

The proponent proposes to commission an Independent Environment Auditor (IEA) for independent review, verification and auditing of compliance during the delivery and implementation of the project. The IEA holds the responsibilities of verifying that: the principal construction contractor and operator has complied with the relevant EMMs and the EMF prior to commencement of work; conducting audits of works to assess compliance with the management plans, EMMs, EMF and regulatory requirements; and request or recommend corrective action as necessary. The IEA would prepare audit reports containing the results of audits and would be responsible for maintaining accreditation and suitable qualifications.

The role of the IEA has been captured in the IAC's recommended planning permit conditions relating to the Construction Environmental Management Plan (CEMP) and the Operations Environmental Management Plan (OEMP), which I agree with.

Planning controls

The P&E Act sets out processes for the consideration of planning permit applications and decision-making about planning permits. A planning permit is the key Victorian approval needed for the project. Planning permit application PA2504115 was lodged on 10 December 2025 and notice of this application was given concurrently with the exhibition of the EES. This planning permit application seeks approval under the Moyne Planning Scheme in accordance with the P&E Act for:

- Use of land for a wind energy facility and utility installation (clause 35.07-1);
- Buildings and works associated with a use in section 2 of clause 35.07-1 (clause 35.07-4);
- Buildings and works setback less than 100 m from a TRZ2 and 20 m from any other road (clause 35.07-4);
- Construct or put up for display a business identification sign (clause 52.05-2);
- Removal, destruction or lopping of native vegetation, including dead native vegetation (clause 52.17-1);
- Create or alter access to a road in a Transport Zone 2 (clause 52.29-2); and
- Use and develop land for a wind energy facility (clause 52.32-2).

Additionally, in my capacity under the P&E Act, I have called in a planning permit application, TP-84-2025, for 0.181 ha of removal, destruction or lopping of native vegetation, including dead native vegetation along the Hexham Wind Farm's proposed haulage route from the Port of Portland to the subject site.

Section 60 of the P&E Act sets out the matters that must be considered before deciding on an application; these matters include the relevant planning scheme. In particular, clause 52.32 of the planning scheme sets out matters that I must consider in assessing wind farm applications. Broadly these include:

- The Municipal Planning Strategy and the Planning Policy Framework;
- The effect of the proposal on the surrounding area in terms of noise, blade glint, shadow flicker and electromagnetic interference;
- The impact of the development on significant views, including visual corridors and sightlines;

- The impact of the facility on the natural environment and natural systems;
- The impact of the facility on cultural heritage;
- The impact of the facility on aircraft safety;
- Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (Department of Environment, Land, Water and Planning, November 2021); and
- The New Zealand Standard NZS6808:2010, Acoustics - Wind Farm Noise.

The IAC considered these matters in its proceedings and report, regarding planning permit application PA2504115. I appointed the IAC under Part 7, section 151(1) of the P&E Act to:

- *review the planning permit application and any referred submissions and make recommendations for the Minister for Planning to consider in determining the planning permit application; and*
- *provide specific advice on the key planning matters that the IAC recommends should be addressed in the planning permit, if the Minister decides to grant a permit for the project.*

The IAC's recommended planning permit conditions draw on, where relevant, the EMMs proposed in the EMF. The IAC found that, subject to adequately addressing the recommendations in its report, including the inclusion of their recommended planning permit conditions related to the referred matters (as shown in Appendix F of the IAC's report), the project should be approved.

I generally support the IAC's recommended planning permit conditions, subject to the recommendations of my assessment, including those discussed within section 5. I also agree with the IAC's comments that planning permit conditions need to be drafted clearly, to address the key matters, as examined through the EES and IAC, and that:

- *their structure and form is consistent with changes sought by the Department of Transport and Planning (Energy Assessment) through [tabled] Document 121a*
- *they reflect drafting guidance in Writing Planning Permits (Department of Transport and Planning, 2023).*

I acknowledge that further refinements to the wording of planning permit conditions to reflect best practice may be required and consider the planning permit application process appropriate for this work to be completed. However, I note the importance of checking the consistency of final permit conditions with the findings and recommendation of this assessment, in particular for all the EMMs (Appendix B).

The proposed temporary quarry will be exempt from planning permit requirements, in accordance with section 77T of the MRSD Act and taking account of the EES and my assessment. EMMs relevant to the quarry should be captured within the quarry work plan, or other approvals, required under the MRSD Act.

5. Assessment of environmental effects

This section details my examination of the project's potential effects for relevant aspects of the environment. My assessment draws on the proponent's exhibited EES, public submissions, evidence and information presented to the IAC, and the IAC's report.

Legislation, policy, strategies and guidelines, and the objectives and principles of ecologically sustainable development, also contextualise my assessment. To provide an integrated structure for this assessment, key aspects of legislation and statutory policy are reflected in evaluation objectives that were set out in the EES scoping requirements. My assessment has been made in reference to these evaluation objectives (Table 5-1).

These evaluation objectives were used by the proponent in the EES, in its assessment of environmental effects. The IAC also considered the project's effects having regard to these evaluation objectives.

The IAC was asked to examine "key matters with potentially significant effects" and "other matters" defined in its Terms of Reference. The IAC was to focus on key matters and cover other matters at a high level only. Accordingly, key matters with potentially significant effects are discussed in sections 5.1 to 5.4 of this assessment.

Other matters, which for the purposes of my assessment include human health, surface water, groundwater, historic heritage, air quality and greenhouse gases, socioeconomic, land-use and agriculture, traffic, noise and vibration, fire safety, shadow flicker, electromagnetic radiation, planning and aviation, are discussed in Table 5-8.

Overall, it is my assessment that the project can meet the evaluation objectives and have acceptable environmental effects and outcomes, subject to the implementation of the EMMs which have been considered by the IAC and refined as per the findings and recommendations of this assessment.

The IAC made numerous findings and recommendations in respect of the project and its effects. My response to its findings and recommendations, along with my assessment of the environmental effects of the project, are set out in detail within the sections below.

Chapter 6 summarises my main conclusions and recommendations about the environmental effects of the project and responds to the IAC's key recommendations.

Appendix B summarises my recommendations for the EMMs.

Table 5-1: Assessment evaluation objectives

Evaluation objective	Relevant section of this report
Biodiversity and habitat - <i>To avoid, and where avoidance is not possible, minimise potential adverse effects on biodiversity values within and near the site including native vegetation, listed threatened species and ecological communities, and habitat for these species. Where relevant, offset requirements are to be addressed consistent with state and Commonwealth policies.</i>	5.1, 5.2, Appendix A
Catchment values and hydrology – <i>To maintain the functions and values of aquatic environments, surface water and groundwater quality and stream flows and avoid adverse effects on protected environmental values.</i>	5.5
Landscape and visual - <i>Avoid and, where avoidance is not possible, minimise and manage potential adverse effects on landscape and visual amenity.</i>	5.4

Evaluation objective	Relevant section of this report
Amenity - <i>To minimise and manage adverse air quality and noise and vibration effects on residents and local communities as far as practicable during construction, operation and decommissioning having regard to applicable limits, targets or standards.</i>	5.5
Cultural heritage - <i>Protect, avoid, or minimise where avoidance is not possible, adverse effects on historic heritage values, and tangible and intangible Aboriginal cultural heritage values, in partnership with Traditional Owners.</i>	5.3
Land-use and socioeconomic - <i>To avoid and minimise adverse effects on land use (including agricultural and residential), social fabric of the community (with regard to wellbeing and community cohesion), local infrastructure, electromagnetic interference, aviation safety and to neighbouring landowners during construction, operation and decommissioning of the project.</i>	5.5
Traffic and roads - <i>To avoid and minimise adverse effects on roads and road users during construction, operation and decommissioning of the project.</i>	5.5

5.1. Biodiversity

Evaluation objective

To avoid, and where avoidance is not possible, minimise potential adverse effects on biodiversity values within and near the site including native vegetation, listed threatened species and ecological communities, and habitat for these species. Where relevant, offset requirements are to be addressed consistent with state and Commonwealth policies.

Assessment context

Biodiversity effects are addressed in Chapter 8 (Biodiversity and Habitat), Appendix D (Flora and Fauna Report) of the EES and in Chapter 5 of the IAC Report. The proponent has proposed ten management measures as part of the EMF relating to biodiversity, including four that specifically stipulate measures within a Construction Environment Management Plan (EMM BH01 - EMM BH04), and six that to deal with effects to listed fauna species (EMM BH05 - EMM BH010).

Agricultural activity at the project site have resulted in a landscape predominantly clear of native vegetation. However, remnant patches of high conservation value native vegetation are present along roadsides, in isolated patches within private land, and along the waterways and tributaries of Munstons Creek and Hopkins River.

Several potential impacts of the project on terrestrial biodiversity values were examined through the EES and IAC:

- loss or degradation of native vegetation and listed communities, including those listed under the EPBC Act, and the FFG Act;
- loss or degradation of habitat for flora and fauna listed under the EPBC Act and the FFG Act;
- direct, indirect, and cumulative impacts on fauna and listed communities, including disruption of fauna movement and collisions with construction vehicles;
- impact on surface water values and wetland systems and the ability for wetland systems to support habitat for flora species and communities listed under the FFG Act and EPBC Act;

- disturbance or degradation of adjacent or nearby habitat that may support listed species or communities, native vegetation or native species, including waterways; and
- impacts on groundwater dependent ecosystems.

Ecological surveys were conducted between 2011 and 2025 across the project area, including along roadsides and the two transport routes to Portland and Geelong. The EES states that the Port of Portland is the preferred port of entry over the Port of Geelong to transport key project components. A combined Portland and Geelong transport route is considered a 'worst case' estimation of impacts to biodiversity.

The EES assessed native vegetation within the 'project site investigation area'. The EES defines this investigation area as:

- 25 m each side of the centreline provided by the proponent for vehicle tracks;
- 5 m each side of the centreline provided by the proponent for cables; and
- 100 m from the centre point provided by the proponent for turbines.

The surveys undertaken for the project site investigation area can be viewed in Figure 8.3 of EES Chapter 8.

Discussion

Native Vegetation

The EES described efforts taken to apply the three-step approach (avoid, minimise and offset) required by the Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017) (Guidelines). The approach included locating the wind farm in areas where extensive clearing of native vegetation has occurred for agricultural use, including dryland cropping and sheep and cattle grazing, and limiting the number of watercourse crossings for access tracks.

Surveys undertaken within the project study area identified approximately 55.3 ha of native vegetation, including 1.6 ha of DEECA mapped wetlands, from seven ecological vegetation classes (EVCs). An additional 32 ha of native vegetation was identified within the transport route and road upgrade investigation areas.

The entire project, would remove up to about 8.53 ha of native vegetation, including 6.122 ha of wetland vegetation within Plains Grassy Wetland, Plains Sedgy Wetland, and Aquatic Herbland EVCs within the project site, in addition to Plains Grassy Woodland and Heavier-soils Plains Grassland endangered EVCs predominantly located along roadsides. The project would also remove up to nine large trees in patches and six scattered trees. Results of the impacts to native vegetation and their source can be found in Table 5-2 below.

Table 5-2: Impacts to native vegetation (source: EES Chapter 8- Biodiversity and Habitat).

Project component	Impact on native vegetation patches	Impacts on large trees in patches	Impacts on scattered trees
<i>Project site</i>	<i>6.466 ha</i>	<i>4</i>	<i>4 large, 2 small (0.343 ha)</i>
<i>Road widening</i>	<i>1.180 ha</i>	<i>0</i>	<i>0</i>
<i>Geelong Transport route</i>	<i>0.249 ha</i>	<i>0</i>	<i>0</i>



Project component	Impact on native vegetation patches	Impacts on large trees in patches	Impacts on scattered trees
<i>Portland Transport route</i>	<i>0.432 ha</i>	<i>5</i>	<i>0</i>
<i>Combined Transport route</i>	<i>0.542</i>	<i>5</i>	<i>0</i>

A number of submissions¹ raised concerns that the project had not appropriately avoided or minimised impacts to native vegetation. However, the IAC considered that further avoidance was not justified given the work already undertaken to do so, the comparatively small amount of native vegetation to be removed, and suitable offsets available to offset unavoidable impacts. The proponent's expert witness, Dr Kulik, submitted during the hearing that the native vegetation and community offsets are available and are in the process of being secured through offset brokers².

DEECA submitted that it was satisfied that the project had adequately applied the Guidelines, including consideration of potential impacts to listed threatened flora, steps to avoid and minimise native vegetation removal, and mitigation throughout all phases of the project;

DEECA³ acknowledged that further reduction in impacts would occur once a final transport route is chosen. DEECA recommended Native Vegetation Plan requirements to confirm native vegetation to be removed for either the Portland or Geelong transport route and DEECA consultation ahead of the responsible authority making a decision on a satisfactory Native Vegetation Management Plan in their recommended planning permit conditions on permit applications PA2504115 (Moyne Shire Council) and PA2504115 (Southern Grampians Shire Council)⁴.

DEECA requested that they be consulted on species selection throughout revegetation activity (EMM-LS01)⁵. The IAC accepted DEECA's recommendation for consultation on revegetation species selection, also making further changes to planning permit conditions 28 and 32 to remove mention of staging of development, in order to ensure that plans are approved to the satisfaction of the responsible authority before the works start⁶. I consider that the potential indirect impacts to native vegetation, including threatened ecological communities, would be appropriately managed by the relevant EMMs, including the Construction Environmental Management Plan (EMM-BH01, EMM-BH02). I support both DEECA and the IAC's amendments to planning permit conditions, given they will ensure avoid and minimisation measures are implemented before any impact occurs, and there would be an accurate quantification of required offsets to be secured ahead of works commencing.

I support the IAC's conclusion that the native vegetation assessment appropriately considered relevant legislation, policy and guidelines. I consider offsets would be adequately secured prior to the commencement

¹ Submission 53 and 60

² Tabled document 39

³ Tabled document 116

⁴ Submission 43, Appendix A

⁵ Tabled document 83

⁶ IAC report, Appendix F

of construction and impacts from the project to native vegetation, irrespective of the transport routes, are acceptable.

Ecological communities

The project would impact two EPBC and two FFG Threatened Ecological Communities (TECs). Impacts to TECs are outlined in Table 5-3 and examined further below.

Table 5-3: Impacts to Threatened Ecological Communities (source: EES Chapter 8- Biodiversity and Habitat).

Project Component	Grassy Eucalypt Woodland of the Victorian Volcanic Plain (EPBC Act critically endangered)	Natural Temperate Grassland of the Victorian Volcanic Plain (EPBC Act critically endangered)	Western (Basalt) Plains Grassland (FFG threatened)	Western Basalt Plain (River Red-gum) Grassland (FFG threatened)
Project site	0	0	0	0
Road widening	0.247 ha	0.57 ha	0.723 ha	0
Geelong Transport route	0	0.016 ha	0.02 ha	0
Portland Transport route	0	0.021 ha	0.083 ha	0.007 ha
Combined Transport route	0	0.025 ha	0.095 ha	0.007 ha

Natural Temperate Grassland of the Victorian Volcanic Plain and Grassy Eucalypt Woodland of the Victorian Volcanic Plain

The Natural Temperate Grassland of the Victorian Volcanic Plain TEC is listed as critically endangered under the EPBC Act. The EES identified a total of 20.596 ha of this community in the investigation area. The EES determined that the proposed design of the project would impact up to 0.605 ha of this community across the transport route and roadside upgrade investigation areas. The EES acknowledges that the construction of the project has the potential to contribute to cumulative impacts on this TEC.

The Grassy Eucalypt Woodland of the Victorian Volcanic Plain TEC is listed as critically endangered under the EPBC Act. The EES identified a total of 11.318 ha of this community in the investigation area. The EES determined that the project would impact up to 0.247 ha of this TEC for road widening of local roads and intersections to facilitate transport of project components.

The EES identified that offset sites for impacts to both TECs are not currently available to secure from their offset broker. The EES also states that if required offsets don't become available on the market, the proponent was also exploring the possibility of securing potential offset sites on private land near Shelford and Bannockburn if offsets for Grassy Eucalypt Woodland of the Victorian Volcanic Plain, and offset site on private land north of Stockyard Hill if offsets for Natural Temperate Grassland of the Victorian Volcanic Plain. Dr Kulik,



submitted that listed community offsets are available and are in the process of being secured through offset brokers⁷.

The IAC was satisfied that suitable offsets will be available for these two TECs and concluded that while the likely impacts to the TEC would be significant, subject to the provision of offsets the impacts would be acceptable. I note that there is some inconsistency in the wording about the timing for approval of the Offset Management Plan in EMM BH04, it is my recommendation that this inconsistency is corrected to be clear that prior to commencing construction, the Offset Management Plan should be approved by National Environmental Protection Agency (National EPA) and the wording “prior to the unavoidable impacts” should be removed from the EMM.

I am satisfied that impacts from vegetation clearance associated with road widening works along the transport routes on Natural Temperate Grassland of the Victorian Volcanic Plain and Grassy Eucalypt Woodland of the Victorian Volcanic Plain TECs would be minimised and residual impacts can be acceptably managed and offset, including through the implementation of management measures EMM BH01 and EMM BH02.

Western (Basalt) Plains Grassland Community and Western Basalt Plain (River Red-gum) Grassy Woodland

The Western (Basalt) Plains Grassland Community TEC is listed as threatened under FFG Act. The EES identified a total of 33.093 ha of this community within the investigation area. The EES determined that the project would impact up to 0.818 ha of the TEC, predominantly from direct vegetation and habitat loss from clearance, earthworks and physical disturbance across the transport route, and roadside upgrade investigation areas.

The Western Basalt Plain (River Red-gum) Grassy Woodland TEC is listed as threatened under FFG Act. The EES identified a total of 0.24 ha of this community in the investigation area and proposed to impact on 0.024 ha.

The IAC concluded that the EES appropriately considered relevant legislation, policy and guidelines and that appropriate effort was made to avoid and minimise loss of native vegetation associated with these two FFG listed TECs. I support this conclusion, noting the relatively small proportion of these communities being potentially impacted when compared to the overall areas of the TECs recorded via the EES surveys of the areas required for the project, including the combined transport routes and road widening.

The predicted impact of 0.007 ha is not likely to be significant when considered in relation to the overall 4,682 ha of known Western Basalt Plain (River Red-gum) Grassy Woodland habitat throughout Victoria. I agree with the IAC that the project would not have a significant impact on the Western (Basalt) Plains Grassland Community TEC. I also note that proposed planning permit conditions 29 and 30⁸ would require evidence for the security of offsets would be required prior to the removal of vegetation.

I agree with the IAC’s conclusion that effects to this TEC are acceptable, and that unavoidable impacts can be offset.

Seasonal Herbaceous Wetlands of the Temperate Lowland Plain

Areas of Plains Grassy Wetland were considered to potentially qualify as Seasonal Herbaceous Wetlands of the Temperate Lowland Plain TEC, which is listed as critically endangered under the EPBC Act. Targeted surveys throughout December 2025 confirmed this community does not occur in the project area and therefore would not be impacted by the project.

⁷ Tabled document 39

⁸ IAC report, Appendix F

Flora

The flora field assessments and targeted surveys identified 148 flora species within the project site investigation area, one of which will be impacted by the project as outlined in Table 5-4 below.

Table 5-4: EPBC Act and/or FFG Act listed flora with a moderate or higher likelihood of occurrence within the study area.

Common Name	Scientific Name	EPBC Act status	FFG Act status	Survey result
Spiny Rice-flower	<i>Pimelea spinescens</i>	critically endangered	critically endangered	detected in Hamilton Highway road reserve
Purple Blown-grass	<i>Lachnagrostis semibarbata</i>		endangered	detected in road reserve of Woolsthorpe-Hexham Road
Matted-flax Lily, Glaucous Flax Lily	<i>Dianella amoena</i> , <i>Dianella longifolia</i> <i>var. grandis</i>	endangered (Matted-flax Lily only)	critically endangered	detected outside the construction disturbance area and operational footprint
Common Onion-orchid and Sun Orchid			protected	not detected

Spiny Rice-flower

Spiny Rice-flower is listed as critically endangered under the EPBC Act and FFG Act. The EES details 158 individuals were recorded within Habitat Zone 1N on the Northern side of the Hamilton Highway road reserve. Figure 3-1 of the Flora and Fauna Report⁹ demonstrates that no known Spiny Rice-flower individuals recorded in surveys would coincide with the required swept path footprint for the Portland Transport route.

The EES states that this species was unlikely to occur outside road reserves due to the lack of suitable habitat arising from the history of significant ground disturbance and prominence of introduced pasture grasses.

EMM-BH03 requires an ecologist to be engaged for habitat suitability surveys prior to the commencement of construction activities within identified habitat areas. Given the proximity of the swept path to numerous Spiny Rice-Flower specimens identified in targeted surveys, I recommend that appropriate site induction measures stipulated by EMM-BH01 make specific reference to Spiny Rice-flower, and be incorporated into the Construction Environmental Management Plan (EMM01).

⁹ EES, Appendix D



The IAC concludes that the project is not expected to result in significant impacts on Spiny Rice-flower that warrants further modifications to the project, or to the EMMs. I support the IAC's conclusion and consider that the project will avoid impacts to Spiny Rice-flower, and subject to my recommended amendment to EMM-BH01, appropriate EMMs are in place to ensure avoidance of direct and indirect impacts to individual Spiny Rice-Flower specimens.

Purple Blown-grass

Purple Blown grass is listed as endangered under the FFG Act. The EES states that suitable habitat for Purple Blown grass was found along drainage lines, and 27 individuals were recorded within site surveys of the road reserve for Woolsthorpe-Hexham Road.

The EES states that impacts to this flora species would be from direct loss from clearance, earthworks and physical disturbance of vegetation within road reserves. The EES states up to six individuals would be impacted by the Combined Transport Route, when combining the one individual impacted by the Geelong Transport Route and five individuals impacted by the Portland Transport Route. A Protected Flora Permit would be required from DEECA to take or remove this listed flora from public land (Woolsthorpe-Hexham road reserve).

DEECA's submission on the EES noted that further reductions in impacts may be achieved once the final transport route is confirmed. The IAC concluded that the project is not expected to result in significant impacts on Purple Blown grass that warrants further modifications to the project, or EMMs. I consider that the potential impacts from direct loss from clearance, earthworks and physical disturbance of vegetation within road reserves would be appropriately managed by the preparation and implementation of site induction and habitat restoration as part of the Construction Environmental Management Plan biodiversity and biosecurity management measures (EMM BH01). I agree with the IAC that the significance of the impacts is low, when considering the small number of individuals to be impacted versus the number to be unaffected, and the remaining availability of suitable habitat for the species.

Matted-flax Lily and Glaucous Flax Lily

One individual Dianella specimen was recorded in Habitat Zone 3BO during targeted surveys in November 2021, but was unable to be identified at the species-level. The EES states that the specimen would likely be a Matted Flax Lily (*Dianella amoena*), listed as endangered under the EPBC Act and critically endangered under the FFG Act, or Glaucous Flax-lily (*Dianella longifolia* var. *grandis*), listed as critically endangered under the FFG Act.

I note that the location of the Matted-flax Lily or Glaucous Flax Lily specimen identified in surveys is located outside the construction disturbance area and the operational footprint, and therefore the project will not result in impacts to this specimen.

Common Onion-orchid and Sun Orchid

Appendix D of the EES states that the Common Onion-orchid and Sun Orchid (both protected under the FFG Act) would be susceptible to impacts from the proposed development on public land at the entrance point to the wind farm from public road reserves. However, no individuals were identified throughout targeted surveys. Therefore, I consider that the project is not likely to result in a significant impact to common Onion-orchid and Sun Orchid, and that appropriate measures are in place to avoid and minimise impacts should there be specimens discovered, to ensure there is not a significant impact to these species.

Fauna

The EES identified six threatened fauna species to have the potential to occur within the project area, though only two of these species (Tussock Skink and Growling Grass Frog) were recorded during surveys (Table 5-5).

The IAC acknowledged that EPBC and FFG listed Yarra Pygmy Perch and FFG listed Little Galaxias were not recorded in targeted surveys, and that habitat for these species was not expected. I consider that appropriate measures are in place to minimise the disturbance of waterways (EMM BH01), and project would not result in a significant impact to these two fish species.

Table 5-5: EPBC Act and/or FFG Act listed fauna with a potential likelihood of occurrence or confirmed within the investigation area (Source: EES Appendix C).

Common Name	Scientific Name	EPBC Act status	FFG Act status	Likelihood of occurrence
Growling Grass Frog		vulnerable		known to occur
Fat-tailed Dunnart	Sminthopsis crassicaudata		vulnerable	potential
Striped Legless Lizard	Eulamprus tympanum marnieae	vulnerable	endangered	potential
Tussock Skink	Pseudemoia pagenstecheri		endangered	known to occur
Hairy Burrowing Crayfish	Engaeus sericatus		vulnerable	known to occur
Golden Sun Moth	Synemon plana	critically endangered	vulnerable	potential

Growling Grass Frog

Growling Grass Frog is listed as vulnerable under the FFG Act and the EPBC Act.

The EES states that Growling Grass Frog calls were recorded at three habitat locations along Mustons Creek, and that a large lake (wetland 29405), dam at the intersection of Hexham-Ballangeich Road and Connewarren Lane, and associated dams may contribute to habitat for the species. The EES states that potential impacts from earthworks and physical disturbance could result in direct habitat loss, direct mortality or injury due to collision with construction vehicles, and indirect impacts to wetlands and adjacent habitats supporting the species.

Dr Kulik, explained that explained that surveys between 2011 and 2018 across the project site mapped suitable Growling Grass Frog habitat, and this habitat assessment mapping informed the layout of the project to ensure suitable habitats were avoided wherever possible. DEECA submitted it was satisfied that impacts to Growling Grass Frog had been avoided, minimised and mitigated to the extent practicable.

The EES concluded that the project is unlikely to result in a significant impact to Growling Grass Frog, based on the adoption of mitigation measures including requirements for sediment fencing to protect riparian zones where works occur within 30 m of waterways within the Construction Environmental Management Plan (EMM



SW04). The proponent adopted DEECA's recommended changes to planning permit conditions¹⁰ requiring implementation of a Threatened Species Management Plan, prepared in consultation with DEECA in the proposed planning permit conditions¹¹. I agree with the IAC that DEECA's amendments to this planning permit condition will ensure that an appropriate management mechanism is in place to address potential impacts on threatened flora and fauna species, including Growling Grass Frog.

The IAC concluded that the project is not expected to result in significant impacts on Growling Grass Frog and that modification or refinement of the project design is not needed especially given known sites are avoided, including by the scheduling the timing of creek crossing construction and underground cabling to summer months (EMM BH08). I support the IAC's conclusion and consider the potential impact to this species from the project is not likely to be significant and therefore acceptable.

Fat-tailed Dunnart

Fat-tailed Dunnart is listed as vulnerable under the FFG Act.

The EES states that removal of Plains Grassland and Plains Grassy Woodland would have the potential to impact Fat-tailed Dunnart, due to loss of habitat within these EVCs. The EES assumed presence of the species in areas of suitable habitat in the absence of targeted surveys.

The EES notes that Fat-tailed Dunnart habitat would be potentially susceptible to impacts at 13 different intersections and local road upgrade locations. The EES concludes that the potential extent of impacts to Fat-tailed Dunnart habitat to be up to 0.3 ha within the project site, 1.175 ha for local road upgrades, and 0.534 ha associated with the Combined Geelong and Portland Transport Route. Taken individually, 0.241 ha of potential habitat disturbance would be associated with the Geelong Transport Route, in comparison with 0.432 ha associated with Portland Transport Route.

The EES concluded that the project is unlikely to result in a significant impact to Fat-tailed Dunnart. This was based on the adoption of management measures, including requirements for the establishment of tree protection zones (EMM BH02) and habitat suitability surveys prior to the commencement of construction activities to inform salvage and translocation protocols (EMM BH03). I agree with the IAC's conclusion that the project is not expected to result in significant impacts on Fat-tailed Dunnart considering available habitat for the species to temporarily relocate from construction areas, the minor impact to habitat in proportion to available habitat across the project site and surrounds, and that the species is unlikely to occur in large numbers.

It is my assessment that the likely impact to this species from the project is not likely to be significant and the residual risks can be acceptably managed.

Striped Legless Lizard

Striped Legless Lizard is listed as vulnerable under the EPBC Act, and endangered under the FFG Act. The EES states Striped Legless Lizard are susceptible to impacts from the removal of suitable grassland habitat, described as Plains Grassy Woodland and Plains Grassland EVCs. The EES assumed presence of the species in areas of suitable habitat in the absence of targeted surveys. Removal of up to 1.91 ha suitable grassland habitat is proposed within the project site and at 13 different intersections and local road upgrade locations.

The EES identified a suitable offset site for impacts to Striped Legless Lizard habitat. This offset is within a site of Natural Temperate Grassland of the Victorian Volcanic Plain currently available. The EES concluded that the project is unlikely to result in a significant impact to Striped Legless Lizard.

¹⁰ Tabled document 111

¹¹ IAC Report, Appendix F



The IAC was satisfied that the proponent appropriately applied the mitigation hierarchy for impacts to Striped Legless Lizard. This was based adoption of management measures, including habitat suitability surveys prior to the commencement of construction activities to inform salvage and translocation protocols (EMM BH03), managing grassland and timing construction activity to facilitate temporarily relocation of individuals within the construction area (EMM BH10). I agree with the IAC that impacts can be appropriately minimised and managed through the proposed management measures.

It is my assessment that while there some potential for the impacts to be significant, this can be minimised through the proposed mitigation measures and therefore be managed to acceptable levels, with the provision and security of appropriate offsets, should these be required.

Tussock Skink

Tussock Skink are endangered under the FFG Act. The species was detected incidentally throughout survey efforts.

The EES states that removal of up to 1.91 ha of suitable grassland habitat across the project site and at 14 different intersections and local road upgrade locations would potentially impact Tussock Skink. The EES assessed impacts Tussock Skink would be low, considering the species' habitat requirements allowing for survival in exotic pastures with appropriate shelters (e.g., rocks).

The IAC noted that the highest quality grassland habitat remaining for this grassland-dependent fauna species on the project site has been avoided, and likely impacts on the local population would therefore be limited. The direct mortality of these species would therefore be unlikely. Further, an appropriate mitigation approach is proposed to address potential impacts on this species, including salvage and translocation protocols (EMM BH03) and facilitation of relocation (EMM BH10).

It is my assessment that any impact to this species from the project is not likely to be significant and therefore acceptable.

Golden Sun Moth

Golden Sun Moth is listed as vulnerable under the EPBC Act, and vulnerable under the FFG Act.

The EES considered Golden Sun Moth have the potential in suitable grassland habitat, described as patches of Plains Grassland and Plains Grassy Woodland EVCs. The species was not recorded in targeted surveys throughout the summer months of 2011 and 2012. Dr Kulin, stated that the species has potential to occur and is considered susceptible to a low level of impact throughout these grassland habitats throughout the construction stage¹².

The EES states that Golden Sun Moth habitat potentially affected would be up to 0.300 ha within the project site, 1.175 ha due to intersection and local road upgrades at 13 different locations, and up to 0.534 ha associated with the Combined Geelong and Portland Transport Routes. This includes 0.241 ha for the Geelong Transport Route and 0.432 ha for the Portland Transport Route.

The EES assessed impacts to Golden Sun Moth would be low, given the species was not recorded in surveys and the low number of records in periphery of the project area. The IAC noted that the highest quality grassland habitat remaining for this grassland-dependent fauna species has been avoided as much as practicable, and considered direct impacts on the species to be unlikely. Further, an appropriate mitigation approach is proposed to manage risk of any potential impacts, including habitat restoration following construction activity (EMM BH01). In addition, EMM BH03 would require habitat suitability surveys prior to the

¹² Tabled document 39



commencement of construction activities including contingencies should presence of Golden Sun Moth be confirmed.

It is my assessment that impacts to this species from the project are not likely to be significant, and are therefore acceptable.

Hairy Burrowing Crayfish

Hairy Burrowing Crayfish is listed as vulnerable under the FFG Act.

The EES states that the project has potential to impact up to 6.122 ha of suitable habitat, characterised as Plains Grassy Wetland, Plains Sedgy Wetland, and Aquatic Herbland EVCs, with up to 3.5 ha of this area being temporarily disturbed from waterway crossing works. The Geelong Transport Route would also impact 0.008 ha of wetland vegetation.

The EES concluded that the project would result in a minimal direct impact to Hairy Burrowing Crayfish. This was based adoption of management measures, including the scheduling of earthworks, creek crossings, and vegetation removal in areas of suitable habitat during drier months when the species retreats closer to permanent water bodies (EMM BH09). Direct impacts on this species would be unlikely, considered the timing of works would allow for avoidance of impacts, and habitat suitability surveys being taken prior to the commencement of construction activities to inform salvage and translocation protocols (EMM BH03).

Dr Kulik, stated that suitable habitats are largely avoided within the project site, but that ephemeral floodplains have the potential to be impacted by the development footprint¹³. The EES states that through the project design process, a 30 m buffer would be applied from ephemeral drainage lines to exclude primary wind farm infrastructure¹⁴. I support the IAC's recommendation to adopt the proponent's amendment to planning permit conditions¹⁵ for a 30 m buffer from wind turbines to ephemeral drainage lines¹⁶.

It is my assessment that impacts to this species from the project are not likely to be significant, and therefore acceptable.

Water Environments

The EES considered the key environmental values within water environments to arise from impact pathways associated reduced recharge and contamination of groundwater dependant ecosystems (GDEs).

GDEs

The EES states that the project site has the potential to contain aquatic and terrestrial GDEs, including aquifer and cave ecosystems providing potential habitat for stygofauna. The EES identifies GDEs impact pathways of reduced groundwater recharges and infiltration of contaminated surface water, but concludes the significance of any likely impacts to be low.

The EES states the project has sited the quarry to include a buffer of greater than 500 m from potential aquatic and terrestrial GDEs / DEECA wetlands, and for any quarry to be positioned on topographic high. I note that this should be considered through the approval needed for the quarry under the MRSD Act.

¹³ Tabled document 39

¹⁴ EES Chapter 8, Section 8.7.2

¹⁵ Tabled document 147b

¹⁶ IAC Report, Appendix F



I agree with the IAC that impacts to GDEs and water environments are likely to be limited with the effective implementation of relevant management measures. It is my assessment that likely impacts to GDEs and ecological values in water environments from the project will not be significant, and are therefore acceptable.

Assessment

It is my assessment that:

- the project's effects on native vegetation, threatened Grassy Eucalypt Woodland of the Victorian Volcanic Plain and Natural Temperate Grassland of the Victorian Volcanic Plain threatened ecological communities and Striped Legless Lizard would be significant, but are acceptable provided there is implementation of management measures and are appropriately offset for unavoidable impacts.
- the project design has appropriately avoided and minimised effects to biodiversity values, including other threatened flora and fauna species, and the impacts are acceptable.
- EMM BH01 (biodiversity and biosecurity management) is to be amended to ensure that, the Construction Environmental Management Plan include site induction and specific requirements applicable for Spiny Rice-flower.
- EMM BH04 (offsets) should be amended to remove the wording "prior to the unavoidable impacts" and be clear that the Offset Management Plan is to be approved prior to construction commencing.
- the other EMMs are sufficient to avoid, mitigate and manage the likely biodiversity effects, subject to the recommendations of the IAC and my findings in this assessment – EMM BH02, EMM BH03, EMM BH08, EMM BH10, and EMM LS01 (revegetation of disturbed areas).

5.2. Bats and avifauna

Evaluation objective

To avoid, and where avoidance is not possible, minimise potential adverse effects on biodiversity values within and near the site including native vegetation, listed threatened species and ecological communities, and habitat for these species. Where relevant, offset requirements are to be addressed consistent with state and Commonwealth policies.

Assessment context

The effects on bats including the Southern Bent-wing Bat (SBWB, critically endangered FFG Act and EPBC Act) are addressed in Chapter 9 (Bats) and Technical Appendix C2 (Bats) of the EES and in Chapter 5 of the IAC report. The effects on Brolga (endangered, FFG Act) are addressed in Chapter 10 (Brolga) and Technical Appendix C1 (Brolga) of the EES and in Chapter 5 of the IAC report. The effects on other avifauna are addressed in Chapter 8 (Biodiversity and habitat) and Technical Appendix D (Biodiversity and Habitat) of the EES and Chapter 5 of the IAC report. The Brolga Impact Assessment undertaken for the project was assessed in accordance with the *Interim Guidelines for the Assessment, Avoidance, Mitigation and Offsetting of Potential Wind Farm Impacts on the Victorian Brolga Population 2011* (Interim Brolga Guidelines).

The proponent has proposed 13 EMMs as part of the EMF relating to birds, bats and Brolga (BH05, BH06, BH07, BH11; BA01, BA01-1 to BA01-7; and BR01). Most of these measures are detailed in the Bat and Avifauna Management Plan (BAM Plan), required as part of the IAC's recommended planning permit conditions, or are captured in other recommended specific planning permit conditions¹⁷.

¹⁷ IAC Report, Appendix F

Discussion

Southern Bent-wing Bat

The SBWB is a critically endangered microbat species with its distribution closely aligned to caves in southwest Victoria and southeast South Australia as it is an obligate cave-dwelling bat. There are two major maternity caves for SBWB, the Starlight Cave in Warrnambool located approximately 40 km south of the project and the Naracoorte Cave in south-eastern South Australia. Since 2015 there has also been breeding activity observed in caves west of Portland approximately 100 km south-west of the project site.

Conservation Advice for the species under the EPBC Act (DCCEEW 2021) notes that the geographic distribution of the SBWB is very restricted, with the breeding colonies declining significantly since European settlement, from five or more, down to only two main populations. The population has declined significantly over recent decades.

There are non-breeding (roosting) caves used as roosting sites, spread throughout the south-west of the state. During the colder months, the population is dispersed across non-breeding and breeding caves to varying extents (DCCEEW 2021).

Two non-breeding caves, the Panmure Cave and the Grassmere Cave are located within 30 km of the project site. No known roosting areas are within the project site.

The EES and IAC examined the potential impacts of the project on the SBWB to determine whether the effects are acceptable as well as the potential impacts on the recovery of critically endangered species.

Dr Kulik, the proponent's expert, noted that a total of 36 SBWB mortalities at operational wind energy facilities in Victoria have been reported to DEECA.

Potential impacts of the project on SBWB include construction noise and activities causing temporary disturbance and the removal of potential foraging habitat, with the main potential impact pathway being potential collision with operating wind turbine blades and bat mortality.

Surveys were conducted in various seasons between 2010 and 2023. The EES assessed the spatial presence/absence and temporal activity of bat species, in particular the SBWB and the Yellow-bellied Sheath-tailed Bat (YBSB) across the study area. The surveys were undertaken at ground level and at heights of 50 m using a meteorological mast (Table 9.4 of EES Chapter 9).

Bat detector surveys were conducted in Spring 2010, Autumn 2011, Summer 2018, Summer-Autumn 2019, Autumn 2020 and Autumn 2023. The EES referred to the assessment of the SBWB within the "investigation area" which is defined in the EES as including the project site, plus surrounding areas that were within the site boundary for previous project design layouts.

The surveys identified 218 SBWB-definite calls from 33 of the 128 survey locations across the investigation area, averaging 0.05 calls per night, which indicates a very low level of activity. More SBWB calls were recorded close to wetlands and wooded vegetation particularly in the centre and north-east of the project site. During the bat detector surveys, SBWB activity was only recorded at ground level. However, as there have been SBWB casualties recorded at other Victorian wind farms, it is known that the species is capable of flying at rotor swept height and that the potential for collision exists.

The proponent proposed a multi-faceted approach to avoid, minimise and mitigate potential impacts on the SBWB. These measures were developed during the preparation of the EES in consultation with DEECA and National EPA. This includes avoidance of high quality SBWB habitat and areas with high SBWB calls, including the use of buffers, as well as adopting a minimum rotor swept height of 40 m above ground in the design. Turbines were categorised and ranked as higher, moderate and lower risk to SBWB, based on proximity to habitat and SBWB-definite or SBWB complex calls, prior to and after micro-siting.



In addition, the EES adopted the EUROBATS guidelines for turbine-habitat buffers, which recommends a minimum of 200 m from the nearest habitat feature. The EES proposed a buffer distance of 269 m based on calculations from the base of the turbine to the nearest habitat edge, and also micro-sited 33 turbines to avoid overlap with creek habitat. The IAC supported the proponent's approach to avoidance of impacts. I agree with the IAC and the proponent's approach to avoidance proposed in the EES.

Curtailment and Acoustic Deterrents

The EES included modelling that found that wind speed can significantly affect bat call activity, indicating that with each unit increase in wind speed, the expected call count modelled reduced by about 26.44%. The results of the EES indicate that SBWB and SBWB complex call activity decreases with an increase of wind speed, with approximately 75% of observed SBWB complex and definite calls occurring at wind speeds of 4.5 m/s or below¹⁸. The EES asserts that the reduction in call detection is likely correlated with a reduction in SBWB activity. The EES proposed a low windspeed cut in of 4.5 m/s, at hub height, for moderate and higher risk turbines during September to April from dusk to dawn as a mitigation measure to avoid and minimise impacts on the SBWB. Blade feathering (the locking of turbine blades or angling blades to be parallel to the wind) was also proposed, with both management measures further detailed in the draft BAM Plan.

In its submission¹⁹, DEECA supported the proponent's proposed nighttime low windspeed curtailment strategy for 46 moderate and higher-risk turbines, at the curtailment setting of 4.5 m/s as the minimum mitigation requirement. The EES proposes a maximum 6 m/s cut in speed in response to SBWB mortalities. In response to detected mortalities, DEECA supported an increase to curtailment being applied to a cluster of turbines rather than a single turbine, and considered that would be a more appropriate and robust approach to adaptive mitigation. DEECA also specified that the BAM Plan will need to provide a clear outline of the further adaptive mitigation should impacts still occur after the maximum cut in speed of 6 m/s is applied, and how impacts will be compensated for. DEECA further noted that details about the adaptive management approach could be resolved during the secondary consent process and finalisation of the BAM Plan.

The EES proposed to investigate the feasibility of acoustic deterrent trials in response to the impact triggers detailed in the BAM Plan. Moyne Council raised concerns during the hearing that acoustic deterrents were not yet validated as an effective mitigation measure. The EES acknowledged that the efficacy of acoustic bat deterrent technology for reducing impacts to Australian bats has yet to be tested systemically. The proponent's investigations into the feasibility of such deterrents will be trialled for the project under guidance from DEECA.

The IAC noted DEECA's position²⁰ that while the technology is yet to be determined to be effective, it is supportive of trialling the technology as a mitigation approach, as part of the BAM Plan.

The IAC supported the overall approach proposed by the proponent to manage potential impacts on SBWB. While I also support the proposed approach, I note the absence of monitoring data that demonstrates that SBWB are not present across the site in winter. Therefore, I recommend that the curtailment approach be applied across the year in the absence of data to substantiate it not being required. Further, I recommend monitoring is undertaken, in consultation with DEECA and National EPA, to demonstrate that activity levels across the site would be acceptably low in winter, to enable a seasonal application of curtailment.

¹⁸ Figure 9a, Technical Appendix C2 EES

¹⁹ Tabled document 116

²⁰ Tabled document 111



Collision risk modelling

The EES recognises that a collision risk model (CRM) can be a valid tool in measuring the likelihood of collision and helping to monitor the effectiveness of the management approach of wind farms. However, CRMs are not a reliable tool if they do not have sufficient empirical data to build the model and predict collisions. The EES noted that recording devices cannot adequately capture abundance of microbat species in a location, which reduces the reliability of data from these devices for use in CRMs. This is a key limitation in the accuracy of CRMs to measure potential impacts on populations of microbat species.

In addition, the EES stated that the current knowledge about SBWB flight behaviour is unlikely to meet the minimum requirements for CRM applications. The proponent therefore did not undertake CRM for the EES. The IAC acknowledged submitters' concerns of the lack of a CRM in the proponent's approach to SBWB mitigation, however, concluded that the Bat Impact Assessment is fit-for-purpose.

The IAC agreed with DEECA that the proponent undertook a considerable amount of work to apply avoidance, minimisation and mitigation measures to the SBWB – the IAC concluded that the EES' assessment of the potential impacts to the species was adequate and that the residual impacts to the SBWB would not be significant and can be managed to acceptable levels, subject to implementing the BAM Plan.

I support the IAC's findings and consider the impact to SBWB from the project, with the application of measures set out in the BAM Plan, in consultation with DEECA and National EPA, is not likely to be significant and is therefore acceptable. Further, the BAM Plan does specify and commit to implementing financial compensatory measures, in the unlikely event that a significant impact does occur, as set out in management measure BA01.

Brolga

The Brolga is a light-grey coloured crane species, standing about 1.8 m high – the Victorian population is listed as endangered under the FFG Act and is estimated at 600–650 individuals, with 500–550 of these within the south-west of the state. Brolga depend on wetlands for breeding, roosting and feeding, as well as non-wetland habitat that surrounds wetlands for feeding.

The EES carried out field investigations during Brolga breeding seasons 2018-2020 and 2022-2024, documenting the extent and patterns of Brolga activity within the investigation area, which includes the project site and a 10 km area around the project site boundary (Figure 10.1 of EES Chapter 10).

Wetlands and buffers

The EES assessed 206 wetlands within the investigation area, conducting hydrological investigations and using a surface water model to determine breeding suitability. Of the wetlands assessed, 26 wetlands were accepted as Brolga breeding wetlands and 14 had confirmed breeding activity between 2018 and 2024, with six of these wetlands located within the project site.

The EES proposed the establishment of project-specific turbine-free buffers which included determining home-ranges around breeding wetlands plus an additional disturbance buffer of 300 m and a turbine blade length buffer of 95 m to avoid and minimise potential effects on the Brolga.

The identification of wetlands was disputed by some submitters, who argued that more wetlands should have been included as Brolga breeding habitat. Mr Hughes, the proponent's expert witness, responded to issues raised by submitters and clarified that the water balance modelling in the EES was appropriate in determining potential breeding wetlands. The IAC noted that DEECA supported the surface water modelling findings in the EES and was satisfied that the identification of Brolga breeding wetlands was adequate.

Submitters to the IAC also raised concerns regarding the buffer distances proposed by the Project, noting that the guidelines recommended default buffer distances of 3.2 km that are larger. DEECA clarified during the hearing that the Interim Brolga Guidelines provide a framework for the assessment and management of risks

and impacts to Brolga, and did not require the use of the fixed default buffer distances, as they provide for project-specific buffers to be developed in consultation with DEECA. The EES designed project specific buffers consistent with the Interim Brolga Guidelines, taking account of advice from DEECA regarding the assessed breeding wetlands in the investigation area.

The IAC acknowledged submitters' concerns, however was satisfied with the identification of Brolga breeding wetlands and the proposed application of turbine-free buffers. I support the findings of the IAC and am satisfied that the buffers are suitable and consistent with the Interim Brolga Guidelines.

Collision Risk Modelling and Brolga Compensation Plan

The EES developed a collision risk model (CRM) in line with the Interim Brolga Guidelines, using 90%, 92% and 95% wind turbine avoidance rates. Results of this can be found in Table 5-6 below.

Table 5-6: Collision risk modelling results – Appendix C1 of EES

Wind turbine avoidance rate	Collisions per year	Collisions over project life	95% prediction interval ²¹ over project life
90%	0.176	5.3	1 to 10 birds
92%	0.141	4.2	1 to 9 birds
95%	0.088	2.6	0 to 6 birds

The EES included a Population Viability Assessment as required by the Interim Brolga Guidelines. This assessment found that using the most conservative avoidance rate of 90%, the population size would be reduced by 2.5 birds over the life of the Project (30 years) compared with baseline conditions. Submitters expressed concerns that the CRM was based on generic avoidance rates and not based on project-specific information. Dr Kulik stated that the EES included the recorded flight path from each breeding pair member that was recorded and used as input into the CRM²². DEECA noted that the Brolga Impact Assessment was undertaken appropriately as per the Interim Brolga Guidelines and was satisfied with the proponent's approach to assessing residual collision risk. The IAC considered it reasonable for the EES to rely on accepted assumptions in the framework and found the CRM to be an appropriate tool for assessing residual impacts in the EES.

A Brolga Compensation Plan is also proposed in the EES to offset any losses that may occur during the operating life of the Project. The IAC noted DEECA's submission that the inclusion of proposed wetland restoration activities as part of a Brolga Compensation Plan would be a satisfactory approach to offset the residual collision risk, and that details could be resolved at the secondary consent stage. The IAC agreed with DEECA that it was not necessary for the Brolga Compensation Plan to be completed prior to the planning permit being granted - it will occur as a secondary consent prior to construction.

DEECA requested²³ that a program to monitor Brolga breeding wetlands within 5 km of the project site be included in the BAM Plan to understand and manage operational impacts of the project and serve to inform

²¹ A prediction interval is an estimate of an interval in which a future observation will occur, with a certain probability, given what has already been observed

²² Tabled document 39

²³ Tabled document 111



adaptive management. The IAC accepted DEECA's recommendation and considered the BAM Plan (including this addition) would be sufficient to manage the project's potential effects on Brolga.

I support the IAC's findings on these matters and it is my assessment that the residual impacts of the project on Brolga can be managed to acceptable levels.

Other birds and bats

Bats

The EES recorded 610 Yellow-bellied Sheath-tailed Bat (YBSB) (vulnerable FFG Act) calls from 25 of the 128 survey locations across the investigation area from 2010 to 2019. The recordings were conducted at ground level and at a height of 50 m during the 2011 surveys, while the 2018-2019 surveys yielded recordings only at ground level.

The EES notes that the YBSB is rarely recorded in south-eastern Australia, and that bat call analysts have realised that calls previously attributed to the species are more likely to be calls at the lower end of the Gould's Wattled bat call range. The EES also cites a study²⁴ that YBSB activity was strongly correlated to the size of remnant vegetation patches. Dr Kulik in her statement²⁵ concluded that it is unlikely that the project will cause significant impact to the YBSB. Noting that an average of 1.13 calls per night recorded during the surveys indicates a low level of activity, I agree with Dr Kulik and the IAC's conclusion that significant impacts to the YBSB are not likely.

No calls were recorded for the Grey-headed Flying-fox (GHFF; Vulnerable under the EPBC Act and FFG Act) during surveys between 2010 and 2023. However, the EES states a temporary camp was observed from late-Summer to mid-Autumn in 2022 and 2023. The EES noted that this temporary camp has not been classified as a known camp by DEECA. Submissions included that Grey-Headed Flying-foxes were observed moving towards the project site, however the EES concluded that the project is unlikely to have a significant impact on the species as there is limited foraging habitat within the site, coupled with observations of their departure from the nearby temporary camp.

The EES proposed a monitoring program for the Grey-headed Flying-fox for the first two years post-commissioning, as specified in the BAM Plan. DEECA supports this measure and recommended the survey include of potential food sources as part of monitoring. The IAC agreed with this recommendation. I support the IAC's findings and recommendations on Grey-headed Flying Fox. I also recommend that this measure²⁶ include consultation with DEECA Regions and National EPA should any Grey-headed Flying Fox camps be detected as part of the monitoring program, to avoid and minimise impact to the species. I agree with the IAC, that subject to the implementation of the proposed EMMs accounting for my recommendations, that the project is not likely to have a significant impact on the Grey-headed Flying Fox.

The EES noted that seven other non-threatened bat species were recorded during surveys in 2010, 2011 and 2018. The EES considered that with the avoidance measures proposed by the project, including buffers from vegetation and a 40 m minimum rotor swept height, that the significance of impacts on these bat species would be low.

²⁴ Richards, G.C. (2008) An assessment of bat fauna at the proposed Glenn Innes Wind Farm, NSW, Prepared for Connell Wagner Pty Ltd

²⁵ Tabled document 39

²⁶ Planning permit condition 109(i)

I consider the impacts of the Project on these other bat species are not likely to be significant and therefore acceptable, with the adoption of the above-mentioned proposed curtailment and other avoidance mitigation measures in this assessment.

Birds

The EES states that surveys conducted between 2011 and 2012 and 2018 and 2025 identified eight FFG listed species (Australasian Shoveler, Australian Gull-billed Tern, Black Falcon, Blue-billed Duck, Eastern Great Egret, Freckled Duck, Little Eagle, Musk Duck) and 11 EPBC listed species (Blue-winged Parrot, White-throated Needletail, Fork-tailed Swift, Common Greenshank, Common Sandpiper, Curlew Sandpiper, Double-banded Plover, Latham's Snipe, Marsh Sandpiper, Red-necked Stint, Sharp-tailed Sandpiper) as potentially susceptible to impacts at the project site. The EES summarised records of listed bird species in the investigation area in Table 8.9 of EES Chapter 8, noting that most of the migratory shorebird species have very little habitat within the project site.

To avoid and minimise potential impacts the EES proposed a 100 m buffer (from habitat feature to blade tip) to be applied around all wetlands mapped in the Victorian Wetland Inventory and watercourses and micro-siting of project infrastructure as part of mitigation design.

The EES noted that the wetlands within the project site were too well vegetated with dense growth and were unsuitable for the majority of migratory shorebirds.

A submission was raised on habitat disturbance and collision risk to Latham's Snipe. The EES describes Latham's Snipe as having a direct, powered flight pattern, an attribute which makes it less at risk of collision with wind turbines blades. I consider that Latham Snipe could be potentially susceptible to occasional collisions with turbines. However, I accept the conclusion of the EES that such collisions would be infrequent and would therefore not impact on a significant population at the project site based on the lack of historical records in the surrounding region, lack of records from targeted surveys, and the lack of suitable habitat within the project site. However, I consider appropriate that the EMM relating to the BAM plan (BA01) specify that mitigation measures apply for listed or threatened species that include Latham's Snipe, in order to manage any unanticipated impacts to this migratory shorebird species.

Submitters raised concerns about the adequacy of the Bird Utilisation Surveys and survey effort, and contended that there was potential underestimation of impacts on threatened fauna species. DEECA stated in its submission that it had reviewed the potential impacts of the project on threatened fauna and was generally satisfied with the measures the EES proposed. However, DEECA made recommendations about the management of impacts to the Black Falcon and Blue-winged Parrot which DEECA was satisfied could be worked through in the finalisation of the BAM Plan (Table 5-7). I note that the final BAM Plan will need to be prepared in consultation with DEECA and National EPA and to my satisfaction. I also note that EMM-BA01, which relates to the development and approval of the BAM Plan, captures the need to species specific management strategies to be developed, including for Black Falcon and Blue-winged Parrot.

Table 5-7: DEECA's recommendations for management of potential impacts to Black Falcon and Blue-winged Parrot

Name	DEECA's recommendation
Black Falcon	Consult with relevant landholders regarding farming practices as part of finalisation of the BAM Plan; include pre-construction surveys; monitoring timeframes to align with length of BAM Plan, include description of how the combination of potential mitigation measures will help to mitigate impacts to Black Falcon, including how the proposed smart curtailment and blade painting would be proposed to be implemented, and demonstration that the approach will be effective in reducing the residual risk

Name	DEECA's recommendation
Blue-winged Parrot	Pre-clearance survey of potential mature treed habitat to expand and include the determination of breeding of the species within and surrounding the Project site. Information to be supplied to ensure that the nest boxes are a sufficient replacement option and sited appropriately so as not to increase collision risk

Moynes Council raised concerns about a BAM Plan in draft form, questioning its adequacy in evaluating the effectiveness of the project's mitigation measures to protect threatened species. In response, the proponent submitted that the primary mechanism to prevent impacts to birds and bat species is in the design of the project through siting and determining buffer distances, which the IAC agreed with. The EES states that finalisation of the BAM Plan will occur in consultation with DEECA and National EPA and to my satisfaction.

The IAC accepted DEECA's requested changes in their recommended planning permit condition 109a (i) regarding the provision of clear definitions of impact triggers and associated mitigation responses and processes, as well as the reporting and monitoring of results to DEECA and National EPA.

I note in the IAC supported the proponent's timing for approval of the BAM Plan, to be approved prior to operation of the first turbine commencing, in their proposed planning permit conditions for the project²⁷. However, I note that prior to a turbine generating electricity, there is a risk that bats and avifauna may collide with a turbine which might be spinning freely. It is therefore my recommendation that the timing of the BAM Plan approval should occur before any wind turbine rotors are installed to minimise such risk and am satisfied that the BAM Plan would be adequate, subject to reviews from DEECA and National EPA.

I consider that with the inclusion of DEECA's requested amendments to the BAM Plan, the impacts to other birds and bats are likely not significant and would be acceptable.

Assessment

It is my assessment that:

- Impacts to the SBWB are likely to be acceptable, with the implementation of the proposed MMs, including amendments to EMM-BA01-1, that nocturnal curtailment at 4.5 m/s to mitigate potential impacts to SBWB be applied throughout the year (instead of the proposed September to April period) unless monitoring of SBWB activity is undertaken in consultation with DEECA and National EPA to demonstrate that SBWB activity is sufficiently low over the winter season.
- The effects on Brolga and other birds and bats have been adequately assessed and can be managed to acceptable levels accounting for the proposed EMMs and noting that the IAC's recommended planning permit condition 109 (b) that a 5-year monitoring program of Brolga breeding wetlands within 5 km of the project site be implemented.
- The EMMs and subsequent planning permit conditions relating to the BAM Plan (BA01) should be amended to require the BAM Plan be approved prior to the first wind turbine rotor being installed, rather than operation of the first turbine, to ensure there are no potential adverse impacts prior to approval of the management and monitoring plan.

²⁷ Pg 77, IAC Report

- EMM BA01-6 be amended to include consultation with DEECA and National EPA should the two-year GHFF monitoring program detect temporary GHFF camps within the project site and its surroundings to avoid and minimise potentially significant effects.
- EMM BA01 be amended to specify that mitigation measures apply for listed or threatened species that include Latham's Snipe, in order to manage any unanticipated impacts to this migratory shorebird species.
- The BAM Plan (EMM-BA01) include a 5-year program to monitor Brolga breeding wetlands within 5 km of the project site to understand and manage operational impacts of the project and serve to inform adaptive management.
- Implementation of the other EMMs are sufficient to avoid, mitigate and manage the likely effects on birds and bats, subject to the recommendations of the IAC and my findings in this assessment – i.e. BH05, BH06, BH07, BH11; BA01, BA01-1 to BA01-7; and BR01 & EMM09.

5.3. Aboriginal cultural heritage

Evaluation objective

Protect, avoid, or minimise where avoidance is not possible, adverse effects on historic heritage values, and tangible and intangible Aboriginal cultural heritage values, in partnership with Traditional Owners.

Assessment context

Aboriginal cultural heritage effects are addressed in Chapter 18 (Aboriginal cultural heritage) and Technical Appendix J (Aboriginal cultural heritage impact assessment) of the EES and in Chapter 7.2 of the IAC Report. The proponent has proposed seven specific EMMs (AH01, AH02, AH03, AH04, AH05, AH06 and AH07) and two EMMs from other assessments (BH05 and BA01) to manage potential Aboriginal cultural heritage effects.

The project is situated in Eastern Maar country for which Eastern Maar Aboriginal Corporation (EMAC) is the Registered Aboriginal Party (RAP) and has statutory responsibility for determining Cultural Heritage Management Plan (CHMP) under the Aboriginal Heritage Act. This EES has been informed by consultation with EMAC as well as Gunditj Mirring Traditional Owners Aboriginal Corporation (GMTOAC) which also had a RAP application over the project site during the initial phase of assessment. The project requires an approved CHMP (no. 19602) under the Aboriginal Heritage Act, as discussed in Section 3.2 of this assessment.

The proponent's Aboriginal Cultural Heritage Impact Assessment was informed by a desktop assessment, a ground surface survey (standard assessment; in 2019 and 2025) and a subsurface excavation (complex assessment; in 2025). The EES found that the project site contains significant tangible Aboriginal cultural heritage values, with 114 registered Aboriginal places recorded within the project site including mounds, artefact scatters and a soil deposit. Further to this, consultation with EMAC identified significant intangible Aboriginal cultural heritage values associated with the Wedge-tailed Eagle, Southern Bent-wing Bat, culturally significant flora, hydrology and ephemeral wetlands. No Victorian Aboriginal Heritage Register (VAHR) registered intangible Aboriginal places were identified.

The EES identified that the primary impact pathway for Aboriginal cultural heritage relates to uncovering or damaging known or unknown Aboriginal places and heritage values during pre-construction, construction, operation and decommissioning. EES described an approach of avoidance of impacts through design as the primary means to limit impacts to known Aboriginal cultural heritage places. Construction disturbance areas and operational footprints will avoid registered Aboriginal places and minimise encroachment on legislated areas of Aboriginal cultural heritage sensitivity. Design modifications including micro-siting of turbines, cabling, tracks and other associated infrastructure have been used to avoid impacts to identified Aboriginal places through implementation of appropriate buffers. The EES also stated that consultation with EMAC has informed the project approach to avoiding impacts on intangible Aboriginal cultural heritage values, through refinements to project design. Potential impacts to intangible Aboriginal cultural heritage values are proposed to be managed during the project, through a process of consultation with EMAC on monitoring of potential



effects to intangible cultural heritage values and development of contingency measures in the event that there are impacts to intangible cultural heritage values.

The EES proposed a set of management measures to further manage potential impacts to Aboriginal cultural heritage (tangible and intangible) from project construction through to decommissioning as far as practicable. Impacts on tangible Aboriginal cultural heritage would be managed in accordance with conditions of the CHMP, which would require approval by the RAP.

The EES concluded that residual impacts on known Aboriginal cultural heritage places would be negligible, through the avoidance of impacts via project design or the implementation of mitigation measures for the CHMP, developed in consultation with EMAC, where avoidance is not possible. The EES assessed the likelihood of unidentified Aboriginal cultural heritage existing in locations where the project infrastructure is planned to be as low and with management measures including implementing an unexpected finds procedure and measures within a CHMP, the impact of the project on unknown Aboriginal cultural heritage places is expected to be low as well.

Submissions on the EES raised concerns about the level and rigour of investigation, engagement and management approaches described in the Aboriginal cultural heritage impact assessment. The RAP did not make a submission on the EES.

Discussion

The IAC found that the project design has appropriately sought to avoid and minimise impacts to tangible Aboriginal cultural heritage values and that the CHMP, which would need to be finalised in consultation with and approved by the RAP, and proposed mitigation measures can appropriately manage project's potential impacts on Aboriginal cultural heritage both identified and unidentified. I am satisfied that the project has appropriately sought to avoid known tangible Aboriginal cultural heritage through the design of the project and proposed buffers between infrastructure and known Aboriginal places. Micro-siting would allow for the potential avoidance of further unknown Aboriginal cultural heritage values and other mitigation measures within an approved CHMP, to be agreed upon with the RAP, would allow for minimisation and management of harm to Aboriginal cultural heritage values that cannot be avoided.

The IAC found that the proposed measures to protect intangible values of flora and fauna, such as Southern Bent-wing Bat and Wedge Tailed Eagle, are appropriate to avoid and manage potential impacts to intangible cultural heritage, i.e. through the inclusions of buffers, micro-siting of infrastructure and other mitigation approaches, such as those outlined in the Bat and Avifauna Management Plan (EMMs BA01 and BH05 which have been translated to recommended planning permit conditions 107,108,109,110 and 111)²⁸. The EES proposed ongoing engagement with EMAC to monitor and develop contingency measures to manage potential impacts to intangible Aboriginal cultural heritage. The IAC emphasised the importance of ongoing involvement and consultation with EMAC, particularly regarding the framework for monitoring and managing potential impacts on intangible values.

EMMs AH01 and AH02, which relate to a cultural heritage site induction and compliance with an approved CHMP, have been translated into planning permit condition 17²⁹, which I support. The proponent's proposed permit conditions, which addressed EMM AH04 and EMM AH05 were not included in the IAC's recommended planning permit conditions as these would be considered and regulated through the approval of the CHMP by

²⁸ Appendix F of the IAC Report – Recommended planning permit conditions

²⁹ Appendix F of the IAC Report – Recommended planning permit conditions



EMAC. The IAC captured EMM AH06, which addressed contingency measures for unexpected finds, in the recommended planning permit condition 17²⁹ and this was also proposed to be regulated through the CHMP.

I support the IAC's finding that the cumulative impact of the project and other wind energy facilities on intangible heritage values across EMAC Country needs to be iteratively assessed and managed through continued consultation with the EMAC.

The IAC stated that most of the EMMs have been translated to their proposed version of the planning permit conditions²⁹, or would form part of the CHMP, except AH03 which relates to a process to include EMAC in the monitoring of potential impacts to intangible Aboriginal cultural heritage values. The IAC found that this measure was an action focused on governance and is better suited to remain an EMM which can inform the CHMP process.

Consistent with the approach of the IAC, I recommend that AH07 is also not translated into a permit condition and consider this is appropriate given proponent's commitment to consult EMAC in an unexpected event of an intangible value is harmed. In such an event, EMAC can consider how best this is to be regulated through their consideration of the CHMP. I support the approach of the IAC and note that it is appropriate for EMAC to determine how best to give effect to the monitoring and management of potential impacts to intangible cultural heritage values.

Assessment

It is my assessment that:

- Project design has appropriately sought to avoid and minimise impacts to Aboriginal cultural heritage values.
- Effects on tangible Aboriginal cultural heritage values will be appropriately mitigated through proposed EMMs and the CHMP, which will require approval from EMAC. EMAC are to determine how best to give effect to the monitoring and management of potential impacts to intangible cultural heritage values.
- Suitable mitigation measures have been proposed to mitigate impacts of potential damage to unidentified Aboriginal cultural heritage, which would need to be refined and agreed to with EMAC through the finalisation and approval of the CHMP. I support the EMMs proposed in the EES (EMMs AH01, AH02, AH03, AH04, AH05, AH06, AH07; and EMMs BH05 and BA01).
- Consistent with the Inquiry's findings, ongoing consultation and involvement of EMAC is important, particularly regarding monitoring and management of potential impacts on intangible values.

5.4. Landscape and visual

Evaluation objective

Avoid and, where avoidance is not possible, minimise and manage potential adverse effects on landscape and visual amenity.

Assessment context

Landscape and visual effects are addressed in Chapter 14 (Landscape and Visual) and Technical Appendix F1 (Landscape and Visual Impact Report) of the EES and in Chapter 6 of the IAC report.

The project is located within the Western Volcanic Plain, mostly within the Farming Zone, characterised by agricultural land predominately used for grazing with some areas of remnant vegetation. The EES assessed the potential visual impacts from 37 public viewpoints and 28 non-involved dwellings within three kilometres of the nearest turbine. The EES examined the project's consistency with key landscape planning policies and guidelines, as well as opportunities to mitigate and offset landscape and visual impacts during detailed design, construction, operation and decommissioning.



The EES proposed four management measures (EMM LV01 to EMM LV04) to avoid, minimise, and manage potential landscape and visual effects addressing on and offsite landscaping, aviation obstacle lighting design and lighting of other on-site facilities.

To minimise the magnitude of visual impacts, the project established a 1.5 km buffer between the project and non-involved dwellings and a minimum three kilometre buffer between the project and surrounding townships. Residual visual impacts to non-involved dwellings were assessed as low to moderate.

The EES also assessed cumulative impacts to public and private views from the project and approved and proposed infrastructure (e.g. Mt Fyans Wind Farm, Mortons Lane Wind Farm and Salt Creek Wind Farm) within 16 km of the project. The EES found that while cumulative impacts may arise as views of Mortons Lane Wind Farm and Salt Creek Wind Farm would occur while travelling along Hamilton Highway, these wind farms would not constitute a dominant element of the landscape, with the impacts from these travel corridors assessed as low. The EES also noted that the project will likely be viewed as an extension of Mt Fyans Wind Farm, with existing vegetation limiting views from non-involved dwellings. The residual impact was assessed as low.

The EES assessed that the project is unlikely to be a noticeable element in the landscape and would not impact on character of regional or state significance landscapes.

Discussion

Existing landscape character

The EES describes the landscape character of the investigation area, extending up to six kilometres from the nearest turbine, as highly modified due to agricultural activity. Native grasslands have been replaced with exotic pasture species and monocultural crops and dense plantation areas are scattered across the region. There are no regionally or state significant viewing locations in proximity to the investigation area. The EES assessed the scenic quality of the landscape character units as low to moderate, as detailed in Table 14.6 of EES Chapter 14.

Hexham Community Environmental Action Group Inc (HCEAG) submitted³⁰ that the Landscape and Visual Impact Assessment (LVIA) of the EES understates the sensitivity of the existing landscape, and that there was an over reliance on vegetation screening. Moyne Council also submitted that the project relied too much on vegetation screening as a means of mitigation.

The proponent's expert witness Mr Moir described³¹ the project site as an "energy-influenced" landscape that is highly modified and agricultural, with wind farms and associated infrastructure as existing character elements in the area. He stated that while turbines will be visible, they will be perceived within the context of a working rural environment and therefore the underlying landscape character will not be fundamentally changed. Mr Moir also pointed out that windbreak plantings are an existing key landscape feature of the area and will restrict continuous views of the project. Moyne Council differed in its opinion from Mr Moir and proposed a five kilometre turbine-free buffer to protect the visual amenity of nearby townships (Hexham, Caramut and Ellerslie) and residents which would require the relocation of four turbines, which was not supported by the proponent or ultimately, the IAC.

The IAC agreed with the findings of the EES, having considered both the photomontages and observations made during a site inspection. The IAC found the landscape impacts would be acceptable when assessed against the planning framework but noted that some of the impacts would be of moderate significance and acknowledged that there would be varying views about these impacts among the community. I support the

³⁰ EES submission no. 60

³¹ Tabled document no.38



findings of the IAC and it is my assessment that, considering the proposed mitigation measures, the project's residual effects on the landscape character are acceptable.

Public viewpoints

The EES assessed the potential visual impacts on a total of 25 viewpoints from public locations, reflecting a range of distances and orientations to the project, including townships, intersections and major public roads. Six of the 25 locations were assessed to have a moderate visual impact rating, three locations were assessed as moderate-low, and the rest were assessed as low.

Submitters raised concerns about the selection of viewpoints and the accuracy of the photomontages and visual simulations in the EES. The IAC considered the LVIA Peer Review together with observations of their site inspection and concluded that the photomontages were consistent with the project area. The IAC acknowledged that, at some public viewpoints, the project may be moderately to highly visible. The IAC noted that these viewpoints were mostly roads or intersections experienced by road users while in transit but that at some of these viewpoints the duration of views to the project may be longer. However, the IAC found that these effects are acceptable when assessed against the planning framework and in the context of the broader environmental and community benefits associated with the generation of renewable energy. I support the findings of the IAC and it is my assessment that, considering the proposed mitigation measures, the project's residual effects on the landscape and visual amenity from public viewpoints are acceptable.

Private viewpoints: non-involved dwellings

The EES assessed 28 representative, non-involved dwellings within three kilometres of the nearest turbine. Table 14.12 of EES Chapter 14 Part 3 showed that prior to management measures, 19 of these dwellings were assessed as having a visual impact rating of low, seven as moderate, and two as high. The EES proposed screen plantings in consultation with landowners to mitigate potential impacts, with the residual impact ratings assessed to be low to moderate after implementation.

The IAC stated that landscape screening and purposefully designed plantings can reduce visual impacts of turbines from dwellings. Mr Moir³² further added that existing native and exotic windbreak plantings in the area mean that views of the project from roadways and residences will not be continuous.

For the dwellings assessed as having a high visual impact rating, the IAC noted that the effects were assessed to be reduced from high to moderate after management measures were taken but questioned whether if the measures for these two dwellings would effectively reduce the residual impact to a moderate level. The IAC noted that plantings take time to establish and may not fully screen turbines from all views, and planted vegetation may not be the preference of the affected landowner. The IAC noted that a cash contribution is offered as an alternative to the opt-in landscaping program, and that for those who opted in for landscaping, ideally the planting of any vegetation should be carried out early to allow for plantings to mature prior to the construction stage.

In response to submitter concerns, the IAC proposed to revise the planning permit conditions, which is drawn from EMM LV02, to require that affected landowners be consulted regarding off-site landscaping on private properties. I support the findings of the IAC regarding off-site landscape screening and the recommended revision to the permit conditions. It is my assessment that while some nearby landholders would experience significant visual impacts from the project, with the adoption of mitigation measures the visual impacts of the project would be acceptable.

³² Tabled document no.38

Cumulative Impacts

The IAC accepted that the project would contribute to the broader cumulative wind energy landscape of the south-west region and that there would be viewpoints where there would be simultaneous or sequential views to the project and other wind energy facilities, in particular the approved Mount Fyans Wind Farm. The IAC considered the cumulative impacts on the landscape and visual amenity would be acceptable, noting that the planning context anticipates a changing landscape that accommodates wind energy facilities and the scenic quality of the existing landscape character units. I support the findings of the IAC that the cumulative landscape and visual effects of the project are acceptable.

Assessment

It is my assessment that:

- The project's landscape and visual effects can be managed to acceptable levels, subject to effective implementation of the mitigation and management measures, adopting the IAC's recommended changes as set out within this assessment.
- EMM-LV02 (and associated planning permit condition) be amended as per the IAC's recommendation, to require consultation of affected landowners regarding off-site landscaping/ screening.
- Together with this change, the management measures proposed by the proponent are adequate to sufficiently avoid, mitigate and manage effects to acceptable levels – i.e. EMM LV01 to EMM LV04.

5.5. Other effects

As noted in my published reasons for requiring an EES, the EES was to focus on potentially significant effects of the project. The understanding of the key matters with the potential for significant environmental effects has evolved through the development of the scoping requirements for the EES and the EES itself. The terms of reference for the IAC identified key matters with potentially significant effects as biodiversity values including threatened species and communities listed under the FFG Act and EPBC Act; native vegetation and ecology of the area's terrestrial environment and freshwater environments including wetlands and creeks; Aboriginal cultural heritage; and landscape and visual amenity. The EES, submissions and IAC carefully examined these potential effects. These effects are considered in sections 5.1 to 5.4 of this assessment.

Other effects that the EES found to be more localised and less significant are discussed below. These effects are human health, socioeconomic, historic heritage, surface water, groundwater, air quality and greenhouse gases, land-use and agriculture, traffic, noise and vibration, fire safety, shadow flicker and aviation safety. Table 5-8 outlines IAC's findings, where these have been made, about these effects and discusses their significance, the proposed EMF and management controls.

Some of these other matters, including traffic, noise and vibration, fire safety, shadow flicker and aviation safety were considered key matters relating to the planning permit application, so that I could receive advice from the IAC about these matters in relation to my consideration of the planning permit application. However, these remain other matters so far as my consideration of them under the EE Act.

The IAC has not made findings or recommendations on historic heritage, groundwater and air quality and greenhouse gases.

I support the findings of the IAC, where these have been made, in relation to these other effects and consider that they can be effectively managed to acceptable levels through well-established practices including those committed to in the mitigation measures.

Table 5-8: Other effects



IAC findings and recommendations	Assessment
Human health (EES Chapter 21 and Technical Report I; IAC Report section 8.1) The EES acknowledged potential health and wellbeing impacts of construction and operation of the project associated with noise, dust, shadow flicker, electromagnetic field effects, increased stress and anxiety, decreased accessibility and increased wait time for local health services and emergency services. The EES proposed the EMMs EMM02, EMM05, EMM07, SE03, SE04, NV01, NV06 and SF02 to address these potential impacts. Residual impacts were assessed as low except for decreased accessibility to health services, which was assessed as medium. Decreased access to health services due to competition with the project's construction workforce was initially assessed as a high potential impact. This residual impact was assessed as medium with the EMMs EMM05 (Accommodation Employment Strategy), SE03 (Temporary Workforce Accommodation) and SE04 (Management of workforce influx). Numerous submissions raised concerns about human health including sleep disturbance and deprivation, noise and contamination during construction. The IAC stated that it had carefully considered human health issues and was unable to find evidence that the project will directly impact human health and wellbeing. On this basis it concluded that the EES had appropriately assessed and responded to human health related impacts.	I agree with the IAC's findings about human health. I consider that the 'medium' residual impact related to decreased accessibility to health services is acceptable considering cumulative impacts, project benefits and EMMs that reduced residual impacts to medium and low. It is my assessment that the residual effects on human health would be acceptable with the implementation of the proposed EMMs.
Socioeconomic (EES Chapter 21 and Technical Report I; IAC Report section 8.1) The EES acknowledged the socioeconomic effects of the project will be both positive and negative and included sense of place, community relations, land uses, environmental and cultural values, access to infrastructure and services, property value and livelihoods, and community health and public safety. The EES noted that project design had addressed community and specialist concerns by incorporating buffers, realignments and micro-siting. Eight measures were proposed to manage socioeconomic impacts; EMMs EMM02 to EMM05 and SE01 to SE04. The EES concluded that with the implementation of design and management measures, the significance of	I agree with the IAC's findings on social and economic effects of the project. Further to IAC findings, I note and accept that there are residual adverse and positive social and economic impacts that will result from the project and that the application of the EMMs will manage adverse effects and enhance the positive effects. It is my assessment that the residual socioeconomic effects would be acceptable with the implementation of the proposed EMMs.



IAC findings and recommendations	Assessment
residual socioeconomic impacts ranged from low to medium. Social impacts with medium residual impact were a reduced sense of community and cohesion, reduced safety in local routes along transport route, increased disruption due to increased travel times, loss of trust and engagement in decision making systems and assessment process and disruption to sense of place. The EES identified two economic impacts that remained a rating of medium even after application of mitigation measures namely, reduction in livelihood due to reduced property value and increased risk to public safety due to reduced access for aerial firefighting. Residual impacts on the local economy due to spending and income generation were identified as benefits and were assessed as high to very high. Numerous concerns were raised via submissions on social and economic effects from the project. The IAC report concluded that the EES acknowledged negative residual impacts and positive social impacts resulting from economic development and community benefit sharing and residual economic benefits to be high to very high subject to measures which enhance the expected project benefits. The IAC found that the EES had appropriately assessed and managed social and economic effects of the project and accepted that the project is likely to result in high to very high positive economic effects.	Given EMMs HH01 and HH02 provide for protection of both known and unknown historical heritage places, I'm satisfied that effects on historic heritage places can be managed to acceptable levels. Given the only heritage site likely to be directly affected, H1700, is on the Victorian Heritage Register, permission will be required from Heritage Victoria for any works that might disturb this site. I note the IAC did not require a Heritage Management Plan via a planning permit condition, which I support. However, it is my recommendation that the CEMP (EMM01) capture any necessary controls to manage impacts to unknown heritage values under the

Historic heritage (EES Chapter 19 and Technical Report K; historic heritage was not addressed in the IAC report)

The EES outlined that the siting of wind farm infrastructure and construction activities can potentially disturb known and unknown historic heritage places.

The EES found five registered historic heritage places consisting of Stone Mileposts B, C and D to G (H1700), Merrang Homestead (H0322), Burchett Creek Bridge (H1856), Youl's Creek Bridge (H1457) and a Former Temperance Hall (H2145). Of these, part of the Stone Mileposts historic heritage place was identified within the project site. Others were recorded either within 100 m of the project site or within 50 m of the proposed access routes. No new historical archaeological artefacts or sites were observed during field surveys.



IAC findings and recommendations	Assessment
Avoidance by design has been the primary measure to limit impacts to known historical heritage values. Where impacts are unavoidable, two mitigation measures (HH01 and HH02) were proposed to reduce impacts as far as practicable. The EES concluded that the residual effects on heritage places of the project were negligible. Submissions identified several concerns about the EES's assessment of historic heritage effects including methodology deficiencies, incomplete identification of heritage places, weak impact assessment and mapping, mitigation and management gaps and cross-chapter integration failures. Heritage Victoria was given notice of the planning permit application and it responded that the applicant would need to engage further with Heritage Victoria about potential road upgrades within Victorian Heritage Register Site H1700. The IAC has not addressed historic heritage in its report apart from removing the Heritage Management Plan planning permit condition 25 from the recommended planning permit conditions.	<i>Heritage Act 2017</i>, such as though a chance find protocol. It is my assessment that the residual historic heritage effects would be acceptable with the implementation of the proposed EMMs.
Surface water (EES Chapter 12 and Technical Report B; IAC Report section 7.1) The proponent's investigation area included the Hopkins River and Mustons Creek catchments. The EES identified that the project could affect the Mustons Creek, Hopkins River, Drysdale Creek, Merri River and their tributaries and other surface water features including wetlands smaller drainage systems and dams. The EES proposed an 'avoid and minimise' approach followed by targeted management controls. Key design measures were related to water management, waterway crossings and avoidance of environmentally sensitive locations. The EES further proposed eight surface water EMMs SW01 to SW05 and EMM07, EMM08 and EMM11. The EES concluded that residual effects of watercourse crossings and construction work on water quality and the hydrology of watercourses were assessed as localised and temporary resulting in impacts ranging from very low to low. Residual effects to the hydrology and water quality of ephemeral wetlands were assessed as negligible. In addition, surface water effects from quarry development, Battery Energy Storage System (BESS) and accidental spills were assessed as low to very low as the quarry and BESS are proposed to be zero	I agree with the IAC's findings on surface water effects. It is my assessment that the residual surface water effects would be acceptable with the implementation of the proposed management measures, including the additional EMM recommended by the IAC.



IAC findings and recommendations	Assessment
discharge sites, and surface water flows would be able to be diverted. Residual surface water and groundwater cumulative impacts were assessed as low. The submissions raised concerns including outdated and limited water quality data, premature impact conclusions, flooding potential, and high number of waterway crossings. The proponent's expert witness recommended an additional EMM to manage surface water flows around the BESS and terminal station. The IAC accepted the expert witness's evidence and his responses to hearing issues. Glenelg Hopkins Catchment Management Authority had no objections to the project, subject to twelve recommended planning permit conditions that were supported by the proponent's expert witness. The IAC also supported these conditions, with minor amendments. The IAC found: • Surface water effects have been appropriately assessed and are acceptable; • The EMF should be revised to add an EMM that requires the preparation of a standalone flood impact assessment and stormwater management plan for the BESS and terminal station; and • The new EMM SW01(2) requirement would need to be reflected as a planning condition to give it statutory effect. The IAC recommended the following wording for the new MM SW01(2): A standalone flood impact assessment (FIA) and stormwater management plan (SWMP) be established for the BESS and terminal station. The [Flood Impact Assessment] and [Storm Water Management Plan] will incorporate the requirement to minimise the potential impact of earthworks on flood levels and extents on adjacent properties, treat stormwater runoff and retain firefighting runoff.	
Groundwater (EES Chapter 11 and Technical Report B; groundwater was not addressed in the IAC report) The EES described that the project could impact groundwater through dewatering during wind turbine foundation excavations or the on-site quarry, alter groundwater recharge, or create barriers to groundwater movement through wind turbine foundations and hardstands. Potential impacts to groundwater quality	It is my assessment that the residual effects of the project on groundwater values would not be significant and would be acceptable with the implementation of the proposed EMMs.



IAC findings and recommendations	Assessment
from accidental spills or fire water were also considered in the EES. The EES proposed eight EMMs (GW01-GW04-1, EMM06, EMM07, SW05, EMM08 and EMM11) that relate directly or indirectly to the management of potential groundwater impacts. The EES concluded the residual impacts to the groundwater levels associated with dewatering of groundwater from the quarry and turbine footings or reduced groundwater recharge would be localised and temporary and rated their significance as ranging from very low to low on the receiving environmental values. The EES concluded that spills of fuels and chemical or the uncontrolled release of fire water could result in localised contamination of the groundwater system however that this was considered unlikely with the implementation of the proposed management measures.	
Air quality and greenhouse gases (EES Chapter 16 and Technical Reports L1 and L2; air quality and greenhouse gases were not addressed in the IAC report) The EES described that the project would primarily impact air quality during construction and to a lesser extent during decommissioning through various construction and transport activities with the potential to generate dust. Minor dust generation associated with limited travel across unsealed access tracks for maintenance activities would also occur during operations. Exhaust emissions of heavy vehicles, plant and equipment would also contribute to air quality impacts. Potential greenhouse gas emissions would result from vehicle and plant emissions and non-energy related emissions such as embedded emissions from construction materials. The EES proposed 11 EMMs (AQ01-AQ05, GHG1-GHG4, EMM07 and EMM10) that relate directly or indirectly to the management of potential air quality impacts or greenhouse gas emissions. The EES concluded the residual dust impacts associated with construction and the operation of the quarry would be unlikely and occur on rare occasions, although rated these as of moderate significance. The EES concluded that dust impacts during decommissioning would be lower than during construction and that significant dust impacts during operations and significant exhaust	It is my assessment that the residual effects of the project on air quality and greenhouse gas emissions would not be significant and would be acceptable with the implementation of the proposed EMMs.



IAC findings and recommendations	Assessment
impacts during construction, operation and decommissioning are not expected to occur. The EES concluded that the EMMs would assist in minimising the overall construction, operation and decommissioning emissions related to the project, a residual significance rating of moderate was attributed to the project due to the extent of operation related emissions, stemming largely from the powering of the BESS. The EES noted this would reduce as the grid transitioned away from carbon intensive energy generation. The project was found to have an overall positive greenhouse gas contribution accounting for the energy generation from the project.	
Land-use and agriculture (EES Chapter 20 and Technical Report H; IAC report section 8.1) The EES concluded that the project would result in a minor and short-term impact on a small proportion of the project site and that the use of the site for an energy generation facility is compatible with the existing, predominantly, agricultural land use. The EES also asserted that during operations the project would support diversification of the local agricultural economy. The EES proposed three EMMs directly related to land-use (LUP01-03) and several other mitigation measures that are indirectly related to management of potential land-use impacts. The IAC received numerous submissions which related to land use and agriculture including those relating to agricultural productivity, fragmentation of land, interference of aerial spraying, biosecurity, and land rehabilitation as well as amenity impacts to neighbouring properties. The IAC found that the EES had appropriately assessed and responded to land-use and agricultural matters and did not make any specific recommendations about these matters.	It is my assessment that the residual effects of the project on land-use and agriculture would not be significant and would be acceptable with the implementation of the proposed EMMs.
Traffic (EES Chapter 25 and Technical Report Appendix G; IAC Report section 9) The EES stated that project construction would increase traffic on the surrounding rural road network by up to 1,070 vehicle movements per day (or 1,740 if no on-site quarry) over a peak period of about a year. This was due to transporting the construction workforce, materials, plant and equipment, and wind turbine components.	I agree with the IAC's findings about traffic effects of the project. The IAC recommended some changes to the planning permit conditions submitted by TfV. Section 62(1)(a) of the P&E Act requires the Responsible Authority to include any condition(s) required by a determining referral, so any permit conditions required by TfV would



IAC findings and recommendations	Assessment
Imported wind turbine generator and other major components were proposed to come to site from the Port of Portland or, possibly, the Port of Geelong. EES design measures reduced traffic and transport impacts including project site movements via internal access tracks, a proposed on-site quarry (subject to confirmation) and avoiding lower order roads for materials, oversize and overmass haulage where possible. The EES proposed traffic impacts be managed through EMMs TT01 to TT06 and EMM02. These requirements included a detailed Traffic Management Plan, Green Travel Plans and agreements with DTP and Moyne Shire Council specifying road and intersection upgrades, monitoring, maintenance and completion. According to the EES, the highest increase in project construction traffic would be along Woolsthorpe-Hexham Road at about 600 extra vehicles per day (or 750 if no on-site quarry). Residual impacts from project construction oversize and overmass vehicles, general traffic and heavy vehicles on road operations (including travel times) and road safety was assessed as minor. Local road closures and deviations was assessed as having a negligible residual impact. Project operations traffic could be safely accommodated by existing roads and site access tracks. Decommissioning traffic would be significantly less than construction but will include oversize and overmass haulage to remove wind turbine components. Cumulative impacts from concurrent construction of Mt Fyans and Willatook projects would be less than peak Hexham-generated traffic and road monitoring would capture any road condition change. The IAC found that the EES and planning permit application transport impact assessment appropriately considered impacts on the road network from project traffic. The IAC did not examine traffic EMMs but it did consider planning permit conditions. The IAC recommended additional planning permit conditions for a Traffic Management Plan and Decommissioning Transport Management Plan in Appendix F of the IAC Report based on conditions submitted by the Head of Transport for Victoria (TfV), with additions and changes informed by	therefore need to be included on any planning permit. Notwithstanding this, I consider it appropriate to include additional conditions on a planning permit that reflect Moyne Council's responsibility for local roads as recommended by the IAC. It is my assessment that the residual effects on traffic would otherwise be acceptable with the implementation of the proposed EMMs.



IAC findings and recommendations	Assessment
submissions and evidence, including from Moyne Council and the proponent.	
The IAC found that project traffic during construction, including to and from off-site quarries, and operation could result in acceptable impacts on the surrounding road network subject to applying traffic management requirements through the IAC's recommended planning permit conditions.	
Noise and vibration (EES Chapter 17 and Technical Report Appendix E1, E2, E3 and E4; IAC Report section 10.3) The EES identified that project wind turbine construction, construction traffic, onsite quarry works, concrete batching plant operation and wind turbines, onsite substation and BESS operation have the greatest potential to cause noise and vibration impacts. The EES stated that the project had been designed to maximise separation distances between dwellings and noise-producing infrastructure and the quarry, and to minimise noise from construction and operation activities. The closest dwellings to the quarry boundary and concrete batching plants were 1,400 m and 1,100 m respectively. The EES proposed noise and vibration impacts be managed through the EMMs NV01 to NV08. These EMMs included requirements for Construction Noise and Vibration Management Plan, Quarry and Concrete Batching Plants noise management plans, pre-construction noise assessment, wind turbine sound power level testing and an Operational Noise Management Plan. With the implementation of above EMMs, the EES concluded that noise and vibration residual impacts were low, except for off-site traffic noise, which was rated medium. Modelling of off-site traffic noise levels were predicted to be above the Environment Reference Standard (ERS) objectives. The EES also considered cumulative impacts for construction and found compliance margins were not expected to change. Significant separation distances from the project to nearby approved and operating projects did not warrant a cumulative impact assessment. IAC Report Appendix F recommended revised planning permit conditions for noise and vibration:	I generally support the IAC's findings about noise and vibration effects. Potential impacts associated with construction are addressed through planning permit conditions 16 and 17. I consider it is appropriate to consolidate construction environmental management plan requirements to provide for integrated management across various areas of expertise. Condition 17h)v). does not preclude the proponent from providing the level of detail required by condition 11. For these reasons, I do not consider condition 11 to be required. Further to the IAC's findings, I note the residual impact of traffic noise as medium and acceptable given implementation of EMM NV01 will minimise noise as far as reasonably practicable. Overall, it is my assessment that the residual noise and vibration effects would be acceptable with the implementation of the proposed EMMs.



IAC findings and recommendations	Assessment
• 11 – Construction Noise and Vibration Management Plan; • 17h)v. – Construction Environmental Management Plan; • 92 – Pre-Construction Wind Turbine Noise Assessment; • 94 – Verification of the Pre-Construction Wind Turbine Noise Assessment; and • 96 – Noise (unrelated to wind turbines). The IAC found: • <i>The permit application is supported by noise and vibration assessments that have appropriately considered and applied relevant legislation, policies and guidelines.</i> • <i>The Project will not cause noise and vibration that negatively impacts amenity at sensitive receptors during construction, operation and decommissioning.</i> • <i>The proposed permit conditions provide a suitable framework to ensure noise and vibration impacts are appropriately managed.</i>	
Fire safety (EES Chapter 23 and Technical Report P; IAC Report section 10.2) The EES stated that the project could cause a fire on-site or be impacted by fires originating off-site. An on-site fire was most likely to be caused by electrical faults in wind turbines or aboveground electrical infrastructure or from flammable materials spills. Design controls to avoid or minimise fire risk included smoke detection and fire suppression systems in wind turbines and BESS enclosures, spacing of wind turbines, fire breaks, automatic fire shut-down, provision of water tanks and a site monitoring system. The EES proposed further management of potential fire risks through the EMMs BF01 to BF05. These requirements included Risk Management Plan, Fire Management Plan and Emergency Management Plan, firefighting and Stakeholder Engagement Plan – Dangerous Goods Storage. With implementation of management controls, fire risks initially rated high (electrical hazards and safety hazards to first responders) were brought down to a residual risk rating of medium. IAC Report Appendix F recommended planning permit conditions for fire safety that included	I support the IAC’s findings about fire safety. I have considered bushfire risk of the project and note that the project is within a designated bushfire prone area with potential for large bushfires under elevated fire danger conditions. Proponent’s expert witness concluded that the bushfire risk associated with the construction and operation of the Wind Farm and BESS can be mitigated to an acceptable level with the implementation of a Risk Management Plan, Fire Management Plan and Emergency Management Plan. The proponent’s expert witness also noted that the mitigation measures meet the requirements outlined within the CFA Design Guidelines and Model Requirements – Renewable Energy Facilities (CFA Guidelines). I agree with the findings of the IAC and it is my assessment that the residual fire and bushfire risks would be acceptable with the implementation of the proposed management measures and the IAC’s recommended planning permit conditions.



IAC findings and recommendations	Assessment
those proposed by Country Fire Authority (CFA) and Worksafe with minor modifications. The IAC found: • <i>The permit application is supported by an appropriate fire safety study and risk management plan that have appropriately considered and applied relevant legislation, policies and guidelines.</i> • <i>The fire risks have been appropriately identified, including in relation to the Battery Energy Storage System.</i> • <i>The Project, subject to permit conditions, will appropriately manage fire risk.</i> • <i>The conditions requested by the Country Fire Authority and WorkSafe to be included on the planning permit provide an appropriate planning framework for assessing and managing fire safety associated with the Project's use and development.</i> • <i>The Project will not negatively impact aerial firefighting capability.</i>	
Shadow flicker (EES Chapter 15 and Technical Report Appendix M; IAC Report section 10.4) The EES identified that the project has potential to cause shadow flicker from the rotating wind turbines at nearby. However, the EES concluded that blade glint was not an issue for the project given the use of industry standard blade surface treatments to manage glint. The EES presented siting of wind turbines away from dwellings and making use of existing screening via vegetation or structures as the primary design measure to limit shadow flicker impacts. The EES also proposed shutting down the wind turbines when shadow flicker duration is expected to be exceeded. Detailed design was proposed to reduce shadow flicker by micro-siting turbines and screening and blocking flicker via vegetation or temporary/permanent constructed screening. To ensure the Planning Guidelines are met, the EES proposed EMM SF01, which required a pre-construction shadow flicker assessment. The EES also proposed post-construction assessments of shadow flicker, however these were not included in the EMMs. The EES identified that with consideration of average cloud cover estimates, the proposed project would cause six stakeholder dwellings to receive more than 30 hours	I support the IAC's findings about shadow flicker and blade glint effects. It is my assessment that the residual effects of shadow flicker would be acceptable with the implementation of the proposed EMMs, noting it is my recommendation that EMM SF01 should be amended to capture the requirements for post-construction assessments of shadow flicker.



IAC findings and recommendations	Assessment
of shadow flicker per year, the limit specified in the Planning Guidelines. The EES concluded that with the implementation of management measures, the significance of residual impacts from shadow flicker at all dwellings was very low. EES found that the nearest proposed or operating wind farm to the project is Mt Fyans Wind farm and due to the separation distance exceeding 10 km, dwellings in or adjacent to the project site were not expected to be affected by cumulative shadow flicker. The IAC found: • <i>The permit application is supported by an appropriate shadow flicker assessment that has appropriately considered and applied relevant legislation, policies and guidelines.</i> • <i>The Project will not cause blade glint and shadow flicker from turbine operation that negatively impacts surrounding amenity.</i>	
Aviation safety (EES Chapter 22 and Technical Report Appendix O; IAC Report section 10.1) The EES identified potential aviation safety impacts related to operation of aerodromes and local airstrips, changes to Visual Flight Rules for low-flying agricultural or fire-fighting aircraft near project wind turbines and electromagnetic interference with communications, navigation and surveillance The primary measure for avoiding aviation safety impacts according to the EES was through design including positioning of local airstrips, required changes to Instrument Approach Procedures and incorporating recommendations in the CFA Guidelines The EES proposed further management of aviation impacts through EMMs AVI01, AVI02 and BF02. EMM requirements included marking of meteorological monitoring masts and Stakeholder Engagement Plan – Airservices Australia notification. Overall, the EES concluded that the project presents a low risk to aviation in the region and does not pose a hazard to aircraft safety. However, the aeronautical impact assessment found that a significant number of wind turbines were within the 10 NM Minimum Safe Altitude (MSA) for the Warrnambool Aerodrome and recommended increasing Lowest Safe Altitude by 100 feet to maintain required	I support the IAC’s findings about aviation safety effects. It is my assessment that the residual effects on aviation safety would be acceptable with the implementation of the proposed EMMs.



IAC findings and recommendations	Assessment
safety clearances and revising corresponding Instrument Flight Rules and landing procedures. Warrnambool and Moyne councils objected to the Warrnambool Airport 10 NM MSA being raised. The IAC noted that its terms of reference relate to aviation safety and do not provide for considering the project's potential impact on Warrnambool Airport's operations beyond safety. The IAC considered that adjusting the MSA was a matter for Airservices Australia; while the Instrument Approach Procedures would need to be updated, this would not require steeper landings and take-offs at Warrnambool Airport or other material changes to the aircraft Instrument Approach Procedure. The IAC found that: • <i>The permit application is supported by an appropriate aeronautical impact assessment that has appropriately considered and applied relevant legislation, policies and guidelines.</i> • <i>The Project will:</i> <i>from a safety perspective, have an acceptable safety impact on Warrnambool Airport's operations</i> <i>not create any negative safety impacts for aircraft from local airstrips</i> <i>not materially restrict aerial firefighting capability or low-level flying operations from agricultural aerial spraying.</i>	

6. Conclusions

It is my overall assessment that on balance, the project can proceed with acceptable environmental effects. The project will have clear benefits and contribute to the renewable energy transition, with the potential to generate approximately 2,559 gigawatts hours of renewable energy annually, supporting the state's emissions reduction targets.

My assessment has been informed by the findings of the EES, public submissions, tabled documents from the public hearing and the IAC report.

The residual effects for key matters including biodiversity, Aboriginal cultural heritage and landscape and visual amenity, while in some cases significant, would be acceptable and can be appropriately managed and offset. These would be implemented through relevant approval conditions and management plans required to be prepared to regulate and support the development of the project.

Other matters were examined in the EES, relevant to an integrated assessment of the project's effects, including human health, surface water, groundwater, historic heritage, air quality and greenhouse gases, socioeconomic, traffic, noise and vibration, fire safety, shadow flicker, electromagnetic radiation, land use and aviation were also investigated. I have considered these and it is my assessment that the project's effects will not be significant and are acceptable, accounting for the proposed EMMs, recommendations of the IAC and of my assessment.

The Victorian EES process served as the accredited assessment process for the purposes of examining the likely significant impacts of this 'controlled action' on MNES under the EPBC Act. I consider that there are significant residual impacts for certain MNES, however where these might occur, I am satisfied that they can be acceptable and can be appropriately mitigated and offset.

Decision-makers need to consider this assessment before deciding whether and how the project should proceed. As a matter of good practice, I also expect decision-makers and the proponent to write to me to advise how my assessment was considered and applied.

Table 6-1 summarises my response to the IAC's key recommendations as provided in the Executive Summary of the IAC report. My detailed recommendations relating to each environmental aspect are outlined in Appendix B.

Table 6-1: Response to IAC's key recommendations

	IAC key recommendations	Minister's response	Section of this assessment
1	Include the permit conditions relevant to the referred matters, as shown in Appendix F, to any future planning permit for the Project	Generally supported, subject to considering the recommendations of my assessment. I acknowledge that further refinements to the wording of planning permit conditions to reflect best practice may be required, but note the importance of checking consistency of final permit conditions with the findings and recommendations of my assessment, where it is relevant.	4



	IAC key recommendations	Minister's response	Section of this assessment
2	Amend the Environmental Management Framework at Environment Measure SW01(2) to add: <i>A standalone flood impact assessment (FIA) and stormwater management plan (SWMP) be established for the BESS and terminal station. The [Flood Impact Assessment] and [Storm Water Management Plan] will incorporate the requirement to minimise the potential impact of earthworks on flood levels and extents on adjacent properties, treat stormwater runoff and retain firefighting runoff.</i>	Supported	5.5

HON SONYA KILKENNY MP

Minister for Planning

Date: 13/9/2026

Appendix A - Matters of national environmental significance

A.1 Context

The EES and this assessment examine the likely impacts on matters of national environmental significance (MNES), relevant to the controlling provisions identified in the Commonwealth EPBC Act controlled action decision for the project (i.e. listed threatened species and communities (sections 18 & 18A) and listed migratory species (sections 20 and 20A).

This appendix consolidates information on likely effects of the project on MNES protected under the EPBC Act, drawing on the assessment of specific matters discussed in other sections of my assessment. This includes assessment findings on Biodiversity (Section 5.1), and Bats and Avifauna (Section 5.2).

Potential impacts on relevant MNES were discussed in Appendix C2 (Bats Report) and Appendix D (Flora and Fauna Report) of the EES and summarised in EES Chapter 8 (Biodiversity and Habitat) and EES Chapter 27 (MNES). The key finding of the proponent's EES was that the project would result in a significant impact to two Threatened Ecological Communities (TECs) and to one terrestrial fauna species.

Section 5.7 of the IAC report summarised the likely impacts on MNES. The overall finding of the IAC was that the project has the potential to result in a significant but acceptable impact to two TECs (Grassy Eucalypt Woodland of the Victorian Volcanic Plain and Natural Temperate Grassland of the Victorian Volcanic Plain), and Striped Legless Lizard.

The EES states five Threatened Ecological Communities (TECs) had the potential to occur within the study areas, two of which were recorded within the project area. This is summarised in Table A1.

Table A1: TECs considered within the EES (source EES Appendix D – Flora and Fauna Report).

Community	EPBC Status	Presence
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	present
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	present
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	not present
Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	not present
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	not present

Flora and fauna Species considered in relation to MNES that have a likelihood of occurrence of 'potential' or higher within either the project area or broader study area considered in the biodiversity assessments are summarised in Table A2.

Table A2: MNES species likelihood of occurrence within the project area (Source: EES Appendix C2 – Bat Report, Appendix D – Flora and Fauna Report).



Species	EPBC Status	Likelihood of occurrence
Matted Flax-lily (<i>Dianella amoena</i>)	Endangered	Potential
Spiny Rice-flower (<i>Pimelea spinescens</i> subsp. <i>spinescens</i>)	Critically Endangered	Present
Golden Sun Moth (<i>Synemon plana</i>)	Vulnerable	Potential
Striped Legless Lizard (<i>Delma impar</i>)	Vulnerable	Potential
Growling Grass Frog (<i>Litoria raniformis</i>)	Vulnerable	Present
Southern Bent-wing Bat (<i>Miniopterus orianae bassanii</i>)	Critically Endangered	Present
Grey-headed Flying fox (<i>Pteropus poliocephalus</i>)	Vulnerable	Potential
Gang-gang Cockatoo (<i>Callocephalon fimbriatum</i>)	Endangered	Potential
Common Greenshank (<i>Tringa nebularia</i>)	Migratory	Potential
Common Sandpiper (<i>Actitis hypoleucos</i>)	Migratory	Present
Curlew Sandpiper (<i>Calidris ferruginea</i>)	Critically Endangered, Migratory	Potential
Double-banded Plover (<i>Charadrius bicinctus</i>)	Migratory	Present
Marsh Sandpiper (<i>Tringa stagnatilis</i>)	Migratory	Potential
Red-necked Stint (<i>Calidris ruficollis</i>)	Migratory	Present
Sharp-tailed Sandpiper (<i>Calidris acuminata</i>)	Migratory	Present
Latham's Snipe (<i>Gallinago hardwickii</i>)	Migratory	Present
White-throated Needletail (<i>Hirundapus caudacutus</i>)	Vulnerable, Migratory	Potential
Fork-tailed Swift (<i>Apus pacificus</i>)	Migratory	Potential
Blue-winged Parrot (<i>Neophema chrysostoma</i>)	Vulnerable	Present

Targeted surveys in October 2025 identified a *Dianella* individual that was unable to be classified at species level due to the lack of flowering material. The EES states that this individual could have potentially been



classified as Matted Flax-lily, listed as Endangered under the EPBC Act. I agree with the conclusion of the EES that this individual would not be impacted by the proposed construction disturbance area or operational footprint as it was located outside of the proposed footprint, and therefore this species is not considered further below.

Targeted surveys were also undertaken in November, 2011 for five EPBC listed fish species (Australian Grayling, Dwarf Galaxis, Macquarie Perch, Murray Cod and Yarra Pygmy Perch) with the potential to be impacted by the project. None of these species were recorded during surveys. Technical Appendix D (Flora and Fauna) states that no impacts to waterways would be anticipated within the project Site itself due to the proposed 100 m buffers from waterways. The EES states that two of the species (Little Galaxias and Yarra Pygmy Perch) are possible in waterways that intersect the transport route outside the project site. I accept the conclusion of the EES that there would be no impacts to waterways for works along the transport routes, and therefore there are no impact pathways that would lead to impacts to either of these EPBC listed fish species. Therefore, EPBC listed fish species are not considered further below.

A.1 Listed threatened ecological communities

This section considers key threatened ecological communities considered to be potentially impacted by the project.

Detailed vegetation assessment was undertaken at all sites within the investigation areas that were found to support native vegetation or with the potential to support listed matters. These were undertaken within the project site investigation area between 2018 and 2021. An updated native vegetation assessment that included the transport route and roadside upgrade investigation areas was undertaken in 2025. The extent of listed ecological communities was mapped through a combination of aerial photograph interpretation and ground-truthing using a hand-held GPS.

Impacts to Grassy Eucalypt Woodland of the Victorian Volcanic Plain and Natural Temperate Grassland of the Victorian Volcanic Plain are avoided entirely within the project area for the wind farm, and potential impacts to these TECs are limited to works for road widening and for the Geelong and/or Portland transport routes.

Natural Temperate Grassland of the Victorian Volcanic Plain

The Natural Temperate Grassland of the Victorian Volcanic Plain TEC is listed as Critically Endangered under the EPBC Act. The EES identified a total of 20,596 ha of this community in the investigation area within the transport route study area along Woolsthorpe-Hexham Road, Cooramook Lane and Hamilton Highway.

The project is proposing to directly impact on up to 0.605 ha to widen Hexham-Ballangeich Road, and for the combined transport route from Geelong and Portland. The EES described that the construction of the project would lead to the loss of 0.586 ha (Geelong), 0.595 ha (Portland) or 0.605 ha (combined Geelong and Portland Transport Routes) for Natural Temperate Grassland of the Victorian Volcanic Plain.

The EES identified that a worst-case scenario for offsets (for the combined Geelong and Portland Transport Routes) would require an offset for the loss of up to 0.605 ha for the combined Geelong and Portland Transport Routes. The EES identified that offset sites for impacts to Natural Temperate Grassland of the Victorian Volcanic Plain were not currently available from the proponent's offset broker, however it was confirmed that offsets for listed ecological community removal are currently available and were in the process of being secured by the proponent³³.

³³ Tabled document 39, Part 1



The Construction Environmental Management Plan (EMM BH04) includes a requirement for securing offsets for unavoidable impacts to protected matters under the EPBC Act through measures such as a conservation covenant registered on title under the Victorian Conservation Trust Act 1972 or a Landowner Agreement under Section 69 under the Conservation, Forests and Land Act 1987, and that an Offset Management Plan will be developed for each site to the satisfaction of the National EPA.

The IAC was satisfied that suitable offsets would be able to be secured for likely extent of impacts to Natural Temperate Grassland of the Victorian Volcanic Plain and concluded that while the likely impacts to the TEC would be significant, the impacts are acceptable. However, there is still a need for the proponent to demonstrate to the National EPA that suitable offsets are secured in line with the EPBC offset policy. The development of an Offset Management Plan is included as a measure within the Construction Environmental Management Plan (EMM BH04). Given there is some inconsistency regarding the timing of security of suitable offsets, I recommend that EMM BH04 be amended to require approval of the Offset Management Plan by National EPA, prior to construction commencing, and remove the inconsistent wording of "prior to the unavoidable impacts".

It is my assessment that the impacts to Natural Temperate Grassland of the Victorian Volcanic Plain would be significant, but acceptable with the adoption of the recommendations made in this assessment and suitable offsets being confirmed and secured in line with the requirements under the EPBC Act.

Grassy Eucalypt Woodland of the Victorian Volcanic Plain

The Grassy Eucalypt Woodland of the Victorian Volcanic Plain TEC is listed as Critically Endangered under the EPBC Act and 5.113 ha of this TEC was identified within the investigation area.

Of the total 5.113 ha recorded within the investigation area, the project is proposing to directly impact on 0.247 ha to widen Hexham-Ballangeich Road in the south-east of the project site. The TEC would not be impacted outside of roadside vegetation on the periphery of the project area, or to facilitate transport along either of the Portland or Geelong transport routes.

The EES identified that a worst-case scenario for impacts of up to 0.247 ha (for the combined Geelong and Portland Transport Routes) which would require an offset. The EES identified that offset sites for impacts to Grassy Eucalypt Woodland of the Victorian Volcanic Plain are not currently available from their offset broker, however it was confirmed that offsets for listed ecological community removal are currently available and were in the process of being secured by the proponent.³⁴

The IAC was satisfied that suitable offsets will be available for Grassy Eucalypt Woodland of the Victorian Volcanic Plain and concluded that while the likely impacts to the TEC would be significant, the impacts are acceptable. I agree with the findings of the IAC and consistent with my finding for the TEC above, recommend that EMM BH04 is amended to require approval of the Offset Management Plan by the National EPA, prior to construction commencing.

It is my assessment that the impacts to Grassy Eucalypt Woodland of the Victorian Volcanic Plain would be significant, but acceptable with the adoption of the recommendations made in this assessment and suitable offsets being confirmed and secured in line with the requirements under the EPBC Act.

Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lower Plain

Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plain are Critically Endangered under the EPBC Act.

³⁴ Tabled document 39, Part 1



A detailed vegetation assessment was undertaken within the project site investigation area between 2018 and 2021. Targeted surveys were taken in 2025 for potential occurrences of Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lower Plain ecological community following a period of sufficient rainfall. Targeted surveys confirmed that diagnostic criteria for this threatened ecological community was not met.

I agree with the IAC's assessment that potential impacts on Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plain have been appropriately assessed. It is my assessment that impacts would be both unlikely and therefore insignificant.

A.2 Listed threatened flora and fauna species

This section considers key threatened species considered to be potentially impacted by the project.

The EES notes that as several surveys undertaken for listed flora and fauna species were dated, a precautionary approach was taken with the assessment, where species presence was assumed in all potentially suitable habitat.

Striped Legless Lizard

Striped Legless Lizard is listed as Vulnerable under the EPBC Act. Suitable habitat for this species was recorded within patches of Plains Grassland within roadsides, and within some scattered areas of Plains Grassland and Plains Grassy Woodland EVCs overlapping with the project area. No targeted field surveys were undertaken to confirm presence within suitable habitat, but the EES took a precautionary approach to the assessment of Striped Legless Lizard, assuming presence within any suitable Plains Grassy Woodland and Plains Grassland habitat.

The EES described that the construction of the project would lead to the total removal of up to 1.91 ha of suitable grassland habitat for Striped Legless Lizard within the project area and at 13 different intersections and local road upgrade locations, including:

- 0.3 ha of habitat within the project area,
- 1.175 ha of habitat due to local road upgrades,
- 0.241 ha (Geelong), 0.432 ha (Portland) or 0.534 ha (combined Geelong and Portland transport route) for the transport route.

An assessment of the impacts on Striped Legless Lizard under the Significant Impact Guidelines and Referral guidelines for the vulnerable striped legless lizard was undertaken for the project. The EES determined that if the species was present across these areas, it would have the potential to be significantly impacted, given potential grassland habitat along roadsides has potential for reduced area of occupancy for an important population and impact to habitat critical for the survival of the species. However, the EES concluded that the project is unlikely to result in a significant impact to Striped Legless Lizard.

The IAC was satisfied that the proponent appropriately applied the mitigation hierarchy for impacts to Striped Legless Lizard, including the adoption of management measures that encompass habitat suitability surveys prior to the commencement of construction activities, to inform salvage and translocation protocols (EMM BH03) in the unlikely event that the species is detected. Proposed management of grassland areas and timing of construction activity would help facilitate temporarily relocation of individuals within the construction area (EMM BH10).

In the event the species is discovered during the project's construction, the EES' proposed management measures (EMM BH10 and EMM BH03) will minimise potential impacts and allow for the dispersal of the species. Therefore, I am comfortable that direct impacts can be appropriately avoided and mitigated consistent with the mitigation hierarchy. The IAC agreed that offsets will be required to compensate for unavoidable impacts to habitat in the event they might occur.



It is my assessment that, while there is some potential for impacts on the species to be significant, this can be minimised through the proposed mitigation measures and therefore be managed to acceptable levels, and necessary offsets can be secured to satisfy Commonwealth requirements as appropriate.

Southern Bent-wing Bat

The SBWB is listed as critically endangered under the FFG Act and EPBC Act. The distribution of the SBWB is closely aligned to the distribution of caves in southwest Victoria and southeast South Australia as it is an obligate cave-dwelling bat. There are two major maternity (breeding) caves for the species, the Starlight Cave in Warrnambool located approximately 40 km south and the Naracoorte caves in South Australia. A third, smaller breeding cave was discovered in 2015 near Portland, approximately 100 km south-west of the proposed project site. The breeding caves are considered habitat critical to the survival of the species under the EPBC Act, along with non-breeding (roosting) caves that are used by a significant proportion of the population or at key times during the yearly cycle, and key foraging areas.

Two non-breeding (roosting) caves used as roosting sites, the Panmure Cave and the Grassmere Cave, are located within 30 km of the project site. No known roosting areas are within the proposed project site. The Conservation Advice (DCCEW 2021) states that in Victoria, there are 18 caves used as roosting sites, spread throughout the south-west of the state (DELWP 2020). During the colder months, the population is dispersed across the subspecies' distribution, using the non-maternity caves and the maternity caves to varying extents (DCCEW 2021).

The EES considered the *National Recovery Plan for the Southern Bent-wing Bat *Miniopterus orianae bassani** (DELWP, 2020a) and based its SBWB surveys around the Survey guidelines for Australia's threatened bats (DEWHA, 2010). Ultrasonic detector surveys were conducted six times across 4,619 detector nights of various seasons between 2010 and 2023. Habitat assessments were also undertaken to assess the general faunal habitats present across the project site, and their suitability for supporting foraging requirements of the species.

Surveys identified 218 SBWB calls from 33 of the 128 survey locations across the investigation area, averaging 0.05 calls per night. The small amount of SBWB activity recorded at the wind farm within one hour of sunset compared to later during the night suggests that bats travelled for some distance from locations outside the study area. The EES used survey data to rank turbines into higher, moderate and lower risk ratings to SBWB from collisions with turbine blades based on proximity to potential habitat and locations of confirmed SBWB calls.

The proponent's expert witness, Dr Kulik, outlined that there are records of collisions with wind turbines for the species in Victoria and to date there have been 36 mortalities of the species reported to DEECA³⁵. It is noted that SBWB has the potential to collide with one of the project's operational wind turbines. The EES also notes SBWB primarily flies at lower heights (between 0 and 30 m), which was supported by definitive SBWB calls only being detected at ground level throughout the proponent's survey efforts. However, as there have been SBWB casualties recorded at other Victorian wind farms, it is known that the species does fly at rotor swept height and there is potential for collision.

The proponent proposed a multi-faceted approach to avoidance, minimise and mitigate potential impacts on the SBWB. These include avoidance and use of buffers for high quality SBWB habitat and areas with high SBWB calls, and adopting a minimum rotor swept height of 40 m above ground.

Turbines were categorised and ranked as higher, moderate and lower risk to SBWB, based on proximity to habitat and SBWB-definite or SBWB complex calls, prior to and after micro-siting. The EES proposed

³⁵ Tabled document 39, Part 1



minimisation measures within the BAM Plan, including a seasonal (September to April) low windspeed cut-in to 4.5 m/s at hub height for moderate to high-risk turbines from dusk to dawn, and blade feathering. The cut-in speed would be increased to a maximum of 6 m/s in the event of the detection of an impact.

There was an absence of monitoring data in the EES to demonstrate that SBWB are not present across the site in winter. Therefore, I recommend that the curtailment approach proposed in the EES be applied across the year, in the absence of such data. However, I also recommend monitoring is undertaken, in consultation with DEECA and National EPA, to demonstrate that activity levels across the site would be acceptably low in winter, to enable a seasonal application of curtailment.

I agree with the IAC that the residual impacts to the SBWB would be unlikely to be significant, subject to effective implementation of the BAM Plan, to be prepared in consultation with DEECA and National EPA. It is my recommendation that this plan needs to be approved prior to the installation of the first wind turbine rotor, in order to reduce risk of avifauna colliding with a freely spinning turbine. I note that in the unlikely of a significant residual impact, the BAM Plan specifies and commits to financial compensatory measures to be implemented in response as mentioned in management measure BA01. The proponent has undertaken a considerable amount of assessment to inform appropriate EMMs to apply avoidance, minimisation and mitigation measures applicable to SBWB, to minimise the risk to this species.

It is my assessment that there is unlikely to be a significant impact on this species from the proposed project, and the impacts would be acceptable. This takes account of the distance of the project from known caves utilised by the species, the low incidence of occurrence of the species throughout targeted surveys, and implementation of the proposed minimisation and adaptive management measures via the BAM Plan.

Grey Headed Flying Fox

Grey-headed Flying-fox (GHFF) are listed as vulnerable under the EPBC Act. The EES considered the Referral guideline for management actions in Grey-headed and Spectacled flying-fox camps (DoE, 2015b), and based it's GHFF surveys around the Survey guidelines for Australia's threatened bats (DEWHA, 2010). The EES also considered the National Recovery Plan for the Grey-headed Flying-fox *Pteropus poliocephalus* (DAWE, 2021), and assessment under the Significant Impact Guidelines was undertaken appropriately for this species.

Targeted field surveys were undertaken to determine the presence, number, and typical flight paths of GHFF at a temporary camp to the east of the project site. Acoustic recordings were also undertaken within the temporary GHFF camp to monitor their presence and departure in Autumn 2023. Habitat assessments undertaken to assess the general faunal habitats present across the project site, and their suitability for supporting foraging requirements of the species.

No calls were recorded for the GHFF within the project area during surveys undertaken between 2010 and 2023. However, a temporary GHFF camp was observed in the pine plantation approximately 2 km to the east of the study area, and there are GHFF camps in Warrnambool (permanent; 30 km away), Lismore (new; 55 km away) and Colac (temporary; 85 km away).

The EES states that limited food resources exist within the project area that would attract GHFF, and it would be unlikely for the species to be limited in foraging resources as a result of the project. The EES noted that GHFF may occasionally fly across the project site which may put the species at risk of collision with turbines, however, concludes that the operation of the project would not result in levels of mortality sufficient to cause a significant impact on the species.

The BAM Plan includes requirements include a specific monitoring program for GHFF to be undertaken for the first two years post-all turbines commencing operation. However, there are not any follow up actions for the proponent to act upon should the data obtained indicate an increased likelihood of presence or mortality presented in the EES. Given there are no specific requirements for adaptive management using the data collected from this activity and the mortality monitoring program, I recommend the EMM BA01-6 and the



relevant planning permit condition 109(i) are amended to include consultation with DEECA Regions and National EPA, should the two-year GHFF monitoring program detect temporary GHFF camps within the project site and its surroundings. Consultation on appropriate, risk-based mitigation, will enable GHFF mitigation measures required by EMM BA01 and relevant permit condition 109(c) to be adapted as necessary to minimise the likelihood of any significant impacts.

It is my assessment that the project is unlikely to have a significant impact on the species, and the impacts would be acceptable, noting my recommendations to amend planning permit conditions, to ensure proposed mitigation measures implemented by the proponent avoid significant impacts to GHFF.

Spiny Rice Flower

Spiny Rice-flower is listed as Critically Endangered under the EPBC Act. The EES details a population of 158 Spiny Rice-flower individuals were recorded on the Northern side of the Hamilton Highway road reserve, adjacent the Portland Transport route. No known Spiny Rice-flower individuals recorded in surveys would coincide with the project area, including within the required swept path footprint for the Portland Transport route.

The EES states that this species was unlikely to occur outside road reserves due to the lack of suitable habitat arising from the history of significant ground disturbance and prominence of introduced pasture grasses. An assessment of the impacts on Spiny Rice-flower under the Significant Impact Guidelines was undertaken for the project and it was determined that the species is unlikely to be significantly impacted as it has not been detected within the project footprint.

The IAC concludes that the project is not expected to result in significant impacts on Spiny Rice-flower that warrants further modifications to the project, or EMMs. Further, the IAC's concluded that the project will avoid impacts to Spiny Rice-flower, however recommended an amendment to EMM-BH01 for condition 1d(iii) to require a site induction for all employees and visitors, including specific requirements in relation to listed flora species, including Spiny Rice-flower. I support this recommendation and consider it appropriate EMMs are in place to ensure significant impacts to any individual Spiny Rice-Flower specimens discovered will be avoided.

It is my assessment that that the mitigation measures proposed by the proponent avoid impacts to this species, and that the project is unlikely to have any significant impact on Spiny Rice-flower and is therefore acceptable.

Growling Grass Frog

Growling Grass Frog (GGF) is listed as Vulnerable under the EPBC Act. The species was opportunistically recorded within the project area throughout wetland and aquatic habitat assessments undertaken between 2011 and 2018. The EES states that potential impacts from earthworks and physical disturbance could result in direct habitat loss, direct mortality or injury due to collision with construction vehicles, and indirect impacts to wetlands and adjacent habitats supporting the species.

Based on the breadth of GGF calls recorded in different sections of Mustons Creek, the EES took a conservative approach to the assessment of GGF. Presence of the species was assumed in dams, including within a dam at the intersection of Hexham-Ballangeich Road and Connewarren Lane along the Geelong transport route. The species was also presumed to be present within a continuous habitat corridor from Hopkins River to the connecting tributaries and wetlands of Mustons Creek.

The EES identified that some wetlands and creek lines in the project area meet the requirements for potential GGF habitat. As turbines are set back 100 m from the potential habitat along waterways with suitable wetland habitat, the IAC and DEECA were satisfied that known areas identified as GGF habitat would be appropriately avoided. The EES also proposed to design primary infrastructure to allow for a 30-m buffer for works from ephemeral drainage lines identified as potential GGF habitat. These management measures are considered



appropriate to manage risk of potential impacts from waterway crossing works, such as through micro-siting and culvert design (EMM SW01), waterway protection measures and erosion control (EMM SW04), as well as the facilitation of movement of the species in waterways through the timing of works (EMM BH08).

The EES' assessment in accordance with the Significant Impact Guidelines, concluded that the project is unlikely to have a significant impact on the species. The IAC agreed that the proponent has proposed appropriate management controls and mitigation measures to avoid and minimise impacts to the species. It is considered that construction activity would not reduce the area of occupancy of a population or lead to a long-term decrease in the population size of GGFs.

It is my assessment that the project is unlikely to have a significant impact on GGF and the impacts would therefore be acceptable, noting the mitigation measures proposed by the proponent address the risk of impact.

Golden Sun Moth

Golden Sun Moth is listed as Vulnerable under the EPBC Act. Targeted Golden Sun Moth surveys were undertaken between 2011 and 2012. The EES based the assessment of impacts upon a precautionary approach where the species was assumed to be present within any suitable habitat (Plains Grassland and Plains Grassy Woodland) within multiple locations along the roadside upgrades and transport route investigation areas. The EES states that construction of the project would result in the removal of 0.3 ha of this potential habitat within the project site, 1.175 ha within the roadside upgrade areas, and up to 0.4534 ha within the combined transport route areas.

The EES proposed appropriate mitigation measures to manage potential impacts, including requirements for habitat restoration following construction activity (EMM BH01), and pre-construction habitat suitability surveys and contingencies should presence of Golden Sun Moth be confirmed (EMM BH03).

The IAC considered that potential impacts on the Golden Sun Moth were appropriately assessed and that the clearance of the proposed quantity of potential habitat represents a minor degree of impact to habitat critical to the survival of this species.

It is my assessment that the project is unlikely to have a significant impact on Golden Sun Moth, and therefore the impacts would be acceptable, noting the mitigation measures proposed by the proponent address the risk of impact.

Gang-gang Cockatoo

Gang-gang Cockatoo is listed as Endangered under the EPBC Act. Bird utilisation surveys undertaken between 2018 and 2025 using a fixed-point survey method with an observation period of 15 to 20 minutes. A habitat assessment was also undertaken to assess potential habitat and suitability for foraging within roadside vegetation.

The EES determines that the species is unlikely to occur within the project site as it lies outside its natural distribution range and due to lack of suitable habitat. The extent of habitat removal is limited to five roadside trees along the Portland transport route. I consider EMM BH07 ensures that understorey removal is minimised along the Portland transport route and revegetation will occur following removal efforts for the required swept path.

The EES included an assessment of potential impacts to the species in accordance with the Significant Impact Guidelines, which determined that the project is unlikely to have a significant impact. The IAC agreed that the proponent has proposed appropriate management controls and mitigation measures to avoid and minimise impacts to the species.



I consider that construction activity would not result in removal of habitat critical to the survival of the Gang-gang Cockatoo, and the project will not reduce the area of occupancy or fragment any populations of the species, and the proposed mitigation measures address the risk of impact.

It is my assessment that the project is unlikely to have a significant impact on Gang-gang Cockatoo and therefore the impacts would be acceptable.

Blue-winged Parrot

The Blue-winged Parrot is listed as Vulnerable under the EPBC Act. The Blue-winged Parrot is known to occur and was recorded foraging within the project site in paddocks and near revegetation windbreaks in flocks, pairs and individually. Though the project site is within the known breeding area for the species, the EES states that it is unlikely that breeding occurs within the project site due to the absence of mature woodland. I support DEECA's recommended amendments for a Threatened Species Management Plan to include specific measures to avoid minimise and mitigate impacts and to be prepared in consultation with DEECA Regions. I otherwise consider EMM BH06 is appropriate to ensure that impacts to any potential mature habitat utilised as breeding sites for the species is avoided, compensated and monitored. It is appropriate management developed via the BAM plan be prepared in consultation with DEECA Regions and National EPA, and that this should include requirements and processes for adaptive management action and compensation should they be necessary due to any impacts that occur.

The EES and IAC note the low number of individuals observed and the irregularity of presence across the project area, and therefore that construction activity would not result in removal of habitat critical to the survival of Blue-winged Parrot, or would the project reduce the area of occupancy or fragment any populations of the species.

Blue-winged Parrot are known to fly at similar heights to the operating rotor blades, with collisions from operating wind turbine blades previously recorded within Victoria. However, I accept the conclusion of the EES that collisions with turbine blades would be infrequent, based on the species' history of foraging in the vicinity of operating wind farms. Based on the EES and information before me, I consider that operation of the project would be unlikely to result in a long-term decrease of the population size on this basis and that appropriate mechanisms are in place for adaptive management in the BAM plan should unexpected impacts occur.

I support the findings of the IAC that the proponent has proposed appropriate management controls and mitigation measures to avoid and minimise impacts to the species throughout construction and operation of the project.

It is my assessment that the project is unlikely to have a significant impact on Blue-winged Parrot and therefore the impacts would be acceptable.

A.3 Listed migratory birds and shorebirds

This section considers key migratory species considered to be potentially impacted by the project.

The EES states that surveys were conducted between 2011 and 2012, and 2018 and 2025, and 10 EPBC listed migratory bird and shorebird species were likely or known to occur within the project area, including Common Greenshank, Curlew Sandpiper, Common Sandpiper, Double-banded Plover, Fork-tailed Swift, Latham's Snipe, Marsh Sandpiper, Red-necked Stint, Sharp-tailed Sandpiper and White-throated Needletail. No survey sites were determined to be individually or collectively internationally important for any of the migratory or shorebird species.



Migratory Shorebirds

The EES states four migratory shorebird species listed under the EPBC Act were detected at two sites at the project site during surveys undertaken between 2018 and 2019, including Sharp-tailed Sandpiper, Latham's Snipe, Double-banded Plover, and Common Sandpiper.

The EES states that the construction of the project would result in the removal of approximately 6.122 ha of Plains Grassy Wetland, Plains Sedgy Wetland and Aquatic Herbland EVCs capable of providing potential habitat for migratory shorebirds, as well as the removal of an additional 0.008 ha of Plains Grassy Wetland along the Geelong or Combined transport route. The EES reasons that the wetland vegetation proposed to be removed from within the project area is too well vegetated with dense growth to be suitable habitat for the eight species of migratory shorebirds. I consider that appropriate avoidance to shorebird habitat is provided via a 100 m buffer from all wetlands mapped in the Victorian Wetland Inventory, micro-siting of project infrastructure has formed as part of the mitigation design, and larger, more appropriate areas of suitable habitat are available for these species outside the project area.

A submission was raised on habitat disturbance and collision risk to Latham's Snipe. The EES describes Latham's Snipe as having a direct, powered flight pattern, an attribute which makes it less at risk of collision with wind turbines blades. I consider that Latham Snipe could be potentially susceptible to occasional collisions with turbines. However, I accept the conclusion of the EES that such collisions would be infrequent and would therefore not impact on a significant population at the project site based on the lack of historical records in the surrounding region, lack of records from targeted surveys, and the lack of suitable habitat within the project site. However, I consider appropriate that the EMM relating to the BAM plan (EMM BA01) specify that mitigation measures apply for listed or threatened species that include Latham's Snipe, in order to manage any unanticipated impacts to this migratory shorebird species.

I accept the conclusion of the EES that most migratory shorebirds will spend most of their time at ground level but have the potential to the height of the rotor blades or above when migrating or travelling between regional wetlands. I accept that the species of migrating shorebirds migrating across the HWF site will be generally at a height well above RSA and not at risk to collision, particularly when considering the closest significant habitat site (the Western District Lakes Ramsar site) is located 40 km to the east-south-east.

It is my assessment that any impacts to migratory shorebirds are not likely to be significant, and that appropriate management measures would manage any potential impacts, including the requirement for a BAM plan to contain adaptive management in the form of processes to further minimise, mitigate and/or compensate should any impact thresholds be triggered.

Migratory Birds

The EES states that two migratory birds (White-throated Needletail, Fork-tailed Swift) are known to fly at similar height of the rotor swept area for the project's wind turbine blades.

I accept the conclusion of the EES that collision with White-throated Needletail would be unlikely, given the lack of presence detected in surveys undertaken in favourable season and weather conditions, and the significant distance of the project site to where presence of the species has been historically detected.

The EES argues that given the relatively high population numbers Fork-tailed Swift compared with the low number of recorded collisions at wind farms, the risk of significant impacts to the species from collision with turbines is low. I consider that any potential collisions with Fork-tailed Swift from the operation of the project would be unlikely to reach a threshold for a significant impact to this migratory species. I therefore consider the impacts would be acceptable.

I support the IAC's finding that the timing of the BAM Plan approval should occur before the first turbine commences and am satisfied that the BAM Plan would be adequate, subject to it being developed in consultation with DEECA and National EPA. I otherwise consider that the BAM Plan contains adequate



adaptive management mechanisms to further minimise or compensate should any unacceptable impacts to migratory birds be triggered through the mortality monitoring program of the BAM Plan.

Considering these outcomes and the refined EMMs to be implemented, it is my assessment that the project is not expected to result in a significant residual impact to any migratory birds or shorebird species assessed, and the impacts would be acceptable.

A.4 Assessment

It is my assessment that, taking account of the IAC report and findings detailed within this assessment, the project will have a residual significant impact on two TECs, Natural Temperate Grassland of the Victorian Volcanic Plain and Grassy Eucalypt Woodland of the Victorian Volcanic Plain, and therefore offsets will be required. Residual impacts on these two communities are acceptable, provided they are offset in accordance with the EPBC Act Environmental Offsets Policy, as required by the proposed Construction Environmental Management Plan (EMM BH04). I recommend that the wording in EMM BH04 be updated to be clear that the approval of the Offset Management Plan by the National EPA must occur prior to the commencement of construction rather than prior to unavoidable impacts to protected matters.

It is also my assessment that while there is some potential for impacts on the Striped Legless Lizard to be significant, this can be minimised through the proposed mitigation measures and therefore be managed to acceptable levels, and appropriate offsets can be secured, should these be required.

The project is unlikely to have a significant impact on other EPBC-listed threatened fauna species, with the implementation of the proposed EMMs.

The project is unlikely to have a significant impact on EPBC-listed threatened flora species, including Spiny Rice-flower, with the implementation of the proposed EMMs, including those recommended and amended within this assessment for Spiny Rice-flower.

Impacts on EPBC-listed threatened birds, migratory birds, migratory shorebirds, and SBWB are unlikely to be significant with the implementation of the proposed mitigation measures, including those recommended and amended within this assessment for the Latham's Snipe and SBWB.

While I consider that the project is unlikely to have a significant impact on other MNES, I acknowledge there is some degree of residual uncertainty about the potential for some bird and bat species, listed under the EPBC Act, to collide with turbines. However, the development and implementation of the BAM Plan, which I recommend is to be approved prior to the installation of the first wind turbine rotor, would include monitoring as well as implementation of adaptive management measures to mitigate, and where required implement contingency measures to appropriately reduce the risk of a significant impact occurring. The adaptive management regime in the BAM Plan will ensure that any impacts are appropriately responded to, i.e. in the event an impact does occur. Further, the BAM Plan will need to be developed in consultation with National EPA and DEECA.

While the project is likely to result in significant impacts to some protected matters as noted above, overall I consider the impacts of the project to be acceptable, with the adoption of the IAC recommendations and as amended through this assessment.

The provision of my assessment under the Environment Effects Act, concludes the accredited state assessment for the project for the purposes of the Bilateral Agreement and the EPBC Act, and will inform the Commonwealth Government Minister for Environment and Water's decision about whether and under what conditions to approve the project.



Appendix B – Environmental Management Measures

The IAC made limited recommended changes to the EMF and EMMs in response to submissions and through their analysis of the EES and potential effects. The IAC also recommended planning permit conditions for matters that were referred to the IAC for their considerations (Appendix F, IAC report), many of which correlate directly to specific EMMs. Section 4 of this assessment outlines the IAC's key findings and recommendations relating to the EMF and my response. Further to this, Section 5 of this assessment sets out where I support and/or recommend further changes to the EMMs (and planning permit conditions) considered by the IAC.

Table B1 contains the proponent's 'Tabled document 126' version of the EMMs that was tabled at the IAC public hearing. I generally endorse all EMMs except where qualified in Table B1. Further details regarding my findings and recommendations in this table are contained in Section 5 of this report.

Table B1 Recommended changes to the EMMs (EMMs are drawn from the proponent's tabled document 126. Numbering in this table has been updated to fix formatting errors observed in tabled document 126).

MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
General				
EMM01	Construction Environmental Management Plan 1. Prior to the commencement of construction, develop and implement a Construction Environmental Management Plan to minimise, manage and monitor environmental impacts associated with construction activities, including significant cumulative impacts associated with the construction of other nearby projects that may be occurring simultaneously. The Construction Environmental Management Plan would include following associated sub-plans (with corresponding EMMs) that outline specific requirements to manage potential environmental impacts associated with project construction:	-	Supported.	Approval under P& E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	a. Water Management Plan (GW01) b. Sediment, Erosion and Water Quality Management Plan (SW04) c. Acid Sulfate Soil Management Plan (LS03) d. Spoil Management Plan (LS04) e. Air Quality Management Plan (AQ02) f. Construction Noise and Vibration Management Plan (NV01) g. Heritage Management Plan (HH01) h. Agricultural Management Plan (LUP01) i. Traffic Management Plan (TT01). 2. The Construction Environmental Management Plan will address requirements of relevant EMMs, including those related to the storage and handling of hazardous substances, creek crossings, discharge of collected water, and unstable soils. 3. The Department of Energy, the Environment and Climate Action will be consulted in the preparation of relevant sections the Construction Environmental Management Plan. 4. The Construction Environmental Management Plan and associated sub-plans will require review, input and endorsement from statutory authorities and relevant stakeholders as described in relevant EMMs. 5. The Construction Environmental Management Plan and associated sub-plans will be reviewed			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	and verified by the Independent Environmental Auditor prior to construction commencing. 6. The implementation of and adherence to the Construction Environmental Management Plan and associated sub-plans will be enforced, monitored and audited by the Proponent.			
EMM02	Stakeholder Engagement Plan 1. Prior to the commencement of construction, develop and implement an overarching Stakeholder Engagement Plan to facilitate ongoing consultation between the Proponent and the broader community. 2. The Stakeholder Engagement Plan will: a. provide an approach for ongoing engagement with the broader community about the long-term benefits and opportunities of the project b. outline how the Proponent will maintain a stakeholder database throughout the life of the project to assist identifying and resolving project issues experienced by stakeholders efficiently, to put stakeholder ease of communication and issue resolution at the heart of stakeholder relations c. outline procedures and mechanisms for the regular distribution of accessible information about or relevant to the project	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via relevant Government agency management plan.



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	d. identify opportunities to provide timely, useful and accurate information regularly about construction activities, schedules and milestones e. include measures to notify affected landowners and neighbours well in advance about any specific construction issues with direct impacts on properties (e.g., traffic management, out-of-hours work) and how they can easily reach the project team with questions f. detail the mechanisms for advising the community in advance of upcoming works (where necessary) and how the proponent will work with community to mitigate the negative impacts of construction whenever possible g. be reviewed and adapted based on community feedback so that the communications and engagement approach is fit for purpose and meets the needs of the community h. address the requirements of relevant EMMs, including specific engagement to be undertaken in relation to potential impacts to groundwater use, the storage of dangerous goods, aviation and electromagnetic interference.			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
EMM03	Stakeholder Engagement Plan – Complaints management procedure 1. Prior to the commencement of construction, a complaints management procedure will be developed as part of the Stakeholder Engagement Plan (EMM02) to ensure that concerns or grievances are handled consistently and fairly. 2. The complaints management procedure will: a. outline the process for making and recording complaints b. provide a range of avenues (e.g., direct phone number, email) for community members to express their concerns or ask questions c. specify response and resolution procedures to ensure timely responses are provided to complaints raised d. outline roles and responsibilities within the project team for the receipt, handling and escalation of complaints e. outline how community members can escalate their concerns should they not receive a response that meets their expectations. 3. The complaints management procedure will include a process for managing complaints relating to noise, and radio reception strength at	-	Supported	Approval under the P&E Act Approval under the MRSD Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	pre-existing dwellings within 5 kilometres of the project site.			
EMM04	Neighbour Benefit Sharing Program 1. Prior to the commencement of operation, implement a Neighbour Benefit Sharing Program to promote community understanding and make a positive contribution to the potentially affected communities. 2. The Neighbour Benefit Sharing Program will include the following payments for those with a dwelling located within 6 kilometres of a constructed wind turbine (excluding stakeholder landowners): a. a one-off payment of \$1,000 at the substantial commencement of construction b. a neighbour benefit payment of: c. \$3,500 per constructed turbine located within two kilometres of the dwelling d. \$1,000 per constructed turbine located between two kilometres and three kilometres of the dwelling e. \$100 per constructed turbine located between three kilometres and six kilometres of the dwelling	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant mechanism is used to give effect to this EMM.



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	f. the neighbour benefit payment would be a minimum of \$1,000 and maximum of \$30,000 per year g. an energy cost offset plan to help the occupants of neighbouring dwellings with the cost of electricity, with an annual value of up to \$2,000 h. a Community Benefit Fund that contributes \$1,000 per year per wind turbine upon commissioning of the wind farm i. a Community Co-investment Program providing an opportunity for community members and organisations to invest in the operational project, subject to sufficient interest from the local community. 3. Further engagement and involvement with the affected communities will be carried out to determine how the Neighbour Benefit Sharing Program, and in particular the Community Benefit Fund, would be set up, managed and spent.			
EMM05	Accommodation and Employment Strategy	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant mechanism is used to give effect to this EMM.
	1. Prior to the commencement of construction, develop and implement an Accommodation and Employment Strategy to manage the potential effects of workforce influx on the local community and local economy.			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	2. The Accommodation and Engagement Strategy will: a. outline measures to ensure sufficient accommodation is available for the construction and operational workforce associated with the project b. consider measures to maximise benefits to the local economy and business community c. consider potential cumulative impacts associated with concurrent developments in social locality.			
EMM06	Work Authority	-	Supported	Approval under the MRSD Act
	1. Prior to the development of an on-site quarry, obtain a Work Authority through approval by Resources Victoria (Department of Energy, Environment and Climate Action) for the temporary quarry construction and operation and adhere to its requirements.			
EMM07	Quarry Work Plan	-	Supported	Approval under the MRSD Act
	1. Prior to the development of an on-site quarry, the draft Quarry Work Plan (provided in Attachment II) will be finalised and submitted to Resources Victoria (Department of Energy, Environment and Climate Action) for approval. 2. The Quarry Work Plan will include measures to:			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	a. manage and monitor surface water impacts b. manage noise emissions, in accordance with a Quarry Noise Management Plan (NV02) c. control emissions of dust or other particulates d. manage the carriage and deposition of dust, silt and clay by vehicles existing the work authority area e. manage erosion from topsoil and overburden stockpiles f. manage site rehabilitation. 3. Prior to blasting, the affected areas will be pre-wet to minimise dust emissions. Blasting would occur when winds are blowing away from the nearest sensitive receptors (i.e. from the north, south or west) and are consistent enough to encourage movement of dust away from the nearest receptors, but light enough to minimise emission generation and transport of dust off-site.			
EMM08	Retain and manage firefighting water 1. The battery energy storage system will be designed to include a retention basin to capture firefighting water to prevent uncontrolled release of water to the environment. 2. Contaminated water captured within the retention basin will be disposed at a lawful place	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via relevant Government agency management plan.



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	in accordance with the <i>Environment Protection Act 2017</i> .			
EMM09	Operations Environmental Management Plan 1. Prior to the commencement of construction, develop and implement an Operations Environmental Management Plan to minimise, manage and monitor environmental impacts associated with operational activities. 2. A number of plans would sit within the Operations Environmental Management Plan. These would include, but not be limited to (with corresponding EMMs): a. Bat and Avifauna Management Plan (BA01) b. Brolga Compensation Plan (BR02) c. Water Management Plan (GW04) d. Sediment, Erosion and Water Quality Management Plan (SW04) e. Operational Noise Management Plan (NV06) 3. The Operations Environmental Management Plan will address requirements of relevant EMMs, including those related to the storage and handling of hazardous substances and dust minimisation. 4. The Operations Environmental Management Plan and associated sub-plans will require review, input and endorsement from statutory authorities		Supported.	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	and relevant stakeholders as described in relevant EMMs. 5. The Operations Environmental Management Plan and associated sub-plans will be reviewed and verified by the Independent Environmental Auditor prior to construction commencing. 6. The implementation of and adherence to the Operations Environmental Management Plan and associated sub-plans will be enforced, monitored and audited by the Proponent.			
EMM10	Decommissioning Plan	-	Supported	Approval under the P&E Act
	1. Prior to commencement of decommissioning, develop and implement a Decommissioning Plan to minimise the risk of harm from decommissioning activities, so far as reasonably practicable. This plan would outline mitigation measures for managing potential environmental impacts associated with decommissioning works, including significant cumulative impacts associated with the construction/decommissioning of other nearby projects that may be occurring simultaneously, and would include relevant sub-plans such as a: a. Traffic Management Plan that specifies measures to manage traffic impacts associated with removing the turbine(s) and associated infrastructure from the site			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	b. Noise and Vibration Management Plan for decommissioning related works c. Dust Management Plan. 2. Development of the Decommissioning Plan and engagement with statutory authorities will be undertaken and be guided by the relevant legislation of the day.			
EMM11	Storage and Handling of Hazardous Materials 1. Develop and implement measures in accordance with EPA Publication 1698: Liquid handling and storage guidelines and EPA Publication 1700: Preventing liquid leaks and spills from entering the environment to manage potential pollutants from entering the environment. These measures will be documented in the Construction Environmental Management Plan (EMM01), Operational Environmental Management Plan (EMM09), and Decommissioning Plan (EMM10), and include: a. measures for the use, storage, transfer and disposal of hydrocarbons and chemicals b. a site-specific risk assessment and spill response procedure for hazardous materials (batteries, explosives, etc.) c. requirements for the storage of liquid fuels and chemicals, including:	-	Supported	Approval under the P& E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	i. containment within bunded areas or equivalent facilities ii. being located more than 50 metres from waterways iii. placement within designated areas of the project site. d. requirements for spill response kit(s) to be located at waterway crossings, at locations where machinery/plant are operating, and refuelling and fuel/chemical storage areas during construction e. incorporation of spill containment measures into the drainage design.			

Biodiversity

Evaluation objective: To avoid, and where avoidance is not possible, minimise potential adverse effects on biodiversity values within and near the site including native vegetation, listed threatened species and ecological communities, and habitat for these species. Where relevant, offset requirements are to be addressed consistent with state and Commonwealth policies.

BH01	Construction Environmental Management Plan – Biodiversity and biosecurity management	-	Supported. I recommend this management measure relating to Construction Environmental Management Plan site induction measures	Approval under the P&E Act
	1. Prior to the commencement of construction, develop and implement biodiversity and biosecurity management measures. These measures will be documented in the Construction			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	Environmental Management Plan (EMM01), and include: a. showing the native vegetation to be removed and retained (including Vegetation Protection Zones, in accordance with EMM BH02) on all site plans b. designating entry and exit points from each property within the project site c. requiring biosecurity signage, with clear instructions and contact details, at all project site entry points d. requiring a site induction for all employees and visitors, including specific requirements in relation to: i. Native vegetation ii. Threatened ecological communities iii. Listed flora species, including Purple Blown Grass (<i>Lachnagrostis semibarbata</i> var. <i>filifolia</i>) iv. Listed fauna species known, likely, or with the potential to occur within the project site. e. requiring habitat restoration once impacts cease, in areas not required to support operation of the project.		make specific reference to Spiny Rice-flower habitat to ensure avoidance to the species.	



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	f. establishing decontamination bays at all project site entries and between properties, where necessary, to prevent the spread of weeds across the project site g. measures to ensure any materials imported to the project site are free from biosecurity risks, including record keeping of all materials h. measures to avoid, minimise, and mitigate potential impacts on listed species i. measures to minimise the disturbance of banks, channels and nearby vegetation where essential wind farm infrastructure (e.g. access roads, or transport route swept paths) crosses a creek line or wetland identified as potential habitat of a listed aquatic fauna species. These works will preferably be undertaken during periods when the creek line or wetland is dry and if feasible, restored or enhanced to at least its pre-construction condition.			
BH02	Construction Environmental Management Plan - Vegetation and tree protection zones 1. Prior to the commencement of construction, establish appropriate vegetation / tree protection zones around areas of native vegetation and scattered native trees to be retained, where these occur within 20 metres of works. These zones will be established with marked using temporary	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	fencing or bunting, and appropriately signposted as 'no-go' zones. 2. The location of vegetation / tree protection zones will be documented within the Construction Environmental Management Plan (EMM01). 3. All construction personnel will be appropriately briefed prior to works, and no construction personnel, machinery or equipment will be placed inside vegetation / tree protection zones, as defined in the Construction Environmental Management Plan (EMM01). a. Machinery, earthworks, laydown areas and stockpiles will be located in areas that do not support native vegetation.			
BH03	Construction Environmental Management Plan – Salvage and relocation / translocation	-	Supported	Approval under the P&E Act Approval under the EPBC Act
	1. Prior to the commencement of construction activities within identified habitat areas proposed for removal, an ecologist or qualified fauna spotter-catcher will be engaged to undertake habitat suitability surveys. These will inform the need to further targeted species surveys and any salvage/translocation to the nearest retained habitat. 2. A qualified wildlife handler will be engaged for any tree removal to search for any birds or mammals within hollows and relocate these or delay works			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	until animals have safely finished breeding and left the habitat. 3. If Golden Sun Moth are confirmed to be present, further avoid and minimise measures will be explored and include in the Construction Environmental Management Plan where practicable.			
BH04	Construction Environmental Management Plan – Offsets 1. Prior to the commencement of construction, offsets will be secured to compensate for unavoidable impacts to: a. Native vegetation b. Natural Temperate Grassland of the Victorian Volcanic Plain c. Grassy Eucalypt Woodland of the Victorian Volcanic Plain d. Habitat for Striped Legless Lizard (<i>Delma impar</i>) 2. Offsets for unavoidable impacts to native vegetation under the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017c) will be sourced through the Native Vegetation Credit Register (NVCR). These offsets must meet the required general habitat	-	Generally supported. I recommend the management measure be amended to require the Offset Management Plan be approved “prior to the commencement of construction”, rather than “prior to unavoidable impacts”, to ensure consistency of wording relating to the timing of security of offsets. The approval of the Offset Management Plan should be from National EPA rather than DCCEEW.	Approval under the P&E Act. Approval under the EPBC Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	units, strategic biodiversity value (SBV) thresholds, and large tree protection criteria. 3. Offsets for unavoidable impacts to protected matters under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) will be secured (if not already secured) via conservation covenants or s69 Landowner Agreements, ensuring long-term protection and management. 4. An Offset Management Plan will be developed and submitted to the Department of Climate Change, Energy, Environment and Water (DCCEEW) for approval prior to the unavoidable impacts to protected matters under the EPBC Act. At a minimum, this will: a. demonstrate compliance with the <i>EPBC Act Environmental Offsets Policy</i> (Department of Sustainability, Environment, Water, Population and Communities, 2012) b. identify threats to offset values and outline management actions, including: i. timing and frequency of actions ii. responsible parties iii. performance standards c. include environmental objectives for each protected matter			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	d. provide access provisions for scientific research and monitoring e. include a table mapping EPBC approval conditions f. present a commitments table with references to responsible parties and actions g. define monitoring protocols, including: i. specific, measurable, attainable, relevant, time-based indicators ii. thresholds for action iii. adaptive management responses. h. outline reporting and review mechanisms, including documentation standards i. detail risk management strategies, including contingency measures for unforeseen adverse effects j. include a long-term funding mechanism to support ongoing management.			
BH05	Wedge-tailed Eagle 1. During construction, the following measures will be implemented to manage impacts to Wedge-tailed Eagle (<i>Neophema chrysostoma</i>): a. monitoring surveys of known and incidentally recorded nests will be undertaken prior to and	-	Generally supported, noting the EMM should be updated to refer to <i>Aquila audax</i> .	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	early during the breeding season to determine whether nests are active b. where possible, construction activities will be modified to reduce or avoid disturbance within 500 m of active nests until any chicks have fledged.			
BH06	Blue-winged Parrot 1. During construction, the following measures will be implemented to manage impacts to Blue-winged Parrot (<i>Neophema chrysostoma</i>): a. pre-clearance surveys of potential mature treed habitat to be removed during the breeding season (spring and summer) to identify active breeding locations b. avoidance of identified breeding sites until chicks have fledged c. installation of compensatory nest boxes where potential breeding habitat (hollow bearing trees) is removed d. monitoring of nest box usage to assess effectiveness. 2. Nest box design will be developed in consultation with the BirdLife Bass Coast BWP Project.	-	Supported	Approval under the P&E Act Approval under the EPBC Act
BH07	Gang-gang Cockatoo	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	1. During construction, the following measures will be implemented to manage impacts to Gang-gang Cockatoo (<i>Callocephalon fimbriatum</i>): a. minimisation of tree and woody understorey removal in Cavendish swept path site b. revegetation of removed trees and woody understorey following the completion of construction activities in the area.			Approval under the EPBC Act
BH08	Growling Grass Frog 1. During construction, the following measures will be implemented to manage impacts to Growling Grass Frog (<i>Litoria raniformis</i>): a. scheduling the timing of creek crossing construction and underground cabling near Growling Grass Frog habitat in the summer months when the species is mostly in the water, active, and outside their wintering harbours, enabling them to move away from machinery.	-	Supported	Approval under the P&E Act Approval under the EPBC Act
BH09	Hairy Burrowing Crayfish 1. During construction, the following measures will be implemented to manage impacts to Hairy Burrowing Crayfish (<i>Engaeus sericatus</i>): a. scheduling earthworks, creek crossings, and vegetation removal in areas of suitable	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	habitat for Hairy Burrowing Crayfish during drier months when the species retreats closer to permanent water bodies.			
BH10	Striped Legless Lizard and Tussock Skink 1. During construction, the following measures will be implemented to manage impacts to Striped Legless Lizard (<i>Delma impar</i>) and Tussock Skink (<i>Pseudemoia pagenstecheri</i>): a. prior to the removal of roadside grassland habitat, modifying the grassland (e.g., through slashing, relocation of surface rocks and debris, and placement of tiles outside these areas) to facilitate dispersal of these species. b. scheduling road upgrade works requiring grassland removal in warmer months, when these species are more active. This will enable them to move out of construction areas, and reduce the risk of direct mortality and disturbance.	-	Supported	Approval under the P&E Act Approval under the EPBC Act
BH11	Black Falcon 1. During construction, the following measures will be implemented to manage impacts to Black Falcon (<i>Falco subniger</i>):	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	a. avoidance of identified breeding sites until chicks have fledged through the implementation of a 200 metre buffer.			
Bats				
Evaluation objective: To avoid, and where avoidance is not possible, minimise potential adverse effects on biodiversity values within and near the site including native vegetation, listed threatened species and ecological communities, and habitat for these species. Where relevant, offset requirements are to be addressed consistent with state and Commonwealth policies.				
BA01	Bat and Avifauna Management Plan 1. Attachment V - Bat and Avifauna Management Plan has been prepared for the project in accordance with the following guidelines and will be implemented prior to the commencement of operation to minimise impacts to bat and avifauna species: a. Onshore Wind Farm Guidance – interim guidance on bird and bat management (Department of Agriculture, Water and the Environment, 2022) b. Onshore Wind Farm Guidance: Best practice approaches when seeking approval under Australia's national environment law (Department of Climate Change, Energy, the Environment and Water, 2024a). 2. Attachment V - Bat and Avifauna Management Plan outlines monitoring protocols and	-	Generally supported. I recommend the timing of the BAM Plan approval is to occur before the first wind turbine rotor is installed, (unless given consent by the Responsible Authority to do otherwise), to reduce risk of avifauna colliding with a freely spinning turbine prior to operations commencing. The BAM Plan should also specify that mitigation measures apply for listed or	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	responsibilities, impact triggers for listed and non-listed bird and bat species, and operational procedures following occurrence of impact triggers including reporting requirements. Adaptive management measures to reduce impacts will be considered as part of Attachment V - Bat and Avifauna Management Plan.		threatened species that include Latham's Snipe.	
3.	Attachment V - Bat and Avifauna Management Plan include species-specific management strategies for the following species of concern to focus management efforts and improve mitigation effectiveness in response to impact triggers: a. Blue-winged Parrot (<i>Neophema chrysostoma</i>) b. White-throated Needletail (<i>Hirundapus caudacutus</i>) c. Fork-tailed Swift (<i>Apus pacificus</i>) d. Brolga (<i>Grus rubicunda</i>) e. Black Falcon (<i>Falco subniger</i>) f. Wedge-tailed Eagle (<i>Aquila audax</i>) g. Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>) h. Southern Bent-wing Bat (<i>Miniopterus orianae bassanii</i>)		I recommend that the BAM Plan include a 5-year program to monitor Brolga breeding wetlands within 5 km of the project site to understand and manage operational impacts of the project and serve to inform adaptive management.	



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	i. Yellow-bellied Sheath-tailed Bat (<i>Saccolaimus flaviventris</i>) 4. Attachment V - Bat and Avifauna Management Plan outlines committed financial compensatory measures that would be implemented in response to a significant impact (above the relevant defined impact threshold) to species listed under the Environment <i>Protection and Biodiversity Conservation Act 1999</i> during project operation. 5. Key measures of Attachment V - Bat and Avifauna Management Plan are outlined in EMM BA01-1 through BA01-7. 6. Attachment V - Bat and Avifauna Management Plan will be a sub-plan to the Operations Environmental Management Plan (EMM09).			
BA01-1	Bat and Avifauna Management Plan – Curtailment strategies 1. As detailed in Attachment V - Bat and Avifauna Management Plan (BA01), the minimum required wind speed for night-time operation of moderate and higher-risk turbines (i.e., the night-time low windspeed cut in) will be increased to 4.5 m/s during periods when Southern Bent-wing Bat are most actively moving across the landscape to reduce the risk of collision between wind turbines and the Southern Bent-wing Bat. 2. Curtailment conditions for each turbine will be outlined in Attachment V - Bat and Avifauna	-	Generally supported. I recommend that nocturnal curtailment at 4.5 m/s to mitigate potential impacts to SBWB be applied throughout the year (instead of just the proposed September to April period) until monitoring of SBWB activity is undertaken in consultation with	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	Management Plan (BA01) and updated as required in response to monitoring undertaken as part of the Bat and Avifauna Management Plan. This includes temporary daytime curtailment of turbine(s) within a 300-metre buffer of active Black Falcon (<i>Falcon subniger</i>) and Wedge-Tailed Eagle (<i>Aquila audax</i>) nests identified during operation. 3. The Department of Energy, Environment and Climate Action will be consulted regarding specific parameters for each turbine to confirm adequacy and acceptability of these measures.		DEECA and National EPA, to demonstrate that SBWB activity is sufficiently low over the winter season to justify moving to seasonal curtailment (i.e. only September to April period).	
BA01-2	Blade feathering 1. As detailed in Attachment V - Bat and Avifauna Management Plan (BA01), 'feathering' (i.e., adjusting the angle of the rotor blades to limit rotation, typically to approximately one rotation per minute, when wind speeds are below the manufacturer's or adjusted cut-in speed, to prevent freewheeling) would be applied for all turbines to mitigate impacts to bats.	-	Supported	Approval under the P&E Act
BA01-3	Bat and Avifauna Management Plan - Acoustic deterrents 1. The feasibility of acoustic deterrent trials would be investigated, in consultation with the Department of Energy, Environment and Climate	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	Action. This will be documented in Attachment V - Bat and Avifauna Management Plan (BA01).			
BA01-4	Bat and Avifauna Management Plan - Mortality monitoring 1. As detailed in Attachment V - Bat and Avifauna Management Plan (BA01), ongoing monitoring of blade strike mortality within the project site will be undertaken to inform adaptive management of the collision risk and assess the general mortality of listed and non-listed fauna.	-	Supported	Approval under the P&E Act
BA01-5	Bat and Avifauna Management Plan - Post-commissioning acoustic bat surveys 1. As detailed in Attachment V - Bat and Avifauna Management Plan (BA01), bat detector surveys will be undertaken for at least two years post-commissioning to collect further data on temporal activity patterns of Southern Bent-wing Bat and Yellow-bellied Sheath-tail Bat in the project site. 2. Consultation with the Department of Energy, Environment and Climate Action and the Southern Bent-wing Bat Recovery Team will be undertaken to determine the frequency, timing and duration of these surveys.	-	Supported	Approval under the P&E Act
BA01-6	Bat and Avifauna Management Plan - Grey-headed Flying-fox monitoring	-	Generally supported. I recommend this EMM	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	1. As detailed in Attachment V - Bat and Avifauna Management Plan (BA01), a Grey-headed Flying-fox monitoring program will be undertaken for the first two years post-commissioning. This monitoring program will inform field surveys for this species and be based on: a. annual habitat suitability assessments in and around the project site b. annual reviews of relevant databases for current Grey-headed Flying-fox camp locations and numbers c. regular discussions with wind farm personnel, landholders, and the Department of Energy, Environment and Climate Action / Department of Climate Change, Energy, the Environment and Water regarding the species presence, and assess its potential increase in prevalence within the site and its surroundings.		be amended to include consultation with DEECA and National EPA about the two-year GHFF monitoring program to detect temporary GHFF camps within the project site and its surroundings, and consult with them about appropriate mitigation responses should any GHFF camps be detected.	
BA01-7	Bat and Avifauna Management Plan - Black Falcon	-	Supported	Approval under the P&E Act
	1. As detailed in Attachment V - Bat and Avifauna Management Plan (BA01), the wind farm operator will liaise with relevant landowners to minimise certain farming activities that may attract Black Falcon (<i>Falcon subniger</i>), such as tractor activity in cropped paddocks and stubble burns) close to			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	turbines and establish communication procedures.			
Brolga				
Evaluation objective: To avoid, and where avoidance is not possible, minimise potential adverse effects on biodiversity values within and near the site including native vegetation, listed threatened species and ecological communities, and habitat for these species. Where relevant, offset requirements are to be addressed consistent with state and Commonwealth policies.				
BR01	Brolga Compensation Plan 1. Prior to the commencement of construction, a Brolga Compensation Plan is to be developed for the project in accordance with the Interim Brolga Guidelines for the Assessment, Avoidance, Mitigation and Offsetting of Potential Wind Farm Impacts on the Victorian Brolga Population (Department of Sustainability and Environment, 2012), in consultation with the Department of Energy, Environment and Climate Action, Glenelg Hopkins Catchment Management Authority, Moyne Shire Council and participating landowners. 2. The Brolga Compensation Plan will require impacts on the Victorian Brolga population predicted in the Population Viability Assessment to be fully offset. 3. The Brolga Compensation Plan will be a sub-plan to the Operations Environmental Management	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	Plan (EMM09) to enable monitoring and reporting to be undertaken as required.			
Groundwater				
Evaluation objective: To maintain the functions and values of aquatic environments, surface water and groundwater quality and stream flows and avoid adverse effects on protected environmental values.				
GW01	Construction Environmental Management Plan - Groundwater assessment 1. Prior to the commencement of construction, assess the likely occurrence of groundwater in foundations and trenches and potential dewatering volumes. The findings of this assessment, and management implications, will be documented in the Construction Environmental Management Plan (EMM01).	-	Supported	Approval under the P&E Act
GW02	Targeted micro-siting to avoid unmapped springs and watercourses 1. Prior to the commencement of construction, micro-site turbine foundation excavations and trenches to avoid any unmapped springs and watercourses identified during detailed design works.	-	Supported	Approval under the P&E Act
GW03	Community and Stakeholder Engagement Plan - Impacts to groundwater bores	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	1. Prior to the commencement of construction, consult with relevant landowners about potential impacts to groundwater bores to limit disruption to water access and support identification of mitigation measures or alternative supply options. This will be undertaken in accordance with the Stakeholder Engagement Plan (EMM02).			relevant Government agency management plan..
GW04	Water Management Plan	-	Supported	Approval under the P&E Act Approval under the Water Act
	1. Prior to the commencement of construction, develop and implement a Water Management Plan approved by the Responsible Authority as a sub-plan of the Construction Environmental Management Plan (EMM01). The Water Management Plan will detail groundwater management approaches required to identify, avoid and minimise impacts to groundwater levels, flow and quality as far as reasonably practicable. It will also respond to any final design details and ensure all risks are appropriately managed. 2. The Water Management Plan would include, but not be limited to: a. baseline groundwater level and quality (pH and salinity) monitoring at the four cased quarry investigation bores and three existing bores at the proposed quarry site prior to construction, undertaken quarterly for up to two years to determine the seasonally high			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	water table elevation which will be used to guide the quarry backfill level b. stygofauna monitoring at the proposed on site quarry c. requirements for quarry and foundation excavation dewatering activities, including: i. the purpose of dewatering (an explanation of why dewatering is necessary). ii. a description of dewatering technique to be employed. iii. the anticipated dewatering flow rate, duration and total volume. iv. water collection and storage options. v. monitoring of water quality of captured water (e.g. pH, salinity and suspended solids). vi. disposal options and requirements in accordance with the Environment Protection Regulations 2021, to be undertaken in accordance with EMM SW05. d. operational groundwater monitoring requirements including locations, frequency and parameters and method for assessing			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	against baseline conditions and predicted impacts e. management requirements of unmapped springs/seeps f. management of changes in surface permeability and groundwater discharge from construction activities, discussed further in EMM GW04-1 g. guidance provided in EPA Publication 668: Hydrogeological Assessment (Groundwater Quality) Guidelines. 3. The stygofauna monitoring program, captured within the Water Management Plan, will be prepared in consultation with the Department of Energy, Environment and Climate Action.			
GW04-1	Water Management Plan - Minimise impacts to groundwater discharge, recharge and flow	-	Supported	Approval under the P&E Act Approval under the Water Act
	1. Include construction activities and temporary works that may impact on groundwater discharge, surface permeability and groundwater flow within the Water Management Plan (GW04). 2. Measures to minimise groundwater discharge, recharge and flow related impacts will include, but not be limited to: a. revegetation of disturbed areas			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	b. backfilling cabling trenches using excavated material where possible, or a material of a similar permeability where this is not possible c. micro-siting turbine foundation excavations and trenches to avoid unmapped springs and watercourses.			

Surface water

Evaluation objective: To maintain the functions and values of aquatic environments, **surface water** and groundwater quality and stream flows and avoid adverse effects on protected environmental values.

SW01	Detailed drainage design	-	Supported	Approval under the Water Act
	1. Prior to the commencement of construction, develop the detailed drainage design in consultation with Glenelg Hopkins Catchment Management Authority to minimise impacts to surface waters and supported ecosystems, considering best practice design guidelines. 2. Design measures will include, but not be limited to: a. permanent surface structures designed to maintain existing overland flow paths and not cause increased upstream flood levels b. culverts installed parallel to the alignment of the banks of the waterway			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	c. the use of a reduced-width construction right of way at watercourse crossings and aim to avoid any standing water d. micro-siting crossings of Mustons Creek to avoid deeper pools where practicable to prevent potential effects on Growling Grass Frog e. integrating culverts into access track design to allow for the diversion of flow paths below the roads.			
SW02	Works on a Waterway licence 1. Works within a designated watercourse requiring a Works on a Waterway licence from Glenelg Hopkins Catchment Management Authority. Works would be undertaken in accordance with the requirements of the Catchment Management Authority licence.	A standalone flood impact assessment (FIA) and stormwater management plan (SWMP) be established for the BESS and terminal station. The FIA and SWMP will incorporate the requirement to minimise the potential impact of earthworks on flood levels and extents on adjacent properties, treat stormwater runoff and retain firefighting runoff.	Supported, subject to implementation of the additional MM recommended by IAC.	Approval under the P&E Act Approval under the Water Act
SW03	Construction Environmental Management Plan - Creek crossings 1. Where essential wind farm infrastructure (e.g., access tracks and electrical cables) crosses a creek, measures for avoiding and minimising	-	Supported	Approval under the P&E Act Approval under the Water Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	impacts will be documented in the Construction Environmental Management Plan (EMM01) prior to the commencement of construction, including: a. preferentially scheduling works during drier months of the year and lowest flow of the waterway where watercourse trenching is required b. avoiding undertaking of works when high rainfall events are expected c. maintaining adequate flow rates and water levels in waterway to be crossed (as determined in consultation with the relevant authorities) to minimise impacts on aquatic ecosystem and environmental values d. restoration of temporarily disturbed waterways and vegetation (removing any obstructions to waterway flow) as soon as practicable following the open cut trenching works to at least its pre-construction condition e. design measures to minimise future erosion in areas where trenching occurred (e.g., use of riprap made of stones to stabilise the waterway, geofabric to prevent erosion and scour until establishment of vegetation).			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
SW04	Sediment, Erosion and Water Quality Management Plan 1. Prior to the commencement of construction, develop and implement a Sediment, Erosion and Water Quality Management Plan as a sub-plan to the Construction Environmental Management Plan (EMM01) in consultation with Glenelg Hopkins Catchment Management Authority in accordance with EPA Publication 1834.2: Civil construction, building and demolition guide. 2. Erosion and sediment control measures within the construction site will adopt a treatment train approach and include: a. monitoring surface water quality upstream and downstream of the works area during detailed planning, construction and operation phases to confirm control effectiveness and protection of environmental values b. phasing ground-disturbing works to periods of lower rainfall, where possible c. minimising vegetation clearance, particularly along drainage lines, waterways and steep slopes d. reinstating vegetation in accordance with [EMM LS02] e. maintaining watercourse and wetland buffers (except at watercourse crossings) and	-	Supported	Approval under the P&E Act Approval under the Water Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	implementing management controls for works near waterways in accordance with EPA Publication 1894: Managing soil disturbance			
	f. installing primary, secondary and tertiary sediment control measures based on site-specific hazards, consistent with Publication 1893: Erosion, sediment and dust: treatment train			
	g. designating areas for stockpiles prior to construction, ensuring stockpiles and batters have slopes no greater than 2:1 (horizontal/vertical)			
	h. implementing stockpile management controls consistent with EPA Publication 1895: Managing stockpiles and establishing vegetation or grass on stockpiles to be left for longer periods			
	i. stabilising exposed soils and applying soil disturbance controls in accordance with EPA Publication 1894: Managing soil disturbance			
	j. installing sediment fencing to protect riparian zones where works occur within 30 metres of waterways			
	k. installing sediment treatment controls (including around stockpiles) to adequately capture sediment loads			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	l. restricting vehicle movements to designated roads and access areas m. directing stormwater through constructed lined channels or sediment basins to reduce runoff velocity n. developing contingency measures for works within waterways or floodplains, including controls to be implemented when storm events are forecast.			
SW05	Construction Environmental Management Plan - Discharge of collected water 1. To minimise the risk of surface water contamination, water collected during quarry and foundation excavation dewatering activities will only be discharged to the environment in accordance with the Environment Protection Regulations 2021 and the following management measures, which would be documented in the Construction Environmental Management Plan (EMM01): a. assessing the quality of groundwater to be disposed (in accordance with GW04) b. assessing the baseline quality of waterways that have the potential to receive collected water to determine the potential impact (in accordance with SW04)	-	Supported	Approval under the MRSD Act Approval under the EP Act, if required



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	c. conducting a risk assessment in accordance with EPA Publication 1287: Guidance for environmental and human health risk assessment of wastewater discharges to surface waters, identifying management controls to prevent impacts to the environmental values of the waterway so far as reasonably practicable d. applying for EPA permission, if required under the Environment Protection Regulations 2021 e. implementing sediment control devices, where required.			

Landform and soils

Evaluation objective: To maintain the functions and values of aquatic environments, surface water and groundwater quality and stream flows and avoid adverse effects on protected environmental values.

LS01	Revegetation of disturbed areas	-	Supported	Approval under the P&E Act
	1. Undertake revegetation of disturbed areas as quickly as practicable to limit erosion, instability and the generation of sediment. This will include: a. planting locally occurring native shrubs, trees and groundcover plants, selected in consultation with the Department of Energy, Environment and Climate Action, to recreate the target vegetation community			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	b. incorporating rocks, logs, dead trees and stumps in the restoration and rehabilitation works to provide fauna habitat c. maintaining plantings in accordance with the rehabilitation sub-plan d. managing weeds and pest animals.			
LS02	Acid Sulfate Soil Management Plan 1. Prior to the commencement of construction, develop and implement an Acid Sulfate Soil Management Plan as a sub-plan of the Construction Environmental Management Plan (EMM01), following a risk-based approach to management of potential acid sulfate soil, actual acid sulfate soil and potentially contaminated soils in accordance with the National Acid Sulfate Soils Guidance series, Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulfate Soils (Department of Sustainability and Environment, 2010), and EPA Victoria Publication 655.1: Acid sulfate soil and rock. This will include, but is not limited to: a. identification of high-risk locations through mapping and soil testing b. targeted measures at high-risk locations, including requirements for the handling and	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	stockpiling of material, protocols to neutralise soil acidity, monitoring and contingencies. 2. If acid sulfate soil or contaminated soil is encountered it would be managed as a priority waste in accordance with EPA Victoria Publication 1968: Guide to classifying industrial waste.			
LS03	Spoil Management Plan 1. Prior to the commencement of construction, develop and implement a Spoil Management Plan as a sub plan of the Construction Environmental Management Plan (EMM01), based on the soil re-use requirements of the project.	-	Supported	Approval under the P&E Act
Landscape and visual				
Evaluation objective: Avoid and, where avoidance is not possible, minimise and manage potential adverse effects on landscape and visual amenity .				
LV01	On-site Landscaping Plan 1. Prior to the commencement of construction, develop an On-site Landscaping Plan to screen substations, buildings and lower infrastructure and minimise visual impacts of the project. This plan will include details of plant species and plant maturity to be used, and a maintenance and monitoring program.	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
LV02	Off-site Landscaping Plan 1. Prior to the commencement of construction develop an Off-site Landscaping Plan for dwellings within six kilometres of a project turbine to minimise visual impacts of the project through the implementation vegetation screening of eligible dwelling rooms, in consultation with the landowner on a case-by-case basis. 2. Considerations and requirements for the screening of views from residential dwellings will include: a. placement of new landscaping to assist with screening views to project wind turbines b. vegetation height, with consideration of any zone and/or overlay planning requirements c. requirements of the Bushfire Management Overlay, where applicable, maintaining a 20-metre buffer between any landscape mitigation planting and existing vegetation, and a 10-metre buffer from the residence. 3. The Off-Site Landscaping Plan will include details of plant species and plant maturity to be used and a timetable for implementation of the landscaping works, including maintaining the landscaping for a period of at least two years from when the landscaping is planted. Evidence that the landscaping has been maintained will be	-	Generally supported. I recommend that the management measure be amended to require consultation of affected landowners regarding off-site landscaping/ screening.	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	provided to Moyne Shire Council for signoff that this condition has been satisfied.			
LV03	Aviation obstacle lighting design 1. If aviation obstacle lighting is required, it will be installed as per the requirements of the Civil Aviation Safety Authority (CASA). To limit visual impacts of this lighting, obstacle lighting design prior to the commencement of construction will require: a. applying the lowest intensity obstacle lighting allowed b. applying shielding to restrict the downward spill of light to the ground plane by ensuring that no more than 5% of the nominal light intensity should be emitted at or below 5° below horizontal c. no light to be emitted at or below 10° below horizontal.	-	Supported, should it be required.	Approval under the P&E Act
LV04	Lighting of other on-site facilities 1. If lighting of other on-site facilities is required, lighting should be designed prior to the commencement of construction as per the requirements of Australian Standard AS 4282: Control of the obtrusive effects of outdoor lighting. These measures include:	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	a. minimisation of security lighting throughout the wind farm, switching station and the sub-station to decrease the contrast between the wind farm and the nighttime landscape of the area b. use of motion detectors to activate nighttime security lighting when required, reducing the duration of lighting c. lighting design to ensure it is baffled and directed to the ground so that light spill onto nearby roads or residences is minimised.			

Shadow flicker and blade glint

Evaluation objective: Avoid and, where avoidance is not possible, minimise and manage potential adverse effects on landscape and **visual amenity**.

SF01	Pre-construction shadow flicker assessment	-	Generally supported. I recommend that EMM SF01 should be amended to capture the requirement for post-construction assessments of shadow flicker.	Approval under the P&E Act
	1. Prior to the commencement of construction, undertake a pre-construction assessment of the potential effects of shadow flicker from turbines on existing dwellings for the final turbine layout in accordance with the Planning Guidelines for the Development of Wind Energy Facilities in Victoria (Department of Transport and Planning, 2023a), and to the satisfaction of the responsible authority. 2. Implement mitigation measures including the micro-siting of turbines in the final design, establishment of strategic screen plantings, use			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	of smaller wind turbine blades or implementation of a curtailment strategy to meet shadow flicker limits for stakeholder and non-stakeholder dwellings, where required.			
Air quality				
Evaluation objective: To minimise and manage adverse air quality and noise and vibration effects on residents and local communities as far as practicable during construction, operation and decommissioning having regard to applicable limits, targets or standards.				
AQ01	Concrete Batching Plant - Air quality management 1. Design and operate all project concrete batching plants to adequately control dust emissions, as per guidelines set out in EPA Victoria Publication 1806: Reducing risk in the premixed concrete industry.	-	Supported	Approval under the P&E Act
AQ02	Air Quality Management Plan 1. Prior to the commencement of construction, develop and implement a site-specific Air Quality Management Plan as a sub-plan of the Construction Environmental Management Plan (EMM01) to identify potential and existing dust sources and outline best practice design controls and management practices to minimise dust. 2. These measures would include, but not be limited to: a. watering of unsealed roads to reduce wheel generated dust	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	b. use of wheel wash facility to minimise transfer of dust from the project site c. use of water sprays to reduce wind erosion from material stockpiles and exposed areas d. minimising the number of stockpiles and the time they are exposed e. locating stockpiles where they will be least susceptible to wind erosion f. constructing stockpiles slopes no greater than 2:1 (horizontal to vertical) g. finishing and contouring stockpiles located on a floodplain to minimise loss of material in a flood or rainfall event h. use of water sprays as required for material transfer operations and quarry activities (e.g., drilling rock, crushing and screening) i. restricting vehicle speeds to 20 km/h near sensitive areas such as dwellings j. site-specific dust control measures for dust producing activities k. monitoring of forecast and real time local wind parameters (e.g., wind speed, wind direction) and adjustment of dust generating activities, as required, to reduce impact to sensitive receptors			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	l. ensure the area of cleared land is minimised during the drier months of the year, when potential for dust generation is at its greatest m. ensuring that smooth surfaces are deep ripped and left rough and cloddy to reduce the wind velocity at the soil surface n. constructing wind fences wherever appropriate, e.g., installing shade cloth as a wind break o. stabilising stockpiles and batters that will remain bare for more than 28 days by covering with mulch or anchored fabrics or seeding with sterile grass p. rehabilitation and revegetation of inactive stockpiles and disturbed areas to reduce wind erosion q. selection of equipment, e.g., concrete batching plants, which have integrated best practice dust control features r. regular visual monitoring of dust, with results recorded in a dust management database s. regular monitoring of the effectiveness of dust control measures. If dust controls are found to be ineffective, these would be reviewed (internally and/or by an external dust			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	specialist, if required) and amended as necessary t. contingency measures where dust plumes are identified during visual monitoring and/ or the project receives dust related complaints u. dust management training would be undertaken for construction workforce as part of the site-specific induction, outlining controls to be implemented during construction to manage potential air quality impacts v. procedures for monitoring of weather (e.g., wind speed, wind direction) and triggers to adjust dust generating activities w. complaint investigation and response plan x. procedures for reporting the project's performance against regulatory limits.			
AQ03	Operations Environmental Management Plan - Air quality management	-	Supported	Approval under the P&E Act
	1. Prior to the commencement of operation, develop and implement measures to avoid and minimise operational dust impacts in accordance with the general environmental duty. These will include but not be limited to: a. limiting the extent of cleared areas of vegetation, to the extent practicable, to			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	reduce the potential for dust arising from wind erosion effects b. inspecting and maintaining unsealed access tracks c. reviewing meteorological and ambient air quality conditions and planning activities accordingly. 2. These measures will be documented in the Operational Environmental Management Plan (EMM09).			
AQ04	Vehicle emissions and equipment maintenance 1. Maintain and service vehicles, plant and equipment in accordance with manufacturer specifications to ensure they operate in a proper and efficient manner. Where possible, vehicles, plant and equipment will be switched off when not in-use.	-	Supported	Approval under the P&E Act
AQ05	Cumulative impact management 1. Prior to the commencement of construction, plan and co-ordinate project works with Mt Fyans Wind Farm, Mortlake Turn-In Project and Mortlake Energy Hub, as well as any other relevant projects so that cumulative impacts at sensitive receptors are avoided to the extent possible.	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
Greenhouse gas				
Evaluation objective: To minimise and manage adverse air quality and noise and vibration effects on residents and local communities as far as practicable during construction, operation and decommissioning having regard to applicable limits, targets or standards.				
GHG1	Sustainability Management Plan 1. Prior to the commencement of construction and operation, develop and implement sustainability targets and specify ratings to reduce construction and operations greenhouse gas emissions from a 'business as usual' benchmark. 2. To aid in achieving the targets, ensure contractors develop and implement a Sustainability Management Plan that contains measures to meet the sustainability targets and specified ratings, and includes the requirement to monitor and report on the progress of achieving the sustainability targets and implementation of the Sustainability Management Plan. 3. The operational Sustainability Management Plan will include measures to track and manage SF₆ utilisation and also include a leak detection and repair (LDAR) strategy to effectively detect and rapidly manage any SF₆ spills.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via relevant Government agency management plan.
GHG2	Sustainable design practices 1. Prior to the commencement of construction, consider the selection of materials in detailed design and monitor and report energy and	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	carbon use during construction, to reduce greenhouse gas emission impacts of materials and energy consumption as far as practicable. 2. During the design and procurement process, review and where feasible adopt innovative technologies and the use of sustainable design practices and renewable energy sources during construction. 3. Ensure vendors review, and where reasonable and feasible implement alternatives which avoid or otherwise minimise SF₆ utilisation. 4. Investigate, document and implement opportunities to use renewable energy sources during construction. 5. Integrate sustainable design practices into the design process to minimise, to the extent practicable, greenhouse gas emissions arising from construction, operations and maintenance of the project in line with the ratings and targets developed as part of the Sustainability Management Plan.			relevant Government agency management plan.
GHG3	Battery Energy Storage System operation 1. Review Battery Energy Storage System operations to ensure the most efficient (and low carbon) usage of energy and adopt recommendations where practicable.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via relevant Government agency management plan.
GHG4	Materials recycling	-	Supported	Proponent to ensure appropriate statutory fit for



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	1. Prior to the commencement of decommissioning, explore opportunities to recycle steel, concrete and other materials as an alternative to sending the material to landfill, and implement where practicable.			this EMM or give effect via relevant Government agency management plan..

Noise and vibration

Evaluation objective: To minimise and manage adverse air quality and **noise and vibration** effects on residents and local communities as far as practicable during construction, operation and decommissioning having regard to applicable limits, targets or standards.

NV01	Construction Noise and Vibration Management Plan	None	The intent of the mitigation measure is supported, however I recommend that this EMM can be integrated into the CEMP (EMM01).	Approval under the P&E Act
	1. Prior to the commencement of construction, a Construction Noise and Vibration Management Plan (CNVMP) will be prepared as a sub-plan to the Construction Environmental Management Plan (EMM01) to address the effects of construction noise related to on- site activities and off-site traffic movements, and construction vibration associated with any activities expected to occur at less than 100 m from a receiver.			
	2. The CNVMP will include the following: a. a clear description of the proposed construction program including the expected timing and duration of key elements of the works b. details of all reasonably practicable measures proposed to fulfil the general environmental duty under the Environment Protection Act			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	2017 (EP Act), accounting for guidance under EPA Publication 1834.2: Civil construction, building and demolition guide. The measures will include (but not be limited to): i. restriction of construction activities to normal working hours wherever practical ii. selection of major construction plant to achieve low noise emissions and minimise any distinctive undesirable characteristics iii. maintenance of site equipment and infrastructure to minimise noise emissions iv. planning for the most efficient way to complete the works and minimise duration of the noise v. processes and governance for addressing the general environmental duty (GED), with particular reference to any out of hours work. c. a schedule of noise emission data for the major plant items to be used for construction of the project, including the source reference for this data d. definitions and justifications for all anticipated unavoidable works, low-noise works and managed- impact works which may occur outside of normal working hours,			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	such as out of hours deliveries or wind turbine installation activities that are subject to weather constraints e. details relating to proposed routing and timing of construction traffic, including protocols to minimise noise along local roads and within Mortlake to the extent reasonably practicable. This will establish a restriction to avoid heavy vehicle movements related to construction aggregate sourcing from local quarries (if required) prior to 7am on the local road network around the project or within local townships f. management measures relating to off-site vehicle movements including education of drivers about the general environmental duty under the EP Act and considerate driving practices g. details of the measures to be implemented to address noise characteristics such as tonality, impulsive noise and low frequency noise, including consideration of residential receivers and noise levels in natural areas h. the proposed scheduling of any out of hours works, and provide evidence to support that low-noise or managed-impact works meet the criteria defined in EPA Publication 1834.2			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	i. identify specific activities which warrant notification of neighbouring residents in advance of the work occurring, including unavoidable works outside of normal working hours, peak periods of off-site construction traffic, and activities with potential to cause perceptible vibration j. details of the complaints management procedure as part of the Complaints and Grievance Mechanism (EMM03) k. requirements for periodic reviews and updates, as necessary, including those informed by complaints and any remedial actions taken in response to the Complaints and Grievance Mechanism (SE02). 3. The CNVMP will be prepared in consultation with relevant stakeholders.			
NV02	Quarry Work Plan - Quarry Noise Management Plan	-	Supported	Approval under the MRSD Act
	1. Prior to the commencement of construction, a Quarry Noise Management Plan will be prepared in consultation with relevant authorities and endorsed as part of the Quarry Work Plan (EMM07). 2. The Quarry Noise Management Plan will document measures to: a. minimise the risk of harm from operational noise so far as reasonably practicable, in			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	accordance with the general environmental duty under the <i>Environment Protection Act 2017</i> (EP Act) b. prevent prescribed unreasonable noise by complying with noise limits determined in accordance with EPA Publication 1826.5: Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues (Noise Protocol) c. prevent unreasonable noise according to the factors defined in part (a) of the definition of unreasonable noise in section 3(1) of the EP Act, accounting for the low frequency guidance of EPA Publication 1996 Noise guidelines: assessing low frequency noise (as amended or replaced from time to time).			
NV03	Concrete Batching Plants - Noise management 1. All temporary concrete batching plants will be designed and operated in accordance with the general management measures in EPA Publication 1806: Reducing risk in the premixed concrete industry. The design and operation of the batching plants will implement measures to: a. minimise the risk of harm from operational noise so far as reasonably practicable, in accordance with the general environmental	-	The intent of the mitigation measure is supported, however I recommend that this EMM can be integrated into the CEMP (EMM01).	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	duty under the <i>Environment Protection Act 2017</i> (EP Act). b. prevent prescribed unreasonable noise by complying with noise limits determined in accordance with EPA Publication 1826.5: Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues (Noise Protocol). c. prevent unreasonable noise according to the factors defined in part (a) of the definition of unreasonable noise in section 3(1) of the EP Act, accounting for the low frequency guidance of EPA Publication 1996: Noise guidelines: assessing low frequency noise (as amended or replaced from time to time).			
NV04	Pre-construction noise assessment - Wind turbines 1. Prior to the installation of wind turbines, a pre-construction noise assessment will be completed. This assessment will be undertaken to assess the final project layout and equipment selection to ensure that the noise criteria are achieved at all assessable receivers for all wind speeds. The pre-construction noise assessment will: a. be based on the final wind turbine layout, representative noise emission data for the final selected wind turbine model and the	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	location of all receivers around the wind farm (existing or approved noise sensitive receivers at the date of the wind farm's approval) be based on the final wind turbine layout, representative noise emission data for the final selected wind turbine model and the location of all receivers around the wind farm (existing or approved noise sensitive receivers at the date of the wind farm's approval) b. identify all stakeholder receivers where noise agreements have been established c. be prepared in accordance with the assessment and documentation requirements of NZS 6808:2010 Acoustics – Wind farm noise d. be verified by an EPA Victoria appointed Independent Environmental Auditor in accordance with regulation 52.32-4 of the Moyne Planning Scheme e. be documented in the Operational Noise Management Plan prepared under EMM NV06.			
NV05	Wind turbine sound power level testing 1. Prior to the commencement of wind turbine operations, a schedule of sound power level testing and reporting will be prepared. This will be undertaken to verify that the noise emissions of a representative selection of installed wind turbines are consistent with the noise emissions presented	-	Supported	Regulated under EP Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	in the pre construction noise assessment conducted under [EMM NV04]. 2. An EPA Victoria appointed Independent Environmental Auditor (IEA) will be engaged to prepare a report verifying the schedule of sound power level testing. 3. The schedule of sound power level testing and the IEA's verification report will be provided to EPA Victoria upon request. Sound power level testing and reporting will subsequently be undertaken in accordance with the schedule.			
NV06	Operational Noise Management Plan 1. Prior to the commencement of wind turbine operations, an Operational Noise Management Plan will be prepared for operational wind turbine noise in accordance with the requirements of regulation 131E of the Environment Protection Regulations 2021 (EP Regulations), as a sub-plan to the Operations Environmental Management Plan (EMM09). 2. In accordance with the EP Regulations, the Operational Noise Management Plan will include requirements for an annual statement detailing the actions undertaken to ensure compliance, and noise monitoring to be undertaken every five years (or as otherwise specified in the EP Regulations) to verify compliance with the applicable noise limits).	-	Supported	Regulated under EP Act.



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	3. In addition to the requirements of the EP Regulations, the Operational Noise Management Plan will: a. document the pre-construction noise assessment conducted under [EMM NV04] b. account for the guidance of EPA Victoria webpage Wind Energy Facility Turbine Noise Regulation Guidelines and EPA/Department of Transport and Planning Publication 3011: Wind Energy Facility Turbine Noise – Technical Guideline c. stipulate that the post-construction noise monitoring report and the accompanying auditor's verification report will, where practicable, be submitted to EPA Victoria within 10 days of the auditor's verification report being completed d. include requirements for periodic reviews and updates, as necessary, including those informed by complaints and any remedial actions taken in response to the Complaints and Grievance Mechanism (SE02).			
	4. An EPA Victoria appointed Independent Environmental Auditor (IEA) will be engaged to prepare a report verifying the Operational Noise Management Plan.			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	5. Both the Operational Noise Management Plan and the IEA's verification report will be provided to EPA Victoria upon request.			
NV07	Pre-construction noise assessment – On-site terminal station and battery energy storage system 1. Prior to the commencement of construction, a pre-construction noise assessment is to be submitted to the Responsible Authority demonstrating that the design and operation of the on-site terminal station and battery energy storage system (BESS) include measures to: a. minimise the risk of harm from operational noise so far as reasonably practicable, in accordance with the general environmental duty under the <i>Environment Protection Act 2017</i> (EP Act). b. prevent prescribed unreasonable noise by complying with noise limits determined in accordance with EPA Publication 1826.5: Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues (Noise Protocol). c. prevent unreasonable noise according to the factors defined in part (a) of the definition of unreasonable noise in section 3(1) of the EP Act, accounting for the low frequency	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	guidance of EPA Publication 1996: Noise guidelines: assessing low frequency noise (as amended or replaced from time to time).			
NV08	Decommissioning Noise and Vibration Management Plan 1. A Decommissioning Noise and Vibration Management Plan will be prepared and submitted to the Responsible Authority for endorsement. This will be a sub-plan to the Decommissioning Management Plan (EMM10) and will: a. provide a detailed assessment of decommissioning noise and vibration from project activities b. outline proposed measures to minimise potential impacts.	-	Supported	Approval under the P&E Act
Aboriginal cultural heritage				
Evaluation objective: Protect, avoid, or minimise where avoidance is not possible, adverse effects on historic heritage values, and tangible and intangible Aboriginal cultural heritage values , in partnership with Traditional Owners.				
AH01	Cultural heritage site induction 1. Prior to the commencement of construction, key personnel will undergo a cultural heritage induction to ensure they are aware of the boundaries of known Aboriginal heritage sites to avoid impacts.	-	Supported	Approval under the Aboriginal Heritage Act Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	2. The induction process will occur within a month of an employee beginning work on the project. All on-site personnel, including contractors, would be made aware of fenced and protected areas.			
AH02	Construction Environmental Management Plan – Compliance with the Cultural Heritage Management Plan 1. The Construction Environmental Management Plan (EMM01) will include the following measure to ensure compliance with the approved CHMP: a. A review of the Cultural Heritage Management Plan (CHMP) compliance checklist will be documented every two months and signed off by the relevant site manager and be available to any Authorised Officer or Aboriginal Heritage Officer as authorised under section 165A and section 181(1)(b) of the <i>Aboriginal Heritage Act 2006</i> , or any other representative of Eastern Maar Aboriginal Corporation or First Peoples – State Relations.	-	Supported	Approval under the Aboriginal Heritage Act Approval under the P&E Act
AH03	Intangible values 1. Develop a process with Eastern Maar Aboriginal Corporation that enables participation of “on Country Guardians” in the monitoring of impacts to Biocultural values such as Wedge-tailed Eagles and Southern Bent-wing Bat.	-	Supported	Approval under the Aboriginal Heritage Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	2. On Country Guardians will be responsible for ongoing monitoring of the impact of the project on intangible Aboriginal cultural heritage values.			
AH04	Layout and design modification 1. Should the continuing assessment for CHMP 19602 identify new Aboriginal places, the wind farm layout will be modified to avoid harm to these Aboriginal places. 2. If critical infrastructure is unable to be moved, CHMP Conditions will be formulated in consultation with the Eastern Maar Aboriginal Corporation to minimise or manage harm.	-	Supported	Approval under the Aboriginal Heritage Act
AH05	Discovery of unknown Aboriginal cultural heritage 1. All activities that may harm the discovery of new heritage will cease and a Heritage Advisor will be engaged to assess the discovered heritage. 2. If any suspected human remains are found, works will cease, and the Victoria Police and the State Coroner's Office will be notified immediately. If there are reasonable grounds to believe the remains are Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted immediately.	-	Supported	Approval under the Aboriginal Heritage Act
AH06	Contingency plans (unexpected finds) – Aboriginal cultural heritage places	-	Supported	Approval under the Aboriginal Heritage Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	1. In accordance with Clause 13(1) Schedule 2 of the Aboriginal Heritage Regulations 2018, the project CHMP (no. 19602) contains contingency plans for: a. unexpected finds of Aboriginal cultural heritage during project construction, operation and decommission b. disputes, delays and other obstacles that may affect the project c. the notification and reporting procedure for the discovery of Aboriginal cultural heritage and the management of finds d. reviewing compliance with the CHMP.			
AH07	Contingency plans – Intangible Aboriginal cultural heritage 1. In the unexpected event that intangible Aboriginal cultural heritage is harmed, the following management measures will be undertaken: a. an incident report will be prepared. b. consultation with Eastern Maar Aboriginal Corporation, including formulating measures to minimise the event happening in the future.	-	Supported	Approval under the Aboriginal Heritage Act

Historical cultural heritage



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
Evaluation objective: Protect, avoid, or minimise where avoidance is not possible, adverse effects on historic heritage values , and tangible and intangible Aboriginal cultural heritage values, in partnership with Traditional Owners.				
HH01	Heritage Management Plan 1. Prior to the commencement of construction, develop and implement a Heritage Management Plan that specifies measures to avoid impact to any known registered historic heritage places and to avoid or minimise impacts on any unidentified historic archaeological sites that may be discovered during ground disturbing works. This would be a sub-plan to the Construction Environmental Management Plan (EMM01), Operations Environmental Management Plan (EMM09) and Decommissioning Management Plan (EMM10). 2. Management measures that will be outlined in the Heritage Management Plan to avoid accidental harm to known registered historic heritage places include, but are not limited to: a. displaying all registered historic heritage places and management measures on the Construction Environmental Management Plan. b. implementing protection buffers or temporary fencing to prevent inadvertent harm to historic heritage places.	-	Supported	Approval under the Heritage Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	c. routinely inspecting management measures implemented for known historical heritage places to ensure they remain fit for purpose. 3. Development of the Heritage Management Plan would be consistent with the requirements of the <i>Heritage Act 2017</i> and undertaken in consultation with Heritage Victoria.			
HH02	Heritage Management Plan - Unexpected Finds Protocol 1. Prior to the commencement of ground disturbing works and as part of the requirements of the Heritage Management Plan (HH01), develop and implement an Unexpected Finds Protocol that is incorporated into the Construction Environmental Management Plan (EMM01), Operations Environmental Management Plan (EMM09) and Decommissioning Management Plan (EMM10) to manage the discovery of previously unknown historic archaeological features or artefacts, if found. 2. Site workers will be inducted as to the nature of unexpected finds and what action to take if any are found. 3. If any unknown historic archaeological features or artefacts are encountered, works in the area will cease and a buffer zone will be established. A suitably qualified historical archaeologist will be contacted to provide an emergency assessment	-	Generally supported, however it is my recommendation that this EMM be integrated into the EMM01 for the CEMP.	Approval under the Heritage Act Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	of the discovery to Heritage Victoria for direction on next steps.			
Land use and planning				
Evaluation objective: To avoid and minimise adverse effects on land use (including agricultural and residential) , social fabric of the community (with regard to wellbeing and community cohesion), local infrastructure, electromagnetic interference, aviation safety and to neighbouring landowners during construction, operation and decommissioning of the project.				
LUP01	Agricultural Management Plan 1. Prior to the commencement of construction, develop and implement an Agricultural Management Plan as a sub-plan to the Construction Environmental Management Plan (EMM01), in consultation with landowners, outlining the existing land use of surrounding agricultural practices and management commitments to reduce impacts on operations, such as the sowing and harvesting of crops. 2. The Agricultural Management Plan will also identify processes for movement of stock during construction to avoid adverse impacts on animal welfare.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via relevant Government agency management plan.
LUP02	Quarry Work Plan – Remediation 1. The Quarry Work Plan (EMM07) will require the on-site quarry to be remediated following completion of materials extraction.	-	Supported	Approval under the MRSD Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	2. Remediation of the quarry will include filling the extraction area with water, to be used as a farm irrigation dam unless otherwise specified by the landholder. The remaining area would be returned to pasture.			
LUP03	Monitor the development of new dwellings or sensitive receivers 1. Monitor and review new planning permit applications for dwellings within proximity to the project site and make submissions to the Responsible Authority when required.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant mechanism is used to give effect to this EMM.
Socio-economic				
Evaluation objective: To avoid and minimise adverse effects on land use (including agricultural and residential), social fabric of the community (with regard to wellbeing and community cohesion) , local infrastructure, electromagnetic interference, aviation safety and to neighbouring landowners during construction, operation and decommissioning of the project.				
SE01	Accommodation and Employment Strategy - Management of workforce influx 1. As part of the Accommodation and Employment Strategy (EMM05), measures to manage workforce influx will include: a. development of workforce codes of conduct b. promotion of strategies to facilitate engagement and integration of the temporary workforce in community life, through preparation of workforce welcome packs and	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant mechanism is used to give effect to this EMM.



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	community inductions and participation in community events and membership of local community groups c. support for local community groups, organisations and programs that address local community needs, through both in-kind (company and workforce participation) and monetary investment activities that create social value at the community level.			
SE02	Ongoing engagement around cultural heritage connections 1. Undertake ongoing engagement with the local community and Aboriginal organisations to explore ways in which connections to local cultural heritage can be preserved and enhanced.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant mechanism is used to give effect to this EMM.
SE03	Accommodation and Employment Strategy - Temporary Workforce Accommodation 1. As part of the Accommodation and Employment Strategy (EMM05), construct a purpose-built temporary workforce accommodation facility close the project site in consultation with Council. This will be subject to further planning and an assessment of environmental effects.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant mechanism is used to give effect to this EMM.
SE04	Accommodation and Employment Strategy - Employment partnerships	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or relevant



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	1. As part of the Accommodation and Employment Strategy (EMM05), develop partnerships with businesses, local employment agencies, training and education providers to maximise local employment and contract opportunities. Measures could include: a. partnering with education and training organisations to offer special apprenticeships and programs b. developing a local procurement strategy for employment or contracts that gives preference to local and regional residents and businesses, including incorporating local content requirements into key project contracts to maximise local employment opportunities.			mechanism is used to give effect to this EMM.

Aviation

Evaluation objective: To avoid and minimise adverse effects on land use (including agricultural and residential), social fabric of the community (with regard to wellbeing, community cohesion), local infrastructure, electromagnetic interference, **aviation safety** and to neighbouring landowners during construction, operation and decommissioning of the project.

AVI01	Marking of meteorological monitoring masts	-	Supported	Approval under the P&E Act
	1. Maintain marking of meteorological monitoring masts in accordance with the National Airports Safeguarding Framework Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation and marking on the			



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	base around the outer guy wires to improve visibility of these structures for low-flying aircraft such as aerial agricultural operations. During the day, large wind turbines are sufficiently conspicuous due to their shape and size, provided the colour of the turbine is of a contrasting colour to the background (NASF Guideline D, page 4 paragraph 30, July 2012).			
AVI02	Stakeholder Engagement Plan - Airservices Australia notification 1. Provide notification to relevant stakeholders about the location and heights of wind turbines and meteorological monitoring masts, including: a. updating the Vertical Obstacle Database, managed by Airservices Australia, as per the procedure for reporting tall structures contained in Civil Aviation Safety Authority (CASA) Advisory Circular: AC 139, E-01 v1.0 Reporting of tall structures December 2021. b. ensuring an Aeronautical Information Publication Supplementary (AIP SUP) is issued providing the height and location of the wind turbines and meteorological monitoring masts. This is done by Airservices Australia when they are notified of the commencement of construction and the wind farm design. The	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	wind farm location will be included in aeronautical charts.			
Fire risk				
BF01	Risk Management Plan, Fire Management Plan and Emergency Management Plan 1. Prior to the commencement of construction and operation, develop, update and implement a Risk Management Plan, Fire Management Plan and Emergency Management Plan in accordance with the Country Fire Authority (CFA) Design Guidelines and Model Requirements – <i>Renewable Energy Facilities</i> (version current at the time of preparation of the Plans), in consultation with CFA, prior to commissioning. 2. The Fire Management Plan will outline measures for design, defensible space, construction, water supply and access (including the testing of fire waste water), awareness actions, preparedness levels and fire response procedures for the site to address any concerns relating to fire risks including bushfires.	-	Supported	Approval under the P&E Act
BF02	Firefighting 1. As per the CFA's Design Guidelines and Model Requirements – Renewable Energy Facilities (Country Fire Authority, 2025), the following will apply for the operation of the wind farm to	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	manage potential impacts to firefighting operations: a. fuel management measures during the Fire Danger Period, including maintaining grass levels at or below 100 millimetres in height and maintaining a fire break area of at least 10 metre width around electricity compounds and substations b. a fire break of at least 10 metres around the base of wind turbines and battery energy storage system, which has been incorporated into the design c. constructed roads developed during construction of the facility must be maintained post-commissioning and throughout the operational life of the facility to allow access to each turbine for maintenance and emergency purposes d. a fire protection system to allow adequate response to the risks and hazards at the facility, in consultation with the Country Fire Authority (CFA) e. inclusion of a static fire water storage tank of at least 45,000 L effective capacity at each site entrance (there are 11), regularly monitored to ensure water level adheres to CFA guidelines wind energy facility			



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	emergency management plan, provided within the emergency information book, which includes the maximum (safe) operational wind speed and temperature conditions and operating procedures to limit fire risk f. aerial firefighting can be used if it is considered appropriate and available. The pilot will ensure the safety of the aircraft and determine where they can safely operate within and around the wind farm.			
BF03	Fire Management Plan - Smoke detection and fire suppression systems 1. The smoke detection and fire suppression systems will be monitored 24/7 by an on-site monitoring system. If activated, an alert would be sent to the site operator. This will be documented in the Fire Management Plan (BF01).	-	Supported	Approval under the P&E Act
BF04	Fire Management Plan - Fuel load management 1. Any vegetation growth on the property will be monitored and managed in accordance with the Fire Management Plan (BF01). During the fire danger period, additional inspections will occur to ensure that all weeds and other vegetation is removed from the fire breaks and other critical areas.	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
BF05	Stakeholder Engagement Plan - Dangerous goods storage 1. In accordance with the Dangerous Goods (Storage and Handling) Regulations 2022, consultation with the Country Fire Authority (CFA) would be required if quantities of dangerous goods within the project site exceed the fire protection amounts listed in Schedule 2 of the regulations to inform fire response. This will be documented in the Stakeholder Engagement Plan (EMM02). 2. Suitable spill containment will be provided around equipment that holds dangerous goods.	-	Supported	Approval under the P&E Act
Electromagnetic interference				
Evaluation objective: To avoid and minimise adverse effects on land use (including agricultural and residential), social fabric of the community (with regard to wellbeing and community cohesion), local infrastructure, electromagnetic interference , aviation safety and to neighbouring landowners during construction, operation and decommissioning of the project.				
EMI01	Stakeholder Engagement Plan - Point-to-point and point-to-multipoint services 1. The proponent will consult with relevant point-to-point and point-to-multipoint service operators to confirm potential effects (or lack thereof) from final project design, prior to construction. This will be documented in the Stakeholder Engagement Plan (EMM02).	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	2. Where interference is not eliminated through turbine design and siting, a mitigation strategy will be developed and implemented in consultation with organisations operating point-to-point and point-to multipoint services to minimise or avoid interference to communications. These measures could include re routing of affected services, installing additional towers, or replacing affected links with alternative technologies.			
EMI02	Stakeholder Engagement Plan - Radio communications 1. The proponent will consult with relevant radio service operators to confirm potential effects (or lack thereof) from final project design prior to construction. This will be documented in the Stakeholder Engagement Plan (EMM02). 2. Where interference is not eliminated through turbine design and siting, a mitigation strategy will be developed and implemented in consultation with organisations operating radio communications sites within 2 kilometres of wind turbines to minimise or avoid interference to radio communications. These measures could include increasing the signal strength from the affected tower or alternative towers, installing a signal repeater or an additional tower.	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
EMI03	Stakeholder Engagement Plan - Telecommunications and NBN services 1. The proponent will consult with relevant telecommunications carriers and other parties potentially affected by electromagnetic interference to confirm potential effects (or lack thereof) from final project design, prior to construction. This will be documented in the Stakeholder Engagement Plan (EMM02). 2. Where interference is not eliminated through turbine design and siting, a mitigation strategy will be developed and implemented in consultation with organisations operating telecommunications and NBN services to minimise or avoid interference to communications. These measures could include re-directing antenna at affected dwelling to alternative tower, changing location of antenna, or installing a new tower.	-	Supported	Approval under the P&E Act
EMI04	Bureau of Meteorology conditions 1. The project will adhere to the following conditions provided by the Bureau of Meteorology: a. inform the Bureau of Meteorology of any changes to the wind farm design, including varying the wind farm layout, changing turbine locations by more than 100 metres or altering the turbine height	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	b. notify the Bureau of Meteorology at least two weeks prior to any planned shutdown for more than 12 hours of the wind farm (for maintenance or any other reason) c. collaborate with the Bureau of Meteorology on the event of severe weather condition to assist in endeavours of community safety.			
EMI05	Signal Strength Survey 1. Prior to the commencement, conduct a Signal Strength Survey, which would be submitted to, approved, and endorsed by the responsible authority. The survey will: a. be carried out by a suitably qualified and experienced independent specialist b. include testing at selected locations within 5 kilometres of the project site to enable the average signal strength to be determined for television, radio and other point to point services (including GPS autosteer functions used in agricultural operations) that could be impacted by electromagnetic interference from the project c. identify and consult with organisations operating point to point communication links	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	d. include a mitigation strategy for impact to television radio, NBN reception and point to point transmission.			
EMI06	Complaint response 1. If a complaint is received regarding the effect of the project on television or radio reception at an existing dwelling within 5 kilometres of the project site, then: a. the complaint would be investigated in accordance with an approved Complaint Investigation and Response Plan b. if the investigation indicates that the project has had a detrimental impact on the quality of reception or signal strength, the proponent will restore reception/signal strength to at least the quality determined in the preconstruction Signal Strength Survey. 2. Complaints will be managed in accordance with the Complaints and Grievance Mechanism (EMM03).	-	Supported	Approval under the P&E Act
EMI07	Television and satellite internet 1. Where interference to television and satellite internet services is not eliminated through turbine design and siting, develop and implement a mitigation strategy in consultation with homeowners and service providers to restore the	-	Supported	Approval under the P&E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	affected service to at least the quality determined in the preconstruction Signal Strength Survey. These measures could include re-directing communication links, re-locating antenna/satellite dishes, and/or upgrading antenna/satellite dishes, installing cable or satellite television, or installing a relay transmitter.			

Traffic and transport

Evaluation objective: To avoid and minimise adverse effects on roads and road users during construction, operation and decommissioning of the project.

TT01	Traffic Management Plan 1. Prior to the commencement of construction, prepare and implement a Traffic Management Plan as described in Section 15.9.2 of Chapter 25 – Traffic and transport to minimise potential impacts to the transport network and users, in consultation with Moyne Shire Council and the Department of Transport (Regional Roads Victoria and Public Transport Victoria), and to their satisfaction. This will be a sub-plan to the Construction Environmental Management Plan (EMM01). 2. The Traffic Management Plan will address the traffic-related planning conditions and include: a. pre- and post-construction condition surveys and details of the procedure for any road	-	Supported	Approval under the P& E Act
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MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	maintenance works during construction and remedial work required following construction b. communication – the plan for communication with local residents and businesses to ensure that people are kept informed about when works would be carried out and how to contact the construction team in the event of any questions or complaints. This will be documented in the Stakeholder Engagement Plan (EMM02) c. traffic management – for each stage of construction, a detailed traffic management strategy would be provided, which would include the delivery schedule of the oversize and overmass loads.			
TT02	Green Travel Plan 1. Prior to the commencement of construction, establish a Green Travel Plan to encourage sustainable travel and to minimise project traffic generation throughout the construction, operation, and decommissioning.	-	Supported	Proponent to ensure appropriate statutory fit for this EMM or give effect via relevant Government agency management plan.
TT03	Permanent road upgrades 1. The project will upgrade and widen sections of over size and over mass routes and local roads within the project site to the applicable Department of Transport/Moyne Shire Council	-	Supported	Approval under the P& E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	standards, including sections of Keillors Road within the project site for oversize and overmass haulage operations. 2. Road upgrades and widening will be undertaken in accordance with road maintenance and management agreements (TT05).			
TT04	Temporary road infrastructure 1. Prior to mobilising any oversize and overmass vehicles on the haulage route, temporary infrastructure works must be designed in consultation with, and completed to the satisfaction of, the Department of Transport (Regional Roads Victoria).	-	Supported	Approval under the P& E Act
TT05	Road maintenance and management agreements 1. Prior to construction, road maintenance and management agreements would be established with Department of Transport and Moyne Shire Council for local roads relied on by the project during construction.	-	Supported	Approval under the P& E Act
TT06	Road management agreements 1. Establishment of road management agreements with Moyne Shire Council and Department of Transport to remove external redundant transport project infrastructure and rehabilitate	-	Supported	Approval under the P& E Act



MM ID	Description	IAC Recommended changes	Minister's Response	Relevant Approval
	local roads relied on by the project at the end of the project construction phase.			



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