

Chapter 26

Environmental management framework

26.1 Overview

This Environmental Management Framework (EMF) has been developed to provide the project with a transparent and integrated framework for managing environmental risk and mitigating adverse effects. It contains the environmental management measures (EMMs) developed with subject matter experts during the preparation of this EES.

The EMF outlines clear accountabilities for the delivery of the project in accordance with the EMMs and compliance with all relevant environmental laws, approvals, approval conditions, and environmental management plans and procedures to ensure that the environmental risks and potential impacts of the project are effectively managed.

The EMF also outlines the processes to be followed in the preparation, review, approval and implementation of environmental management plans and procedures. It provides for the regular review and updating of these plans and procedures, as well as independent monitoring, auditing and reporting of compliance.

The EMF applies to the whole of the project, as described in Chapter 5 – *Project description*.

26.2 Scoping requirements

The EES scoping requirements, including draft evaluation objectives, were set out by the Minister for Planning in August 2019. This chapter responds to Section 3.7 of the EES scoping requirements (refer to extract below), which requires an EMF to be prepared for the project.

Environmental Management Framework (from Section 3.7 of the EES scoping requirements)

The EMF should describe the baseline environmental conditions to allow evaluation of the residual environmental effects of the project, as well as the efficacy of applied environmental management and contingency measures. The framework should include:

- the context of required approvals and consents
- the proposed environmental management system to be adopted
- organisational responsibilities and accountabilities for environmental management
- an environmental risk register that is maintained during project implementation
- the environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes.

An important aspect of the EMF is community consultation, stakeholder engagement and communications during the construction and operation of the project. As the project proceeds it will largely be the EMF that outlines opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during construction or operation. To this end the EMF will set out procedures for:

- complaints recording and resolution
- auditing and reporting of performance including compliance with relevant statutory conditions and standards, and
- review of the effectiveness of the EMF for continuous improvement.

Management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes should be clearly described in the EMF. The EMF should describe proposed objectives, indicators and monitoring requirements, including for (but not limited to) managing or addressing:

- biodiversity values (including MNES)
- surface water and groundwater values
- landscape and visual values, including blade glint and shadow flicker
- noise and vibration, including during construction, decommissioning, and from operational turbines
- air quality during construction
- cultural heritage values
- aviation (including with respect to aerial firefighting) and electromagnetic interference
- land use and socioeconomic values, and
- traffic, particularly during construction, including managing temporary disruption and changed accessibility.

26.3 Baseline conditions

The baseline environmental conditions of the project site that have been used to evaluate the residual environmental effects of the project are summarised in technical chapters 8 to 23. Each technical chapter is supported by one or more technical specialist studies, provided as Appendices A to O, which provide more detailed descriptions of the existing conditions of the project site.

26.4 Statutory approvals and consents

A range of approvals and consents are required for the project, as described in Chapter 3 – *Legislation and policy framework*. Table 26.1 identifies necessary approvals and consent, and how each approval relates to the EMF.

Table 26.1 Statutory approvals and consents

Act	Requirements	Approval authority	Relevance to EMF
Primary approvals			
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	EPBC Act approval	Commonwealth Department of Agriculture, Water and the Environment, Minister for the Environment	The EPBC Act approval would set out conditions to be addressed through the plans and associated management sub-plans described in the EMF.
<i>Planning and Environment Act 1987</i>	Planning permit	Minister for Planning	If approved, a planning permit would set out conditions to be addressed through the plans and associated management sub-plans described in the EMF.
<i>Aboriginal Heritage Act 2006</i>	Cultural Heritage Management Plan (CHMP)	First Peoples – State Relations	The CHMP would include procedures and requirements for managing impacts and protecting Aboriginal heritage that would be implemented through the plans and associated management sub-plans described in the EMF.
<i>Mineral Resources (Sustainable Development) Act 1990</i>	Quarry Work Plan	Earth Resources Regulation in Department of Jobs, Precincts and Regions	The final Quarry Work Plan would include details of how the quarry would be constructed, operated and decommissioned, as endorsed by Earth Resources Regulation. It would be supported by a risk management plan and risk treatment plans setting out how potential impacts would be controlled. Measures specific to the Quarry Work Plan are components of the EMF.
Secondary approvals			
<i>Water Act 1989</i>	Works on a waterway license	Glenelg Hopkins Catchment Management Authority	Procedures and measures for limiting impacts to waterways that would be implemented through the plans and associated management sub-plans described in the EMF.
	Take and use licence	Southern Rural Water	Procedures and measures relating to groundwater extraction from the quarry would be detailed in plans and associated management sub-plans, which would be amended to include any specific conditions.
<i>Road Management Act 2004</i>	Consents for intersection and road upgrades	Regional Roads Victoria/Moyne Shire Council	Specific requests including designs for endorsement sit outside the EMF.
<i>Flora and Fauna Guarantee Act 1988</i>	Permit to take FFG listed flora	Department of Environment, Land, Water and Planning (DELWP)	Procedures and measures relating to protected species listed under the FFG Act would be detailed in plans and associated management sub-plans, which would be amended to include any specific conditions with the FFG Act permit.
<i>Wildlife Act 1975</i>	Permit required to remove fauna, salvage capture or relocate fauna	Department of Environment, Land, Water and Planning (DELWP)	Fauna management sub-plans detailed in the EMF would be amended to include any specific conditions with permit to take wildlife.

The Victorian Parliament recently passed the *Environment Protection Act 2017*, which came into force from July 2021. The new act includes a general environmental duty that applies to all Victorians. The general environmental duty requires that the proponent understand the risks from the project to human health and the environment, and take reasonably practicable steps to eliminate or minimise these risks. The approach described in this EMF has been prepared to address this requirement.

26.5 Governance

26.5.1 Governance framework

Willatook Wind Farm Pty Ltd (the proponent) is responsible for preparation of the EES and obtaining key statutory approvals for the project, namely the planning permit, approved CHMP and approval under the Commonwealth EPBC Act. Wind Prospect is the current owner of Willatook Wind Farm Pty Ltd, however ownership would transfer to another entity after these key statutory approvals are achieved. The new owner of Willatook Wind Farm Pty Ltd will be required to comply with the EMF and with the approval conditions of the project.

The proponent would be responsible for preparation of the final EMF and EMMs following the EES assessment and approvals processes and obtaining planning approval from the Minister for Planning. The EMF (including EMMs) will need to be prepared to the satisfaction of the Minister prior to the commencement of any works, excluding any preparatory works that might be permitted by the planning permit.

Subject to approval determinations, the proponent would introduce the project to the market for construction and operation. Secondary approvals, design, construction, operation and decommissioning phase management measures would be the responsibility of the proponent and their contractors.

While details have not yet been confirmed at this stage it is anticipated that the proponent would enter a design and construct contract(s) with a contractor that has an existing environmental management system (accredited to AS/NZS ISO 14001). The contractor (or contractors) appointed would be required to prepare a Construction Environmental Management Plan consistent with this EMF and their own environmental management system. The Construction Environmental Management Plan would be a detailed project and site-specific plan governing the environmental management of all project activities (including site establishment, civil earthworks, building of structures and reinstatement) in a manner that meets, as a minimum, the requirements of all relevant environmental laws, approvals, approval conditions, this EMF and the EMMs. The proponent would be responsible for ensuring the requirements of these approvals are implemented.

The Construction Environmental Management Plan and sub-plans prepared by the contractor(s) would be audited for compliance with the EMF and approval conditions by an Independent Environmental Auditor, with the effectiveness of the measures also assessed. Any deficiencies in the effectiveness of measures within any plan would be addressed and the plan updated. Sub-plans would include the various environmental management plans described within this EMF. Regular compliance reports would be submitted to the proponent and relevant statutory authorities (as appropriate). A summary of these audit reports will be published publicly on a 6-monthly basis.

An Operations Environmental Management Plan would apply to the operational phase of the project. A Decommissioning Plan would apply to the decommissioning phase of the project. These would be prepared by the proponent and approved by the responsible authority before the start of construction, operations and decommissioning activities, respectively. The key inclusions for these plans are outlined in Section 26.8.

Figure 26.1 below illustrates the governance framework that would be required to conform to the EMF, which includes audits by an accredited Independent Environmental Auditor.

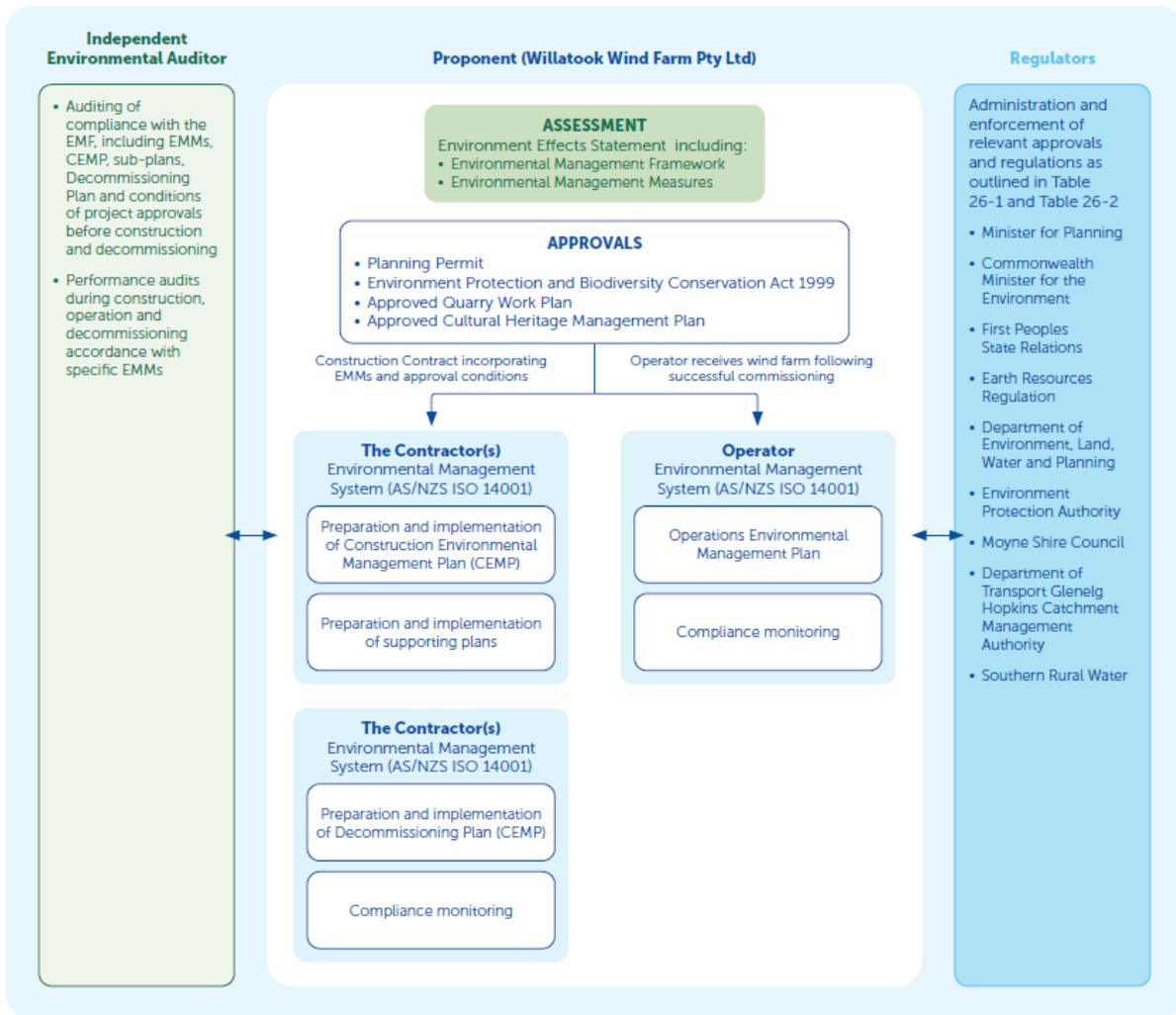


Figure 26.1 Governance framework

26.5.2 Roles and responsibilities

The proponent will be responsible for overseeing and engaging contractors and consultants across the life of the project. This will include obtaining secondary approvals, detailed design, procurement, construction, commissioning and decommissioning of the wind farm.

The proponent is responsible for the ongoing consultation and engagement activities for the project throughout the entire project lifecycle.

Table 26.2 outlines the key roles and responsibilities relevant to environmental management of the project.

Table 26.2 Environmental management roles and responsibilities

Role	Responsibilities
Minister for Planning	<ul style="list-style-type: none"> Review and endorse the project EMF. Receive regular audit and monitoring reports to comply with the EMF and associated environmental management plans. Administer and enforce the EMF as responsible authority for the planning permit.
Commonwealth Minister for Environment	<ul style="list-style-type: none"> Assess and make determination on EPBC Act matters. Review and approve environmental management plans under the relevant EPBC Act approvals, as required. Receive audit or monitoring reports, as required.

Role	Responsibilities
Project proponent	<ul style="list-style-type: none"> • Obtain applicable principal statutory approvals detailed in Chapter 3 – <i>Legislation and policy framework</i>. • Monitor compliance with the EMMs across all project contracts. • Develop and maintain an environmental risk register. • Review and approve the Construction Environmental Management Plan. • Engage an Independent Environmental Auditor to audit compliance with EMF and associated management plans to provide the Minister for Planning. • Develop and implement the Operations Environmental Management Plan. • Review and approve the Decommissioning Plan. • Prior to commencement of work, verify that the contractor has complied with the relevant EMMs. • Meet monthly with contractor to review performance against the EMMs and take corrective action as necessary. • Liaise with regulators, as required. • Engage effectively with stakeholders, including the local community, throughout the life of the project and maintain the Community and Stakeholder Engagement Plan.
Project design and construct contractor (including decommissioning contractor)	<ul style="list-style-type: none"> • Obtain all other project approvals and comply with all approval conditions and obtain any secondary consents necessary for design and construction of the project. • Comply with the EMF, legislative and approval requirements. • Implement and maintain compliance with the EMMs. • Prepare and implement the Construction Environmental Management Plan and associated Work Method Statements. • Ensure that all sub-contractors comply with the EMF, EMMs, Construction Environmental Management Plan. • Conduct internal compliance audits, receive audit reports from the Independent Environmental Auditor and take any necessary corrective action required to address issues raised in audit reports. • Ensure that all sub-contractors similarly comply with such requirements and take corrective action as necessary. • Provide adequate resources to establish, implement, maintain and improve the Construction Environmental Management Plan, and Decommissioning Plan. • Keep the project proponent informed of communications with regulatory authorities.
Project operator	<ul style="list-style-type: none"> • Develop and implement the Operations Environmental Management Plan. • Conduct internal compliance audits, receive audit reports from the Independent Environmental Auditor and take any necessary corrective action required to address issues raised in audit reports.
Independent Environmental Auditor	<ul style="list-style-type: none"> • Prior to commencement of work, verify that contractors have complied with the relevant EMMs and the EMF. • Conduct audits of the contractor's works to assess compliance with the Construction Environmental Management Plan, EMMs and EMF. • Review the contractors performance against the EMMs and request or recommend corrective action as necessary. • Prepare audit reports containing the results of audits.
Regulators and agencies	<ul style="list-style-type: none"> • Review, assess and make determination on primary and secondary permits and approvals.

26.6 Environmental management documents

The documentation to implement the EMF is made up of a number of key documents, as well as relevant legislation, approvals and approval conditions that must be complied with. The structure of environmental management documents is shown in Figure 26.2.

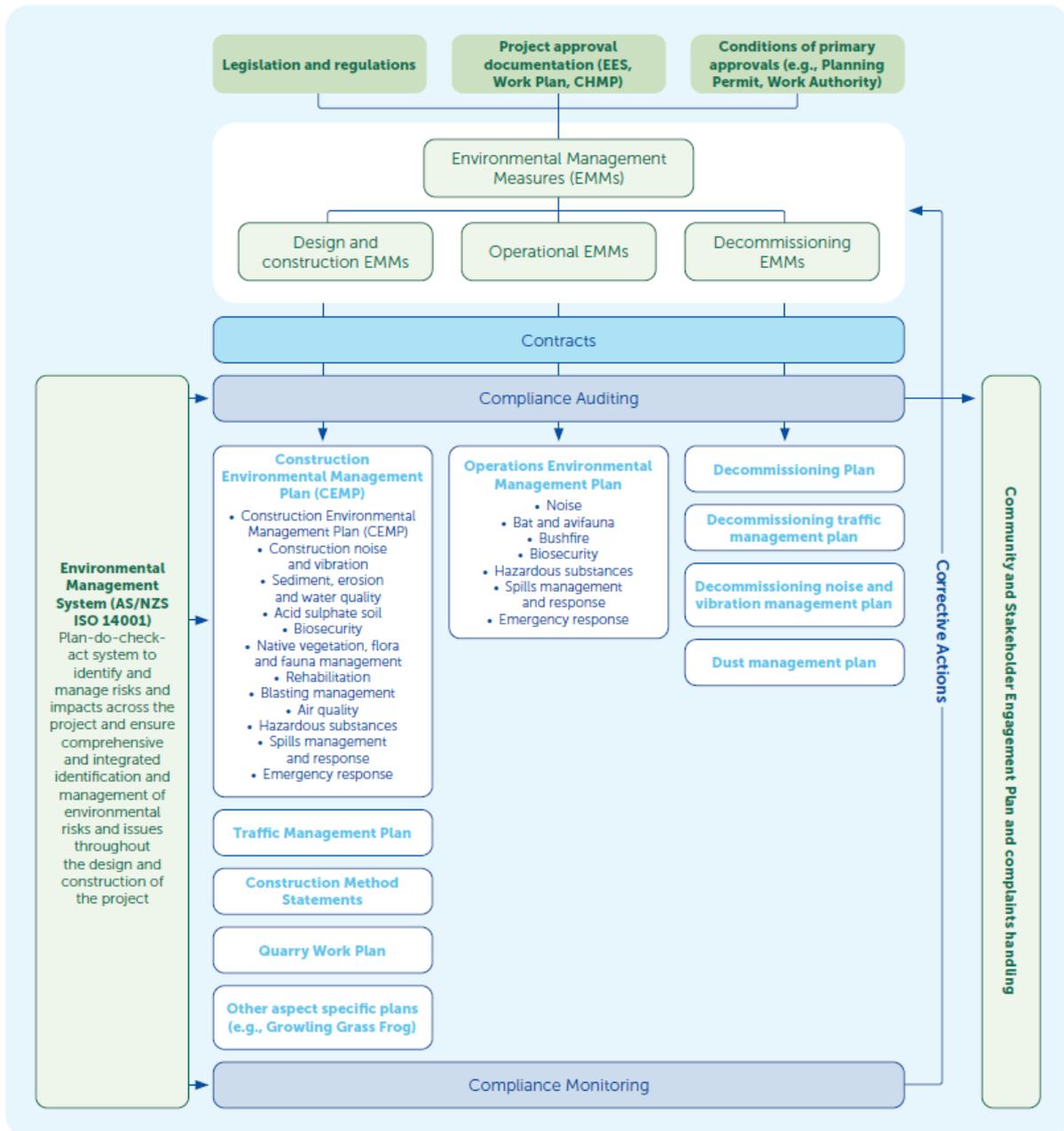


Figure 26.2 Environmental management documents

26.6.1 Environmental management system

Both the construction contractor(s) and operator would operate in accordance with an environmental management system that is compliant with AS/NZS ISO 14001:2015 *Environmental management systems – Requirements with guidance for use*.

The purpose of the environmental management system would be to establish a plan-do-check-act system to identify and manage environmental risks and impacts across the project, and ensure comprehensive and integrated identification and management of environmental risks and issues throughout the design and construction of the project.

26.6.2 Stakeholder engagement

It is recognised that responsive and comprehensive stakeholder engagement during construction and operation of the project is critical to the success of the project. An overarching Community and Stakeholder Engagement Plan would be developed and implemented to facilitate ongoing consultation between the proponent, contractor(s), operator and the broader community.

The plan would:

- outline procedures and mechanisms for the regular distribution of accessible information about the project
- identify opportunities to provide information regularly about construction activities, timeframes and milestones
- set out processes and measures to provide sufficient prior notice to key stakeholders and other potentially affected stakeholders of construction activities (including any early works or out of hours works), significant milestones, changed traffic conditions, interruptions to utility services, changed access, and periods of predicted high noise and vibration activities
- detail the ways the community will be communicated with before future works commence (where necessary)
- be reviewed and adapted based on community feedback so that the community has easy ways to receive information about the project
- maintain a communication database and complaints register throughout the life of the project to assist identifying and resolving project issues experienced by stakeholders.

The environmental management of the project would also require engagement with relevant stakeholders to develop, and in some cases, approve specific management plans for the project. Responsible authorities for the approval of individual management plans include, but may not be limited to, those agencies and organisations mentioned in Chapter 3 – *Legislation and policy framework*.

26.6.3 Complaints recording and resolution

The contractor(s) would also document and implement a complaints management process (including processes and measures for registering, managing and resolving complaints) consistent with *AS/NZS 10002: 2014 Guidelines for Complaint Management in Organisations*. A Complaint Investigation and Response Plan would be developed that:

- outlines the process for making and recording complaints and their resolution
- provides a range of avenues (e.g., direct phone number, email) for community members to express their concerns or ask questions
- specifies response and resolution procedures to ensure timely responses are provided to complaints raised.

26.6.4 Cultural heritage management

A CHMP (no.11090) has been prepared for the project in consultation with the Registered Aboriginal Parties the Eastern Maar Aboriginal Corporation and Gunditj Mirring Traditional Owners Aboriginal Corporation. The CHMP was also informed by consultation with Framlingham Aboriginal Trust, and First Peoples – State Relations who are responsible for evaluating the CHMP (as there was no Registered Aboriginal Party for the project area at the time the CHMP commenced).

The CHMP includes measures to avoid harm to known Aboriginal places and Aboriginal heritage values, as well as measures to avoid potential impacts to any unknown Aboriginal values within the project site. Approval of the CHMP occurs independently of the EES process and the project is not able to commence construction until the CHMP is approved by First Peoples – State Relations. The CHMP would be in place for the construction and operation of the project.

26.6.5 Environmental management during construction

An Environmental Management Plan would be prepared to reflect the planning permit and the Environmental Management Framework as endorsed by the Minister before construction starts. The Environmental Management Plan would consolidate all EMMs that relate to the project and provides details of how they should be performed.

Key components of the Environmental Management Plan would be the Construction Environmental Management Plan, Operations Environmental Management Plan and Decommissioning Plan, plus various sub-plans (as described below).

Construction Environmental Management Plan

The overarching management document for construction of the project would be the Construction Environmental Management Plan.

The construction contractor would prepare a Construction Environmental Management Plan for their package of works, as required by the project contract and in accordance with the EMF and EMMs. Relevant works would not start until the Independent Environmental Auditor has reviewed the adequacy of and verified compliance of the Construction Environmental Management Plan with the EMF and EMMs, and has reviewed and accepted the Construction Environmental Management Plan and all required sub-plans.

The Construction Environmental Management Plan would be prepared in accordance with the requirements of the EMF, EMMs, project contracts and industry best practice. The Construction Environmental Management Plan would include details of processes and responsibilities for:

- achieving compliance with approval conditions, relevant legislation and the construction EMMs
- identifying, managing and monitoring environmental risks and issues during construction, and implementing contingency measures
- preparing and implementing Construction Method Statements
- site inductions, training, competency and awareness
- communication and reporting between internal project stakeholders and with external stakeholders
- environmental monitoring, reporting and auditing requirements
- managing complaints, incidents, non-conformances, and taking corrective and preventative action
- emergency preparedness and response, including after-hours response, arrangements for containing environmental damage and attendance on-site in the event of an emergency
- review of performance and the process to develop and implement continuous improvements.

The Construction Environmental Management Plan would be developed as a single document with a series of stand-alone sub-plans for specific aspects. Monitoring plans would be appendices to management plans as required. The Construction Environmental Management Plan would be developed in consultation with relevant stakeholders including landowners, responsible authorities and government agencies, emergency services, and as required in response to all relevant EMMs.

Plans that would sit within the Construction Environmental Management Plan would include the following with corresponding EMMs that outline specific requirements:

- Construction noise and vibration management (EMMs – NV01, NV02, NV03, NV04, NV06)
- Sediment, erosion and water quality management (EMMs – SW02, SW03, SW04, SW05, SW07, SW08, SW09, GW03, GW04, GW05, GW06, GW07, GW08, GW09, GW11)
- Acid sulfate soil management (EMM – SW06)
- Biosecurity management (EMM – BH04)
- Native vegetation flora and fauna management (EMMs – BH01, BH02, BH05, BH06, BH07, BH08, BH09)
- Blasting management (EMMs – BR05, NV03, NV07)
- Air quality (EMMs – AQ01, AQ02)
- Rehabilitation (EMM – BH03, SE06)
- Hazardous substances management (EMM – SW06)
- Spills management and response (EMMs – SW07, GW11)
- Emergency response.

A number of these sub-plans would require review, input and endorsement from statutory authorities prior to construction commencing. The implementation and adherence to these sub-plans would be enforced, monitored and audited by the proponent. Audits by an Independent Environmental Auditor would occur in accordance with the EMMs (see Section 26.8).

Other construction related strategies and plans

A range of other plans for the construction phase of the project would be required. The process and timing for development of these plans and strategies would be in accordance with the EMMs. This includes the process and timing for consultation with relevant people, including statutory authorities.

Table 26.3 outlines the other strategies and plans that would sit outside the Construction Environmental Management Plan.

Table 26.3 Other strategies and plans for project construction

Documentation	Description	Relevant EMM
Construction Method Statements	<p>Individual plans identifying site-specific environmental control measures to be implemented. Construction Method Statements would be developed once the detailed design and refined construction methodology is prepared by the contractor.</p> <p>The Construction Method Statements would address the requirements of the EMMs, Construction Environmental Management Plan and other plans required by the EMMs and project contracts, and be developed in accordance with industry best practice. The Construction Method Statements would be developed to account for:</p> <ul style="list-style-type: none"> • each construction site's environmental features • the nature of the works to be undertaken • potential environmental impacts and activity-specific environmental risks • relevant EMMs • relevant conditions of key approvals and any secondary approvals required • the findings of any environmental investigations undertaken by the contractors. <p>The Construction Method Statements would be prepared in consultation with stakeholders relevant to the works covered in the statement, including the relevant landowner or manager, responsible authorities where required in relation to issues within their jurisdiction, emergency services, and as required by any relevant EMM.</p>	
Traffic Management Plan	<p>A detailed Traffic Management Plan would be developed in consultation with and to the satisfaction of Regional Roads Victoria and Moyné Shire Council. The Traffic Management Plan would address the traffic-related planning conditions and include:</p> <ul style="list-style-type: none"> • Pre- and post-construction condition surveys and details of the procedure for any road maintenance works during construction and remedial work required following construction. • 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. • Traffic management – for each stage of construction, a detailed traffic management strategy would be provided, which would include the delivery schedule of the over size and over mass loads. 	TT01
Quarry Work Plan	<p>The on-site quarry would operate under commitments and measures outlined within an approved work plan, which includes a rehabilitation plan and a community consultation plan.</p>	GW01, SW05, NV07, AQ3

Documentation	Description	Relevant EMM
Growling Grass Frog Management Plan	A Growling Grass Frog Management Plan would be prepared with review and endorsement by the Commonwealth Department of Agriculture, Water and the Environment and DELWP.	BH02, BH11
Brolga Monitoring and Compensation Plan	A Brolga Monitoring and Compensation Plan would be prepared and implemented in accordance with the <i>Interim Brolga Guidelines for the Assessment, Avoidance, Mitigation and Offsetting of Potential Wind Farm Impacts on the Victorian Brolga Population 2011</i> (Rev 1, February 2012), and approved by DELWP and the responsible authority.	BR02, BR04, BR05, BR06
Landscape plan	Development of an on-site landscaping plan to screen substations, buildings and lower infrastructure. This plan would include details of plant species to be used, and a maintenance and monitoring program.	LV02
Off-site landscape plan	Development of an off-site landscaping plan for vegetation screening of eligible dwellings, in consultation with the landowner on a case-by-case basis.	LV03, BH03,
Workforce Accommodation Strategy	Before development starts, a Workforce Accommodation Strategy would be developed and implemented for the construction and decommissioning workforce to the satisfaction of Moyne Shire Council. The aim of the accommodation strategy is to reduce the likelihood of displacement of existing residents during construction.	SE15

26.6.6 Operational environmental management

The overarching management document for operation of the project would be the Operations Environmental Management Plan. The operator would develop an Operations Environmental Management Plan in accordance with the requirements of the EMF and EMMs, and address potential environmental impacts of operation and maintenance activities associated with the project.

The Operations Environmental Management Plan would identify the nature of operational activities and environmental features of the project site, and contain detailed procedures and responsibilities for:

- achieving compliance with the operational EMMs
- achieving compliance with approval conditions and relevant legislation
- identifying, managing and monitoring environmental risks and issues during operation, and implementing contingency measures
- site inductions, training, competency and awareness
- communication and reporting
- environmental monitoring, reporting and auditing requirements
- managing complaints, incidents and non-conformances, and taking corrective and preventative action
- emergency preparedness and response, including arrangements for containing environmental damage and attendance on-site in the event of an emergency
- review and continuous improvement.

The Operations Environmental Management Plan would be prepared in consultation with agencies relevant to the works covered in the plan, including DELWP, EPA Victoria, and as required by any relevant EMM. Like the Construction Environmental Management Plan, a number of plans would sit within the Operations Environmental Management Plan. These would include, but not be limited to:

- noise management
- bat and avifauna management
- bushfire management
- biosecurity management
- hazardous substances management
- spills management and response (SW07, GW11)
- incident and emergency response.

26.6.7 Decommissioning environmental management

The overarching management document for decommissioning of the project would be the Decommissioning Plan. The operator would develop a Decommissioning Plan in accordance with the requirements of the EMF and EMMs, and address potential environmental impacts of decommissioning activities associated with the project. The plan would identify the nature of decommissioning activities, and contain detailed procedures and responsibilities including detailed plans for the following infrastructure elements:

- access tracks
- hardstands
- footings
- wind turbine generators
- battery energy storage facility
- on-site substation
- operations and maintenance facility.

The Decommissioning Plan would also outline:

- waste and materials management
- ongoing site monitoring and rehabilitation plans
- the timeframe for decommissioning activities
- project management, monitoring and assurance.

Several decommissioning-specific plans would also be prepared including:

- a decommissioning Traffic Management Plan that specifies measures to manage traffic impacts associated with removing the turbine(s) and associated infrastructure from the site
- noise and vibration management plan for decommissioning related works
- dust management plan.

26.7 Performance management

26.7.1 Compliance monitoring

The project would implement a proactive monitoring regime to assess the ongoing environmental performance of the project and identify any instances of breaches against the performance criteria set out by legislation and the project's planning permit.

The contractor would employ an Environmental Manager who would be responsible for overseeing the implementation of management plans, correcting non-compliance, investigating environmental incidents, meeting monthly with the site manager, undertaking periodic reviews of performance against requirements, and procuring independent audits of the environmental management system and management plans.

Plans developed for the project (in Section 26.6) would follow the plan-do-check-act framework to ensure continual improvement. This would include:

- developing plans that establish clear processes necessary to deliver defined objectives
- implementing these processes
- monitoring and measuring the effectiveness of these processes to achieve the defined objectives (see below)
- acting by taking measures to continually improve processes.

26.7.2 Auditing and reporting

Three layers of review and audit would be implemented for the construction of the project to ensure adaptive management and continual improvement in environmental management can occur. The three levels would include:

- monthly proponent/contractor meetings during the construction phase to discuss and minute:
 - compliance and performance against EMMs
 - corrective actions undertaken to meet EMMs
 - stakeholder interactions and complaints
 - implementation of monitoring programs
- six-monthly documented contractor review/audit during the construction phase to report on the above items from the past six months
- annual independent review/audit during the construction phase to report on:
 - currency/adequacy of all environmental management documentation
 - monthly and six-monthly minutes/reports
 - quality of environmental management system against AS/NZS ISO 14001 *Environmental management systems – Requirements with guidance for use* standards
 - documentation and record keeping of meeting minutes, incidents, non-conformances, Construction Environmental Management Plan/Operations Environmental Management Plan reviews and audits
 - compliance and performance against EMMs
 - corrective actions undertaken to meet EMMs
 - stakeholder interactions and complaints
 - implementation of monitoring programs.

Six-monthly audits during the construction phase would be provided to the Minister for Planning.

During the operation phase the operator would report on the operational environmental performance against operation-specific EMMs. Monthly meeting minutes and annual reporting of performance against EMMs would be maintained and archived for the operational life of the project. Independent review and update of all operational management plans and associated processes would be undertaken at a five year frequency to ensure compliance with current legislation.

Decommissioning phase management plans would be prepared towards the end of the project's operational life. Development of management plans and engagement with statutory authorities would be undertaken and be guided by the relevant legislation of the day.

26.7.3 Contingency measures

Management plans would be live documents that allow for continual improvement and adaptive management throughout the construction, operation and decommissioning phases. Contingency measures are a function of management plans that would facilitate adaptive management and adhere to EMMs.

Management plans prepared for the project would include appropriate contingency measures to address identified environmental, social and business risks during the construction, operation and decommissioning phases of the project. Contingency measures may be required to take effect in the event that monitoring or auditing (or any other means) identifies:

- unforeseen issues
- issues which are foreseeable but not expected to occur
- impacts which are expected but which prove greater than anticipated.

Contingency measures would be developed to comply with relevant regulations, standards and industry best practice guidelines.

26.8 Environmental management measures

The project would be delivered in accordance with the proposed EMMs, which define the environmental measures that must be adopted during construction, operation and decommissioning of the wind farm to facilitate appropriate management of potential environmental impacts. These EMMs have been developed based on the recommendations of specialist technical experts to avoid, reduce or offset environmental impacts.

Table 26.4 details the EMMs that apply to the project. If the project is approved and does proceed, all proposed design and management measures outlined in this EMF will be implemented.

The EMMs are listed in the same order that they appear in the EES chapters.

Table 26.4 Environmental management measures

Number	Management measures	Project phase
Geoheritage		
GEO01	Minimise the number of towers and other structures built on narrow lava ridges and where possible move to broader flat surfaces.	Design and construction
GEO02	Limit reshaping and filling of the significant and sensitive geoheritage features of the Mount Rouse and Tarrone lava flow surfaces, where practicable.	Design and construction
GEO03	Agree stockpile locations with the appropriate consultant specialists to avoid stockpiling excess excavated rock at locations that would compromise the nature and interpretation of significant geoheritage features.	Pre-construction and construction
GEO04	Avoid siting underground cabling and access tracks across high and narrow lava ridges.	Design and construction
GEO05	Design access tracks and underground electricity cables to minimise crossing, and maintain the inherent geometry of, lava ridges and depressions.	Design
GEO06	Construction and crossing points are engineered to minimise changes to the geometry and function of stream channels.	Design
Groundwater		
GW01	Obtain a Work Authority (through approval by Earth Resources Regulation, Department of Jobs, Precincts and Regions) for the quarry construction and operation and adhere to its requirements.	Pre-construction
GW02	Consult with relevant landowners about potential impacts to bores would occur prior to commencement of construction.	Pre-construction
GW03	Conduct further groundwater monitoring within and around the quarry excavation to refine estimates of hydraulic conductivity.	Pre-construction
GW04	If any assumptions underpinning predictions of groundwater drawdown from the quarry change, update drawdown predictions and complete a site-specific risk analysis for neighbouring environmental values.	Pre-construction
GW05	<p>A Water Management Plan would be developed and its requirements carried out by the contractor, and approved by the responsible authority, prior to the commencement of project construction. The Water Management Plan would respond to any final design details and ensure all risks are appropriately managed.</p> <p>The Water Management Plan would include, but not be limited to:</p> <ul style="list-style-type: none"> • dewatering procedures (including discharge location and quality of water, pollution control and management of sediment) in line with EPA Victoria approval processes • procedures for groundwater inflow monitoring in accordance with EPA Victoria Publication 669: <i>Groundwater sampling guidelines</i> • groundwater level triggers for further management measures, if needed. 	Pre-construction and construction
GW06	The use of quarry water would be in accordance with a Take and Use licence under Section 51 of the <i>Water Act 1989</i> and in accordance with Environment Protection Regulations 2021.	Construction

Number	Management measures	Project phase
GW07	Conduct further groundwater monitoring and mapping using exiting bores prior to and during construction to establish local groundwater levels and groundwater quality.	Pre-construction and construction
GW08	<p>Construction activities and temporary works that may impact on surface permeability and groundwater would be included within the contractor's Construction Environmental Management Plan.</p> <p>Measures to minimise groundwater recharge and flow related impacts relating to these activities and works would include, but not be limited to:</p> <ul style="list-style-type: none"> • revegetation of disturbed areas • backfilling using excavated material were possible. 	Pre-construction and construction
GW09	<p>Water collected dewatering of excavations would be managed in accordance with the Environment Protection Regulations 2021. These measures would include, but not be limited to:</p> <ul style="list-style-type: none"> • monitoring of water quality of captured water (e.g., pH, salinity, suspended solids) • approval would be sought from relevant authorities to discharge water • disposal of water at a site that is lawfully able to receive it. 	Construction
GW10	In areas of predicted elevated salinity, groundwater would be tested to determine the appropriate disposal method.	Construction
GW11	<p>To manage potential impacts to groundwater quality, management measures to be carried out (in accordance with relevant guidelines and procedures) would include, but not be limited to:</p> <ul style="list-style-type: none"> • a site-specific risk analysis for any hazardous chemicals (batteries, explosives etc.) under relevant guidelines including EPA Victoria Publication 1698: <i>Liquid storage and handling guidelines</i> • storage of fuels and chemicals within containment facilities (e.g., self-bunded, above ground in a suitable covered area), outside floodplains or watercourse areas, in accordance with relevant legislative requirements • spill kits for fuel, chemical and oil spills to be maintained on site • chemical handling training for construction personnel • spill response procedure, to be contained within the Construction Environmental Management Plan • rehabilitation of any areas where a spill has occurred. 	Construction, operation and decommissioning

Number	Management measures	Project phase
Surface water		
SW01	<p>Development of the detailed drainage design in consultation with Glenelg Hopkins Catchment Management Authority, considering best practice design guidelines.</p> <p>Design measures would include, but not be limited to:</p> <ul style="list-style-type: none"> • permanent surface structures designed to maintain existing overland flow paths and not cause increased upstream flood levels • culverts installed parallel to the alignment of the banks of the waterway • the use of a reduced-width construction right of way at watercourse crossings and aim to avoid any standing water • micro-siting crossings of Back Creek to avoid deeper pools where practicable to prevent potential effects on Yarra Pygmy Perch, Little Galaxias and Growling Grass Frog. 	Design
SW02	<p>Works within a designated watercourse require 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.</p>	Construction
SW03	<p>Where essential wind farm infrastructure (e.g., access tracks and electrical cables) crosses a creek, measures for avoiding and minimising impacts would be documented in the Construction Environmental Management Plan, including:</p> <ul style="list-style-type: none"> • preferentially schedule works during drier months of the year and lowest flow of the waterway • avoiding undertaking of works when high rainfall events are expected • 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 • 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 • 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 • avoiding the creation of continuous rows of stockpiled materials and providing gaps to allow flow. 	Construction

Number	Management measures	Project phase
SW04	<p>Development and implementation of a Sediment, Erosion and Water Quality Management Plan, in consultation with Glenelg Hopkins Catchment Management Authority and EPA Victoria.</p> <p>Erosion and sediment control measures within the construction site would adopt a treatment train approach and would include:</p> <ul style="list-style-type: none"> • phasing of ground-disturbing works to periods of lower rainfall, where possible • maintaining watercourse and wetland buffers (with the exception of watercourse crossings) and adopt other measures consistent with EPA Victoria Publication 1896: <i>Working within or adjacent to waterways</i> • minimising clearance of vegetation, particularly along drainage lines, waterways and steep slopes. Vegetation, including within the watercourse and riparian zones, would be reinstated as quickly as practicable as open cut trenching works are completed • installation of primary, secondary and tertiary treatment control measures based on site-specific hazards consistent with EPA Victoria Publication 1893: <i>Erosion, sediment and dust: treatment train</i> • design and designating an area for stockpiles before construction commences ensuring that stockpiles and batters are designed with slopes no greater than 2:1 (horizontal/vertical) • implementing management controls for stockpiles consistent with EPA Victoria Publication 1895: <i>Managing stockpiles</i> • stabilising exposed soils and implement other management controls for managing ground disturbance in accordance with EPA Victoria Publication 1894: <i>Managing soil disturbance</i> • installing sediment fencing during construction to protect riparian zones if works are to be undertaken within 30 metres of creeks • installing sediment treatment control measures as appropriate (including around stockpiles) to adequately capture sediment loads • managing vehicle movements to designated roads and access areas • directing stormwater within a constructed lined channel or sediment basin where applicable to reduce the velocity of runoff water • monitoring surface water quality upstream and downstream from the works area, and confirm effectiveness of established controls and if environmental values are being protected • development of contingency measures for works within a waterway or floodplain, including controls to be implemented when a storm event is forecast. 	Design, pre-construction and construction
SW05	<p>Implement an approved Quarry Work Plan that includes risk treatment plans to manage and monitor surface water impacts in accordance with the Work Authority. These measures are likely to include, but are not limited to:</p> <ul style="list-style-type: none"> • dam storage be properly designed by an accredited dam engineer and constructed to meet the relevant construction standards • weekly record of storage water levels should be kept throughout the operation of the quarry • management of surface water inflows through in-pit sump pumping during quarry operation. 	Design, construction, operation and decommissioning

Number	Management measures	Project phase
SW06	<p>Implement a risk-based approach to management of potential acid sulfate soil and potentially contaminated soils, in accordance with EPA Victoria Publication 655.1: <i>Acid sulfate soil and rock</i>, which may include:</p> <ul style="list-style-type: none"> • identification of high-risk locations through mapping and soil testing • implementing targeted measures at high-risk locations such the handling and stockpiling of material, protocols to neutralise soil acidity, monitoring and contingencies • development of an acid sulfate soil management plan. <p>If acid sulfate soil or contaminated soil is encountered it would be managed as a priority waste in accordance with EPA Victoria Publication 1968: <i>Guide to classifying industrial waste</i>.</p>	Construction
SW07	<p>Measures to manage potential pollutants from entering waterways include:</p> <ul style="list-style-type: none"> • spills risk assessment and response plan, incorporating measures for the use, storage, transfer and disposal of hydrocarbons and chemicals (in accordance with EPA Victoria Publication 1698: <i>Liquid storage and handling guidelines</i>) • storage of liquid fuels and chemicals within containment facilities (e.g., bunded areas) more than 100 metres from waterways in designated areas within the project site • spill response kit, to be located at waterway crossings, at locations where machinery/plant are operating, and refuelling and fuel/chemical storage areas during construction • incorporation of spill containment measures into the drainage design. 	Construction, operation and decommissioning
SW08	<p>Water collected dewatering of excavations would be managed in accordance with the Environment Protection Regulations 2021. These measures would be incorporated into the Construction Environmental Management Plan and would include, but not be limited to:</p> <ul style="list-style-type: none"> • monitoring of water quality of captured water (e.g., pH, salinity, suspended solids). • approval would be sought from relevant authorities to discharge water • disposal of water at a site that is lawfully able to receive it • use of sediment control devices, where required. <p>EPA Victoria would be consulted in the preparation Construction Environmental Management Plan before construction commences.</p>	Construction
SW09	<p>As part of the Sediment, Erosion and Water Quality Management Plan (SW04) there would be:</p> <ul style="list-style-type: none"> • regular inspection and maintenance of any on-site wastewater management system • inspection and monitoring program, including regular checks of sediment controls to ensure effectiveness, and remediation of any localised erosion • complaint investigation and response plan. 	Pre-construction

Number	Management measures	Project phase
Brolga		
BR01	Before development starts, a Bat and Bat Adaptive Management Plan is to be approved by DELWP, DAWE and the responsible authority.	Detailed design
BR02	Before development starts, a Brolga Compensation Plan is to be approved by DELWP and the responsible authority.	Pre-construction
BR03	As part of the Bat and Avifauna Management Plan, develop a mortality monitoring program of at least three years' duration that commences when the first turbine is commissioned.	Pre-construction
BR04	<p>Monthly Brolga monitoring would be conducted between June and December for all wetlands within two kilometres of wind turbine locations.</p> <p>Should breeding activity be observed then regular surveys would be conducted to collect the following information:</p> <ul style="list-style-type: none"> • observations of breeding behaviour • observed flights, including start and end times, as well as flight path (mapped), height (including range), interaction with turbines, and habitat and activity at destination (where observable) • the number of young successfully fledged. 	Construction and operation
BR05	<p>If Brolga breeding activity is recorded during project construction, the Blast Management Plan would trigger specific measures including:</p> <ul style="list-style-type: none"> • conducting behavioural monitoring of Brolga coinciding with quarry blasts to determine whether there is a behavioural reaction • reducing the number, charge and size of blasts • using directional blast methods away from the breeding area. 	Construction
BR06	Monthly visual inspections for Brolga within a 120-metre radius of each wind turbine for three years of operation. Any observed adverse outcome of turbine interactions (collision, death, injury) would be described in detail and reported within two business days to DELWP's regional manager.	Operation
BR07	<p>Observations of the number and age of birds within the chosen restoration site bi-monthly during breeding season. Observations of evidence of breeding activity, including:</p> <ul style="list-style-type: none"> • stage of breeding (i.e., nest building, laying, incubation, parental care, fledging) • outcomes of breeding attempts • water level fluctuations, predation, disturbance. 	Operation

Number	Management measures	Project phase
Flora and fauna		
BH01	<p>Measures to manage native vegetation during construction would include:</p> <ul style="list-style-type: none"> • obtaining appropriate approvals and permits before any vegetation removal • securing appropriate offsets in accordance with state and Commonwealth legislation and policy • locating temporary infrastructure areas (parking areas, stockpiles, laydowns etc) in already cleared areas • ensuring all construction personnel are appropriately briefed before works start • ensuring no construction personnel, machinery or equipment are placed inside vegetation/tree protection zones (see BH02) • conduct seasonally dependent pre-clearance surveys for threatened flora species in areas of suitable habitat proposed to be disturbed and not already surveyed for threatened species. 	Pre-construction
BH02	<p>The approved vegetation clearing extent, including retained patches of vegetation within the construction footprint, would be clearly demarcated and identified during the construction stage as follows:</p> <ul style="list-style-type: none"> • All project personnel would need to attend an induction that outlines environmental management requirements. This would include information on the biodiversity values of the project area specifically areas of threatened flora and fauna habitat. • Erecting flagging, bunting and signage, construction fencing or fauna-specific temporary fencing in areas of special concern and appropriate buffers as follows: <ul style="list-style-type: none"> - Growling Grass Frog habitat - patches of Plains Grassy Wetland - areas of mapped Ecological Vegetation Classes - tree protection zones - any other areas of special concern noted during pre-clearance inspections. • Clearly mark accessways to prevent establishment of secondary tracks and disturbance to native vegetation. 	Construction
BH03	<p>Revegetation of disturbed areas including:</p> <ul style="list-style-type: none"> • planting locally occurring native shrubs, trees and groundcover plants, selected in consultation with DELWP, to recreate the target vegetation community • incorporating rocks, logs, dead trees and stumps in the restoration and rehabilitation works to provide fauna habitat • maintaining plantings in accordance with the rehabilitation sub-plan • managing weeds and pest animals. 	Construction and operation

Number	Management measures	Project phase
BH04	<p>The following measures would be carried out to manage biosecurity risks:</p> <ul style="list-style-type: none"> • consult with landholders about property-specific biosecurity management arrangements/plans which are in place and followed by landholders • undertake a baseline weed survey of representative locations within the construction footprint to identify locations of existing weed infestations • inspection and certification of all vehicles and construction machinery upon arrival at site. Vehicles and construction machinery cannot access the site until certified as clean • vehicles and construction machinery would not go outside of the construction footprint or approved roads and tracks unless undertaking survey or property management activities as agreed with the landowner • incorporate washdown stations at strategic locations • monitor the condition of disturbed areas post-construction and undertake remedial measures, as required, with the aim that all disturbed areas are re-profiled to a stable landform consistent with original contours and drainage lines and vegetated with a self-sustaining, non-pest species sterile groundcover (on consultation with landholder requirements). 	Pre-construction and construction

Number	Management measures	Project phase
BH05	<p>Implement a Bird and Bat Adaptive Management Plan to be approved by DELWP Environment, DAWE and the responsible authority. The objectives of the bird and bat adaptive management plan would be to:</p> <ul style="list-style-type: none"> • implement a monitoring program to estimate the impact of the project on at-risk birds and/or bats that can reasonably be attributed to the operation of the project, as an indicator of population impact • directly record impacts on birds and bats through carcass searches • document an agreed decision-making framework that identifies impact triggers requiring a management response to reduce impacts and the management activities that will be considered; and • identify matters to be addressed in periodic reports on the outcomes of monitoring, the application of the decision-making framework, mitigation measures and their success. <p>Strategies to be employed to ensure that any impact triggers are detected would include the following:</p> <ul style="list-style-type: none"> • operational phase bat utilisation surveys (see BH06) • carcass searches under turbines (see BH07) • scavenger and detectability trials (see BH08,09) • statistical analysis of the results of carcass searches to derive estimates of mortality levels and rates • reporting. <p>The Bird and Bat Adaptive Management Plan would use an adaptive management approach where management measures are adapted to manage and mitigate impacts more effectively based on the findings of the monitoring program. It is intended that the results of the initial monitoring program would inform the requirements of the ongoing monitoring program, depending on detected bird and bat impacts, and identify additional targeted carcass searching and surveys to be carried out to inform ongoing management and mitigation strategies</p> <p>The design and implementation of the bird and bat mortality monitoring program would be comprehensive and science-based. It would involve frequent monitoring of a sample of turbines for a minimum of two years duration, that begins when the first turbine is commissioned.</p> <p>Impact triggers for threatened species would occur if a threatened bird or bat species (or recognisable parts thereof) listed under the EPBC Act or FFG Act are found dead or injured within the search area under a turbine, or within 100 metres of it, either during any formal mortality search or incidentally by wind farm personnel. Once triggered, an appropriate response would be initiated, and reporting requirements outlined in the decision making framework would occur. The proposed decision making framework for identifying and mitigating impacts on threatened bird and bat species is shown in Figure 12-13, Chapter 12 – <i>Biodiversity and habitat</i>.</p>	Pre-construction
BH06	<p>As part of the bird and bat adaptive management plan, further ultrasonic bat surveys in spring and summer/autumn would be conducted in the first two years of operation. Songmeter ultrasonic bat detectors would be used to monitor bat activity at height (on nacelle or meteorological masts) paired with a bat detector up to one metre off the ground. The Songmeters would operate between sunset and sunrise over a six-week period, in November and February/March when Southern Bent-wing bat are most active.</p>	Operation

Number	Management measures	Project phase
BH07	<p>As part of the bird and bat adaptive management plan, a mortality monitoring program would be conducted either using searches on foot along pre-determined transects by an adequately trained ecologist or via searches by a trained scent dog.</p> <p>Monitoring would consist of searches of 20 randomly selected turbines out to a distance of 120 metres once per month for a period of two years. A second follow-up search, a 'pulse search', would be undertaken to 60 metres during the warmer months (September to April) when microbats are more active.</p>	Operation
BH08	<p>As part of the bird and bat adaptive management plan, a scavenger trial would be conducted to ascertain the rate at which carcasses are removed by scavengers. The trials would be conducted twice over the two year monitoring period. Carcasses (in three size groups) would be randomly placed under selected turbines with motion sensor cameras used to monitor scavenger activity taking place.</p>	Operation
BH09	<p>As part of the bird and bat adaptive management plan, detectability trials would be conducted to test the rate at which the trained searchers, or scent detection dog, detect carcasses under wind turbines</p>	Operation
BH10	<p>Measures to limit fauna strike would include:</p> <ul style="list-style-type: none"> • applying a speed-limit on private access tracks to reduce the risk of fauna mortality from vehicle strike • minimising traffic movements dusk, night and dawn periods in areas of remnant native vegetation. 	Construction and operation

Number	Management measures	Project phase
BH11	<p>The following mitigation measures would be carried out to manage potential impacts to the Growling Grass Frog:</p> <ul style="list-style-type: none"> • prepare and implement a Growling Grass Frog Management Plan • minimise disturbance of banks, channels and vegetation in watercourses (i.e., movement corridors) identified as potential habitat for Growling Grass Frog, where possible • where essential wind farm infrastructure (e.g., access roads, underground cabling trenches) intersects an area identified as potential habitat for Growling Grass Frog, specific action would be undertaken as outlined in the Construction Environmental Management Plan. The Construction Environmental Management Plan would describe appropriate disturbance mitigation measures in relation to sensitive habitat areas such as watercourse banks, channels and nearby vegetation. Other actions would include: <ul style="list-style-type: none"> - preparation of a salvage and translocation protocol, which would be carried out if a Growling Grass Frog is found during construction works - conducting pre-construction surveys of affected habitats, with Growling Grass Frog translocated to nearby sections of watercourses in accordance with the translocation protocol - install temporary frog exclusion fencing either side of construction areas to prevent frogs from moving into works areas while construction is underway - induct all workers on the site to recognise Growling Grass Frog with the requirement to alert the site manager when found - reduce the construction footprint as much as reasonably practicable in areas identified as potential Growling Grass Frog habitat - schedule the construction of crossings to occur outside the frog's breeding season when conditions are dry, where possible - adopt the culvert design standards (from the Growling Grass Frog Crossing Design Standard DELWP, 2017) that facilitate passage of Growling Grass Frog - restore and enhance affected areas of watercourse to at least their pre-construction condition • implement measures (from Hygiene protocols for the control of diseases in Australian frogs Murray et al. 2011) to reduce the introduction and spread of the pathogen Chytrid Fungus. 	Pre-construction and construction
BH12	<p>The following mitigation measures would be carried out to manage impacts to the Striped Legless Lizard:</p> <ul style="list-style-type: none"> • all workers on the site would be inducted to recognise this species and alert the site manager when found • if a Striped Legless Lizard is found during construction works, a salvage and translocation protocol would be prepared • where possible, surface and embedded rocks would not be removed from the site and where possible these would be reintroduced where they are removed temporarily. 	Pre-construction and construction

Number	Management measures	Project phase
BH13	<p>Where practicable, all trenched watercourse crossings would be constructed during no or low flow conditions.</p> <p>Bridges and culverts would be designed to allow flow beneath the roads along their natural flow paths. The watercourse crossings construction method would be dependent on the site conditions of the crossing location. All watercourse crossings and culvert and bridge designs would conform to relevant local Council, Glenelg Hopkins Catchment Management Authority and DELWP guidelines.</p> <p>To further mitigate potential impacts to Dwarf Galaxias and Yarra Pygmy Perch, work would be undertaken in accordance with the following measures:</p> <ul style="list-style-type: none"> • microsite crossings to avoid deeper pools of water • use a minimised construction workspace for watercourse crossings (maximum width 10 metres) • using fish friendly culverts for the proposed crossings of Back Creek • establish no-go zones with buffers around waterbodies adjoining the project footprint to prevent any disturbance to the biodiversity values present within these areas • flow diversion measures would be installed where construction of trenched watercourse crossings during no flow conditions is not possible. Flow diversion measures may include pumps to ensure that water can be moved from one side of crossing to the other, screened inlets (or other appropriate equipment) to minimise the entrapment of aquatic fauna, and outlet structures that are designed to avoid scouring of the channel • where watercourses are trenched, all obstructions to flow would be removed as soon as practicable after the cable has been laid and backfilled • watercourses would be reinstated such that bank stability at the crossing location is the same or better than before construction starts. Stabilising materials, such as rock armouring, hydro mulch, jute matting or other suitable geotextile materials, would be applied to watercourse banks where necessary • stabilising terrestrial habitat with soil and bank protection materials, including biodegradable matting or similar geotextile products. 	Pre-construction and construction

Number	Management measures	Project phase
Noise and vibration		
NV01	<p>All construction activities will be managed and occur in accordance with the Noise and Vibration Management Plan, which would be developed and endorsed by the responsible authority prior to the commencement of construction. The Noise and Vibration Management Plan would:</p> <ul style="list-style-type: none"> • address the effects of construction noise and vibration associated with project activities • outline the proposed construction program and how the proposed management controls are compliant with the requirements defined by EPA Victoria Publication 1834 • outline all unavoidable works, low-noise impact and managed-impact works that may occur outside normal working hours • outline the proposed scheduling of any out of hours works to minimise noise and vibration impacts • be generally in accordance with the recommendations contained within the Construction Noise Assessment prepared by Sonus (April 2022). <p>Should the noise level from any of the project aspects exceed the requirements detailed in the Environmental Noise Assessment report, the operating times would be restricted to the standard hours if appropriate noise criteria cannot be achieved, and the work cannot be justified to be unavoidable.</p> <p>As part of the Noise and Vibration Management Plan, a suitably qualified and independent Health, Safety, and Environment (HSE) professional would be appointed to pre-approve unavoidable night work activities (occurring between 10:00 pm and 7:00 am).</p> <p>Options to reduce the noise level may also include installing aftermarket mufflers to mobile equipment and use of portable acoustic screens around loud activities (such as grinders or impact drivers).</p> <p>The construction manager would be required (via conditions of contract) to ensure that these and any other practical noise reduction measures are undertaken prior to the commencement of construction.</p> <p>A Noise and Vibration Management Plan has been prepared and forms part of this EES. The plan would be updated prior to construction to account for the final layout.</p>	Construction

Number	Management measures	Project phase
NV02	<p>The following community consultation would occur with nearby residents prior to construction activity being undertaken:</p> <ul style="list-style-type: none"> • engage community to keep them informed, for example meetings with community • notify the community before and during construction communicating information such as: <ul style="list-style-type: none"> - dates and times (start and finish) when noise will be generated - why the noise is necessary - type of noise - measures to minimise noise volume - measures to minimise disturbance - contact details for information • install and maintain a site information board at the front of the project site with contact details, hours of operations, after hours emergency contact details and regular information updates • maintain a process for managing complaints (see NV04) • offer alternative accommodation where there is sustained noise impact (such as ongoing sleep disturbance over many nights) or where residents may have underlying health conditions that could be adversely impacted • relocate affected residents if noise levels cannot be reduced sufficiently for the agreed period of construction activity. 	Pre-construction
NV03	<p>Conduct noise monitoring whenever a new construction activity is occurring outside of normal working hours, if blasting is required, and if other earthmoving construction activities are required within 100 metres of a dwelling (with the permission of the dwelling owner). This would include:</p> <ul style="list-style-type: none"> • measurement of background noise levels at the closest dwelling before construction works occur or at a location representative of the closest dwelling • measurement of noise level from construction works at the closest dwelling (or at a location representative of the closest dwelling) during the night under conditions that are conducive to noise propagation towards the measurement location • measurement of noise level at an intermediate location and extrapolated using a recognised noise model if a measured level cannot be satisfactorily achieved at the closest dwelling (or at a location representative of the closest dwelling). <p>In the event that the measured noise level exceeds the relevant criteria in EPA Victoria Publication 1834: <i>Civil construction, building and demolition guide</i>, further mitigation measures would be implemented to reduce the risk of harm so far as reasonably practicable, and the testing repeated to confirm compliance with the criteria.</p>	Construction

Number	Management measures	Project phase
NV04	<p>The noise complaints response process, to be developed prior to construction, would identify any feasible and reasonable measures that may further reduce impacts following a complaint, and to provide feedback to the community on the above process within a reasonable timeframe. The complaints response process would include the following noise elements:</p> <ul style="list-style-type: none"> • provision of a contact person for dealing with any complaints • establishment of a complaints handling procedure that: <ul style="list-style-type: none"> - assesses whether the issue can be resolved easily and take immediate action if possible - if not, ensures that the appropriate consultation has been undertaken for the activity - ensures the on-site inspections of the Noise and Vibration Management Plan have been carried out regularly for the activity - assesses the construction site and activities to determine whether there is any reason to believe the noise exposure of dwellings is higher than anticipated - undertakes monitoring of noise levels where this cannot be confirmed and the complaint relates to out of hours activity, with the aim of establishing if the exposure of receivers is higher than anticipated by the Noise and Vibration Management Plan • takes remedial action with the assistance of an acoustic engineer if any of the above cannot be confirmed. 	Pre-construction
NV05	<p>The design and operation of the temporary concrete batching plants would be in accordance with the control measures outlined in EPA Victoria Publication 1806: <i>Reducing risk in the premixed concrete industry</i> to minimise industrial noise emissions and prevent harm to nearby sensitive receptors.</p>	Design and construction
NV06	<p>Control measures for mitigating the risks and impacts posed by blasting would be contained in the Blast Management Plan. The Blast Management Plan, to be prepared by the proponent and approved by the responsible authority prior to the commencement of construction, would outline the procedures and controls required to conduct blasting operations safely and achieve compliance with the relevant standards and thresholds.</p> <p>A noise monitoring regime would be implemented when blasting is required to ensure compliance with relevant blasting criteria. Should the noise level from any of the project aspects exceed the requirements detailed in the blasting report, the size of the charge mass would be reduced.</p>	Pre-construction
NV07	<p>All quarry operations would be undertaken in accordance with the Work Authority. Prior to construction, the draft Quarry Work Plan (provided in Attachment II) would be finalised and submitted to Earth Resources Regulation (Department of Jobs, Precincts and Regions) for approval, as required under the <i>Mineral Resources (Sustainable Development) Act 1990</i>.</p>	Pre-construction
NV08	<p>Prior to the commencement of construction, a pre-construction noise assessment would be completed and approved by the responsible authority. This assessment would be undertaken to assess the final project layout and equipment selection to ensure that the noise criteria are achieved at all non-stakeholder dwellings under all wind speeds prior to construction commencing.</p> <p>The pre-construction noise assessment would be verified in accordance with the requirements of the New Zealand Standard by an EPA Victoria accredited auditor.</p>	Pre-construction
NV09	<p>A post-construction noise assessment would be undertaken in accordance with the New Zealand Standard 6808:2010 <i>Acoustics – Wind Farm Noise</i> and regulations under the <i>Environment Protection Act 2017</i> to demonstrate that the project is compliant. This assessment would be provided to the EPA within 10 business days of completion.</p>	Operation

Number	Management measures	Project phase
NV10	Additional noise monitoring would be undertaken at intervals required by the <i>Environment Protection Act 2017</i> (currently every five years as specified in the Environment Protection Amendment (Interim) Regulations 2021).	Operation
NV11	A noise management plan including complaints management would be prepared and implemented, as required by the <i>Environment Protection Act 2017</i> (as specified in the Environment Protection Amendment (Interim) Regulations 2021). Should the noise level from wind turbine operation exceed the requirements detailed in the planning permit, a wind turbine curtailment regime under specific wind speeds and directions will be implemented.	Operation
NV12	An annual statement would be prepared detailing the actions undertaken to ensure compliance, as required by the <i>Environment Protection Act 2017</i> (as specified in the Environment Protection Amendment (Interim) Regulations 2021)	Operation
NV13	Adopt 'reduced' sound power levels for the substation transformer as specified in the Australian/New Zealand Standard AS/NZS60076.10:2009, <i>Power transformers – Determination of sound levels</i> .	Operation
NV14	Should the noise level from the substation and battery exceed the requirements detailed in the Environmental Noise Assessment report, a barrier between the noise sources (transformers and containerised batteries) and the closest residences would be designed to reduce the noise levels or reductions would be achieved through fitting attenuators to the inlet and outlet of the containerised battery storage units.	Operation
NV15	Prior to decommissioning, a decommission noise and vibration management plan would be prepared and submitted to the responsible authority for endorsement. This plan would include: <ul style="list-style-type: none"> an assessment of the potential impacts of decommissioning noise and vibration from project activities outline the proposed decommissioning program and how the proposed management controls are compliant with the requirements defined by EPA Victoria Publication 1834: <i>Civil construction, building and demolition guide</i> outline all unavoidable works, low-noise impact and managed-impact works that may occur outside normal working hours outline the proposed scheduling of any out of hours works to minimise noise and vibration impacts. 	Decommissioning
<i>Landscape and visual</i>		
LV01	Re-siting of project infrastructure from sensitive viewing areas and key view lines.	Design
LV02	Development of an on-site landscaping plan to screen substations, buildings and lower infrastructure. This plan would include details of plant species to be used, and a maintenance and monitoring program.	Construction and operation

Number	Management measures	Project phase
LV03	<p>For dwellings within 6 kilometres of a project turbine, development of an off-site landscaping plan for vegetation screening of eligible dwelling rooms, in consultation with the landowner on a case-by-case basis.</p> <p>Considerations and requirements for the screening of views from residential dwellings should include:</p> <ul style="list-style-type: none"> • placement of new landscaping to assist with screening views to project wind turbines • vegetation height, with consideration of any zone and/or overlay planning requirements • 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. <p>The off-site landscaping plan would include details of plant species to be used and a timetable for implementation of the landscaping works, including maintaining the landscaping for a period of at least two years. Evidence that the landscaping has been maintained would be provided to Moyne Shire Council for signoff that this condition has been satisfied.</p>	Construction and operation
LV04	<p>If aviation obstacle lighting or lighting of other on-site facilities is required, lighting should be installed as per the requirements of Australian Standard AS 4282: <i>Control of the obtrusive effects of outdoor lighting</i>. These measures include:</p> <ul style="list-style-type: none"> • ensuring lighting is baffled and directed to the ground • installing motion-trigger mechanisms to reduce the duration of lighting • installing perimeter landscaping to intervene in views to lighting from identified sensitive receptors (residential dwellings). 	Operation
Traffic and transport		
TT01	Before development starts, a Traffic Management Plan must be prepared in consultation with Moyne Shire Council and the Department of Transport (Regional Roads Victoria), and to their satisfaction.	Design
TT02	The project would upgrade and widen sections of Woolsthorpe-Heywood Road and local roads within the project site to the applicable Department of Transport / Moyne Shire Council standards.	Pre-construction
TT03	Site access gates would be designed and constructed in accordance with VicRoads <i>Type B – ‘Truck Access to Rural Property’</i> .	Design and construction
TT04	Prior to mobilising any over size and over mass vehicles from the Port of Portland to the project site, temporary infrastructure works must be designed in consultation with, and completed to the satisfaction of, the Department of Transport (Regional Roads Victoria).	Construction
TT05	Prior to construction a community engagement strategy would be established to identify and consult affected and interested stakeholders.	Pre-construction
TT06	Road management agreements to remove external redundant infrastructure.	Construction and decommissioning
TT07	A Green Travel Plan would be established to encourage sustainable travel and to minimise project traffic generation throughout the construction, operation, and decommissioning.	Pre-construction

Number	Management measures	Project phase
TT08	Design and construct an internal network of access tracks to minimise the volumes of project traffic on public roads.	Design and construction
TT09	Prior to construction road maintenance and management agreements would be established with Moyne Shire Council for local roads relied on by the project during construction. This would include a requirement to remove external redundant transport project infrastructure on local roads.	Pre-construction
TT10	Prior to construction road maintenance and management agreements would be established with Department of Transport for the maintenance of shoulders along the single width seal sections of Woolsthorpe-Heywood Road west of the project site for the duration of turbine component (over size and over mass) haulage operations. This would include a requirement to remove external redundant transport project infrastructure on arterial roads managed by the Department of Transport.	Pre-construction
TT11	Material haulage routes to rely on higher order roads and/or routes gazetted as appropriate to cater for the types of traffic generated by the project. Lower order roads are to be avoided.	Design and construction
TT12	<p>Before construction commences, local and regional schools would be consulted for current bus timetables on the relevant construction traffic routes.</p> <p>Suitable windows of inactivity (curfew times) would be arranged in agreement with the relevant schools and Moyne Shire Council, which applies to both heavy vehicles and over size and over mass vehicle deliveries.</p> <p>School bus routes would be reviewed at the beginning of each school term in consultation with the local and regional schools and Moyne Shire Council and, if required, updated windows of inactivity (curfew times) would be arranged.</p>	Design
Land use and planning		
LP01	Micro-siting of wind turbines would occur in accordance with permit requirement and landowner consent.	Design
LP02	Include appropriate control measures from EPA Victoria Publication 1806: <i>Reducing risk in the premixed concrete industry</i> relating to air, water, waste and noise. Follow the four-step process in the guideline to manage risk.	Construction
LP03	<p>A Risk Management Plan, Fire Management Plan and Emergency Management Plan would be prepared in accordance with the CFA's <i>Design Guidelines and Model Requirements – Renewable Energy Facilities</i> (v3, March 2022), in conjunction with the CFA, prior to commissioning.</p> <p>The Fire Management Plan would outline measures for design, defensible space, construction, water supply and access, awareness actions, preparedness levels and fire response procedures for the site to address any concerns relating to bushfire risk.</p>	Construction

Number	Management measures	Project phase
Social and economic		
SE01	<p>Implementation of an overarching Communications and Engagement Strategy to facilitate ongoing consultation between the proponent and the broader community.</p> <p>The strategy would:</p> <ul style="list-style-type: none"> • provide an approach for ongoing engagement with the broader community about the long-term benefits and opportunities of the project • 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 • outline procedures and mechanisms for the regular distribution of accessible information about or relevant to the project • identify opportunities to provide timely, useful and accurate information regularly about construction activities, schedules and milestones • 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 • 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 • 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. <p>The notification process for landowners in proximity of the quarry and wind turbines that require blasting would be contained within the Blast Management Plan (NV07).</p>	Pre-construction, construction and operation
SE02	<p>Consultation would continue to be carried out with the affected communities to understand their preferences for mitigation and management measures, including:</p> <ul style="list-style-type: none"> • consulting with local schools regarding bus routes and timetables to identify suitable windows for project inactivity (curfew times), or other measures to minimise or avoid impacts to school buses • proactively engaging with highly impacted landholders through one-on-one methods like kitchen table sit downs or phone calls to discuss upcoming disruptions and how they can be managed minimise impacts when possible • holding regular meetings with neighbouring residents to discuss any issues or concerns • engaging with local farmers to minimise disruptions to farming activities, and creating a forward plan for managing disruptions around farming cycles • maintaining the project website to provide up-to-date information on the status of the project during construction and operation, as well as provide a means for the community to contact the project's team. 	Pre-construction

Number	Management measures	Project phase
SE03	<p>A complaints management procedure (including noise complaints response process) would be developed within the Communications and Engagement Strategy that:</p> <ul style="list-style-type: none"> • outlines the process for making and recording complaints • provides a range of avenues (e.g., direct phone number, email) for community members to express their concerns or ask questions • specifies response and resolution procedures to ensure timely responses are provided to complaints raised • outlines roles and responsibilities within the project team for the receipt, handling and escalation of complaints • outlines how community members can escalate their concerns should they not receive a response that meets their expectations. 	Construction
SE04	<p>Implementation of the Neighbour Benefit Sharing Program to promote community understanding and make a positive contribution to the potentially affected communities. The program would include the following payments for those with a dwelling located within 6 kilometres of a constructed wind turbine (excluding stakeholder landowners):</p> <ul style="list-style-type: none"> • a one-off payment of \$1,000 at the substantial commencement of construction • a neighbour benefit payment of: <ul style="list-style-type: none"> - \$3,500 per constructed turbine located within two kilometres of the dwelling - \$1,000 per constructed turbine located between two kilometres and three kilometres of the dwelling - \$100 per constructed turbine located between three kilometres and six kilometres of the dwelling • the neighbour benefit payment would be a minimum of \$1,000 and maximum of \$30,000 per year • 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 • a Community Benefit Fund that contributes \$1,000 per year per wind turbine upon commissioning of the wind farm. <p>Further engagement and involvement with the affected communities would 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.</p>	Operation
SE05	<p>A business register has been established for the project, which is expected to grow as awareness of the project increases through EES exhibition. Companies can register their interest in providing a range of goods or services through the website; https://www.willatookwindfarm.com.au/contractors.</p> <p>Preference would be given to local companies and businesses, where possible.</p>	Construction
SE06	<p>Develop a Decommissioning Strategy for the site to facilitate its rehabilitation/adaptive reuse as farmland or natural environment. Also consider opportunities to utilise the revenue generated (and/or as part of the Community Benefit Fund) from the project for habitat restoration or other environmental initiatives.</p>	Decommissioning

Number	Management measures	Project phase
SE07	Develop partnerships with businesses, local employment agencies, training and education providers to maximise local employment and contract opportunities. Measures could include: <ul style="list-style-type: none"> • partnering with education and training organisations such as South West TAFE to offer special apprenticeships and programs • 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. 	Construction and operation
SE08	Integrate ongoing workers with the community through partnerships with existing community groups and/ or through local events.	Construction and operation
SE09	Facilitate visits to the site with local residents, community groups, and other organisations throughout the operation stage to help build relationships and community understanding and ownership of the project and ensure ongoing engagement with landowners and other stakeholders.	Operation
SE10	Explore strategies to promote the tourism and employment opportunities arising from the project to foster a transitioning community identity and sense of pride.	Operation
SE11	Provide incentives for workers (both construction and ongoing) to become emergency services volunteers or get involved in local community groups.	Construction and operation
SE12	Ongoing engagement with the local community and Aboriginal organisations to explore ways in which connections to local cultural heritage can be preserved and enhanced.	Construction and operation
SE13	Celebrate the site's history as well as its transition, for example using visual signage that communicates information about the project and/or highlights local stories and reflects local values.	Construction and operation
SE14	Incorporation of high-quality pre-construction and ongoing education of on-site staff (e.g., via inductions) about Aboriginal history and current connection to land, as well as the more recent agricultural history and community information to encourage respectful behaviours.	Construction and operation
SE15	Construction Workforce Accommodation Strategy would be developed prior to the construction phase of the project commencing. The Construction Workforce Accommodation Strategy, which would reflect local market conditions at the time, would aim to minimise impacts on the community especially for those reliant on low-cost housing as well as ensuring sufficient accommodation is available to service the tourism sector. The Construction Workforce Accommodation Strategy would be prepared in conjunction with local councils, commercial accommodation providers, private accommodation providers, the real estate sector and other relevant stakeholders.	Construction

Number	Management measures	Project phase
Aboriginal cultural heritage		
AH01	<p>For VAHR Registered 2, a 'no go' area comprising of a 10 metre buffer zone, would be established around the extent of the site prior to the commencement of construction by an appropriately qualified surveyor/engineer/environmental officer/archaeologist and a representative of the Registered Aboriginal Party. This area would be maintained throughout the construction period until commissioning of the wind farm.</p> <p>The 'no go' area buffer would be shown on all relevant construction maps.</p> <p>The fencing may be removed at the completion of works in the Aboriginal place area.</p> <p>No buffer zone is required for VAHR Registered 1, however the location of the site must be marked on all relevant construction maps.</p>	Pre-construction and construction
AH02	<p>Prior to the project construction commencing, key personnel and supervisors must undergo a cultural heritage induction to ensure they are aware of the boundaries of each known Aboriginal heritage site to avoid impacts.</p> <p>The requirement to protect Aboriginal cultural heritage would be included within the project's site induction process, which is to 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 'no go' areas.</p>	Construction
AH03	<p>In accordance with Clause 13(1) Schedule 2 of the Aboriginal Heritage Regulations 2018, the project CHMP (no. 11090) contains contingency plans for:</p> <ul style="list-style-type: none"> unexpected finds of Aboriginal cultural heritage during project construction, operation and decommission the notification and reporting procedure for the discovery of Aboriginal cultural heritage and the management of finds reviewing compliance with the CHMP. <p>If previously unknown Aboriginal cultural heritage is discovered or suspected, all activities and works at the location of the discovery and within 20 metres of the extent of the Aboriginal cultural heritage would be suspended and a Heritage Advisor engaged to assess the discovered heritage. First Peoples – State Relations Group would be notified of the discovery.</p> <p>If any suspected human remains are found during any activity, works would cease, and the Victoria Police and the State Coroner's Office be notified immediately. If there are reasonable grounds to believe the remains are Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted immediately.</p>	Construction and operation

Number	Management measures	Project phase
Historical cultural heritage		
HH01	With the exception of the Landers Lane dry stone wall, all known historical heritage places must have a 50 metre protection buffer applied to avoid accidental impacts during construction.	Design
HH02	An Unexpected Finds Protocol would be developed prior to the commencement of works and incorporated into the Construction Environmental Management Plan. Site workers would be inducted as to the nature of unexpected finds and what action to take if any are found.	Pre-construction
HH03	If any historical heritage sites are encountered during the course of construction, works would cease within 50 metres of the area of concern and a buffer zone established, and a qualified Heritage Advisor (or Heritage Victoria) would be contacted to investigate.	Construction
HH04	Gates constructed in the Landers Lane dry stone wall would be no greater than 8-metre-wide.	Design
HH05	Prior to works impacting any dry stone wall, the relevant planning permit(s) must be obtained from Moyne Shire Council.	Pre-construction
HH06	Where dry stone walls are impacted by the project, planned or accidental, and that impact is not permanently required (i.e., for access), the dry stone walls would be rebuilt to its existing condition by an experienced stone mason.	Construction

Number	Management measures	Project phase
Air quality		
AQ01	<p>A Construction Environmental Management Plan would be developed and implemented, which would specifically address air emissions and mitigations. This document would be in accordance with the requirements of the new <i>Environment Protection Act 2017</i> and best practice guidance documents including, but not limited to:</p> <ul style="list-style-type: none"> • EPA Victoria Publication 1823: <i>Mining and quarrying – Guide to preventing harm to people and the environment</i> • EPA Victoria Publication 1834: <i>Civil construction, building and demolition guide</i>. <p>A site-specific dust management plan (sub-plan of the Construction Environmental Management Plan) would identify potential and existing dust sources and outline best practice design controls and management practices to minimise dust. These measures would include, but not be limited to:</p> <ul style="list-style-type: none"> • watering of unsealed roads to reduce wheel generated dust • use of water sprays to reduce wind erosion from material stockpiles and exposed areas • use of water sprays as required for material transfer operations and quarry activities (e.g., drilling rock, crushing and screening) • restricting vehicle speeds to 20 kilometres per hours near sensitive areas such as dwellings • site-specific dust control measures for dust producing activities • 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 • sequencing of vegetation removal within the quarry work authority area where feasible to minimise the amount of disturbed land exposed to wind erosion • rehabilitation and revegetation of inactive stockpiles and disturbed areas to reduce wind erosion • selection of equipment, e.g., concrete batching plants, which have integrated best practice dust control features • regular visual monitoring of dust, with results recorded in a dust management database • 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 specialist, if required) and amended as necessary • contingency measures where dust plumes are identified during visual monitoring and/or the project receives dust related complaints • 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 • procedures for monitoring of weather (e.g., wind speed, wind direction) and triggers to adjust dust generating activities • complaint investigation and response plan • procedures for reporting the project's performance against regulatory limits. 	Construction and operation
AQ02	<p>All project concrete batching plants would be designed and operated to adequately control dust emissions, as per guidelines set out in EPA Victoria Publication 1806: <i>Reducing risk in the premixed concrete industry</i>.</p>	Construction and operation

Number	Management measures	Project phase
AQ03	<p>A Quarry Work Plan will be developed in accordance with section 77G of the Mineral Resources (<i>Sustainable Development</i>) Act 1990. This plan will contain measures for the control of emissions of dust or other particulates, and the carriage and deposition of dust, silt and clay by vehicles existing the work authority area. These controls will be in accordance with best practice management standards including, but not limited to:</p> <ul style="list-style-type: none"> • EPA Victoria Publication 1191: <i>Protocol for Environmental Management: Mining and Extractive Industries</i> • EPA Victoria Publication 1518: <i>Recommended separation distances for industrial residual air emissions</i> • National Environmental Protection (Ambient Air Quality) Measure. 	Construction and operation
Shadow flicker		
SF01	A pre-construction assessment of the potential effects of shadow flicker from turbines on existing dwellings is to be undertaken for the final turbine layout in accordance with the DELWP (2021) <i>Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria</i> , and to the satisfaction of the responsible authority.	Construction
SF02	The project would meet shadow flicker limits (30 hours per annum) at all pre-existing dwellings evidenced through pre-construction modelling. For stakeholder dwellings, shadow flicker limits (30 hours per annum) would be met through the micro siting of turbines in the final design, conducting strategic screen plantings, using smaller wind turbine blades or implementation of a curtailment strategy, if required.	Operation
Electromagnetic interference		
EMI01	The proponent would 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.	Pre-construction
EMI02	Where interference is not eliminated through turbine design and siting, a mitigation strategy would 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.	Construction and operation
EMI03	The proponent would consult with relevant radio service operators to confirm potential effects (or lack thereof) from final project design prior to construction.	Pre-construction
EMI04	Where interference is not eliminated through turbine design and siting, a mitigation strategy would 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.	Construction and operation
EMI05	The proponent would 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.	Pre-construction

Number	Management measures	Project phase
EMI06	<p>Where interference is not eliminated through turbine design and siting, a mitigation strategy is to be developed and implemented in consultation with organisations operating telecommunications and NBN services to minimise or avoid interference to communications.</p> <p>These measures could include re-directing antenna at affected dwelling to alternative tower, changing location of antenna, or installing a new tower.</p>	Construction and operation
EMI07	<p>The project would adhere to the following conditions provided by the Bureau of Meteorology:</p> <ul style="list-style-type: none"> 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 notify the Bureau of Meteorology at least two weeks prior to any planned shutdown of the wind farm (for maintenance or any other reason) collaborate with the Bureau of Meteorology on the event of severe weather condition to assist in endeavours of community safety. 	Design and operation
EMI08	<p>The proponent would conduct a Signal Strength Survey, which would be submitted to, approved, and endorsed by the responsible authority, prior to construction. The survey would:</p> <ul style="list-style-type: none"> be carried out by a suitably qualified and experienced independent specialist 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 wind energy facility identify and consult with organisations operating point to point communication links include a mitigation strategy for impact to television radio, NBN reception and point to point transmission. 	Pre-construction
EMI09	<p>Develop and implement a complaints process for managing complaints relating to radio reception strength at pre-existing dwellings within 5 kilometres of the project site prior to construction.</p>	Pre-construction
EMI10	<p>If a complaint is received regarding the effect of the facility on television or radio reception at an existing dwelling within 5 kilometres of the project site, then:</p> <ul style="list-style-type: none"> the complaint would be investigated in accordance with an approved Complaint Investigation and Response Plan if the investigation indicates that the project has had a detrimental impact on the quality of reception or signal strength, the proponent would restore reception/signal strength to at least the quality determined in the preconstruction Signal Strength Survey. 	Construction and operation
EMI11	<p>Where interference to television and satellite internet services is not eliminated through turbine design and siting, a mitigation strategy is to be developed and implemented in consultation with homeowners and service providers to restore the 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.</p>	Construction and operation

Number	Management measures	Project phase
Aviation		
AVI01	Maintain marking of meteorological monitoring masts in accordance with the <i>National Airports Safeguarding Framework Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation</i> and marking on the base around the outer guy wires to improve visibility of these structures for low-flying aircraft such as aerial agricultural operations.	Construction and operation
AVI02	Notification to relevant stakeholders about the location and heights of wind turbines and meteorological monitoring masts, including: <ul style="list-style-type: none"> Vertical Obstacle Database, managed by Airservices Australia, as per the procedure for reporting tall structures contained in CASA (2018) <i>Advisory Circular: Reporting of tall structure and hazardous plume sources</i> (AC 139-08 V2.0). ensure a Notice to Airmen (NOTAM) that provides the height and location of the turbines and meteorological monitoring masts is issued. 	Construction
AVI03	As per the Country Fire Authority (2022) <i>Design Guidelines and Model Requirements Renewable Energy Facilities</i> , the following would apply for the operation of the wind farm to manage potential impacts to firefighting operations: <ul style="list-style-type: none"> 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 ten metre width around electricity compounds and substations a fire break of 10 metres around the base of wind turbines has been incorporated into the design 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. These access tracks must be maintained as described in Part 6.2 of the Country Fire Authority Guidelines (2022) a fire protection system to allow adequate response to the risks and hazards at the facility, in consultation with the Country Fire Authority inclusion of a static fire water storage tank of at least 45,000 L effective capacity at each site entrance wind energy facility 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. 	Operation