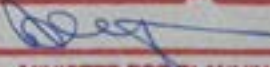


# Murra Warra Wind Farm

## Environmental Management Plan

PLANNING AND ENVIRONMENT ACT	
YARRIAMBICK PLANNING SCHEME	
PERMIT NO. PA1600128	
ENDORSED PLAN	
SHEET 1	OF 36
SIGNED 	FOR
MINISTER FOR PLANNING	
DATE: 15/8/17	

PLANNING AND ENVIRONMENT ACT	
HORSHAM PLANNING SCHEME	
PERMIT NO. PA1600127	
ENDORSED PLAN	
SHEET 1	OF 36
SIGNED 	FOR
MINISTER FOR PLANNING	
DATE: 15/8/17	

ENDORSED TO COMPLY WITH CONDITION 39
OF PLANNING PERMIT PA1600127 + PA1600128

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## 1.0 Introduction

This Environmental Management Plan (EMP) has been commissioned by RES Australia Pty Ltd (RES Australia) to manage potential environmental impacts and satisfy planning conditions issued by the Horsham Rural City Council (HRCC) and Yarriambiack Shire Council (YSC) for the Murra Warra Wind Farm (the Project).

### 1.1 Purpose and application of the EMP

This EMP has been written in response to permit PA1600127 (HRCC) Conditions 39-55, PA1600128 (YSC) Conditions 39-56 and PA1600129 (YSC) Conditions 16-17.

This EMP specifies the environmental management measures required during the pre-construction, construction, operation and decommissioning stages of the Project.

The main purpose of the EMP is to provide a reference document for RES Australia detailing the key environmental issues, obligations and legislative (and other requirements) for the Project during construction. The EMP also documents the environmental delivery strategies, monitoring and auditing required. Information on the roles and responsibilities is provided as well as details of the reporting requirements.

The EMP is a working document for the Project and applies to all staff on the Project including subcontractors. It is to be updated, as required, to ensure ongoing relevance to the Project and effective environmental management. Review of the EMP will reflect continuous improvement of the delivery strategies.

The EMP contains environmental management system elements and follows the principles of ISO 14001:2004.

### 1.2 Objectives

The primary objective of the EMP is to provide a framework of procedures to avoid or minimise the impacts of the construction of the Project on the environment.

Further objectives of this EMP include:

- provide certainty of delivery of the prescribed environmental outcomes during all phases of the Project construction,
- implement a system for compliance with all applicable requirements, obligations and commitments for the Project including:
  - obligations and commitments from the environmental assessment process,
  - adhere to relevant legislative requirements,
  - adhere to licences, approvals and/or permits needed to construct and/or operate the Project,
  - develop, implement and monitor measures that minimise pollution and optimise resource use.

### 1.3 Scope of EMP

This EMP establishes environmental management procedures to be followed by the construction personnel and sub-contractors on the Project and includes:

- relevant planning permit conditions
- a description of the Project, including construction activities,
- Environmental Management Framework (EMF)
- environmental management sub plans

- details of relevant legislative requirements and licences, approvals and/or permits needed to construct and/or operate the Project
- details of environmental issues
- management measures
- information on roles and responsibilities
- environmental management implementation strategies
- monitoring and auditing of environmental performance
- details of the reporting.

Overall, the activities of any person or company contracted to the Project are covered by this plan.

## 2.0 Project details

### 2.1 Project description

The proposed site for the Murra Warra Wind Farm (MWWF) covers approximately 4,250 ha of private and public land located within the Kewell, Blackheath and Murra Warra districts. The site is located in the Wimmera region approximately 25km north of Horsham. Warracknabeal is the nearest significantly sized settlement, approximately 15km north of the site (refer Figure 1). The proposed site is located wholly within land zoned for farming, which has been heavily cleared, and the predominant activity is broad acre cropping and grazing.

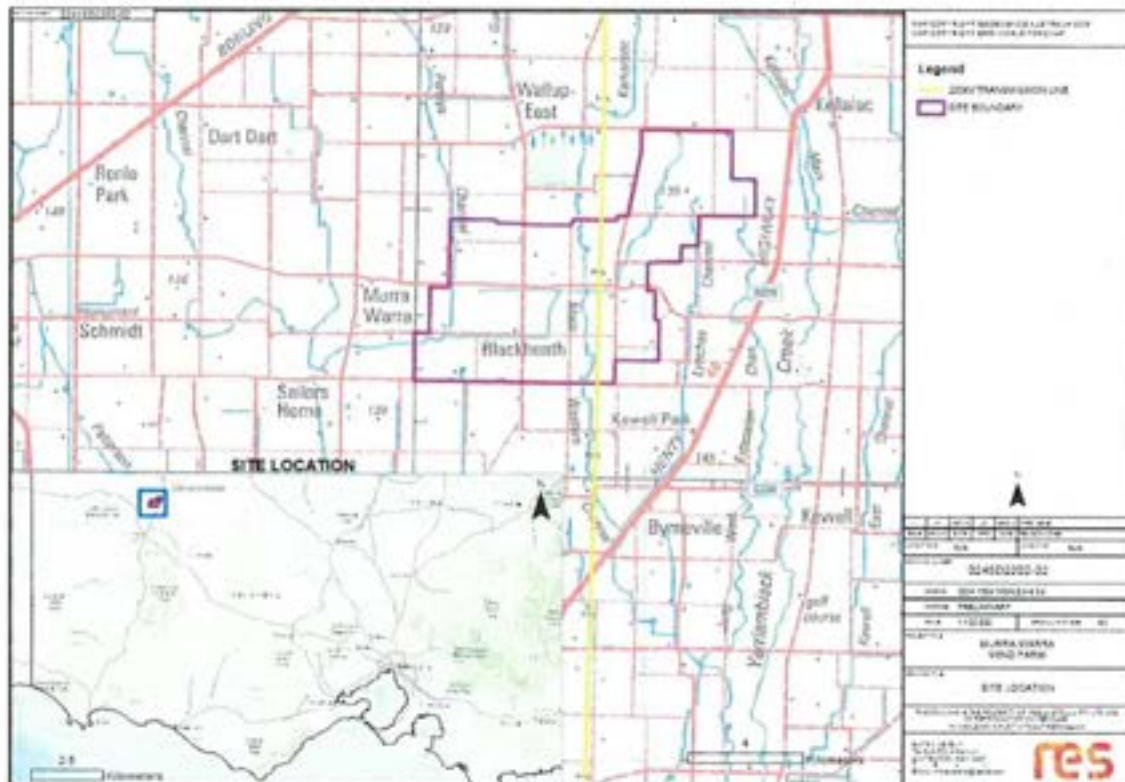


Figure 1 Location Plan MWWF

The MWWF would comprise up to 116 wind turbines and associated permanent and temporary infrastructure (refer Figure 2). Permanent infrastructure would include:

- up to 116 wind turbines of approximately 3.6 MW capacity each
- approximately 75 km of internal site access tracks
- up to four permanent anemometry masts
- approximately 75 km of underground cabling
- approximately 18 km of overhead cabling and up to two intermediate collector stations
- a terminal substation and connection to the SP Ausnet 220 kV high voltage transmission line located in the centre of the site
- a utility area including an operations and maintenance building, car parking, site office and warehouse/workshop facility
- upgrades to existing public roads which would be utilised by the project, and new access points to the site.

Temporary infrastructure associated with the development would include:

- construction compounds
- turbine component lay down areas
- concrete batching plant(s).

A sandstone quarry of approximately 12 ha would be established on site to supply approximately 600,000 m<sup>3</sup> of base material for road construction and crane hardstand areas.

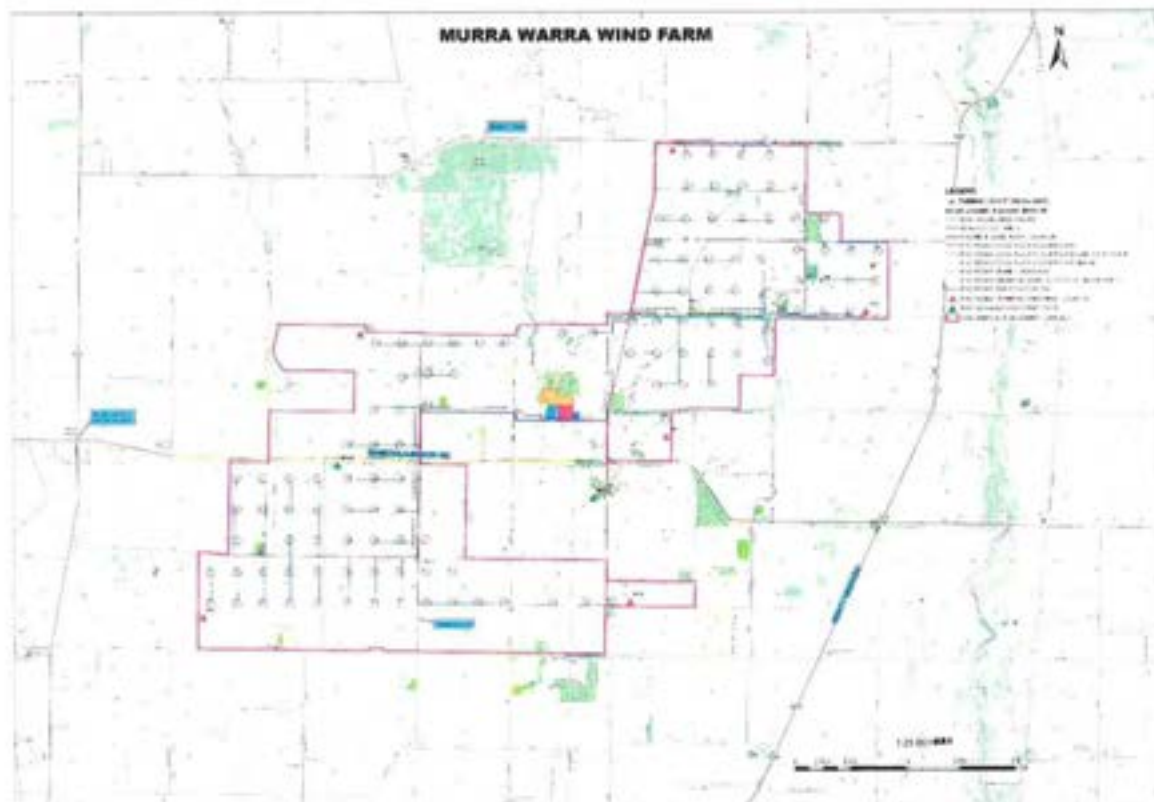


Figure 2 MWWF layout plan

## 2.2 Scope of works

The scope of works for the Project includes the following key activities.

### Construction

- **Site preparation:** this would involve creation of entrances from public roads, land clearance for compounds and laydown areas, establishment of construction compounds and establishment of on-site dams where required.
- **Site tracks:** this would involve land clearance and removal and stockpiling for future use and re-topsoiling, excavation, filling, laying bedding materials and track surface materials. Crane pads: this would involve land clearance and topsoil removal, stockpiling at pad locations, excavation, filling and laying bedding and surface materials.
- **Foundations:** this would involve land clearance and removal and stockpiling of topsoil at foundation locations. Installation of steel reinforcement and pouring of concrete to form turbine gravity base. Curing of concrete and then backfilling and replacing topsoil to ground level.

- **Electrical works:** This would involve trenching of cable routes, laying bedding materials, cables and engineered backfill, replacement of top soil to ground level. Clearance of overhead wire routes and installation of poles and wires and construction of collector stations.
- **Terminal substation and operations and maintenance buildings:** this would involve clearance of land, removal and storage of topsoil, excavation and pouring of building foundations and concrete pads at switch yard and transformer locations. Installation of electrical equipment and landscaping.
- **Turbines:** this would involve delivery of turbine components to site, installation of turbines at each location involving placement of tower sections on foundations followed by the nacelle, hub and blade assembly.
- **Commissioning:** this would involve testing of all electrical and mechanical systems from each turbine through the reticulation system to the terminal station to the metering and connection point. Connecting to the existing 220kV transmission line. Completion of the operations and maintenance buildings.
- **Finishing:** this would involve removal of temporary structures, plant and equipment. Site cleanup, re topsoiling and revegetation (where required).
- **Quarrying:** a temporary on-site quarry would provide around 600,000 m<sup>3</sup> of sub base material for road and hardstand construction. This will be subject to a separate approval of a Work Plan by the Department of Energy and Earth Resources under the Mineral Resources (Sustainable Development) Act 1990.
- **Rock crushing and concrete batching:** a plant would be established for rock crushing, and up to three temporary concrete batching plants would be established to produce the concrete required for construction. These facilities would be located at the nominated site construction compound.
- **Transportation:** the construction activities described above would involve transport to site, including for materials, turbine components and plant and equipment. It is expected that site personnel would also commute to and from the wind farm site.

#### Operational activities

Operation and maintenance of the wind farm facilities would include activities such as service and repair of turbines, regrading of access tracks, maintenance of the electrical reticulation system and buildings and plant, including control systems.

The HV connection to the 220kV transmission line would be maintained by SP AusNet Services.

Day to day monitoring and maintenance of the systems and wind farm facilities would be carried out by staff located on site with some monitoring being carried out remotely.

#### Decommissioning activities

The operational life of the wind farm is expected to be around 25 years after which time the facility may be decommissioned and removed, or subject to a further planning application if required, repowered with new turbines.

Decommissioning activities would include removal of all turbines and above ground infrastructure (including foundations to 1m below surface level), with the exception of access tracks and entrances where required for the benefit of landowners and any shared network substation building, as required by the Network Service Provider. All subsurface infrastructure at the site would remain buried to plough depth (approximately 1m below surface level).

Following decommissioning, the land would be rehabilitated to allow for agricultural purposes.

The proposed quarry would be rehabilitated at the end of its life in accordance with the approved work plan established under the *Mineral Resources (Sustainable Development) Act 1990* (Vic).

### 3.0 Planning permit conditions

Planning Permits were issued by the Minister for Planning under the HRCC (PA1600127) and YSC (PA1600128, PA1600129) planning schemes.

Permit's PA1600127 and PA1600128 cover the construction of the wind farm and associated infrastructure and the removal of native vegetation and PA1600129 covers the construction of a utility installation (Terminal Station). Permits PA1600127 and PA1600128 require the EMP to be in accordance with the conditions listed in Table 1. The PA1600127 and PA1600128 have the same requirements; however, the YSC permit also includes conditions associated with the quarry (condition 50).

PA1600129 requires that the EMP be in accordance with the approach outlined in the technical appendices of the Permit application and prepared in consultation with other authorities as directed by the responsible authority and be in accordance with all relevant EPA requirements and guidelines. In this respect it has been taken that an EMP which complies with the requirements of Permits PA1600127 and PA1600128 will be satisfactory for the purposes of Permit PA1600129.

The requirements for the EMP set out in the planning permit conditions (PA1600127 and PA1600128) are presented in Table 1. **Error! Reference source not found..**

**Table 1 EMP planning permit conditions**

Condition Number	Condition Summary	Plan Section(s)
<b>ENVIRONMENTAL MANAGEMENT PLAN</b>		
<b>General requirement for an environmental management plan</b>		
39.	<p>Before the development starts, an environment management plan must be prepared, to the satisfaction of the responsible authority. When approved, the environmental management plan will be endorsed by the responsible authority and will then form part of this permit. Once endorsed the permit holder must publish the plan on their website. The environmental management plan:</p> <ul style="list-style-type: none"> <li>a. must be generally in accordance with the 'Murra Warra Wind Farm Application for Planning Permit Main Report, 24 August 2016, and supporting Appendices 1 to 22;</li> <li>b. must be prepared in consultation with the agencies specified in conditions 40 to 53 or any other agency as directed by the responsible authority;</li> <li>c. may be prepared in sections or stages;</li> <li>d. must be in accordance with all applicable EPA requirements;</li> <li>e. must be in accordance with the recommendations and contingency plans of any approved Cultural Heritage Management Plan.</li> <li>f. should contain all storm water runoff within the development site.</li> <li>g. must meet the requirements of conditions 40 to 53 below.</li> </ul>	This document
40.	The use and development must be carried out in accordance with the endorsed environmental management plan, to the satisfaction of the responsible authority.	Section 8

Condition Number	Condition Summary	Plan Section(s)
<b>Construction and Work Site Management Plan</b>		
41.	<p>The environmental management plan must include a construction and work site management plan. The construction and work site management plan must include:</p> <ul style="list-style-type: none"> <li>a. the identification of fuels, other hazardous materials and all other potential contaminants stored or used on site during the construction phase of the wind energy facility, and appropriate storage, construction and operational methods to control any identified contamination risks;</li> <li>b. procedures for managing potential spills and leaks and pollution incidents, including incorporation of appropriate pollution control measures outlined in EPA Publication 480 <i>Environmental Guidelines for Major Construction Sites</i>;</li> <li>c. procedures to suppress dust emissions from construction -related activities. Appropriate measures may include water spraying of roads and stockpiles, stabilizing surfaces, temporary screening and wind fences, modifying construction activities during periods of heightened winds and revegetating exposed areas as soon as practicable;</li> <li>d. procedures for managing noise emissions from construction-related activities;</li> <li>e. criteria for the siting of any temporary concrete batching plant associated with the development of the wind energy facility and the procedure for its removal and reinstatement of the site once its use finishes. The establishment and operation of any temporary concrete batching plant must be designed and operated in accordance with EPA Publication 628 <i>Environmental Guidelines for the Concrete Batching Industry</i>;</li> <li>f. appropriate sanitary facilities to be provided for construction and maintenance staff, which must be designed and operated in accordance with EPA Publication 891.2 <i>Code of Practice - Onsite wastewater management</i> (December 2008);</li> <li>g. procedures to capture storm water runoff within the development site</li> <li>h. procedures to retain the identification of waste re-use, recycling and disposal procedures;</li> <li>i. a timetable, where practicable, for the construction of turbine bases, access tracks and power cabling during warmer months, to minimise impacts on ephemeral wetlands, local fauna and sediment mobilisation;</li> <li>j. Procedures to ensure that construction vehicles and equipment use designated tracks and works areas to avoid impacts on native vegetation.</li> <li>k. procedures to provide a buffer to protect any site of Aboriginal Cultural Heritage</li> <li>l. procedures for covering trenches and holes at night, and filling trenches as soon as practical after excavation, to protect native fauna;</li> <li>m. the removal of works, buildings and staging areas on completion of the construction phase of the project.</li> </ul>	Appendix A

Condition Number	Condition Summary	Plan Section(s)
<b>Construction Noise Management Plan</b>		
42.	<p>The environmental management plan must include a construction noise management plan. The construction noise management plan must include:</p> <ul style="list-style-type: none"> <li>a. performance requirements for noise at nearby receptors in accordance with EPA Publication 1254;</li> <li>b. procedures for measuring compliance with performance requirements; and</li> <li>c. procedures for receiving, evaluating and responding to complaints.</li> </ul>	Appendix B
<b>Sediment, erosion and water quality management plan</b>		
43.	<p>The environmental management plan must include a sediment, erosion and water quality management plan which must be prepared in consultation with the Wimmera Catchment Management Authority. The sediment, erosion and water quality management plan must include:</p> <ul style="list-style-type: none"> <li>a. identification of all construction and operational processes that could potentially lead to water contamination;</li> <li>b. procedures to ensure that silt from batters, cut-off drains, table drains and road works is retained on the site during and after construction and replaced as soon as possible. To this end: <ul style="list-style-type: none"> <li>i. all land disturbances must be confined to a minimum practical working area</li> <li>ii. soil to be removed must be stockpiled and separate soil horizons must be retained in separate stockpiles and not mixed, and soil must be replaced as soon as possible in sequence</li> <li>iii. stockpiles must be located away from drainage lines;</li> </ul> </li> <li>c. the installation of geo-textile silt fences (with sedimentation basins where appropriate) on all drainage lines from the site which are likely to receive run-off from disturbed areas;</li> <li>d. procedures to ensure that steep batters are treated in accordance with EPA Publication 275 Construction Techniques for Sediment Pollution Control;</li> <li>e. procedures for waste water discharge management;</li> <li>f. a process for overland flow management to prevent the concentration and diversion of waters onto steep or erosion prone slopes;</li> <li>g. pollution management measures for stored and stockpiled materials including waste materials, litter, contaminated run-off and any other potential source of pollution to ground or surface waters;</li> <li>h. incorporation of appropriate pollution control measures outlined in EPA Publication 480 Environmental Guidelines for Major Construction Sites;</li> <li>i. an agreed program and appropriate capacity for annual inspection and regular maintenance of any on-site wastewater management system;</li> <li>j. siting of any concrete batching plant and any on-site wastewater disposal treatment fields at least 100 metres from any watercourse;</li> <li>k. a program of inspection and remediation of localised erosion within a specified response time.</li> </ul>	Appendix C

Condition Number	Condition Summary	Plan Section(s)
<b>Dust Management Plan</b>		
44.	The environmental management plan must include a dust management plan to be submitted to and approved by the responsible authority. When approved, the plan will be endorsed and will then form part of the permit. The plan must include: a. Details as to how dust will be managed on site, including dust management for the quarry. b. Details about when quarrying activities will cease on site due to weather conditions that could result in visible dust being discharged beyond the boundaries of the site. c. Details about how dust will be monitored, including compliance with the State Environmental Protection Policy (Air Quality Management) 2001. d. Contingency measures to deal with any elevated dust conditions.	Appendix D
45.	Any failure to meet the standards of the State Environmental Management Policy (Air Quality Management) must immediately be brought to the attention of the Environment Protection Authority and actions specified by that Authority to bring the use into compliance must be carried out to the satisfaction of the responsible authority	
46.	No chemical dust suppressant may be used on the sits without the prior written permission of the responsible authority.	
<b>Hydrocarbon and hazardous substances plan</b>		
47.	The environmental management plan must include a hydrocarbon and hazardous substances plan. The hydrocarbon and hazardous substances plan must include: a. procedures for any on-site, permanent post-construction storage of fuels, lubricants, waste oil or other hazardous substances or potential contaminants to be in bunded areas b. contingency measures to ensure that any chemical or oil spills are contained on-site and cleaned up in accordance with EPA requirements.	Appendix E
<b>Fire prevention and emergency response plan</b>		
48.	The environmental management plan must include a fire prevention and emergency response plan prepared in consultation with and to the satisfaction of the CFA and DELWP. Consultation with the CFA must include consultation at the region and local level. The Yarriambiack Shire Council and Horsham Rural City Council must also be consulted in the preparation of the plan. The fire prevention and emergency response plan must be generally in accordance with the Emergency Management Guidelines for Wind Energy Facilities - CFA May 2015 and must include: a. Consideration of weather based threshold criteria for brigade call out and use of aerial appliances; b. criteria for the provision of static water supply tanks solely for fire-fighting purposes, including minimum capacities, appropriate connections and signage; c. procedures for vegetation management, fuel control and the provision of fire-fighting equipment during declared fire danger periods;	Appendix F

Condition Number	Condition Summary	Plan Section(s)
	<p>d. minimum standards for access roads and tracks to allow access for fire fighting vehicles, including criteria for access to static water supply tanks for fire-fighting vehicles;</p> <p>e. a requirement that, within one month after the commencement of the operation of the wind energy facility, the operator of the wind energy facility facilitates a familiarisation visit to the site and explanation of emergency services procedures for:</p> <p>f. the CFA (including headquarters level, the CFA Regional Office and local volunteer brigades as specified by the CFA Regional Office);</p> <p>i. Rural Ambulance Victoria;</p> <p>ii. Yarriambiack Shire Council's Municipal Emergency Management Committee; and</p> <p>iii. Victoria Police;</p> <p>g. subsequent familiarisation sessions for new personnel of the organisations referred to in condition 48(f) on a periodic basis as required;</p> <p>h. if requested, training of personnel of the organisations referred to in condition 48(f) in relation to suppression of wind energy facility fires.</p>	
<b>Blasting management plan</b>		
49.	<p>The environmental management plan must include a blasting management plan. The blasting management plan must include:</p> <p>a. name and qualification of the person responsible for blasting</p> <p>b. a description of the location of where explosive s will be used</p> <p>c. a plan showing the location of every licensed bore on any property with a boundary within 1 km of the location of the blasting</p> <p>d. identification and assessment of any potentially sensitive site within 1 km of the location of the blasting, including the procedure for pre-blast and post-blast qualitative measurement or monitoring of the effects of the blasting on such sites</p> <p>e. the procedure for site clearance and post-blast re-occupation</p> <p>f. the procedure for the storage and handling of explosives</p> <p>g. a requirement that blasting only can occur after at least 48 hours prior written notification of the intention to undertake blasting has been given to the occupants of the properties which are located in whole or in part within 1 km of the location of the proposed blasting</p> <p>h. a requirement that blasting only be undertaken between the hours of 8am and 4pm.</p>	Appendix G
<b>Quarry management plan (Yarriambiack Shire Council Permit only)</b>		
50.	<p>The environmental management plan must include a quarry management plan. The quarry management plan must include:</p> <p>a. overall environmental objectives for the operation of the use and techniques for their achievement.</p> <p>b. procedures to ensure that no significant adverse environmental impacts occur as a result of the development and use.</p> <p>c. identification of possible risks of operational failure and response measures to be implemented, including, but not limited to, the following:</p> <p>i. Erosion Control</p>	Appendix H

Condition Number	Condition Summary	Plan Section(s)
	<ul style="list-style-type: none"> <li>ii. Flora and Fauna Protection, including management of weeds</li> <li>iii. Air Quality</li> <li>iv. Noise and Vibration</li> <li>v. Land and Groundwater Contamination Management</li> <li>vi. Waste Management and Minimisation</li> <li>vii. Storage and Handling of Fuels and Chemicals</li> <li>viii. Neighbourhood Management and Communication, including detail of how any complaints will be assessed and addressed, having regard to issues such as the impact/severity, frequency and duration of any alleged incident</li> </ul> <p>d. day to day management requirements for the use.</p> <p>e. an annual review or audit to the satisfaction of the responsible authority, with any consequential changes to the Environmental Management Plan submitted to the responsible authority for endorsement.</p>	
<b>Biosecurity Management Plan</b>		
51.	<p>The environmental management plan must include a biosecurity management plan to be prepared in consultation with DEDJTR and to the satisfaction of the responsible authority.</p> <p>The biosecurity management plan must include:</p> <ul style="list-style-type: none"> <li>a. procedures to prevent biosecurity risks, which may include (but are not limited to): <ul style="list-style-type: none"> <li>i. the cleaning of all plant and equipment before transport onto and off the site; and</li> <li>ii. the use of material/products on site which are free of invasive plants and animals;</li> </ul> </li> <li>b. a protocol for effective identification of biosecurity risks, early intervention to manage biosecurity risks, ongoing monitoring of biosecurity risks, trace-backs, and integrated control measures when entry, establishment or spread of specific risk targets is identified;</li> <li>c. a requirement to comply with approved government or industry standards and procedures for the identification, prevention and management of biosecurity risks that apply from time to time, which include (but are not necessarily limited to): <ul style="list-style-type: none"> <li>i. the DEDJTR's Invasive Plant and Animal Management Policy Framework (undated);</li> <li>ii. the DEDJTR's Biosecurity Guidelines for Movement of Equipment Contractors Between Farms (Note Number: AG1171 published in January 2005 and updated in July 2009); and</li> <li>iii. the DEDJTR's recommended standards and practices for managing viticulture biosecurity and plant biosecurity risks.</li> </ul> </li> </ul>	Appendix I
<b>Environmental management plan training program</b>		
52.	<p>The environmental management plan must include a training program for construction workers and permanent employees or contractors at the wind energy facility, including a site induction program relating to the range of issues addressed by the environmental management plan.</p>	Section 8.2

Condition Number	Condition Summary	Plan Section(s)
<b>Environmental management plan reporting program</b>		
53.	The environmental management plan must include a program for reporting environmental incidents, including: a. a register of environmental incidents, non-conformances and complaints, together with corrective actions taken in response to such incidents, non-conformances or complaints b. identification of the person to whom reports of environmental incidents, non-conformances and complaints should be made.	Section 9
<b>Implementation timetable</b>		
54.	The environmental management plan must include a timetable for implementation of all programs and works referred to in conditions 40 to 53 above.	Section 8.3
<b>Review of the environmental management plan</b>		
55.	The environmental management plan must be reviewed and if necessary amended in consultation with the responsible authority and other authorities as directed by the responsible authority every five years, to reflect operational experience and changes in environmental management standards and techniques	Section 10
56	The amended environmental management plan must be submitted to the responsible authority for re-endorsement. Once re-endorsed, the amended environmental management plan will take the place of the earlier environmental management plan and will form part of this permit.	Section 10

This plan should be read in conjunction with the other plans which have been prepared as part of the permit conditions as follows:

- Murra Warra Wind Energy Facility Native Vegetation Management Plan (Biosis 29th March 2017)
- Murra Warra Wind Energy Facility Bat and Avifauna Management Plan (Biosis 28th March 2017)
- Murra Warra Wind Farm Complaint Investigation and Response Plan
- voluntary Cultural Heritage Management Plan (CHMP).

## 4.0 Environmental Management Framework

### 4.1 Environmental framework

The EMP is structured to be consistent with ISO 14001:2004. There are interrelationships between the EMP and the other management plans.

The EMP comprises an overall document and a series of sub-plans. The main body of the document details the environmental management measures that relate to the overall Project, while the sub-plans identify environmental management measures that are specific to individual environmental aspects.

Specific procedures are referenced in the EMP where appropriate.

The environmental management process is outlined in Figure 3. It describes the interaction of the various environmental plans and procedures. Responsibility for their development and management is outlined in Section 8.1.

### 4.2 Environmental policy

The commitment of the RES Australia toward environmental protection is demonstrated in the Environment Policy by:

- the establishment of the Environment Policy authorised by the Project Manager
- the communication of the policy intent to the workforce through induction, display on notice boards and at Project meetings
- the provision of resources to implement and maintain the EMP
- the establishment of measurable objectives and regular reviews to ensure the suitability and effectiveness of the policy to operations.

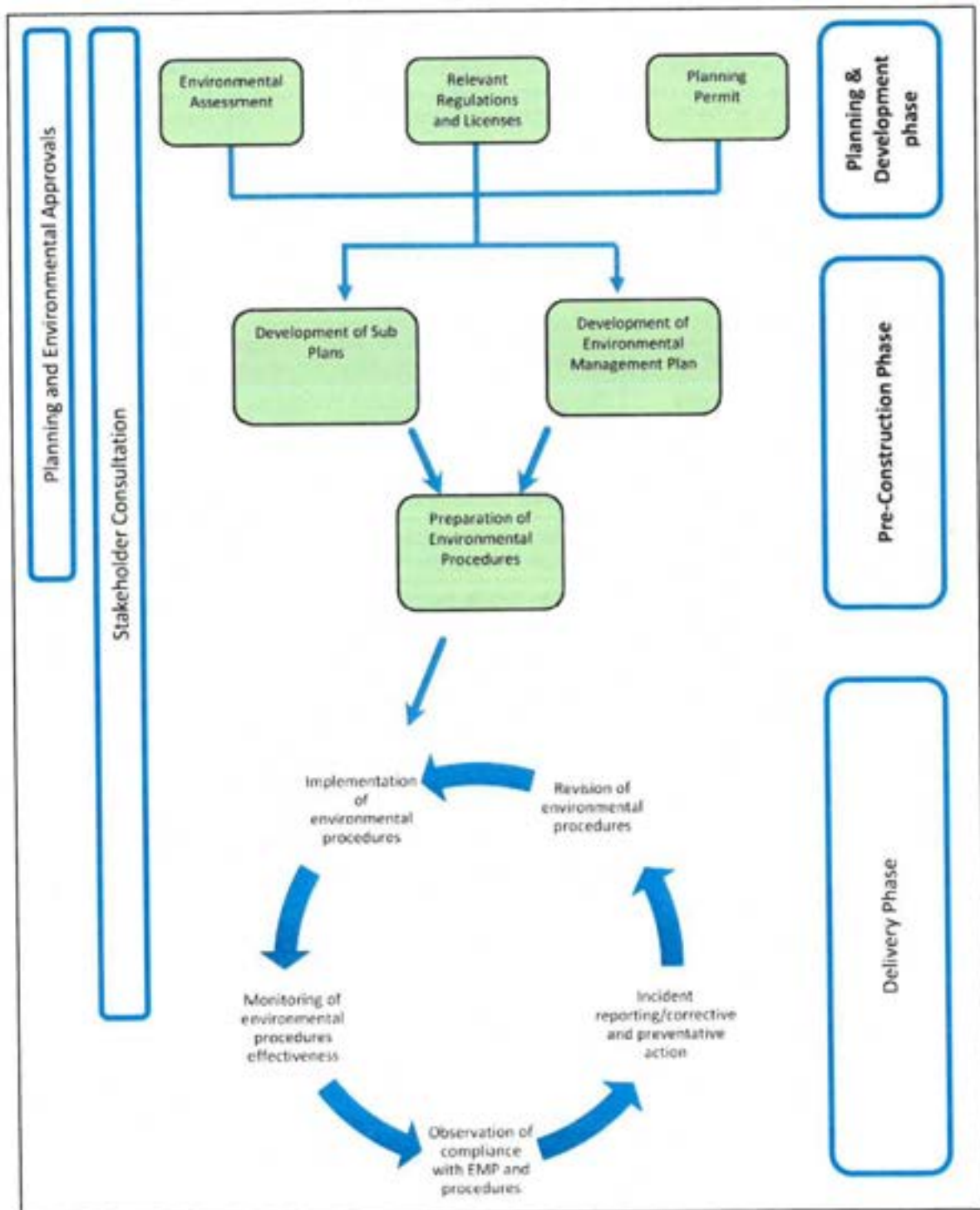


Figure 3 Environmental management process

## 5.0 Environmental management sub plans

A series of environmental management sub plans have been prepared to address specific environmental issues. The sub plans are prepared to document the approach to managing specific environmental aspects of the Project in accordance with the requirements of the planning permits issued to the Project.

The sub plans identify potential impacts of each significant aspect and outline the physical and management safeguards, mitigation measures, responsibilities and monitoring requirements to be implemented to minimise potential impacts on the environment.

Each sub plan is described **Error! Reference source not found..**

**Table 2** Environmental management sub-plans

Permit condition	Sub-plan	Description of sub-plan
41	<b>Construction and work site management plan</b>	The plan details procedures to mitigate risk of injury or illness to personnel working on site and members of the public and visitors to the site during construction. Provide guidance on environmental protection measures to be implemented on works undertaken within the work areas during construction.
42	<b>Construction noise management plan</b>	The plan details procedures to control and mitigate noise nuisance to neighbouring residences
43	<b>Sediment, erosion and water quality management plan</b>	The plan details the procedures to ensure that silt from batters, cut-off drains, table drains and road works is retained on the site during and after construction and replaces as soon as possible. The plan covers management procedures to prevent pollution of the local waterways, particularly from wash water and waste concrete materials.
44 - 46	<b>Dust management plan</b>	The plan details procedures to control dust emissions and describes management measure to be implemented, monitoring in compliance with the State Environmental Protection Policy (SEPP) (Air Quality Management) 2001 and reporting procedures in the event of noncompliance.
47	<b>Hydrocarbon and hazardous substances plan</b>	The plan details procedures for the storage and handling of hydrocarbons and hazardous substances and contingency measures to be implemented in the event of a loss of containment
48	<b>Fire prevention and emergency response plan</b>	The plan details the procedures for vegetation management, fuel control and the provision of firefighting equipment during declared fire danger periods. The plan covers emergency procedures familiarisation sessions for new personnel on a regular basis and/or as required.
49	<b>Blasting management plan</b>	The plan provides guidance for the preparation of task specific blasting plans which ensure a safe and risk controlled explosive blasting and ensures blasts do not harm people of the environment
50.	<b>Quarry management plan</b>	The plan details management and reposting guidelines to be employed and identifies potential risks and impacts
51.	<b>Biosecurity Management Plan</b>	The plan describes procedures for preventing the spread of noxious and invasive plants around the site and in the wider environment.

## 6.0 Policy and statutory context

### 6.1 Legislative and other requirements

The key legislation, policies and guidelines that are relevant to the Project are listed in Table 3.

Table 3 Legislation, policies and guidelines

Topic	Legislation, policies and guidelines
<b>Air Quality</b>	<p><u>State Legislation</u></p> <p><i>Environment Protection Act 1970 (Vic)</i></p> <p><i>Health Act 1958 (Vic)</i></p> <p><u>Guidelines/Best Practice/Policies</u></p> <p>State Environment Protection Policy (SEPP) (Air Quality Management)</p> <p>SEPP (Ambient Air Quality)</p> <p>Variations to SEPP (Air Quality Management) and State Environment Protection Policy (Ambient Air Quality) - Policy Impact Assessment. Publication 826</p> <p>Environment Protection (Vehicle emissions) Regulations. EPA Publication 877</p>
<b>Aboriginal Cultural Heritage and Historical Heritage</b>	<p><u>Commonwealth Legislation</u></p> <p><i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cwth)</i></p> <p><i>Environment Protection and Biodiversity Conservation Act 1999 (Cwth)</i></p> <p><i>Environment Protection and Biodiversity Conservation Regulations 2000</i></p> <p><i>Native Title Act 1993 (Cwth)</i></p> <p><u>State Legislation</u></p> <p><i>Aboriginal Heritage Act 2006 (Vic)</i></p> <p><i>Aboriginal Heritage Regulations 2007</i></p> <p><i>Heritage Act 1995 (Vic)</i></p> <p><i>Planning and Environment Act 1987 (Vic)</i></p>
<b>Contamination and Hazardous Materials</b>	<p><u>State Legislation</u></p> <p><i>Environment Protection Act 1970 (Vic)</i></p> <p><i>Environment Protection (Industrial Waste Resource) Regulations 2009</i></p> <p><i>Dangerous Goods Act 1985 (Vic)</i></p> <p><i>Dangerous Goods (Storage and Handling) Regulations 2000</i></p> <p><u>Guidelines/Best Practice/Policies</u></p> <p>DELWP (2016) Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria</p> <p>EPA Victoria (1991a) Best Practice Environmental Management Series: Construction Techniques for Sediment Pollution Control. Publication Number 275</p> <p>EPA Victoria (1996a) Environmental Guidelines for Major Construction Sites. Publication Number 480</p> <p>National Road Transport Commission (1998) Australian Dangerous Goods Code 6th Edition</p> <p>EPA Victoria (1996b) Bunding Guidelines, Publication 347</p> <p>SEPP (Groundwaters of Victoria) 1997</p> <p>SEPP (Prevention and Management of Contaminated Land) 2002</p> <p>EPA Victoria (2009a) Industrial Waste Resource Guidelines – Soil hazard classification and management</p> <p>EPA Victoria (2009b) Industrial Waste Resource Guidelines – Soil Sampling</p>

Topic	Legislation, policies and guidelines
<b>Environmental Impact Assessment</b>	<u>Commonwealth Legislation</u> <i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i> <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> <u>State Legislation</u> <i>Environment Effects Act 1978 (Vic)</i>
<b>Fire Prevention and Protection</b>	<u>State Legislation</u> <i>Occupational Health and Safety Act 2004 (Vic)</i> <i>Dangerous Goods Act 1985 (Vic)</i> <i>Dangerous Goods (Storage and Handling) Regulations 2000</i> <i>Electricity Safety (Bushfire Mitigation) Regulations 2003</i> <u>Guidelines/Best Practice/Policies</u> <i>Emergency Management Guidelines for Wind Energy Facilities (CFA, 2012)</i> <i>Victorian Planning Provisions Bushfire Management Overlay – Fire Safety Guideline Land Use Planning 002.</i>
<b>Flora and Fauna (including weed prevention)</b>	<u>Commonwealth Legislation</u> <i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i> <u>State Legislation</u> <i>Catchment and Land Protection Act 1994 (Vic)</i> <i>Fisheries Act 1995 (Vic)</i> <i>Flora and Fauna Guarantee Act 1988 (Vic)</i> <i>Planning and Environment Act 1987 (Vic)</i> <i>Wildlife Act 1975 (Vic)</i> <i>Conservation, Forests and Land Act 1987 (Vic)</i> <u>Guidelines/Best Practice/Policies</u> <i>Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (DELWP, 2016)</i> <i>Victoria's Native Vegetation Management – A Framework for Action (Victorian Government, 2002a)</i> <i>Wimmera Regional Catchment Strategy 2013-2019 (Wimmera CMA, 2013)</i> <i>Victorian Pest Management - A framework for action (Victorian Government, 2002b)</i>
<b>Incident Management</b>	<u>State Legislation</u> <i>Occupational Health and Safety Act 2004 (Vic)</i> <i>Planning and Environment Act 1987 (Vic)</i> <i>Environment Protection Act 1970 (Vic)</i> <u>Guidelines/Best Practice/Policies</u> <i>EPA Victoria (1996a) Environmental Guidelines for Major Construction Sites</i>

Topic	Legislation, policies and guidelines
<b>Noise and Vibration</b>	<p><u>State Legislation</u>  <i>Environment Protection Act 1970</i> (Vic)  <i>Health Act 1958</i> (Vic)  <i>Occupational Health and Safety Act 2004</i> (Vic)  <i>Transport Act 1983</i> (Vic)</p> <p><u>Guidelines/Best Practice/Policies</u>  Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (DELWP, 2016)  EPA Victoria (2008) Noise Control Guidelines, Publication TG 302/92  EPA Victoria (1996a) Environmental Guidelines for Major Construction Sites, Publication No. 480  EPA Victoria State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade). Publication 822.  Australian Standard 2346 Guide to Noise Control on Construction, Maintenance and Demolition Sites (1991)  EPA Victoria (1991b) Information Bulletin: A guide to the measurement and analysis of noise. Publication number 280  EPA Victoria (2004) Doing it right on subdivisions. Temporary environmental protection measures for subdivision construction sites. Publication number 960</p>
<b>Soil</b>	<p><u>State Legislation</u>  <i>Environment Protection Act 1970</i> (Vic)  <i>Environment Protection (Prescribed Waste) Regulations 1998</i> (Vic)  <i>Catchment and Land Protection Act 1994</i> (Vic)</p> <p><u>Guidelines/Best Practice/Policies</u>  EPA Victoria (1996b) Bunding Guidelines, Publication Number 347  EPA Victoria (1996a) Environmental Guidelines for Major Construction Sites, Publication No. 480  EPA Victoria (2004) Doing it right on subdivisions. Temporary environmental protection measures for subdivision construction sites. Publication number 960</p>
<b>Waste</b>	<p><u>State Legislation</u>  <i>Environment Protection Act 1970</i> (Vic)  <i>Environment Protection (Industrial Waste Resource) Regulations 2009</i>  <i>Environment Protection (Resource Efficiency) Act 2002</i> (Vic)  <i>Health Act 1958</i> (Vic)</p> <p><u>Guidelines/Best Practice/Policies</u>  Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (DELWP, 2016)  EPA Victoria (1994) Bulletin No. 344, The Transport and Disposal of Empty Drums containing Hazardous Compounds  EPA Victoria (2016) IWRG822, Waste Codes  EPA Victoria (2001) Bulletin No. 423b, List of Treatment and Disposal Facilities for Prescribed Waste  EPA Victoria (2013) Industrial Waste Resource Guidelines – Waste Transport Certificates  EPA Victoria (1999) Publication 395a Instruction for Completion of Waste Transport Certificates  EPA Victoria (2004) Doing it right on subdivisions. Temporary environmental protection measures for subdivision construction sites. Publication number 960</p>

Topic	Legislation, policies and guidelines
<b>Water</b>	<u>State Legislation</u> <i>Environment Protection Act 1970 (Vic)</i> <i>Litter Act 1987 (Vic)</i> <i>Planning and Environment Act 1987 (Vic)</i> <i>Water Act 1989 (Vic)</i> <i>Water Industry Act 1994 (Vic)</i> <i>Catchment &amp; Land Protection Act 1994 (Vic)</i> <u>Guidelines/Best Practice/Policies</u> Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (2016) EPA Victoria (1996a) Environmental Guidelines for Major Construction Sites, Publication number 480 Environment Protection Authority (2004) Doing it right on subdivisions. Temporary environmental protection measures for subdivision construction sites. Publication number 960 State Environmental Protection Policy (Groundwaters of Victoria) State Environmental Protection Policy (Waters of Victoria) Australian and New Zealand Environment Conservation Council (2000) Water Quality Guidelines for Fresh and Marine Waters
<b>Traffic</b>	<u>State Legislation</u> <i>Road Management Act 2004 (Vic)</i> <u>Guidelines/Best Practice/Policies</u> Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (DELWP, 2016)

## 6.2 Statutory Approvals and Permits

Pursuant to the *Planning and Environment Act 1987 (Vic)*, the Project has obtained two planning permits issued by Horsham Rural City Council (46 turbines & supporting infrastructure) and Yarriambiack Shire Council (70 turbines & supporting infrastructure).

The permits allow for use and development of land for a Wind Energy Facility and required associated buildings and works. The key environmental approval/permit requirements are outlined in Table 4.

**Table 4** Environmental approvals and permits

Environmental Aspect	Statutory Authority	Approval/Permit Required
<b>Contaminated Materials and Waste</b>	EPA Victoria	EPA licensed vehicles required for waste and contaminated material removal (including weed infested material)
<b>Fire</b>	CFA	During the Fire Danger Season for hot-works (on Total fire ban days)
<b>Noise and Vibration</b>	EPA Victoria	No formal approval required
<b>Native vegetation</b>	Department of Environment, Land, Water and Planning (DELWP) HRCC YSC	Permit required for removal of native vegetation

Environmental Aspect	Statutory Authority	Approval/Permit Required
<b>Native Fauna</b>	DELWP	Protected native fauna on-site requiring translocation will require a permit under the <i>Wildlife Act 1975</i> (Vic)
<b>Aboriginal Cultural Heritage</b>	Aboriginal Affairs Victoria Registered Aboriginal Party - Barengi Gadjin Land Council	Voluntary Cultural Heritage Management Plan (CHMP) prepared and recommendations fulfilled prior to commencing works
<b>Water Quality</b>	Wimmera CMA	Permit required for activities affecting a watercourse. Permit for release of water and/or works on waterways/stormwater systems.
<b>Air Quality</b>	EPA Victoria	No permit required
<b>Hazardous Materials and Storage</b>	EPA Victoria	No permit required for volumes stored for this Project

Copies of all project approvals, licenses and permits are to be kept on site in an Approvals Register that will be updated as required.

### 6.3 Relevant Compliance Standards

All relevant policies and Australian Standards including, ISO14001:2004 Environmental Management Systems will be followed for the Project. Other relevant compliance standards such as standards relevant to blasting, bunding and spill management, management of stormwater are discussed under the sub plans attached to the EMP.

### 6.4 Liaison with Key Stakeholders

The key stakeholders for the environmental aspects of the Project are State and Local Government departments as well as other statutory authorities that are primarily responsible for issuing relevant environmental approvals and permits. Liaison with these stakeholders at each stage of the Project is critical to ensure that all of the legislative and statutory requirements are met.

The Environment Manager and relevant members of the Project team shall liaise with these key stakeholders throughout each phase of the Project to ensure stakeholder requirements have been communicated and understood. The key stakeholders are outlined below.

Institutional stakeholders in the Project include:

- DELWP
- DEDJTR
- EPA Victoria
- Registered Aboriginal Party (RAP) – Barengi Gadjin Land Council
- Wimmera Catchment Management Authority
- Horsham Rural City Council
- Yarriambiack Shire Council
- Civil Aviation Safety Authority (CASA)
- VicRoads
- Country Fire Authority (CFA).

Interested parties include but are not limited to:

- Local Federal and State Members of Parliament
- Local government council members.

## 7.0 Environmental issues and management measures

### 7.1 Key environmental issues

From the investigations and consultation undertaken, the environmental issues associated with the development are well understood. Overall, the following key aspects and potential impacts have been identified and are addressed in this EMP:

- protection of flora and fauna
- protection of soil and water quality (air emissions and runoff, borrow pits, placement of excess spoil)
- protection of Aboriginal cultural heritage (subject to separate CHMP)
- management of traffic and transport
- control of noise and vibration
- avoidance of bushfire
- avoidance of harm caused by blasting.

#### Management measures

The key environmental issues and relevant management measures are listed in Table 5.

**Table 5 Key environmental issues and management measures**

Issue	Management measure
Protection of flora and fauna	Refer to Native Vegetation Management Plan
Protection of soil and water quality (air emissions and runoff, borrow pits, placement of excess spoil)	Refer to Sediment, Erosion and Water Quality Management Plan (Appendix C)
Protection of Aboriginal cultural heritage	Refer to voluntary CHMP
Management of traffic and transport	Refer to Traffic Management Plan
Control of noise and vibration	Refer to Construction Noise Management Plan (Appendix B) and Quarry Management Plan (Appendix H)
Avoidance of bushfire	Refer to Fire Prevention and Emergency Response Plan (Appendix F)
Avoidance of harm caused by blasting.	Refer to Blasting Management Plan (Appendix G)

This plan should be read in conjunction with the following

- Traffic Management Plan produced in compliance with condition 35 of permits PA1600127 (HRCC) and PA1600128 (YSC) and condition 8 of PA1600129 (YSC)
- Voluntary Cultural Heritage Management Plan
- Native Vegetation Management Plan produced in compliance with conditions 67 to 75 of PA1600127 (HRCC) and conditions 68 to 76 of permit PA1600128 (YSC)
- Complaint Investigation and Response Plan produced in compliance with condition 16 of permits PA1600127 (HRCC) and PA1600128 (YSC).

## 8.0 EMP implementation

The Project must be carried out in accordance with this EMP. The structure and responsibilities, training program and implementation timetable outlined in this section will facilitate the integration of the EMP into the Project.

### 8.1 Structure and responsibilities

Whilst environmental management is the responsibility of everyone on the Project, various team members have specific roles in relation to environmental management. This section outlines the roles and responsibilities for key environmental personnel.

#### **Project Manager**

The Project Manager has the following particular responsibilities under this EMP:

- communicate clear expectation in relation to environmental behaviour and performance to the Project team
- ensuring that the requirements of this EMP are fully implemented
- reviewing environmental management reports and plans prepared by the Environment Manager
- overall coordination and responsibility of dealing with issues and concerns & ensuring a record of all environment related complaints is maintained
- ensuring that all Site Supervisors are familiar with the EMP and their responsibilities contained within the plan
- delegating authority to act in the event of an emergency and to allocate the required resources.

#### **Environment Manager**

The Environment Manager has the following responsibilities under this EMP:

- Assist with the development, implementation and monitoring of the EMP.
- Liaison with relevant agencies and authorities
- Co-ordination of specialists as required
- Arranging necessary training of personnel into Project environmental matters.
- Reviewing as required construction plans and method statements to check that adequate environmental management measures are incorporated into the planning of particular construction processes.
- Establishing and maintaining this EMP in accordance with the requirements of the contract and such that it complies with all applicable environmental regulations.
- Ensuring reports are prepared and submitted to relevant authorities and Project personnel as required.
- Reporting on environmental performance to identified objectives and targets.

#### **Site Supervisors and Foremen**

The Site Supervisors and Foremen have the following particular responsibilities under this EMP:

- ensure through the continual daily surveillance of the Project works that subcontractors and all personnel onsite comply with the requirements of the EMP, sub plans and environmental procedures
- have regard to weather conditions when programming daily works activities (e.g. vegetation removal, excavation works)
- report environmental incidents (actual/potential) to the Project Manager, and Environment Manager and assist in resolution

- participate in any internal or external environmental inspections and audits if requested
- carry out maintenance on environmental controls as required.

#### **Site Engineers**

Site Engineers have the following particular responsibilities under this EMP:

- preparation of work type/area specific procedures, Safe Work Method Statements, Permits and other relevant documentation in close liaison with the Environment Manager
- ensuring that Foreman, Supervisors and sub-contractors are aware of the environmental procedures and the need to effectively implement the procedures
- supervision of workforce and sub-contractors with respect to environmental compliance
- monitoring and maintaining the works in conformance with the environmental procedures
- managing environmental incidents.

#### **Other personnel including Subconsultants and Subcontractors**

Other personnel including subconsultants and subcontractors have the following particular responsibilities under this EMP:

- compliance with site induction requirements for all aspects of environmental management
- compliance to the EMP and all plans and procedures as they apply to their operations on the site
- reporting all environmental incidents to the Foreman, Supervisor or Site/Project Engineer immediately
- following instructions issued by the Project team and supervisory personnel as they relate to environmental management and incidents.

## **8.2 EMP training program**

Three main forms of training will be provided on site:

- site induction - roles and responsibilities, introduction to the Project and assigned tasks in regard to the EMP
- environmental awareness training – environmental awareness training will be tailored to allow personnel to complete assigned tasks in regard to the EMP.
- "toolbox" training.

Records of induction and training will be kept on a database including the topic of the training carried out, dates, names and trainer details. Inductees will be required to sign-off that they have been informed of the environmental issues and that they understand their responsibilities. The Environmental Manager will review the program and monitor its implementation.

### **8.2.1 Environmental Inductions**

Adequate training and instruction will be provided to all personnel to allow them to perform their duties whilst ensuring the environmental impacts associated with the Project are minimal.

There will be two levels of induction. Level one will be for visitors, irregular delivery drivers and others who will remain in the company of a fully inducted RES Australia employee. The level two induction will be required for all permanent employees and subcontractors working on the site. The level two induction will include but will not be limited to the following topics:

- the EMP (purpose, objectives and key issues)
- legal requirements including applicable legislation, conditions of environmental licences, permits and approvals, due diligence, general environmental duty, and duty to notify and potential consequences of infringements
- RES Australia environment policies

- environmental management strategies and controls for areas such as erosion and sediment control, water discharge, waterway protection, clearing, fauna rescue, noise, refuelling and waste disposal
- promoting awareness of significant environmental issues and personnel responsibilities (such as environmentally sensitive areas, limits of construction, identification of exclusion zones and cultural heritage)
- reporting of environmental incidents - which will include the type of events to be reported, how an event is reported and to whom the event is reported
- emergency procedures - which will cover the procedure for an emergency and for evacuation of the site in the event of an emergency situation arising
- contingency plans - e.g. for 'hydrocarbon/chemical spills' and the 'discovery of previously unidentified heritage sites'
- questions pertaining to environment and heritage will be included in the site induction questionnaire to validate employees' understanding of the induction content.

### 8.2.2 Environmental Awareness Training

Staff and sub-contractors working on site will be provided with environmental training to achieve a level of awareness and competence appropriate to their assigned activities.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. This training will generally be prepared and delivered by the Environmental Manager. Environmental staff and environmental specialists may also deliver specific environmental training.

### 8.2.3 Toolbox Training

A set of topics will be devised for presentation at toolbox meetings to raise awareness of environmental aspects and issues.

Toolbox training will help to ensure that relevant information is communicated to the workforce and that feedback can be provided on issues of interest or concern. Toolbox training will generally be prepared and delivered by the Environmental Manager, Project Engineers or Site Foreman.

Topics covered include erosion and sediment control, dust, waste management, hydrocarbons, flora/fauna, and any other Project-specific issues such as the efficient use of plant and materials; noise and vibration minimisation; wastewater control; work methods; management of contaminated soil; and general site issues.

### 8.2.4 Hours of work

The following hours of work will comply with those in the Guidelines for Noise from Industry in Regional Victoria (EPA Victoria, 2011).

Normal daytime

- 7:00 am to 6:00 pm Monday to Fridays
- 7:00 am to 1:00 pm Saturdays

Evening and weekends

- 6pm-10pm Monday to Friday
- 1pm-10pm Saturdays
- 7am-10pm Sundays

Work will only be carried during these times where the noise levels will not exceed background noise by 10 db(A) or more for up to 18 months after the commencement of the project and 5 db(A) or more after 18 months.

### Night time

- 10pm-7am Monday to Sunday

Any essential work during the night time period will be inaudible at dwellings. Inaudibility is defined as not exceeding 30 dB(a) outside any dwelling. This may be exceeded in the event of an emergency situation, for example where turbine erection has started to continue works to ensure that the turbine is safe.

## 8.3 Implementation timetable

In compliance with condition 53 of PA1600127 (HRCC) and condition 54 of PA1600128 (YSC), the subplans contained in Appendices A-I, have works timetabled as appropriate into the following project phases, summary of which is given below:

- pre-construction
- construction
- operations

Plan	Preconstruction months 1-4	Construction months 5-24	Operations
Construction Worksite Management Plan	✓	✓	✓
Construction Noise Plan	✓	✓	
Sediment Erosion and Water Quality Plan	✓	✓	✓
Dust Management Plan		✓	✓
Hydrocarbon and Hazardous Substances Plan		✓	✓
Fire Prevention and Emergency Response Plan	✓	✓	✓
Excavation Management Plan		✓	
Quarry Management Plan	✓	✓	✓
Biosecurity Management Plan	✓	✓	✓
Training Programme	✓	✓	✓
Monitoring Programme	✓	✓	✓

## 9.0 EMP reporting program

A systematic monitoring and measuring process involving inspection and testing fulfils a threefold purpose to:

- ensure conformity to contractual requirements
- ensure environmental performance complies with legislative requirements and in accordance with Project requirements
- provide an ongoing risk management process and early warnings of hazards.

Environmental monitoring and reporting process on this Project shall include:

- monitoring
- inspections
- auditing
- reporting.

Project team personnel including the Environment Manager, Site/Project Engineers, Foremen and Site Supervisors are responsible for undertaking daily monitoring of the Project as well as being involved in formal environmental inspections.

The Environment Manager shall review sustainability and environmental monitoring results, non-compliance and corrective and preventative actions as they are produced/occur.

Any results outside of relevant limits/targets shall be reported immediately to the Project Manager, who shall take appropriate action and advise appropriate personnel and authorities.

### 9.1 Internal Inspections/Monitoring

Environmental monitoring programs for water quality, noise, site discharges, as well as matters relating to flora and fauna and heritage are addressed in the sub plans. Additional monitoring may also be required under specific work packages. Each environmental monitoring program includes details on the proposed timing, frequency, locations and responsibility of monitoring and actioning systems so that environmental monitoring information is used to resolve identified problems effectively and quickly. This includes measures for prompt use of monitoring information by Project staff and identification of Project environmental exceedance levels and proposed corrective action and timing to address exceedances.

Further, an Environmental Inspection Checklist will be completed by the Environmental Manager for documenting site inspections for the purpose of verifying compliance with the EMP, licences, permits and approvals.

Where inspection by the Environmental Manager or delegate determines that measures are not effective the Project will implement corrective and preventative measures.

In addition to monitoring by the Environment Manager, the Site/Project Engineers, Foremen and Site Supervisors shall undertake daily informal site inspections during the works as part of regular monitoring, which shall include environmental issues. Any non-conformances detected during inspections, or if any rectification or maintenance is required or carried out, this shall then be documented and significant issues reported in a timely manner to the Environment Manager or Site Engineer.

In addition, joint site inspections with key stakeholders (e.g. EPA Victoria, DELWP, RAP, CMA) may be arranged during construction, as required.

## **9.2 Control of Measuring and Testing Equipment**

All inspection, measuring and testing equipment (including newly acquired test equipment) used for inspection and acceptance purposes shall be controlled, calibrated and maintained, as per the relevant manufacturer's specifications. This also includes such equipment used by sub-contractors.

Measuring equipment for inspection and product conformance purposes shall be calibrated at prescribed intervals against certified equipment having a known relationship to nationally recognised standards. Any equipment identified as having doubtful accuracy or precision shall be removed from use and calibrated. Where any inspection, measuring and test equipment is found to be out of calibration, the validity of the previous inspection results shall be assessed and documented.

## **9.3 Reporting**

The Environment Manager is responsible for reporting on the environmental performance of the Project. All formal reports shall be approved by the Project Manager prior to distribution.

The frequency of the following reports will reviewed following completion of construction.

### **9.3.1 Weekly Environmental Reports**

The Environment Manager shall record environmental inspections on the Environmental Inspection Checklist and report any environmental observations, trends, observations, improvements, requests, corrections and upcoming events and activities.

### **9.3.2 Monthly Environmental Reports**

A written environment report each month shall be compiled by the Environment Manager and included in the Project monthly reporting containing information such as:

- a status of environmental activities such as monitoring and surveillance of controls, inspections, testing and incidents associated with the work during the preceding month
- environmental good news stories
- complaints, infringements and penalties incurred
- all environmental incidents
- status of environment document preparation/approval
- status of all non-conformances, detailing preventative actions taken to prevent reoccurrence of those incidents/non-conformances
- the results of environment reviews and audits (internal and external) undertaken during the preceding month.

## **9.4 Auditing**

### **9.4.1 Internal Auditing**

Internal audits will be completed within the first three months of start-up and thereafter every six months (as a minimum). An audit report register shall be maintained. Internal environmental audits shall include:

- internal audits to ensure implementation of the Project environmental processes
- regular surveillance during the construction phase and ensure independent three monthly audits.

Results of the audit shall be documented and brought to the attention of the personnel having responsibility for the area audited and reported to the Project Manager within 5 working days of finalisation of the audit. For any observations or non-compliances found, corrective actions shall be recorded in the Environmental Inspection Checklist and addressed in a timely manner.

#### **9.4.2 External audits and inspections**

External (independent) audits will be undertaken three months from the commencement of construction and then at twelve monthly intervals. All external audits will be undertaken in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing

Results from external audits are to be reviewed by the Project Manager and any necessary corrective actions assigned to ensure appropriate and timely closeout.

#### **9.5 Incident and Non-Conformity**

An incident can be defined as an unwanted event which has an adverse effect on the environment. A non-conformance can be defined as a failure to undertake a task in the required manner. This may not lead to an incident, and if this is the case may be considered a near miss.

The manner in which tasks are required to be completed is detailed in various project plans, legislation and project quality systems.

The incident register must be completed by parties involved in the incident or non-conformance within 24 hours, once immediate required mitigation actions are completed.

This process must include an investigation or review of the incident to identify any further appropriate corrective actions required. Completed incident report forms must be signed by those documenting the report as well as by the Project Manager.

#### **9.6 Implement corrective actions**

Corrective actions identified in the incident investigation and review should be implemented as soon as practicable, undertaken or overseen by the responsible party as listed in the Incident Register.

#### **9.7 Complaints**

Complaints from any source (e.g. public, government authorities) relating to the environment will be registered using a Complaint Report and the complaint investigated by the Environmental Manager in consultation with the Project Manager and actions will be taken to enable satisfactory closeout.

An environmental complaints register will be established and maintained by the Environmental Manager who will receive, log, track and respond to complaints within 24 hours. In the case of an emergency, potential pollution/environmental incident or non-compliance, the complaint will be responded to immediately.

The following details will be recorded in the register:

- date and time
- type of communication (telephone, letter, meeting)
- name, address, contact number of complainant
- nature of complaint
- details
- action taken in response including who the complaint was referred to (if not resolved immediately)
- details of any monitoring undertaken to confirm that the complaint has been satisfactorily resolved.

#### **9.8 Emergency Preparedness and Response**

Emergency response procedures for significant environmental emergencies are included in the relevant individual sub plans.

Appropriate persons should be contacted as soon as practicable following detection of an incident. This includes but is not limited to those listed in Table 6.

Table 6 Emergency Contact Details

Contact	Phone number
Wind Farm Supervisor	02 8440 7400
Police	000
Country Fire Authority	000
Ambulance	000
Horsham Rural City Council	(03) 5382 9777
Yarriambiack Shire Council	(03) 5398 0100
EPA Victoria	1300 372 842
Wildlife Victoria	1300 094 535

## 9.9 Document of records

Project records, including pertinent subcontractor records, shall be maintained to provide evidence of the effective operation of the environmental management system. Such records shall include, but are not limited to:

- correspondence to/from interested parties
- permits, licenses and approvals
- induction register and induction training records
- environmental incidents, non-conformances and complaints
- inspection reports, checklists, diary entries
- monitoring results
- cultural heritage activities
- waste measurement and tracking records
- internal and external inspections and audits
- any other record identified within the EMP.

## 10.0 Review of the EMP

This EMP must be reviewed and if necessary amended in consultation with the responsible authority and other authorities as directed by the responsible authority every five years, to reflect operational experience and changes in environmental management standards and techniques. Any changes to it shall be communicated to the Project team and maintained in a document control register. If any of these changes are to impact the construction staff, they shall be informed of the relevant changes during a Toolbox Talk.

Any amended plan shall be submitted to the responsible authority for re-endorsement. Once re-endorsed the amended plan shall supersede the earlier plan.

## Glossary and abbreviations

CFA	Country Fire Authority of Victoria
CHMP	Cultural Heritage Management Plan
CMA	Catchment Management Authority
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
DELWP	Department of Environment, Land, Water and Planning
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EPA	Environment Protection Agency Victoria
MWWF	Murra Warra Wind Farm
HRCC	Horsham Rural City Council
RAP	Registered Aboriginal Party
YSC	Yarriambiack Shire Council
SEPP	State Environment Protection Policy

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