

BANGO WIND FARM

Environmental Management Strategy

22 December 2022

Version 3
Author CWP Renewables
Client Bango Wind Farm Pty Ltd

REVISION CONTROL

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Contents

1	Introduction	3
1.1	Project Description	3
1.2	Project Activities	3
1.2.1	Construction Phase	3
1.2.2	Operation Phase	3
1.2.3	Decommissioning Phase	3
1.3	Purpose and Scope of this Plan	6
2	Statutory Approvals and Legislation	7
2.1	Overview of Statutory Approvals	7
2.2	Development Application (EIS)	7
2.3	NSW Conditions of Consent	7
2.4	EPBC Approval 2013/6810	11
2.5	Environment Protection Licence 21286	11
2.6	Relevant Legislation	11
3	Environmental Management Framework	12
3.1	Environmental Management Strategy	12
3.2	Environmental Policy and Commitment	13
3.3	Environmental Objectives and Targets	13
4	Environmental Risks (Aspects and Impacts)	14
4.1	Identification of Environmental Risks	14
4.1.1	Construction Phase Risks	14
4.1.2	Operation Phase Risks	14
5	Environmental Management Plans	15
5.1	Strategies and plans required under the development consent	15
5.2	Construction Environmental Management Plans	15
5.3	Operational Phase Environmental Management	18
5.4	Decommissioning Phase Environmental Management	18
6	Implementation and Operation	19
6.1	Structure, Roles and Responsibility	19
6.2	Training, Awareness, and Competence	22
6.2.1	Site Induction	22
6.2.2	Environmental Training	22
6.2.3	Toolbox Talks	23
6.2.4	Records	23
6.3	Communication	23
6.3.1	Community Consultative Committee	23
6.3.2	Internal Communication	23
6.3.3	External Communication	23
6.4	Complaints Management and Dispute Resolution	24
6.4.1	Complaints Management	24
6.4.2	Dispute Resolution	25
6.5	Document Control	25
6.6	Emergency Preparedness and Response	26
7	Environmental Monitoring, Notification, Reporting, Corrective Action, and Audits	27
7.1	Environmental Monitoring	27

7.2	Environmental Reporting and Notification Obligations	28
7.3	Non-Compliance	30
7.4	Incident Management	31
7.4.1	'Material Harm' Environmental Incidents	31
7.5	Incident Register	32
7.6	Corrective and Preventative Action	32
7.7	Audits	32
7.7.1	Independent Environmental Audit	32
7.7.2	Scheduled Project Environmental Audits	33
8	Review	34
9	References	35
	Appendix A – Environmental Policy	36
	Appendix B – Relevant Legislation.....	41
	Appendix C – Operational Environmental Management Guidelines	44
	Appendix C1 – Air Quality Management Guideline	45
	Appendix C2 – Noise Management Guideline	46
	Appendix C3 – Waste Management Guideline.....	51
	Appendix C4 – Telecommunications complaints protocol	54
	Appendix C5 – Visual Impact Management Guideline.....	55
	Appendix C6 – Soil and Water Management Guideline	57

Figures

Figure 1 Project layout.....	5
Figure 2 ISO14001:2015 Plan-Do-Check-Act extract	12
Figure 3 Relationship between Proponent and EPC Management Plans.....	17
Figure 4 Overview of project organisational structure and key roles	19

Tables

Table 1 Conditions of Consent Relevant to this EMS and Plan Reference Location.....	7
Table 2 Structure of the EMS	12
Table 3 Additional construction environmental management plans – prepared by EPC.	16
Table 4 Roles and responsibilities.....	20
Table 5 Monitoring activities to be undertaken by the EPC Contractor.....	27
Table 6 Environmental reporting and notification obligations.....	28

Key terms used in this plan

Term	Definition
BBAMP	Bird and Bat Adaptive Management Plan
BC Act	NSW <i>Biodiversity Conservation Act 2017</i>
BCS	NSW Biodiversity, Conservation and Science Directorate
BMP	Biodiversity Management Plan
BGW	Box Gum Woodland
BWF	Bango Wind Farm
CCC	Community Consultative Committee
CHMP	Cultural Heritage Management Plan
CEMP	Construction Environment Management Plan
CFP	Chance Finds Protocol
Council	Hilltops Council and/or Yass Valley
CWPR	CWP Renewables Pty Ltd
DAWE	Department of Agriculture, Water and the Environment (Now DCCEEW)
DCCEEW	Department of Climate Change, Energy, the Environmental and Water
DECC	Department of Environment and Climate Change (now DPE)
Development Application	Refer to the definition of EIS (below), the Development Application was formed by those component parts
Development Consent	SSD-6686
Development Footprint	The area of physical disturbance associated with the construction of the Project, comprised of temporary impacts and permanent impacts.
DoEE	Commonwealth Department of the Environment and Energy (now DAWE)
DPE	NSW Department of Planning and Environment
EIS	Environmental Impact Statement, and consistent with the definitions in the Consent Conditions, the EIS incorporates: The environmental impact statement for Bango Wind prepared by CWP Renewables Pty Ltd and dated September 2016, as modified by the: Bango Wind Farm Amended Development Application and Response to Submissions, prepared by CWP Renewables Pty Ltd and dated May 2017; Letter amending the development application, prepared by CWP Renewables Pty Ltd and dated 24 April 2018; Bango Wind Farm: Revised Environmental Noise Assessment S3958C16 prepared by Sonus Pty Ltd and dated October 2018; and Bango Wind Farm – Comparison of biodiversity impacts for 71 versus 49 WTG layout prepared by Eco Logical Australia Pty Ltd and dated 25 October 2018.
EMS	Environmental Management Strategy
EPA	Environment Protection Authority

Term	Definition
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPC	Engineering Procurement and Construction contractor; also refers to any other principal contracting entity engaged on the Project, such as TransGrid
EPL	Environment Protection Licence
ERP	Emergency Response Plan
FSA	Full Services Agreement
HMP	Heritage Management Plan
LGA	Local Government Area
OEH	Office of Environment and Heritage (now BCS)
Project Site	The land within the cadastral boundaries associated with the proposed Project, as defined in Appendix 1 and 2 of the Development Consent.
Proponent	Bango Wind Farm Pty Ltd
RMP	Risk Management Plan
RMS	Roads and Maritime Services (now Transport for NSW)
TEC	Threatened Ecological Community
TfNSW	Transport for NSW
The Minister	Minister for Agriculture, Water and the Environment (Commonwealth)
The Project	Bango Wind Farm
The Secretary	Secretary of Department of Planning and the Environment (NSW)
TMP	Traffic Management Plan
WTG	Wind Turbine Generator

1 Introduction

1.1 Project Description

The Proponent, Bango Wind Farm Pty Ltd (BWF), has obtained Development Consent for the construction, operation, maintenance and decommissioning of Bango Wind Farm (the Project). The Project comprises 46 Wind Generation Turbines (WTG) as shown in Figure 1. Turbines are GE Cypress 5.3MW. The total capacity of the Project will be 240MW.

The Project is located within the Hilltop and Yass Valley Local Government Areas (LGA), approximately 8 km South West of Rye Park and 20 km North of Yass.

The Project was granted state significant development approval (SSD6686) by the NSW Land and Environment Court under the *Environmental Planning and Assessment Act 1979* (EP&A Act) in December 2018. Controlled Action approval (EPBC 2013/6810) was granted by the Minister for the Environment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in August 2018 and later varied in April 2019 and November 2020.

1.2 Project Activities

1.2.1 Construction Phase

General Electric International Inc (GE) is contracted by BWF as the Engineering, Procurement and Construction (EPC) Contractor.

Construction of the Project commenced in August 2019 and has included:

- Clearing and grubbing vegetation;
- Construction of site access tracks and associated drainage works;
- Construction of site offices, parking areas, compound areas, batch plant facilities etc;
- Construction of wind turbine hardstands and associated component laydown areas;
- Formation of concrete foundations for wind turbines;
- Installation of wind turbine towers;
- Construct a substation and switchyards; and
- Installation of overhead and underground transmission lines/cables.
- Wind turbine commissioning, which commenced in April 2021, and is ongoing.

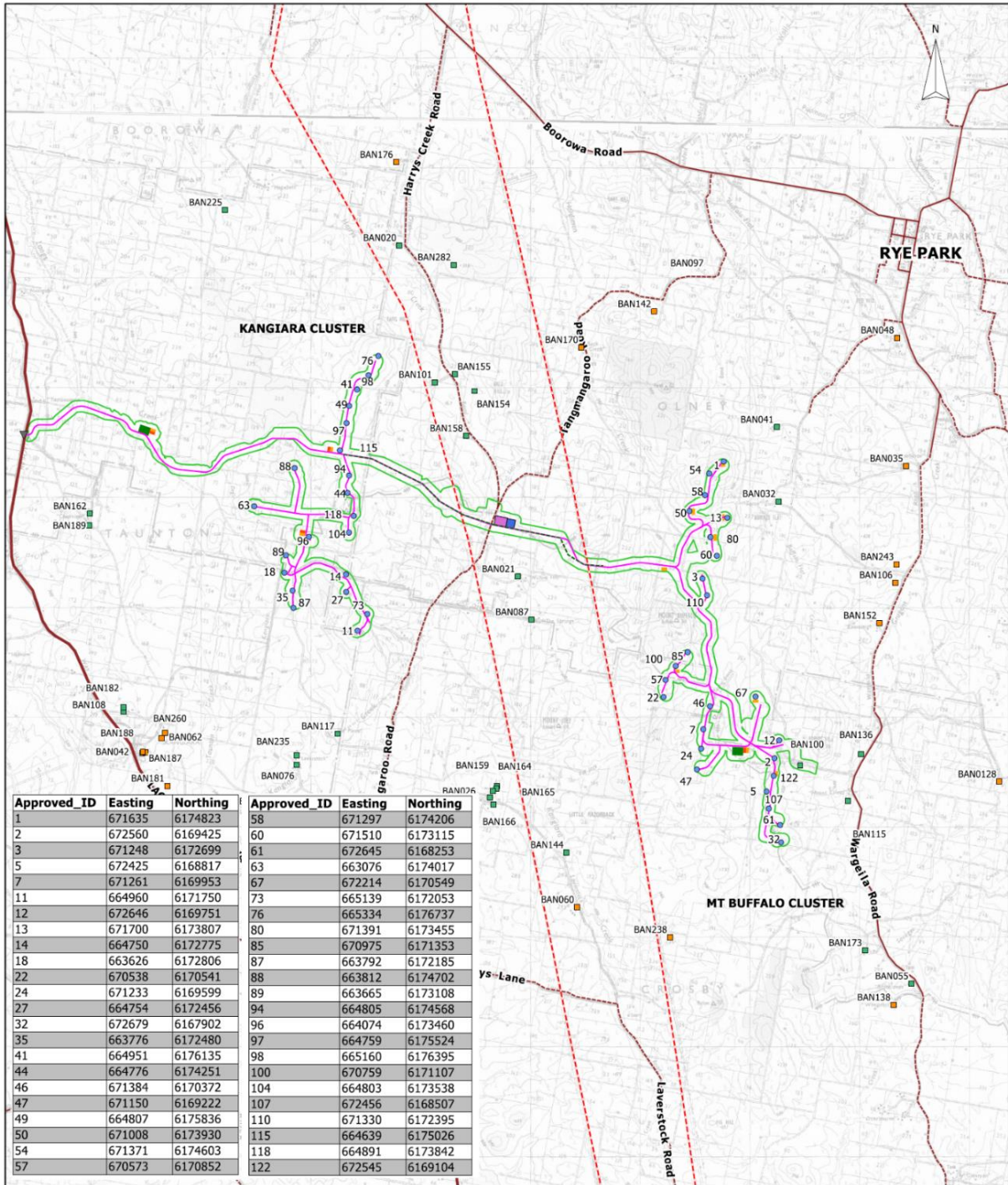
1.2.2 Operation Phase

GE is contracted by BWF under a Full Services Agreement (FSA) to operate and maintain the wind turbines. Full operation of the wind farm is expected to commence in late 2022 or early 2023. The wind farm will be operated from the Operations and Maintenance (O&M) Facility.

TransGrid own and manage the Substation. Operation of the substation is undertaken remotely by TransGrid or locally from the control room in the Substation as required.

1.2.3 Decommissioning Phase

The Wind Farm operational phase expected to have a duration of 25 years. At the end of the operational life, the wind turbines and infrastructure may be decommissioned. Alternatively, upgrades may be made to the wind farm infrastructure to extend the operational life of the development.



LEGEND		COMPANY				
<ul style="list-style-type: none"> WTG (46) Main Site Access Indicative Access Track Overhead Transmission Line Development Corridor 	<ul style="list-style-type: none"> Construction Facilities Construction Compound Concrete Batching Plant Rock Crushing Facility Collector Substation Switching Station 	BANGO WIND FARM PTY LTD				
<ul style="list-style-type: none"> Residences Associated Residence Non-Associated Residence 	<ul style="list-style-type: none"> Existing Infrastructure Unsealed Road Sealed Road 132 kV Line 	TITLE ROCK CRUSHING UPDATES				
		DATE 16 JUL 2020	SCALE 1:68000	DWG NO BAN-282	REV A	VER 1
		DRAWN BY B KRONENBERG	CHECKED BY A GORDIJN	SHEET 1 OF 1	JOB NO 080811	SIZE A3

Figure 1 Project layout

1.3 Purpose and Scope of this Plan

This document is the Environmental Management Strategy (EMS) to meet the requirements of SSD6686 Schedule 4, Condition 1 and to address related approval conditions and requirements related to construction, commissioning, and operation and decommissioning of the Project.

This EMS has been prepared for the Project to:

- Satisfy the requirements of the Development Consent (detailed in Section 2.3);
- Provide a management framework that aims to control potential impacts on the environment during operation of the Project;
- Outline the statutory approvals and compliance obligations that apply to the Project during operations; and
- Enact the management measures and commitments made in the Development Application (DA) (detailed in Section 2.2).

The EMS provides the framework for associated management plans required for the Project including:

- Bird and Bat Adaptive Management Plan (BBAMP)
- Heritage Management Plan (HMP)
- Biodiversity Management Plan (BMP)
- Traffic Management Plan (TMP).

In order to ensure compliance with the applicable statutory approvals, the Project Environmental Officer will maintain a compliance register that is readily accessible by all staff.

2 Statutory Approvals and Legislation

2.1 Overview of Statutory Approvals

In order to ensure compliance with the applicable statutory approvals, the Environmental Officer maintains a Compliance Register that will be readily accessible by all staff. The Compliance Register includes requirements from the following approval related documentation:

- The Project Development Application (Environmental Impact Statement)
- Response to Submissions Report
- Development Consent SSD 6686
- Commonwealth EPBC Act Approval 2013/6810
- Environment Protection Licence 21286

2.2 Development Application (EIS)

In the various application documents the proponent made commitments to environmental management. This includes the Environmental Impact Statement (EIS), Statement of Commitments, and Response to Submissions (RTS).

2.3 NSW Conditions of Consent

The conditions of consent relevant to this EMS and the location at which the sub-conditions are addressed are detailed in Table 2. All conditions from the consent are incorporated into the Compliance Register.

Table 1 Conditions of Consent Relevant to this EMS and Plan Reference Location

SSD6686 Approval	Condition of Consent	Location in this plan
Schedule 2 Condition 1	In meeting the specific environmental performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or decommissioning of the development.	This EMS and supporting management plans referenced in this EMS.
Schedule 2 Condition 13	Prior to the commencement of the construction, operation and/or decommissioning of the development or the cessation of operations, the Applicant must notify both the Department and the Councils in writing of the date of commencement or cessation.	Section 7.2
Schedule 3 Condition 5	The Applicant must: (a) minimise the construction or decommissioning noise of the development, including any associated traffic noise; and (b) ensure that the noise generated by any construction or decommissioning activities is managed in accordance with the best practice requirements outlined in the <i>Interim Construction Noise Guideline</i> (DECC, 2009), or its latest version.	Appendix C2

Schedule 3 Condition 6	<p>Unless the Secretary agrees otherwise, the Applicant must only undertake construction or decommissioning activities between:</p> <p>(a) 7.00 am to 6.00 pm Monday to Friday;</p> <p>(b) 8.00 am to 1.00 pm Saturdays; and</p> <p>(c) at no time on Sundays and NSW public holidays.</p> <p>The following construction activities may be undertaken outside these hours without the approval of the Secretary:</p> <ul style="list-style-type: none"> • activities that are inaudible at non-associated residences; • the delivery of materials requested by the NSW Police Force or other authorities for safety reasons; or • emergency work to avoid the loss of life, property and/or material harm to the environment. 	
Schedule 3 Condition 9 Operational Noise Criteria – Wind turbines	<p>The Applicant must ensure that the noise generated by the operation of wind turbines does not exceed the relevant criteria in Table 2 at any non-associated residence.</p> <p>Noise generated by the operation of the wind turbines is to be measured in accordance with the relevant requirements of the Department's <i>Wind Energy: Noise Assessment Bulletin</i> (2016) (or its latest version), and the provisions in Appendix 5.</p> <p>However, these criteria do not apply if the Applicant has an agreement with the relevant owner/s of these residences to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.</p>	Appendix C2
Schedule 3 Condition 10 Ancillary infrastructure	<p>The Applicant must ensure that the noise generated by the operation of ancillary infrastructure does not exceed 35 dB(A) $L_{Aeq}(15\text{ minute})$ at any non-associated residence.</p> <p>Noise generated by the operation of ancillary infrastructure is to be measured in accordance with the relevant requirements of the <i>NSW Noise Policy for Industry</i> (or its equivalent) as modified by the provisions in Appendix 5.</p>	Appendix C2
Schedule 3 Condition 11 Operational Noise Monitoring	<p>Within 3 months of the commencement of operations (or the commencement of operation of a cluster of turbines, if the development is to be staged), the Applicant must:</p> <p>(a) undertake noise monitoring to determine whether the development is complying with the relevant conditions of this consent; and</p> <p>(b) submit a copy of the monitoring results to the Department and the EPA.</p>	Appendix C2
Schedule 3 Condition 12	The Applicant must undertake further noise monitoring of the development if required by the Secretary.	Appendix C2
Schedule 3 Condition 13 Air	The Applicant must:	Appendix C1
Schedule 3 Condition 14	The Applicant must ensure that it has sufficient water for all stages of the development; and if necessary, adjust the scale of the development to match its available water supply.	Appendix
Schedule 3 Condition 20 Biodiversity Management Plan	<p>Prior to the commencement of construction, the Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Secretary.</p> <p>Following the Secretary's approval, the Applicant must implement the Biodiversity Management Plan.</p>	Biodiversity Management Plan

Schedule 3 Condition 21 Bird and Bat Adaptive Management Plan	<p>Prior to the commissioning of any wind turbines, the Applicant must prepare a Bird and Bat Adaptive Management Plan for the development in consultation with OEH, and to the satisfaction of the Secretary.</p> <p>Following the Secretary's approval, the Applicant must implement the Bird and Bat Adaptive Management Plan.</p>	Bird and Bat Adaptive Management Plan
Schedule 3 Condition 23 Heritage Management Plan	<p>Prior to the commencement of construction, the Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary.</p> <p>Following the Secretary's approval, the Applicant must implement the Heritage Management Plan.</p>	Heritage Management Plan
Schedule 3 Condition 28 Traffic Management Plan	<p>Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and the Councils, and to the satisfaction of the Secretary.</p> <p>Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.</p>	Traffic Management Plan
Schedule 3 Condition 32 Bushfire	<p>The Applicant must:</p> <ul style="list-style-type: none"> • Ensure the development: <ul style="list-style-type: none"> - provides for asset protection in accordance with the RFS's Planning for Bushfire Protection 2006 (or equivalent); and - Is suitably equipped to respond to any fires on site • Develop procedures to manage potential fires on site, in consultation with the RFS; and • Assist the RFS and emergency services as much as possible if there is a fire in the vicinity of the site 	<p>Separate plan developed by the EPC Contractor for construction phase.</p> <p>Bushfire will be addressed within the Safety Management System for the Operational phase.</p>
Schedule 3 Condition 33 Safety Management System	<p>The Applicant must:</p> <ol style="list-style-type: none"> (a) prepare a Safety Management System for the development in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management' prior to the commencement of operation; and (b) implement, and if necessary, update the system over the remaining life of the development. 	Separate plans prepared by EPC Contractor / FSA Provider.
Schedule 4 Condition 1 Environmental Management Strategy	1. Prior to the commencement of construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:	Environmental Management Strategy (EMS): Whole document
	(a) provide the strategic framework for environmental management of the development;	Section 3
	(b) identify the statutory approvals that apply to the development;	Section 2
	(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 6.1
	(d) describe the procedures that would be implemented to:	Section 6.3
	• keep the local community and relevant agencies informed about the operation and environmental performance of the development;	
	• receive, handle, respond to, and record complaints;	Section 6.4
	• resolve any disputes that may arise;	Section 6.4
• respond to any non-compliance;	Section 7.3	
• respond to emergencies; and	Section 6.6	

	(e) include: <ul style="list-style-type: none"> • copies of (or reference to) any strategies, plans and programs approved under the conditions of this consent; and • a clear plan depicting all the monitoring to be carried out in relation to the development, including a table summarising all the monitoring and reporting obligations under this consent. 	Section 2.3 This table
Schedule 4 Condition 2 Revision of Strategies, Plans and Programs	<p>Within 3 months of the submission of:</p> <ul style="list-style-type: none"> • the submission of an incident report under condition 4 below; • an independent environmental audit report under condition 6 below; or • any modification to the conditions of this consent (unless the conditions require otherwise), <p>the Applicant must review and, if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval.</p> <p>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</p>	Section 5 Section 7 Section 8
Schedule 4 Condition 3 Community Consultative Committee	The Applicant must operate a Community Consultative Committee for the development to the satisfaction of the Secretary and in accordance with the Community Consultative Committee Guidelines for State Significant Project (2016), or its latest version.	Section 6.3.1
Schedule 4 Condition 4 Incident Notification	The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of the incident. The notification must identify the development, including the development application number and the name of the development, and set out the location and nature of the incident.	Section 7.2 and 7.4
Schedule 4 Condition 5 Non Compliance Notification	The Department must be notified in writing to compliance@planning.nsw.gov.au within 7 days after the Applicant becomes aware of any non-compliance. The notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been done, or will be undertaken, to address the non-compliance.	Section 7.2 and 7.3

<p>Schedule 4 Condition 6 Independent Environmental Audit</p>	<p>Within 6 months of the commencement of construction, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit (audit) of the development. These audits must:</p> <ul style="list-style-type: none"> • be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; • be carried out in consultation with the relevant agencies; • assess whether the development complies with the relevant requirements in this consent, and any strategy, plan or program required under this consent; and • recommend appropriate measures or actions to improve the environmental performance of the development and any strategy, plan or program required under this consent. <p>Within 3 months of commissioning this audit, or unless otherwise agreed by the Secretary, a copy of the audit report must be submitted to the Secretary, and any other NSW agency that requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations.</p> <p>The recommendations must be implemented to the satisfaction of the Secretary</p>	<p>Section 7.7</p>
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2.4 EPBC Approval 2013/6810

An Approval from the Department of the Environment and Energy was issued for undertaking a Controlled Action under the EBPC Act (EPBC2013/6810). All Conditions from EPBC 2013/6810 are included in the BWF Compliance Register.

2.5 Environment Protection Licence 21286

BWF holds an Environment Protection Licence for the Project (EPL 21286). The EPL lists one Scheduled Activity as defined in Schedule 1 of the POEO Act being electricity generation; 0 – 450 GWh annual generating capacity. All EPL Conditions are included in the Compliance Register.

2.6 Relevant Legislation

In preparing the Environmental Impact Statement and subsequent approval a number of legislative, regulatory and statutory instruments were reviewed. The key instruments which apply to the operation of the Project are detailed in Appendix B.

3 Environmental Management Framework

3.1 Environmental Management Strategy

This EMS provides a strategic framework for environmental management of the Project and outlines the Proponent’s commitment to community engagement, environmental management and reduction of any Project related impacts.

The strategic framework is structured generally in accordance with ISO 14001:2015's process of Plan → Do → Check → Act.

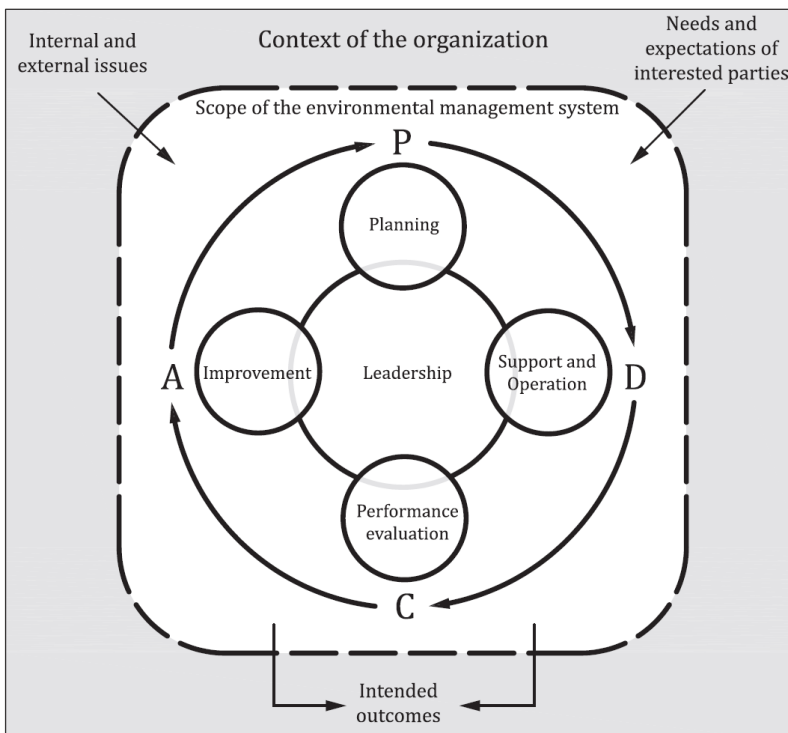


Figure 2 ISO14001:2015 Plan-Do-Check-Act extract

Table 2 Structure of the EMS

Feature	Requirements	Where addressed in EMS
Plan	Establish the objectives and processes necessary to deliver results in accordance with the organisation’s environmental policy.	Sections 3, 4 & 5
Do	Implement the process.	Section 6
Check	Monitor and measure processes against environmental policy, objectives, targets, legal and other requirements and report the results.	Sections 7 & 8
Act	Take actions to continually improve performance of the EMS.	Sections 7 & 8

3.2 Environmental Policy and Commitment

All Project activities will be undertaken in accordance with the relevant principles of the CWPR's Environmental Policy (CWPR-00-POL-02_Environmental) which is provided in Appendix A. This policy has been structured generally in accordance with ISO 14001:2015 and specifically commits to:

- Continual improvement of environmental performance
- Prevention of pollution
- Compliance with relevant legal and other requirements
- Developing a framework for identifying objectives and targets.

The policy will be communicated to all staff and contractors during induction and will be available via the Project website. It will be periodically reviewed against environmental performance and industry practice.

3.3 Environmental Objectives and Targets

Environmental objectives and targets will be set and reviewed regularly throughout operation. These will reflect the intent of the CWPR Environmental Policy and will measure performance of the EMS. The targets will be developed to address the following:

- The Risk Management Plan
- Statutory and other requirements
- Outcomes of community and agency consultation
- The Project's organisational, economic and social considerations.

At a minimum, the objectives and targets will be set for the following:

- Environmental risks are reviewed and updated and treatment effectiveness is monitored and recorded
- Total number of non-conformances and incidents
- Total number of complaints received internally and from the community
- Implementation of the EMS and associated management sub-plans
- Staff training
- Assessment of the environmental competency of relevant staff.

4 Environmental Risks (Aspects and Impacts)

4.1 Identification of Environmental Risks

Environmental risks (aspects and impacts) were identified in the Development Application which formed the basis of the Development Consent. These risks were then considered during the development of risk registers for the construction and operations phase of the BWF.

4.1.1 Construction Phase Risks

BWF implements a Project Risk Register that is maintained in accordance with the CWPR Risk and Issue Management Process. The register identifies various environmental risks and treatments relevant to BWFs activities during the construction phase of the project.

The BWF Project Risk Register is reviewed at least quarterly in accordance with the CWPR Risk and Issue Management Process.

4.1.2 Operation Phase Risks

Prior to the commencement of operations, the BWF Project Risk Register will be updated with environmental risks and treatments that are relevant to the operational stage of the Project. The risks and identified treatments will be considered during the preparation or updating of environmental management programs and plans. Identified treatments/mitigation actions will be incorporated into staff training.

The BWF Project Risk Register will be reviewed and updated in accordance with the CWPR Risk Issue Management Procedure.

5 Environmental Management Plans

5.1 Strategies and plans required under the development consent

The Development Consent requires several Environmental Management Plans/ Strategies be prepared to deal with key environmental factors. These are:

- Environmental Management Strategy (this document)
- Biodiversity Management Plan
- Bird and Bat Adaptive Management Plan
- Heritage Management Plan
- Traffic Management Plan

These plans are prepared as stand-alone documents.

The Project Environmental Officer will be responsible for maintaining the approved management plans and making the plans available to staff, contractors and the public via the Project website. All staff and contractors will be responsible for conducting Project related works in accordance with the management plans.

5.2 Construction Environmental Management Plans

The approved Environmental Management Plans, prepared subject to the Development Consent, form the basis for the CEMP and CEMP sub-plans that have been prepared by the EPC. Implementation of and compliance with the CEMP and sub-plans, is the responsibility of the EPC.

The EPC has prepared the environmental management plans listed in Table 3 to address the above key environmental factors, the DPE approved management plans, and the project approvals (Table 2).

Table 3 Additional construction environmental management plans – prepared by EPC.

Plan type	EIS commitment or SoC
<ul style="list-style-type: none"> - Construction Environmental Management Plan and sub-plans covering: <ul style="list-style-type: none"> • Air quality and dust management; • Aboriginal and non-Aboriginal heritage management; • Community information management; • Compounds and ancillary facilities management; • Ecological impact management; • Hazard and risk management; • Construction Noise and Vibration Management plan; • Soil and water quality and spoil management; • Soil contamination; • Erosion and sediment control; • Hazardous material and waste management; and • Traffic and access. • Waste Management • Fire and Bushfire Management • Emergency Response - - GE Emergency Response Plan - GE Health and Safety Management Plan 	<p>EIS s18.2.2 Table 21.1 SoCs EIS s18.6: Table 21.1 SoCs EIS 17.6 / 18.3.3 EIS 3.8.12 Table 21.1 SoC EIS 16.4, Table 21.1 SoC EIS s18.4 8.2: Table 21.1</p>

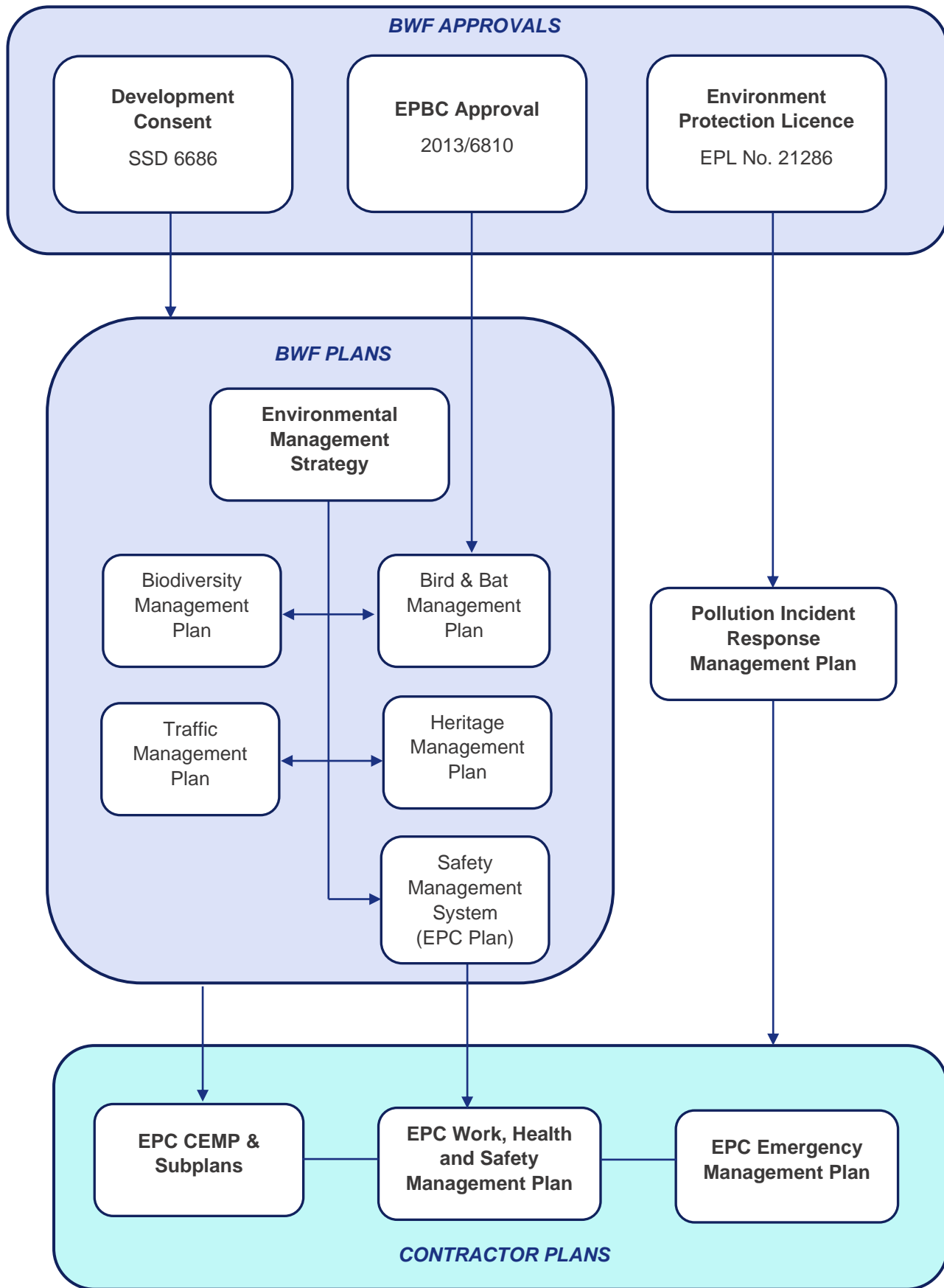


Figure 3 Relationship between Proponent and EPC Management Plans

5.3 Operational Phase Environmental Management

This EMS will be the key environmental management document during the operation of the Project. During operations, this EMS will continue to be supported by these management plans:

- Biodiversity Management Plan
- Bird and Bat Adaptive Management Plan
- Heritage Management Plan
- Traffic Management Plan
- Safety Management System (prepared by FSA provider)

5.4 Decommissioning Phase Environmental Management

The Wind Farm operational phase expected to have a duration of 25 years. At the end of the operational life, the wind turbines and infrastructure may be decommissioned.

The Principal Project Manager will prepare a Decommission and Rehabilitation Plan (DRP) eighteen months prior to the commencement of decommissioning works. The DRP will address the framework outlined within the Bango Wind Farm EIS, Chapter 18.9 *Decommissioning and Refurbishment*.

Pursuant to Schedule 3 Condition 37, any individual WTG which ceases operating for more than 12 consecutive months will be dismantled within 18 months after the 12 months period, unless the Secretary agrees otherwise. A WTG decommissioning plan will be prepared and this EMS revised to the satisfaction of the Secretary prior to decommissioning works commencing. The revised plans will be submitted to the Secretary within 4 weeks of the review for the Secretary's approval.

6 Implementation and Operation

6.1 Structure, Roles and Responsibility

It is the responsibility of all Project staff members and contractors to implement the requirements outlined in this EMS. Specific responsibilities for administering, implementing, monitoring, and reporting are detailed in Table 4. Each Contractor will be responsible for implementing the actions identified in the management plans and programs in order to comply with the Development Consent conditions.

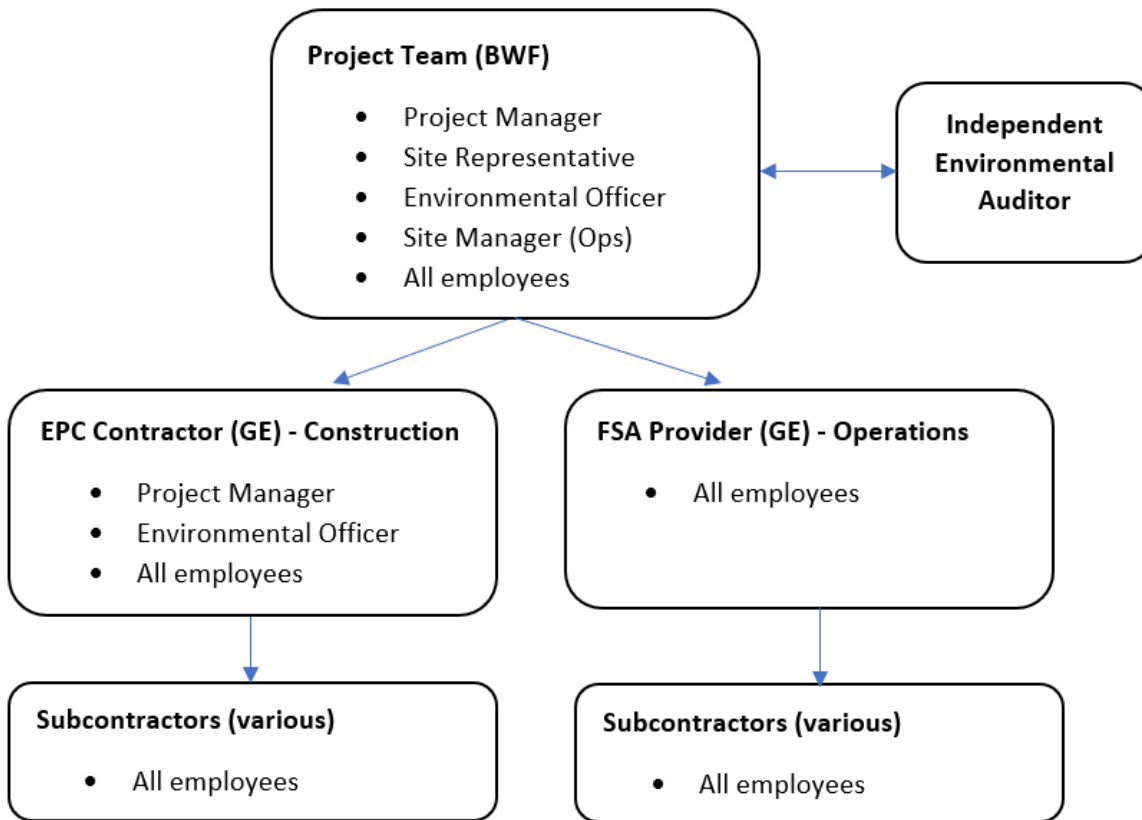


Figure 4 Overview of project organisational structure and key roles

Table 4 Roles and responsibilities

Role	Responsibility
<p>BWF Project Manager (construction)</p>	<ul style="list-style-type: none"> • Responsible for implementation of CWP Renewables Environmental Policy; • Responsible for approval and management of EPC Contractor; • Responsible for delivery of the Project in accordance with this EMS and associated plans and statements; • Review and approve Project design changes, and update Project Environmental Officer and Project Community Officer; • Provide adequate resources to allow the implementation of the Project EMS; • Issue non-conformance notices and to issue actions to avoid or minimise potential environmental impacts, and failing the effectiveness of such steps, order cessation of a specific activity; • Ensure all Project personnel attend an environmental site induction prior to commencing work; and • Hold regular Project team meetings.
<p>BWF Site Manager (Operations)</p>	<ul style="list-style-type: none"> • Responsible for implementation of CWP Renewables Environmental Policy at the BWF; • Undertakes day-to-day management and compliance with BWF environmental requirements and policies; • Implementation of environmental practices as defined in the EMS; • Overseeing Facility operations in compliance with the EMS and ensuring environmental records are maintained and available upon request to Government agencies; • Reviewing and participating in environmental incident investigations and nominated corrective measures; • Attending relevant environmental meetings, consultative forums and audits pertaining to environmental matters; • Ensuring that all persons (CWPR and contractors) working on the Project are aware of environmental issues and constraints through regular staff meetings and that environmental management is a consistent agenda item; • Ensuring that all environmental tasks and checks are undertaken in a timely manner; • Ensuring that all persons (CWPR and contractors) within their area/s of control receive appropriate training to perform their work in a safe, legal and competent manner including Site Inductions; • Ensuring the renewal of environmental licences and permits as required for continued operation; • Ensuring that any identified Hazardous Substances and/or Dangerous Goods are managed; and • Ensuring that all contractors operating on Site are operating within BWF environmental processes.
<p>BWF Project Environmental Officer</p>	<ul style="list-style-type: none"> • Ensure site specific environmental requirements are fulfilled; • Ensure sub-contractors and agents comply with the EMS, management plans and programs; • Undertake environmental surveillance, auditing and reporting; • Be the primary point of contact for regulatory agency liaison; • Oversee environmental monitoring; • Report to the Principal Project Manager on environmental performance of the EPC Contractor, FSA Provider and sub-contractors; • Ensure the community is well informed of activities at the Project site, and activities which may affect the Community and their interests; • Ensure all staff and contractors are aware of the community; and • Consultation requirements and complaints protocols.
<p>Independent Environmental Auditor</p>	<ul style="list-style-type: none"> • Undertake audit within six months of the commencement of construction and every three years thereafter, consistent with the requirements of the Conditions of consent

Role	Responsibility
	<ul style="list-style-type: none"> Assess whether the development complies with the relevant requirements in the Conditions of consent, and any strategy, plan or programs in the EMS; ; Recommend appropriate measures or actions to improve the environmental performance of the development and any strategy, plan or program required under this consent. Provide an audit report to be forwarded to the Secretary, within 3 months of commencing the audit
EPC Contractor (GE)	<ul style="list-style-type: none"> Overall responsibility for all contractors and subcontractors involved in the Project; Develop the Risk Management Plan for construction, and maintaining that plan throughout construction; Consult with Principal Project Manager in relation to all Project design plan changes; Ensure adequate resources are available for all contractors and subcontractors to deliver the Project in compliance with the EMS and other relevant documents; Ensure all contractors and subcontractors are inducted prior to commencing work; Hold regular Project team meetings and toolbox talks, ensuring information is shared between all site personnel; and Support and attend Community Consultative Committee (CCC) meetings at the request of the Principal Project Manager. Obtain the relevant licences and approvals for construction including any quarry licences and commercial water licences; Implementation, monitoring and performance against CEMP commitments (as consistent with the Development Consent and associated management plans); Manage environmental incidents in accordance with Section 7.4; keep environmental related registers including compliance, waste tracking, complaints, training, incidents and non-conformance accurate and up to date; Undertake regular environmental inspection and provide advice to ensure compliance with relevant approvals and associated management plans under the Development Consent; Prepare reports (at least fortnightly) on compliance to the satisfaction of the Project Environmental Officer; Prepare environmental induction training materials in accordance with the EMS and associated plans; and Delivery of the management plans and programs identified in Section 5, and the additional responsibilities identified in the Biodiversity Management Plan and heritage related controls (e.g. Chance Finds Protocol).
EPC Contractor – Environmental Officer	<ul style="list-style-type: none"> Obtain the relevant licences and approvals for construction including any quarry licences and commercial water licences; Implementation, monitoring and performance against CEMP commitments (as consistent with the Development Consent and associated management plans); Manage environmental incidents in accordance with Section 7.4; keep environmental related registers including compliance, waste tracking, complaints, training, incidents and non-conformance accurate and up to date; Undertake regular environmental inspection and provide advice to ensure compliance with relevant approvals and associated management plans under the Development Consent; Prepare reports (at least fortnightly) on compliance to the satisfaction of the Project Environmental Officer; Prepare environmental induction training materials in accordance with the EMS and associated plans; Delivery of the management plans and programs identified in Section 5, and the additional responsibilities identified in the Biodiversity Management Plan and heritage related controls (e.g. Chance Finds Protocol).
FSA Provider (GE) (Operations)	<ul style="list-style-type: none"> Undertaking all works in accordance with the Project Approvals, Licences, Permits, BWF Approved Environmental Management Strategy (and associated sub-plans) and FSA Environmental Management Plan.

Role	Responsibility
	<ul style="list-style-type: none"> • Ensure all contractors and subcontractors are inducted prior to commencing work; • Hold regular Project team meetings and toolbox talks, ensuring information is shared between all site personnel; • Immediately cease, and report, any workplace activity (including that of other persons) which presents an immediate risk to the environment. • Report all incidents, near misses and environmental hazards to the Site Manager immediately. • Participate in or conduct incident investigations, risk assessments, inspections, toolbox meetings and audits as required by BWF. • Contribute to the overall goal for zero environmental impacts and incidents by making suggestions for improvement where identified.
All Employees and Contractors	<ul style="list-style-type: none"> • Complete a site induction prior to commencing works on site; • Attend all environmental training as required; • Comply with the environmental controls in this EMS and all associated plans, sub plans and strategies; • Undertake all activities in accordance with agreed procedures and work methods; • Implement the actions identified in their management plans and programs in order to comply with the Development Consent conditions; and • Immediately cease, and report, any workplace activity (including that of other persons) which presents an immediate risk to the environment • Report all incidents, near misses and hazards to the Site Manager immediately • Follow instructions of the Site Manager.

6.2 Training, Awareness, and Competence

Training awareness and competence systems have been designed to ensure staff have an adequate understanding of the Project’s environmental aspects and impacts, the requirements or relevant programs and plans, and their own responsibilities and tasks. The system includes a site induction, ongoing targeted environmental training, and toolbox talks. It will be delivered by the Site Manager and FSA Project Manager. The Site Manager will maintain records of environmental training.

6.2.1 Site Induction

All staff working on site will be required to undertake a site induction prior to commencing work at the Project. Inductions will address the requirements of this EMS and highlight the relevant roles and responsibilities. Emergency response training will be incorporated in the induction training.

A visitor Induction will be developed and given for people attending the Project, but not engaged in daily work activities. This could include members of the media, politicians, delivery drivers, staff, consultants and invited guests visiting the Project.

6.2.2 Environmental Training

Targeted environmental training will be conducted for key operations tasks, or work areas that are considered particularly sensitive e.g. site access and biodiversity management. The environmental training content will be developed by the FSA Provider in consultation with the Site Manager.

6.2.3 Toolbox Talks

Regular toolbox talks will identify the environmental risks, mitigation measures and responsibilities relevant to the activities being completed. More detailed toolbox talks will be completed as needed to address specific environmental issues, environmental incidents or improvement initiatives. Toolbox talks will be coordinated by the Site Manager/ FSA Project Manager to facilitate sharing of information between all site personnel.

6.2.4 Records

Training records will be maintained by the Site Manager to demonstrate compliance with the requirements of this EMS, and records will include:

- Who was trained
- When training occurred
- Name and relevant details of trainer
- Description of training content.

Copies of these records will be forwarded to the Project Environmental Officer for their records.

6.3 Communication

Effective, two-way communication between the Project and external stakeholders is imperative to the success of the EMS and the Project as a whole.

6.3.1 Community Consultative Committee

A Community Consultative Committee (CCC) has been established for the Project, as per Schedule 4, Condition 3 of the Development Consent. The Project Community Officer will facilitate interaction between the CCC and the relevant Project personnel. Other personnel may be required to attend CCC meetings at the request of the Site Manager. The CCC will be operated in accordance with the *Community Consultative Committee Guidelines for State Significant Project (2016)*, or its latest version.

6.3.2 Internal Communication

Communication between Project staff is classified as internal communication and will be typified by emails, phone-calls, meetings, toolbox talks and internal reporting (e.g. audit reports, progress reports and incident reports). The Site Manager is responsible for handling internal communication related to the environmental aspects and impacts of the Project. The Project training system also forms part of the internal communication process through induction and ongoing training information on environmental aspects and impacts.

6.3.3 External Communication

External communication is between the Project and external stakeholders such as neighbours, the wider community, government agencies, and general public. External communication methods include: Project website, social media, advertisements, letters, emails, and information/complaints telephone line. The Site Manager will be the primary point for contact for all external communication throughout operation.

External communication commenced during the site identification phase and will continue until the Project is decommissioned.

Project telephone line A 24/7 dedicated telephone line has been established and will remain active for the duration of the Project. The telephone line can be used to make enquiries and complaints. The telephone number is 1300 634 865.

Project Email address and postal address

The Project can be contacted via the email address: info@bangowindfarm.com.au or postal address GPO Box 1858, Canberra ACT 2601.

Project Website

The Project website <https://cwprenewables.com/our-projects/bango-wind-farm/> is one of the core external communication tools. It is regularly updated with the Project status and will make publicly available copies of documents specified in Schedule 4, Condition 7 of the consent. These documents include:

- The EIS
- The final layout plans for the development
- Current statutory approvals for the development (including relevant management plans required by the approvals)
- The proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged
- How complaints about the development can be made
- A complaints register
- Any other matter required by the Secretary.

Other methods of external communication

- **Social media** - a social media presence to keep the broader community informed about the Project, its progress and any matters that may impact on the community such as scheduled component deliveries or out-of-hours works.
- **Project Newsletter** – distribution of a newsletter to registered parties informing of updates to the Development (registrations are open to all stakeholders and subscription can be made via the Project website).
- **Newspaper advertisements**
- **Face to face meetings**

6.4 Complaints Management and Dispute Resolution

6.4.1 Complaints Management

The Project maintains a 24-hour telephone number, postal address and email address to receive complaints and enquiries during operation, refer to Section 6.3.3.

A Complaints Register is maintained to record:

- a) Date and time of complaint/enquiry;
- b) Type of communication (i.e. telephone, mail, meeting, email etc.)
- c) Name, address, contact telephone number of complainant/enquirer (if possible, and permitted by the complainant/enquirer);
- d) Nature of the complaint and enquiry;
- e) Actions taken in response including timeframes for implementing the action;
- f) If no action was taken, the justification for why not; and
- g) When and how the complainant/enquirer was notified of the outcome or provided an answer.

Complaints will be responded to within 48-hours. Initial contact with the complainant will aim to gather additional information, and either outline actions taken to resolve the complainant or a holding statement while the complaint is being investigated. Depending on the nature and complexity of the complaint resolution may take additional time.

By its nature, the Complaints Register may contain sensitive personal details. A summary of the Complaints Register will be placed on the Project website (noting personal information relating to the complaint or the person making the complaint will be removed).

6.4.2 Dispute Resolution

The Project complaints handling process is designed to avoid disputes arising following the receipt of a complaint. As per Section 6.4.1, all complaints will be responded to within 48 hours. It is the Project's aim to maintain a good relationship with all internal and external stakeholders so that no disputes eventuate.

All efforts will be made to resolve a dispute internally with the affected party. A meeting will be held with senior team members and environmental officer (or other relevant technical expert) to clarify the dispute and actions taken to date. An investigation will be undertaken to assess the nature of the dispute and possible mitigation measures / resolution. The results of such investigation will be reported to the affected party with the aim of reaching a mutual agreement between parties. This agreement will be documented, and implementation monitored in accordance with the agreed actions and timeframes. Where considered appropriate, an independent person may be asked to provide advice on the investigation and resolution.

When complaints relate to noise then the procedure detailed in Appendix C2 – Noise Management Guideline should be followed.

When complaints relate to visual impact the procedure detailed in Appendix C5 – Visual Impact Management Guideline should be followed.

When complaints relate to heritage issues, then the procedure detailed in the HMP should be followed.

In event that a complaint cannot be resolved, either party may refer the dispute to the Secretary for resolution in accordance with the Development Consent. This includes disputes pertaining to:

- Visual impact mitigation measures (Schedule 3 Condition 1)
- Road upgrades to be implemented (Schedule 3 Condition 25)
- Scope and implementation of road maintenance and remedial works (Schedule 3 Condition 26); and
- Mitigation measures implemented in response to disruptions to radio communications (Schedule 3 Condition 31).

Complaints will be responded to as soon as practicable either via actions taken to resolve the complaint or a holding statement while the complaint is being investigated.

The Complaints Register will be made available to the public via the Project website as discussed in Section 6.4.1 above.

6.5 Document Control

The Site Manager will establish a document control process to ensure environmental documentation remains current and can be easily located and reviewed. BWF will maintain all documents in accordance with a quality management system. A summary of the proposed system is as follows:

- Keeping hard copies and electronic copies of documents in accordance with the ISO 9001/2008 Standard of Quality Management, where applicable
- A Quality Assurance and Version Control Table is included at the beginning of every document, where appropriate
- All documentation will be retained beyond the life of the Project.

The Site Manager will establish and maintain a document register. The register will be used to manage controlled documents (i.e. documents requiring approval for implementation and revision) produced by the Project team.

It is the responsibility of the Environmental Officer to ensure that document control of environmental documents and records is functioning effectively.

6.6 Emergency Preparedness and Response

An Emergency Management Plan was prepared by the EPC Contractor prior to the commencement of construction. Prior to the commencement of Operations phase, the Emergency Management Plan will be adapted for the operations phase by the FSA Provider and forms a component of the Safety Management System required by Schedule 3, Condition 33 of the Development Consent.

Emergency response measures have been developed to manage environmental emergencies, should they occur (such as fire). The plan includes the process to be followed in the event of an emergency (including evacuation details and muster points) and communication procedures. The plan includes a list of emergency contacts, and maps to muster points and the nearest emergency facilities.

A Pollution Incident Response Management Plan (PIRMP) has been prepared by BWF in accordance with the requirements of the POEO Act. The PIRMP minimises the risk of a pollution incident by firstly identifying risks, putting measures in place to reduce the likelihood of an incident occurrence and finally planning and practising the response to a pollution incident. The PIRMP will be reviewed and revised prior to operation of the wind farm.

All staff will be trained in emergency preparedness and response. Higher risk activities will involve a higher degree of preparedness and training.

7 Environmental Monitoring, Notification, Reporting, Corrective Action, and Audits

7.1 Environmental Monitoring

Environmental monitoring will be used to measure performance of the EMS and compliance with relevant statutory requirements.

Environmental monitoring checklists have been developed, and environmental inspections will include evaluation of performance against objectives and targets identified in the environmental management plans and programs. During construction, the EPC Contractor will undertake a range of daily, weekly and monthly inspections and monitoring activities including those outlined in Table 5.

Table 5 Monitoring activities to be undertaken by the EPC Contractor

Frequency	Area or Activity
Daily inspections	<ul style="list-style-type: none"> Weather forecast; Fire Danger Rating; Dust generation and abatement measures; and Compliance with management plans and environmental performance.
Weekly monitoring	<ul style="list-style-type: none"> Effectiveness of installed erosion and sediment control measures; Noise minimisation and mitigation; Waste generation and management; Hazardous material storage; Environmental incident reports; Cultural heritage impacts; Emergency preparedness; and Corrective Actions Notices issued.
Monthly monitoring	<ul style="list-style-type: none"> Rehabilitated areas: <ul style="list-style-type: none"> Stability assessment and erosion present; Groundcover %; Weeds present; Landscape screening, where implemented at the Project Monthly resource usage; Chance cultural heritage finds; Complaints received; Corrective Actions undertaken; and
Additional specialist or focused monitoring	Ad hoc caused by environmental triggers, or maintenance activities, or repair works or as required by specific management plan.
Erosion and sedimentation control measures will be inspected:	<ul style="list-style-type: none"> Weekly; At least 24 hours prior to predicted rainfall; Daily when rainfall is occurring; After the rainfall event has finished; and Daily.

Frequency	Area or Activity
Vehicle weed inspections:	<ul style="list-style-type: none"> At time of on boarding new vehicle; When vehicle returns to site from any offsite greenfield or brownfield site visit; and When vehicle is driven through areas of known weeds.
Biodiversity	<ul style="list-style-type: none"> Per the monitoring schedule of the BBAMP Monitoring is undertaken by specialist ecologist

Independent Environmental Audits shall be completed in accordance with the requirements outlined in Section 7.7.1.

To ensure Contractors are complying with their commitments and relevant conditions of approval, the Environmental Officer will undertake internal audits in accordance with the requirements outline in Section 7.7.2.

All monitoring results and records will be kept beyond the life of the Project. The results of monitoring may be referred to a specialist consultant, if results indicate a potential non-compliance with the conditions of consent or if specified by a management plan or management guideline or complaint procedure.

7.2 Environmental Reporting and Notification Obligations

Table 6 Environmental reporting and notification obligations

Condition	Report /notification description	Timing	Reported / notified to
SSD-6686			
Schedule 2, Condition 13	Prior to the commencement of the construction, operation and/or decommissioning of the development, or the cessation of operations, the Applicant must notify both the Department and the Councils in writing of the date of commencement or cessation.	Construction, Operations and Decommissioning	DPE and Councils.

Condition	Report /notification description	Timing	Reported / notified to
Schedule 3 Condition 29	Notification of Aviation Authorities prior to the construction of any wind turbine or monitoring mast of: (a) co-ordinates in latitude and longitude of each wind turbine and mast; (b) the final height of each wind turbine and mast in Australian Height Datum; (c) ground level at the base of each wind turbine and mast in Australian Height Datum; (d) confirmation of compliance with any OLS; and (e) details of any proposed aviation hazard lighting.	Prior to construction of any wind turbine or monitoring mast.	Notifications were completed prior to the mast or turbine construction and issued to CASA, Airservices Australia and the RAAF.
Schedule 3 Condition 30	Notification to Aviation Authorities to provide confirmation that the information that was previously provided remains accurate, or update the information previously provided.	Within 30 days of the installation of any wind turbine or mast.	Notifications were completed progressively following each mast and turbine construction, issued to CASA, Airservices Australia and RAAF.
Schedule 4, Condition 4	Notification / Reporting of Incidents (per descriptions provided at Section 7.4 of this EMS).	Immediately after the Applicant becomes aware of the Incident.	DPE Compliance via Major Projects portal.
Schedule 4, Condition 5	Notification / Reporting of non-compliances. Section 7.3	Submit a written report of the non-compliance within 7 days after becoming aware of the non-compliance.	DPE Compliance via Major Projects portal.
Schedule 4, Condition 6	Independent Environmental Audit Reports. Section 7.7.1	Submit the audit report within 3 months of commissioning the audit.	The Secretary (DPE), via Major Projects portal; and any other NSW agency who requests it.
Schedule 3, Condition 21	BBAMP annual monitoring results	Yearly	DPE Compliance via Major Projects portal and DCCEEW
Commonwealth Approval EPBC 2013/6810			
Condition 1b	Notify the Department in writing of any proposed change to the conditions of the NSW development consent for which EPBC Condition 1a applies.	no later than 5 business days after proposing a change or becoming aware of the NSW Government proposing a change.	DCCEEW epbcmonitoring@environment.gov.au

Condition	Report /notification description	Timing	Reported / notified to
Condition 1c	Notify the Department in writing of any change to the NSW development consent for which EPBC condition 1a applies.	within 5 business days of a change being finalised.	DCCEEW epbcmonitoring@environment.gov.au
Condition 17	Annual Compliance Reporting (for the period covering 14 th August – 13 th August.	Report will completed and published by 14 th November each year.	Report will published on the Bango Wind Farm Project Website. Documentary evidence of date of publish will be provided to the DAWE: epbcmonitoring@environment.gov.au
Condition 18	Potential or actual contraventions of the conditions of the approval must be reported to the Department.	Report within two business days of becoming aware of the actual or potential non-compliance.	Report to the DAWE: epbcmonitoring@environment.gov.au
Environment Protection Licence 21286			
Condition M3.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Completed	The public, via the Project website, project newsletters, email communications etc.
Condition R1.1	Annual Return for EPL 21286.	Within 60 days of the end of the reporting period (Due before end of August).	Reported via eConnect EPA or submitted by registered post.
Condition R2.1	Notify actual or material harm to the EPA immediately.	Immediately after becoming aware of the actual or potential material harm.	EPA Environment Line 131 555
Condition R2.2	Provide a written report of the incident notification to the EPA.	Within 7 days of the date on which the incident occurred.	To the NSW EPA: info@epa.nsw.gov.au

7.3 Non-Compliance

Any non-compliance will be recorded by the Environmental Officer and reported to the Site Manager. The Environmental Officer will record the non-compliance in the CWPR Non-compliance Register (IMS). Corrective Actions will be recorded in the Corrective Actions Register. If the non-compliance is an “incident” the requirements outlined in the incident reporting notification procedure as detailed in Section 7.2 will be implemented.

A non-compliance may be identified by substantiated community complaint, site monitoring, compliance monitoring or independent audit. In the event of a non-compliance, investigation by the Environmental Officer will occur with a view to identifying the source, reason, and implications of the non-compliance. Remedial actions will be developed in consultation with the relevant staff members and may include:

- Amendment of the EMS or environmental management plan
- Additional control measures

- Staff training
- Amended procedures
- Disciplinary actions.

Once the course of action to correct a non-compliance has been determined the Site manager will implement the remedial actions and update the registers with the outcome.

7.4 Incident Management

All environmental incidents will be immediately reported to the Environmental Officer who will direct immediate remedial actions in consultation with the Site Manager.

The Environmental Officer and Site Manager will determine which external agencies need will notified (e.g. Environmental Protection Authority (EPA), Biodiversity, Conservation and Science Directorate (BCS), Department of Planning and Environment (DPE), DPE-Heritage, Department of Climate Change, Energy, the Environmental and Water (DCCEEW), Council, Transport for NSW (TfNSW)) in accordance with the POEO Act and Schedule 4, Conditions 4 of the Conditions of Approval.

All staff and contractors will be trained in incident reporting during the site induction. This training will include information on the responsibility of every staff member to report incidents and how to report an incident.

All environmental incidents and responsive actions will be investigated and recorded in the CWPR Incident Register and reported at Project management meetings. This notice will record:

- Name and role of employee recording the incident;
- Date and time of incident
- Location of incident
- Size and type of land area affected (e.g. creek, vegetation, road etc.)
- Type of incident (e.g. spill, fire etc.)
- Details of any offsite impacts;
- Immediate responses and further actions
- Adaptive management changes to avoid repeat of an incident.

All events/incidents will be closed out to the satisfaction of the Environmental Officer and the Site Manager. A non-compliance report will be completed for any incident related to non-compliance with this EMS.

7.4.1 'Material Harm' Environmental Incidents

Part 5.7 of the Protection of the Environment Operations Act 1997 (POEO Act) requires that all 'Material Harm' Incidents be reported to the EPA immediately. The Conditions of Consent also requires that 'Material Harm' Incidents be reported to the Department immediately after the Applicant becomes aware of the incident.

In this context, an Incident is defined as:

“A set of circumstances that causes or threatens to cause material harm to the environment.”

'Material Harm' is defined as:

“Is harm that:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (such loss includes the reasonable costs and expenses that would be

incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.”

More information on ‘Pollution Incidents’ can be found in the Pollution Incident Response Management Plan (PIRMP) for BWF.

7.5 Incident Register

All environmental incidents and responsive actions will be recorded in the CWPR Incident Register and reported at Project management meetings.

All incidents will be closed out to the satisfaction of the Environmental Officer and the Site Manager.

7.6 Corrective and Preventative Action

The Environmental Officer will review the EMS every six months or as required under Schedule 4, Condition 2 of the NSW Development Consent (refer Section 5). The review will ensure the controls reflect any changes in legislation or work procedures.

The review will consider if any changes to the EMS are required based on:

- Environmental monitoring results
- Complaints
- Incident reports
- Non-compliances
- Relevant legislative changes
- Changes to the conditions of consent.

Continual improvement through adaptive management of the EMS will be achieved by ongoing compliance reviews and reporting. Site Manager involvement in regular management meetings and tool-box talks will identify opportunities for improved environmental management in response to work procedures, complaints and non-compliances.

Where the review of the EMS leads to revisions (resulting from incident, Independent Environmental Audit or change in condition of consent), these will be done to the satisfaction of the Secretary of DPE.

7.7 Audits

7.7.1 Independent Environmental Audit

In accordance with Schedule 4, Condition 6 of the Development Consent, within six months of commencement of construction, and every three years thereafter, unless the Secretary directs otherwise, the Applicant will commission and pay the full cost of an independent Environmental Audit of the development.

The audit will:

- a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary
- b) be carried out in consultation with the relevant agencies
- c) assess whether the development complies with the relevant requirements in this consent, and any strategy, plan or program required under this consent
- d) recommend appropriate measures or actions to improve the environmental performance of the development and any strategy, plan or program required under this consent.

Within 3 months of commencing an independent Environmental Audit, or unless otherwise agreed by the Secretary, a copy of the audit report will be submitted to the Secretary, and any other NSW agency that requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations.

The recommendations of the independent Environmental Audit will be implemented to the satisfaction of the Secretary.

Within three (3) months of commissioning this audit, or as otherwise agreed by the Secretary, the Environmental Officer will submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

The Independent Environmental Auditor will prepare the audit program in accordance with the DPE *Post-approval requirements for State significant developments Independent Audit Guidelines DPE 2020* and in accordance with the principles of *AS/NZ ISO 19011:2019 – Guidelines for Quality and/or Environmental Management Systems Auditing*.

An Independent Environmental Audit was conducted in December 2019, within 6 months of Project commencement.

7.7.2 Scheduled Project Environmental Audits

Project Environmental Audits are scheduled by the CWPR Environmental Officer and/or Environmental Manager. The CWPR Audit Schedule contains all Project audits and audit reports.

8 Review

Regular formal site inspections in accordance with programs and plans and daily general observations of the site will be undertaken by the Site Manager. Any problems or risks identified during this process will be assessed and, where required, reported as a non-compliance.

An internal review of the Project EMS and supporting plans will occur every six (6) months to assess performance. Additional formal reviews of the EMS and supporting plans will occur in accordance with Schedule 4, Condition 2, as previously described in Section 5.

9 References

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Appendix A – Environmental Policy

CWP Renewables Environmental Policy

ENVIRONMENTAL POLICY

CWPR-00-POL-Environmental

28 June 2022

REVISION CONTROL

Revision	Date	Issue	Author	Reviewed	Approved	Signature
000	17/05/21	1	Phaedra Reynolds	Leanne Cross	Jason Willoughby	
001	28/06/22	1	Alana Gordijn	Brendan McAvoy	Jason Willoughby	

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Contents

1	Introduction.....	1
1.1	Purpose	1
1.2	Scope	1
2	Policy	1
3	Variation	2
4	Relevant legislation, policies, and documents	2



1 Introduction

1.1 Purpose

The purpose of this policy is to ensure projects owned and operated by CWP Renewables minimise environmental detriment, and maximise environmental benefit, while minimising CWP Renewable's environmental footprint.

1.2 Scope

The Environmental Policy (**Policy**) applies to Grassroots Renewable Energy Pty Ltd as trustee for the Grassroots Renewable Energy Trust and its subsidiaries including CWP Renewables Pty Ltd (**CWPR**).

This policy applies to all employees and all persons performing work at the direction of, or on behalf of, CWPR (for example, contractors, consultants, temporary staff and 'workers' as otherwise defined under the Work Health and Safety Act 2011), collectively referred to as 'Employees'.

This Policy does not form part of any Employee's contract of employment or any contract for services between CWPR and any Employee who does not have a contract of employment with CWPR.

2 Policy

CWPR is committed to sustainable environmental practices. This is achieved by the following:

- Maintaining the Environmental Management System (EMS) and its accreditation to ISO 14001:2015 to ensure there is an effective framework for continual improvement to prevent environmental impacts directly or indirectly related to its operations in all business streams.
- Establishing an Environmental Team, with capabilities and capacity to deliver on the objectives of this Policy.
- Undertaking environmental assessment of new activities early in their development to best management and mitigate environmental impact.
- Conducting regular inspections, audits, and management reviews to monitor the effectiveness and suitability of control measures and the environmental management system.
- Complying with relevant environmental legislation and regulations and adopting appropriate standards.
- Ensuring an effective mechanism exists for setting and reviewing environmental objectives and targets.
- Documenting environmental matters associated with projects and internal business operations and communicating to Employees, customers and contractors, and the public.
- Monitoring processes to ensure that operational practices are sustainable and incorporate safe and responsible disposal of waste and an efficient use of natural resources and energy.
- Running all aspects of the business in such a manner to minimise and handle any environmental incidents and emergencies should they occur.
- Senior Management being committed to the Environmental Policy and overall continual improvement.

3 Variation

CWPR reserves the right to vary, replace or terminate this policy from time to time. CWPR undertakes to regularly review this policy to take account of changes in legislation. All Employees are required to comply with changes to this Policy.

4 Relevant legislation, policies, and documents

Type	Title
Legislation	Work Health and Safety Act 2011
Legislation	Environment Protection and Biodiversity Conservation Act 1999
Legislation	Environmental Planning and Assessment Act 1979
Legislation	Protection of the Environment Operations Act 1997
Standard	ISO 14001:2015 – Environmental Management Systems



Appendix B – Relevant Legislation

Legislative instrument	Legislative requirement	Plan response
Commonwealth		
<i>Environment Protection & Biodiversity Conservation Act 1999</i> (EPBC Act)	The EPBC Act protects Matters of National Environmental Significance (MNES), such as threatened species and ecological communities, migratory species (protected under international agreements), and National Heritage places (among others).	An Approval from the Department of the Environment and Energy was issued for undertaking a Controlled Action under the EBPC Act (EPBC2013/6810).
<i>Native Title Act 1993</i>	The <i>Native Title Act 1993</i> recognises the rights and interests of Indigenous people to land and aims to provide for the recognition and protection of common law native title rights. Areas of land where native title may exist include public road reserves and other Crown land.	The Proposed Development is located on freehold land and former Crown roads that have since transferred that is not subject to Native Title claims.
<i>Renewable Energy (Electricity) Act 2000</i>	The <i>Renewable Energy (Electricity) Act 2000</i> aims: <ul style="list-style-type: none"> (a) to encourage the additional generation of electricity from renewable sources; (b) to reduce emissions of greenhouse gases in the electricity sector; and (c) to ensure that renewable energy sources are ecologically sustainable. 	The Project will be accredited as a Renewable Energy Generator to create Renewable Energy Certificates
<i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>	The <i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i> regulates the export, import and transit of hazardous waste to ensure human beings and the environment, both within and outside of Australia are protected from the harmful effects of hazardous wastes.	Presently, there are few facilities to recycle lithium-ion batteries in Australia. Spent batteries, if exported for recycling will require an export permit under section 40 of the Hazardous Waste Act
NSW legislation		
<i>Biodiversity Conservation Act 2016</i>	The purpose of the <i>Biodiversity Conservation Act 2016</i> is to maintain a healthy, productive and resilient environment for the greatest wellbeing of the community, now and into the future, consistent with the principles of ecologically sustainable development.	Biodiversity offsets will be provided consistent with the Biodiversity Offset scheme. Biodiversity management measures are further addressed in the BMP and BBAMP
<i>Biosecurity Act 2015</i>	The <i>Biosecurity Act 2015</i> repealed the <i>Noxious Weeds Act 1993</i> and provides a framework for the prevention, elimination and minimisation of biosecurity risks posed by biosecurity matter, dealing with biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter, carriers or potential carriers.	Weed management will be undertaken in accordance with the provisions of the <i>Biosecurity Act 2015</i>

Legislative instrument	Legislative requirement	Plan response
<i>Crown Lands Act 1989</i>	Crown land includes Crown reserves, state parks, land that is leased or licensed, minor ports, river entrances, caravan parks, places of cultural and community significance, submerged land of public waterways (except where under the ownership of NSW Maritime Authority) and Crown roads.	The Project will not impact on any Crown Land or Crown roads without agreement from the Crown
<i>Environmental Planning and Assessment Act 1979</i>	The EP&A Act is the principal planning legislation for NSW. It provides a framework for the overall environmental planning and assessment of development proposals.	The Project was assessed and approved under Division 4.1 of the EP&A Act (SSD6686).
<i>Fisheries Management Act 1994</i>	The FM Act provides for the protection, conservation, management and recovery of threatened species, populations and ecological communities as defined under the Act.	No operational activities will impact on Key Fish Habitat, or species protected under the FM Act
<i>Heritage Act 1977</i>	Historic relics, buildings, structures and features are protected under the <i>Heritage Act 1977</i> .	Two relics have been identified within the Development Corridor. An exclusion zone around the items was provided during construction. Measures to avoid/minimise potential impact during operation is discussed in the HMP.
<i>Mining Act 1992</i>	The objective of the <i>Mining Act 1992</i> is to encourage and facilitate the discovery and development of mineral resources in NSW, having regard to the need to encourage Ecologically Sustainable Development	The Project does not impact on any current Mining Leases
<i>National Parks and Wildlife Act 1974</i>	The main aim of the NPW Act is to conserve the natural and cultural heritage of NSW.	The Project will implement the approved HMP and BMP.
<i>Protection of the Environment Operations Act 1997</i>	The objectives of the POEO Act are to protect, restore and enhance the quality of the environment, in recognition of the need to maintain ecological sustainable development.	The Project will be managed to ensure pollution risks to soil, waterways and air quality are avoided or minimised. BWF holds an Environment Protection Licence for the works (EPL 21286).
<i>Roads Act 1993</i>	Section 138 of the <i>Roads Act 1993</i> sets out the requirement for approval to carry out certain works within the vicinity of a road.	A Section 138 was obtained for works crossing Tangmangaroo Road. The operation of the Project does not require any works to any council or TfNSW managed roads.
<i>Rural Fires Act 1997</i>	The <i>Rural Fires Act 1997</i> provides for the preparation, mitigation and suppression of bush and other fires in local government areas and to provide protection of infrastructure and environment, economic, cultural, agricultural and community assets from damage arising from fire.	Emergency response measures to control environmental emergencies such as fire, are addressed in the Emergency Response Plan (ERP). The ERP forms a component of the Safety Management System
<i>Waste Avoidance and Resource Recovery Act 2001</i>	The <i>Waste Avoidance and Resource Recovery Act 2001</i> introduces a scheme to promote extended producer responsibility for the life-cycle of a product.	Waste management during operation is addressed in Appendix C3

Legislative instrument	Legislative requirement	Plan response
<i>Water Management Act 2000</i>	The WM Act regulates controlled activities on waterfront land in NSW as well as the access to water for consumptive use.	<p>Water Access Licences will be obtained if water is required to be extracted for construction or operation purposes.</p> <p>A permit under section 91 of the WM Act is not required as described in section 89J of the EP&A Act.</p>

Appendix C – Operational Environmental Management Guidelines

Appendix C1 – Air Quality Management Guideline

C1.1 Background

The principal air pollutant likely associated with the operation of the BWF is particulate matter consisting mainly of dust and vehicle fumes. The nature of impacts will be short-term and mainly associated with civil maintenance activity. In general, the primary sources of emissions to the atmosphere include dust, plant and vehicle emissions and odours.

In accordance with Condition O3.1 of EPL 21286: Activities occurring at the premises will be carried out in a manner that will minimise the emissions of dust from the premises.

In accordance with Condition O3.2 of EPL 21286: Trucks entering and leaving the premises that are carrying loads of dust generating materials will have their loads covered at all times, except during loading and unloading.

C1.2 Risks, Mitigation, Monitoring and Responsibilities

Risk	Mitigation measures	Monitoring requirements	Responsibility
Dust	Limit vehicle speeds to designated speed limits on site. Routine road maintenance. Dust suppression as required, eg. application of water or other ameliorants to road surfaces.	Visually monitor road conditions. Visually monitor dust emissions during civil maintenance activities.	Site Manager
Vehicle/plant emissions	Vehicle maintenance in accordance with manufacturer's requirements.	Monitor vehicle/ plant maintenance records.	Site Manager/FSA Project Manager
Odours	Proper storage and handling of materials. Proper maintenance of septic facilities and handling by waste contractors.	Monitor materials storage.	Site Manager

Appendix C2 – Noise Management Guideline

C2.1 Background

This Noise Management Guideline details the processes and control measures to mitigate impacts of construction and operational activities that have the potential to give rise to excessive noise.

The management measures and processes will be implemented by all parties, whether directly employed by Bango Wind Farm or subcontracted, and will apply to all activities for the Facility which may give rise to excessive noise.

C2.2 Applicable Legislation and Guidelines

- Interim Construction Noise Guideline (DECC, 2009);
- NSW Noise Policy for Industry (or its equivalent); and
- Wind Energy: Noise Assessment Bulletin (2016) (or its latest version).

C2.3 Construction noise

To ensure noise impacts are minimised, the project will:

- minimise the construction or decommissioning noise of the development, including any associated traffic noise; and
- ensure that the noise generated by any construction activity is managed in accordance with the best practice requirements outlined in the Interim Construction Noise Guideline (DECC, 2009), or its latest version.

Unless the Secretary agrees otherwise, the Applicant must only undertake construction or decommissioning activities between:

- 7.00 am to 6.00 pm Monday to Friday;
- 8.00 am to 1.00 pm Saturdays; and
- at no time on Sundays and NSW public holidays.

The following construction activities may be undertaken outside these hours without the approval of the Secretary:

- activities that are inaudible at non-associated residences;
- the delivery of materials requested by the NSW Police Force or other authorities for safety reasons; or
- emergency work to avoid the loss of life, property and/or material harm to the environment.

The above requirements are captured within the EPC Contractors CEMP and Construction Noise and Vibration Management Plan.

C2.4 Noise impacts from Operating WTGs

The primary noise sources from the operational facility will be the aerodynamic noise generated from the rotation of wind turbine blades. Noise is generated by the blades passing through the air and passing the tower creating a 'swishing' sound, with the noise primarily arising at the tip and back edge of the rotor blade.

C2.5 Operational Noise Criteria

Wind Turbine Generators

Noise compliance levels for the operation of WTGs are set within Condition 9 of Schedule 3 of the Development Consent (SSD-6686) and Condition L3 of EPL 21286.

In accordance with the Development Consent and the EPL, the noise generated by the operation of wind turbines will not exceed the relevant criteria in Table C2 at any non-associated residence.

The noise limits specified in Table C2 do not apply to any sensitive receiver where a noise agreement is in place between the licensee and the respective landowner(s) in relation to noise impacts and or noise limits.

Table C2 – Operational Noise Criteria – Wind Turbines

Residence	Criteria (dB(A)) with Reference to Hub Height Wind Speed (m/s)									
	3	4	5	5	7	8	9	10	11	12
26, 166	35	35	35	35	35	35	36	38	39	42
60	35	35	35	35	35	35	35	35	37	39
62, 76, 179, 235, 260	36	36	36	37	37	37	37	38	38	40
106, 152, 243	35	35	36	36	37	37	38	39	40	42
144, 276	35	35	35	35	35	35	35	36	37	40
165	35	35	35	35	35	35	36	38	39	42
170	35	35	35	35	35	35	35	35	36	38
282	35	35	35	35	35	35	35	35	35	37
43	35	35	36	37	37	37	37	38	39	40
48	35	35	37	38	39	40	40	41	42	43
138	36	36	36	36	37	37	38	39	40	42
All other non- associated residences	The higher of 35 dB(A) or the existing background noise level (L _{A90 (10-minute)}) plus 5 dB(A)									

To identify the residences referred to in Table C2, see the Site Layout Plan, Figure 1-1 of the EMS. The coordinates of the above residences are provided in Table C3 below (provided in MGA94 Zone 55).

Table C3 – Location of residences listed in Table C2.

Location	Easting	Northing
26	667373	6168710
43	658490	6173393
48	674793	6177078
60	668962	6166711
62	661390	6169789
76	663854	6169306
106	674765	6172626
138	674728	6164928
144	668769	6167707
152	674475	6171888
165	667447	6168827
166	667440	6168580
170	669036	6176903
179	663462	6168501
235	663846	6169475
243	674789	6172958
260	661449	6169886
276	668769	6167755
282	666714	6178407

Ancillary Infrastructure

In accordance with Condition 10, Schedule 3 of the Development Consent, the noise generated by the operation of ancillary infrastructure will not exceed 35 dB(A) LAeq (15 minute) at any non-associated residence. Ancillary infrastructure as defined in the Development Consent, is all wind farm infrastructure (with the exception of wind turbines), including but not limited to:

- Collector substations
- Switching stations
- Permanent offices and site compounds
- Underground and overhead electricity transmissions lines
- Internal roads.

C2.6 Operational Noise Monitoring

Undertaking noise monitoring

In accordance with Condition 11, Schedule 3 of the Development Consent, within 3 months of the commencement of operations (or commencement of operation of a cluster of turbines, if the development is to be staged), the Applicant will:

- Undertake noise monitoring to determine whether the development is complying with the relevant conditions of this consent; and
- Submit a copy of the monitoring results to the Department and the EPA.

The Applicant will undertake further noise monitoring of the development if required by the Secretary.

Wind Turbine Generators – requirements for noise measurement

In accordance with Consent Condition 9 Schedule 3, and EPL Condition L3.4; the noise generated by the operation of the wind turbines will be measured in accordance with the relevant requirements of the Department's *Wind Energy: Noise Assessment Bulletin (2016)* (or its latest version).

The noise criteria in Table C2 will apply under all meteorological conditions.

In accordance with EPL Condition L3.7, noise from the premises will be measured at the most affected point within the residential boundary, or at the most affected point within 20 metres of the dwelling, where the dwelling is more than 20 metres from the boundary. Noise levels are determined in accordance with the relevant requirements of the NSW Noise Policy for Industry (or its equivalent).

Ancillary Infrastructure – requirements for noise measurement

Noise generated by the operation of ancillary infrastructure will be measured in accordance with the relevant requirements of the *NSW Noise Policy for Industry* (or its equivalent) as modified by the following provisions from Appendix 5 of the Development Consent:

The noise generated by Ancillary Infrastructure will not exceed **35 dB(A) LAeq (15 minute)** under all meteorological conditions except the following:

- c. Wind speeds greater than 3m/s at 10m above ground level; or
- d. Temperature inversion conditions between 1.5°C and 3°C/100m and wind speeds greater than 2 m/s at 10m above ground level; or
- e. Temperature inversion conditions greater than 3°C/100m.

C2.7 Risks, Mitigation Measures and Responsibilities

Risk	Mitigation measures	Responsibility
Noise from WTG exceeding allowable levels as modelled	Confirm noise levels through measurement (see Section C 2.4), perform appropriate maintenance and modify plant operation to achieve compliance.	Site Manager
Noise from workshop activities	Use noisy tools during daytime standard working hours only.	Site Manager/FSA Project Manager All personnel
Noise from routine WTG maintenance activities	Use noisy tools during daytime standard working hours only (unless required during an emergency situation).	Site Manager/FSA Project Manager All personnel
Vehicle noise	Vehicles remain on formed access roads and obey speed limits of the site.	Site Manager/FSA Project Manager All personnel
Major WTG repairs	Undertake major repairs during daytime standard working hours only.	Site Manager/FSA Project Manager All personnel
Civil maintenance works (eg. Road maintenance, drain maintenance etc).	Undertake maintenance works/ repairs during daytime standard working hours only.	Site Manager/FSA Project Manager All personnel

C2.8 Noise complaints

Noise complaints will be managed using the same general procedure as outlined in Section 6.4 of the EMS with the complaint being entered into the complaint register.

However, the following information may also be collected in relation to any noise complaint:

- a. Nature of the noise:
 - i. Tonal
 - ii. Intermittent, pulsing or continuous
 - iii. High or low frequency
 - iv. Single turbine in particular or whole wind farm
- b. Time of day – day/ night/ morning/ evening
- c. Location: Distance from nearest wind turbine. Inside/ outside dwelling. Windows open.
- d. Weather conditions: Wind speed and direction, temperature, rain/ humidity, cloud cover.

Appendix C3 – Waste Management Guideline

C3.1 Background

The purpose of this Waste Management Guideline is to detail mitigation and management measures for the storage, handling and disposal of wastes generated during the operational phase of the Bango Wind Farm, in accordance with Project Approvals and Licences.

C3.2 Approvals, Legislation and Guidelines

Approvals

In accordance with the NSW Development Consent, Condition 34 of Schedule 3:

The Applicant must:

- a. Minimise the waste generated by the development;
- b. Classify all waste generated on site in accordance with the EPA's *Waste Classification Guidelines 2014* (or its latest version);
- c. Store and handle all waste generated on site in accordance with its classification;
- d. Not receive or dispose of any waste on site; and
- e. Ensure all waste is disposed of at appropriately licensed waste facilities.

In accordance with Environment Protection Licence 21286, Clause L2 Waste:

L2.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.

L2.2 The licensee must ensure that all liquid and/or non-liquid waste generated and/or stored on the site is assessed and classified in accordance with Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA, 2014) or any future guideline that may supersede that document.

Legislation & Regulations

- *Protection of the Environment Operations Act 1999*;
- *Protection of the Environment Operations (Waste) Regulation 2014*;
- *Waste Avoidance and Resource Recovery Act 2001*; and
- *NSW Waste Avoidance and Resource Recovery Strategy 2007*.

Guidelines

- NSW EPA Waste Classification Guidelines Part 1: Classifying Waste;
- The excavated natural material order and exemption 2014 (EPA 2014); and
- Fact Sheet: Virgin excavated natural material (DECC 2008).

C3.3 Waste Types

Waste types generated during the operation of the Bango Wind Farm will include, but may not be limited to the following:

Waste stream	Classification
Scrap metal - off cur fabricated steel	Recyclable
Timber and general packaging	General Waste
Cable off-cuts (electrical repairs)	Recyclable
Human waste (sewage)	Sewage
Controlled waste including oils, solvents and fuels	Hazardous waste
Paper and cardboard	Recyclable
Plastics (PET)	Recyclable
Metals (copper, aluminium, steel)	Recyclable
Domestic waste	General solid waste (putrescible)
Office waste	General solid waste (putrescible)

C3.4 Waste Management Centres

All waste will be collected and disposed of by a licensed waste contractor to a licensed facility. The licensed waste contractor will provide the required waste receptacles and the frequency of pickups will be negotiated with the Facility. Waste collection will be documented in a Waste Removal Register.

C3.5 Potential Impacts

Primary activities across the operational wind farm that are expected to generate waste include the office buildings (general office waste, sewage, recyclables), workshops (general waste, hazardous waste, recyclables and packaging), substation (general waste, hazardous waste, recyclables) and wind turbines (general waste, hazardous waste, recyclables). Where further civil works takes place, waste consisting of excess soils may be generated.

C3.6 Management Principles

The management of waste generated during the operation of the Bango Wind Farm shall be in accordance with the Waste Classification Guidelines and the principles of ecologically sustainable development, with an emphasis on maximum conservation of resources as provided for in the BWF Environmental Policy (see Section 3.2 of the EMS). General principles of waste management include:

- Avoidance and Reduction
- Re-use
- Recycle
- Recover
- Disposal.

C3.7 Risks, Mitigation Measures and Responsibilities

Risk	Mitigation measures	Responsibility
Pollution of environment	All waste generated at wind turbines or other work areas will be picked up and brought back to the service compound or to designated waste receptacles No waste can be collected from outside the facility and disposed of or stored at the facility	All personnel
	General waste containers and recycling containers will be located throughout the workshop, service buildings and offices. Receptacles and recycling will be emptied into the main waste containers as required	Site Manager / FSA Project Manager
	Waste will be transported in a manner that avoids the waste spilling, leaking or otherwise escaping from any motor vehicle or trailer used to transport the waste.	Site Manager / FSA Project Manager
	Green waste will be removed from the Facility to a licensed green waste disposal. The exception is where trees and logs can be placed to provide suitable habitat, to be done in consultation with an ecologist and in accordance with requirements of the Biodiversity Management Plan.	Site Manager / FSA Project Manager
	A metal recycling receptacle will be maintained in the O&M area and emptied when full. Metals will be sent to a recycling centre.	Site Manager / FSA Project Manager
	Recycling receptacle will be maintained in the O&M area and collected for disposal when full. Regular inspections will be conducted to ensure the integrity of the waste. Signage on information boards is to detail what is considered recyclable.	Site Manager / FSA Project Manager
	A separate skip will be maintained for paper and cardboard, which will be covered and emptied when full. Signage on information boards to detail what is considered recyclable.	Site Manager / FSA Project Manager
	Organic waste will be disposed of as general waste, with bins/skips collected for disposal when full.	Site Manager / FSA Project Manager
	Human waste (sewage) will be collected by licensed waste contractors for disposal.	Site Manager / FSA Project Manager
	Soil contaminants	Manage in accordance with the CWPR Hazardous Substances and Dangerous Goods Procedure. Where excavation or earthworks result in excess soil they will be used onsite where practicable. If soils have to be removed from the Project, they will be classified in accordance with the NSW EPA <i>Waste Classification Guidelines</i> .
Attracting rodents	Regular removal of wastes.	Site Manager
Breach of waste regulations	Procedures for proper disposal by licensed contractors.	Site Manager

Appendix C4 – Telecommunications complaints protocol

In accordance with the NSW Development Consent, Condition 31 of Schedule 3:

If the development results in the disruption to radio communications services (including point-to-point microwave links) in the area, then the Applicant must make good any disruption to these services as soon as practicable following the disruption, but no later than 1 month following notification of the disruption of the service unless the relevant service provider or user or Secretary agrees otherwise.

The following protocol will apply to any complaints received in relation to disrupted radio communications in the area:

1. Upon receiving a complaint about radio signal, the Site Manager would log all details of the complaint in the complaints register.
2. The location of the disrupted signal will be reviewed to ascertain the proximity to wind turbines.
3. An investigation will be undertaken with the afflicted parties to determine the cause of the signal reduction. This may require commissioning of a suitably qualified engineer to make an assessment of the property signal and to ascertain the likely cause.
4. Should the wind farm be directly responsible for the reduction of signal then the wind farm owner will negotiate with the landowner regarding a solution to remedy the signal reduction. Potential mitigation measures are outlined below.
5. If there is a dispute about the mitigation measures to be implemented or the implementation of these mitigation measures, then either party may refer the matter to the Secretary for resolution.

Typical mitigation measures for radio communication, if impacts occur, could include:

- Modifications to or relocation of existing antennae
- Installation of a directional antennae
- Installation of an amplifier to boost the signal.

Appendix C5 – Visual Impact Management Guideline

C5.1 Background

The purpose of this Visual Impact Management Guideline is to detail the requirements for mitigating visual impact in accordance with the requirements of the development consent.

C5.2 Visual mitigation requests

NSW Development Consent, Condition 1 of Schedule 3 is triggered if BWF receives a written request in relation to visual impact that:

- Is within 5 years from the commencement of construction, and
- Is from a non associated receiver within 4km of any WTG, and
- Is requesting that visual impact mitigation measures are implemented on their land to minimise the visual impacts of the development on their residence (including its curtilage)

The following protocol will apply upon receiving such a request in relation to Visual Impact:

1. The Applicant will consult with the owner to identify appropriate mitigation measures (such as landscaping and vegetation screening)
2. Within 12 months of receiving the written request, BWF will implement the agreed mitigation measures, unless the Secretary agrees otherwise
3. The mitigation measures will be reasonable and feasible, aimed at reducing the visibility of the wind turbines from the residence and its curtilage, and commensurate with the level of visual impact on the residence.
4. The mitigation measures are not required to be implemented to reduce the visibility of wind turbines from any other locations on the property other than the residence and its curtilage.
5. If the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

C5.3 Shadow Flicker

Pursuant to Condition 4 of Schedule 3, shadow flicker associated with wind turbines must not exceed 30 hours per year at any non-associated residence.

Assessment of shadow flicker based on the final design layout (worst case scenario) has been completed. The assessment determined:

- Four Associated residents (101, 32, 115, 100) are likely to exceed 30 hours of shadow flicker. As these residents have signed Agreements, the condition is not triggered.
- Of the 17 non-associated residents with visibility of the Project, none will be affected.

C5.4 Visual Impact Mitigation Measures

Risk	Mitigation measures	Responsibilities
Appearance of WTG	<ul style="list-style-type: none"> WTGs will be painted off white/grey, unless otherwise agreed by the Secretary; WTGs will be finished with a surface treatment that minimises the potential for glare and reflection; and No advertising signs or logos will be mounted on the WTGs. 	Site Manager
Appearance of ancillary facilities	<ul style="list-style-type: none"> Ancillary infrastructure will blend as far as possible with the surrounding landscape; Native vegetation species will be used to screen the substation and control buildings where they are visible from neighbouring non-associated residences and public viewpoints. 	Site Manager / FSA Site Supervisor
Lighting	<ul style="list-style-type: none"> Only install hazard lighting that complies with CASA requirements. 	Site Manager
	<ul style="list-style-type: none"> Minimise the use/installation of lighting across the Project in order to minimise the impact of off-site lighting to neighbours; External lighting associated with the development (apart from any aviation hazard lighting) should be low intensity lighting (except where required for safety or emergency purposes); Lights should not shine above the horizontal; Light design should use best management practice for bat deterrence; and Light design should comply with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version." 	Site Manager

Appendix C6 – Soil and Water Management Guideline

C6.1 Background

The purpose of this Soil and Water Management Guideline is to detail the requirements for soil and water management in accordance with the development consent.

C6.2 Water supply

The Applicant will ensure that it has sufficient water for all stages of the development; and if necessary, adjust the scale of the development to match its available water supply.

Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.

A Water Access Licence (WAL) would be obtained if water is required to be extracted (eg. from surface water or groundwater) for construction or operational purposes.

It is noted that water for operational purposes is sourced from on-site rain water tanks.

C6.3 Erosion and sediment management

In accordance with Condition 16 of Schedule 3 of the development consent, BWF and the EPC Contractor will ensure that ensure the wind turbines and ancillary infrastructure, particularly any access roads on steep slopes, are designed, constructed and maintained to minimise any soil erosion.

The design of the wind farm has been completed by the EPC Contractor and incorporates features to ensure soil erosion is minimised. This has included design of the drainage network, waterway crossings, diversion controls, and stabilisation and rehabilitation measures.

A Soil and Water Management Plan has been developed and implemented for the construction phase of the development (refer to Table 5-1 of the EMS). Erosion and Sediment Control Plans are developed and implemented to minimise soil erosion in accordance with relevant mitigation measures in Managing Urban Stormwater: Soils and Construction (Landcom, 2004), or its latest version. Erosion and sediment control inspections are undertaken by the EPC Contractor in accordance with the EMS Section 7.1 (Monitoring).

During the operation of the development, BWF will be responsible for monitoring the infrastructure to ensure that the permanent erosion and sediment controls, drainage network and rehabilitated areas are maintained to ensure that erosion and sedimentation is minimised.

The BWF Site Manager will perform a site inspection following significant rain events (>20mm in 24 hours) to identify any areas of erosion or damage to controls. The outcomes will be recorded on an inspection form and any required corrective actions raised through the CWPR Corrective Action Register.

In relation to the Decommissioning phase of the development, an Erosion and Sediment Control Plan will be developed and will incorporate relevant mitigation measures in Managing Urban Stormwater: Soils and Construction (Landcom, 2004), or its latest version.

C6.4 Waterway crossings

In accordance with Condition 16 of Schedule 3 of the development consent, waterway crossings have been constructed in accordance with the:

- Water Guidelines for Controlled Activities on Waterfront Land (2012), or its latest version; and;
- Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2004), or its latest version;

C6.5 Hazardous materials and pollution management

As detailed in Section 6.6 of the EMS, a Pollution Incident Response Management Plan (PIRMP) has been prepared by BWF in accordance with the requirements of the POEO Act. The PIRMP minimises the risk of a pollution incident by firstly identifying risks, putting measures in place to reduce the likelihood of an incident occurrence, and finally planning and practising the response to a pollution incident.

Refer to the PIRMP for details of hazardous material storage, measures for minimising spills of hazardous materials or hydrocarbons, and pollution incident response procedures.



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