

Flyers Creek Wind Farm

Operations Environmental Management Plan



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1. Document Control

The Iberdrola Australia Limited (Iberdrola) Operations Manager is responsible for the revision and update of this Operation Environmental Management Plan (OEMP). A new revision date is required with any updates or revisions, and all major revisions will be circulated to those on the Distribution List once the revision has been approved by Matt Dickie (Iberdrola Executive General Manager Operations & Projects).

1.1 OEMP Review

This OEMP will be reviewed formally at least on an annual basis by the Operations Manager in consultation with the Iberdrola Quality, Health, Safety & Environment (QHSE) Manager Operations and Iberdrola Site Manager for Flyers Creek Wind Farm (FCWF of 'the Project'), and other stakeholders as required. Review will also take place immediately after any significant incident or change to the activities, products or services or material changes in the operating conditions.

This OEMP has been developed during construction of the wind farm. Therefore, this OEMP is subject to change throughout the life of the FCWF as new or updated information about the maintenance and operational phase of the wind farm develop.

Version	Date	Description	Author	Reviewed	Approved
For review	12/10/2024	For Iberdrola review prior to Department submission.	Cynthia do Nascimento (Jacobs)	Damien Wagner (Jacobs)	Josh Fitzgerald
01	19/05/2025	Address DPHI comments	Damien Wagner (Jacobs)	Josh Fitzgerald (Iberdrola)	Shane Kelly (Iberdrola)

1.2 Distribution List

Company	Position / Role
Iberdrola	Site Manager
Iberdrola	Operations General Manager
Iberdrola	QHSE Manager Operations
General Electric International Inc.	Regional Manager
General Electric International Inc.	Site Supervisor
NSW Department of Planning and Environment	Representative
Blayney Shire Council	Representative
Cabonne Shire Council	Representative



1.3 Key Emergency Service Contact Details

Organisation	Telephone Number
All Emergencies (fire, ambulance, police)	000
Bushfire information line	1800 679 737
HAZMAT (Chemical Spills)	000
NSW State Emergency Services (storms, floods and tsunamis)	13 25 00
NSW Rural Fire Service (bush fire related incidents)	1800 679 737
Injured wildlife – WIRES	1300 094 737
Blayney District Hospital – 3 Osman Street	000 (Accident & Emergency (02) 6368 9000)
Orange Health Service – 24 hour	(02) 6369 3000
Poisons Information Centre	13 11 26
Orange Snake Service – Venomous snake removal	0414 945 124

1.4 Other Key Environmental Contact Details

Organisation	Telephone Number	To be notified when...
NSW Department of Planning and Environment	Planning 1300 420 596 Environment and Heritage 1300 361 967	Any enquiries, requests or non-compliance with approval conditions or any proposed departure from the conditions of Project Approval.
Environment Protection Authority NSW	13 15 55	Any enquiries, requests or non-compliance (including notifiable incidents) with approval conditions or any proposed departure from the conditions of Environmental Protection Licence.
Blayney Shire Council	(02) 6368 2104	Major hazardous substance spills or erosion events, especially those that impact upon waterways within Blayney LGA.
Cabonne Shire Council	(02) 6392 3200	Major hazardous substance spills or erosion events, especially those that impact upon waterways within Cabonne LGA.

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2.Executive Summary

This OEMP has been prepared by Iberdrola Australia Limited (Iberdrola), to establish the management framework for environment issues relating to the operation phase of the FCWF.

Iberdrola will comply with conditions listed within the NSW Minister for Planning's Project Approval (MP 08_025) issued on 4 March 2014. Details of modifications (to date) to these conditions are as follows:

- Modification (Mod) 1 – determined on 13 March 2015 – Change in time frame permitted for satisfaction of the Deferred Commencement Conditions from 12 months to 18 months;
- Mod 2 – determined on 14 September 2015 – Removal of approved transmission line from the wind farm substation to the electricity network from Flyers Creek Wind Farm;
- Mod 3 – determined on 30 November 2017 – Reduction in the number of turbines from 42 to 38 and removal of associated land; an alternative alignment for the approved 33 kilovolt (kV) overhead power line; and minor changes to access tracks and cabling;
- Mod 4 – determined on 22 August 2019 – Increase to wind turbine envelope, reinstatement of 132 kV power line and switching station to connect the wind farm to the electricity grid, and minor clarifications to project components; and
- Mod 5 – determined on 15 October 2021 – Increase the maximum width of a section of the cleared easement corridor from 45m to 70m and minor realignment of the 132kV power line route.

In general terms, these conditions are required to (see page 1 of the Project Approval):

- Prevent, minimise, and/or offset adverse environmental impacts;
- Set standards and performance measures for acceptable environmental performance;
- Require regular monitoring and reporting; and
- Provide for the ongoing environmental management of the Project.

An Environment Protection Licence (EPL) administered by NSW Environment Protection Agency (EPA) under the Protection of the Environment Operations Act (NSW) has been obtained for the operational phase of the project. EPL 21404 sets out conditions which will be complied during operations at FCWF.

All persons involved in the operation phase of FCWF shall undertake their respective activities in accordance with the relevant requirements of this OEMP, this includes employees, contractors and sub-contractors. Awareness of relevant requirements shall be included within a site-specific health, safety and environment induction and / or through other appropriate forums such as toolbox talks.

This OEMP shall be read in conjunction with all related FCWF Health, Safety, and Environmental (HSE) documents as well as other associated FCWF management plans implemented by Iberdrola or General Electric International Inc (GE).

The environmental impacts addressed in this OEMP reflect the scope and level of environmental protection and care and authorisations obtained during the operation phase of the project. It



formalises the processes and procedures which will ensure compliance with the obligations set out in these documents, and that the appropriate levels of environmental standards are achieved.



3. Definitions

Term	Meaning
CEMP	Construction Environmental Management Plan
CoA	Conditions of the Project Approval MP 08_0252
DPHI" or "the Department"	NSW Department of Planning, Housing and Industry which can modify its name from time to time, , however it is commonly known as Department of Planning or "the Department"
EA	Environmental Assessment
EPA	NSW Environment Protection Authority
EPC	Engineer, Procure and Construct (Contract)
EPL	Environment Protection Licence
FCWF or "the Project"	Flyers Creek Wind Farm
FCWFPL	Flyers Creek Wind Farm Pty Ltd, the Proponent of Flyers Creek Wind Farm
GE	General Electric International Inc, the counterparty to the Operation and Maintenance Agreement with Iberdrola in respect of the maintenance of WTG
HSE	Health, Safety and Environment
Iberdrola	Iberdrola Australia Limited
Incident (as per conditions of consent)	A set of circumstances that: - causes or threatens to cause material harm to the environment; and/or - breaches or exceeds the limits or performance measures/criteria in this approval
JHA/SWMS	Job Hazard Analysis or Safe Work Method Statement, a document that identifies and ranks the likelihood and severity of any potential risks and determines control measures required to mitigate those risks
kV	kilovolt
Material harm to the environment (as per Project Approval and EPL)	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 of 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)
Mod	Modification
MW	Megawatt
OEH	NSW Office of Environment and Heritage
OEMP	Operation Environmental Management Plan
Pollution Incident (as per Protection of the Environment Operations Act 1997)	An incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.
Project Approval	Project Approval MP 08_0252 dated 14 March 2014
Site	The area defined for the Flyers Creek Wind Farm
SSD	State Significant Development
Subcontractor	Any company, body or person who is contracted to GE, or Iberdrola, for the purpose of supplying goods and/or services
WTG	Wind Turbine Generator

4. Introduction

4.1 Background

The FCWF is a 145 megawatt (MW) wind project situated approximately 20 km south of Orange NSW in central-west New South Wales (NSW). The Project footprint is located predominantly in the Local Government Area (LGA) of Blayney Shire Council, with part of the transmission line and switching station located in Cabonne Shire Council LGA. The FCWF regional and locality maps are illustrated in Figure 4-1 and Figure 4-2.

FWCF is a mixture of cleared grazing land and scattered woodland. The topography of the locality is typically undulating and rolling low hills, but also includes steep, densely vegetated ranges and extensively cleared, flat grazing lands.

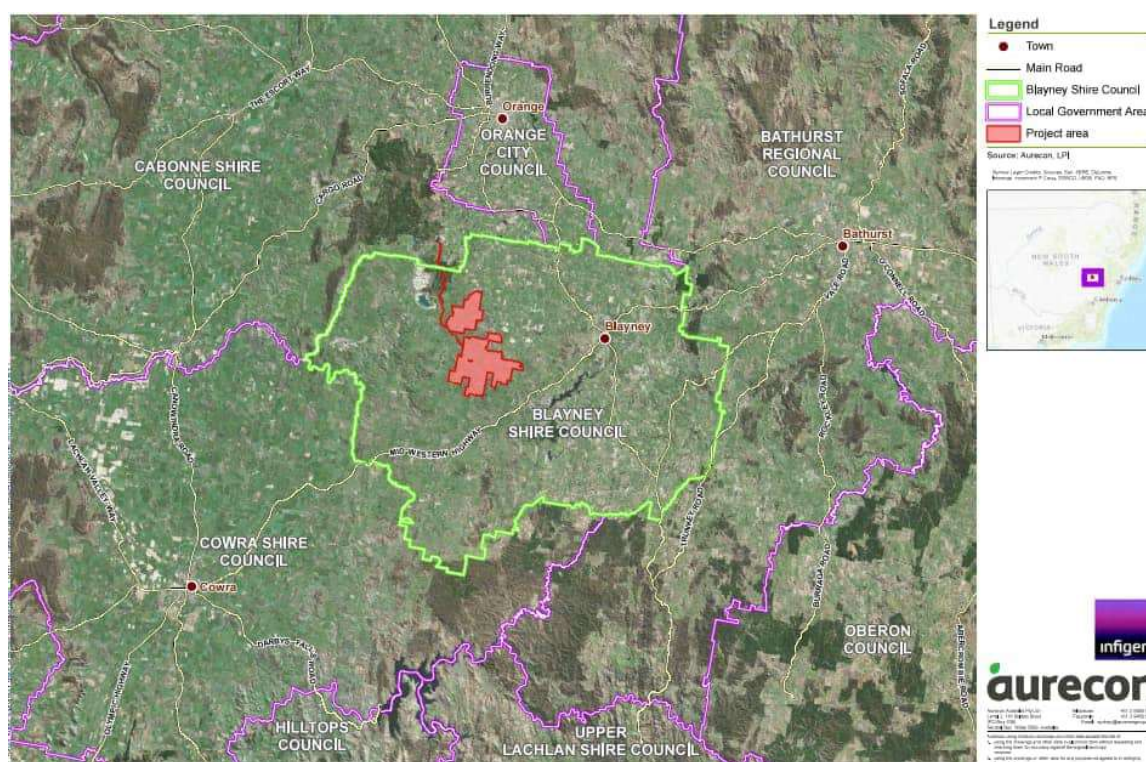


Figure 4-1: Project regional location



Figure 4-2: Project locality map

4.2 Project Description

4.2.1 Project Approval

The Project Approval MP 08_0252 was granted under Part 3A of the NSW Environmental Planning and Assessment Act 1979 by the NSW Planning and Assessment Commission on 14th March 2014.

The Project Approval has been modified 5 times since originally being granted and was transitioned to State Significant Development (SSD) on 6th July 2018. The summary of modifications, as extracted from the Consolidated Consent MP 08_0252, is provided below:



- Mod 1 – determined on 13th March 2015 – Change in time frame permitted for satisfaction of the Deferred Commencement Conditions from 12 months to 18 months;
- Mod 2 – determined on 14th September 2015 – Removal of approved transmission line from the wind farm substation to the electricity network from Flyers Creek Wind Farm;
- Mod 3 – determined on 30th November 2017 – Reduction in the number of turbines from 42 to 38 and removal of associated land; an alternative alignment for the approved 33 kV overhead power line; and minor changes to access tracks and cabling;
- Mod 4 – determined on 22nd August 2019 – Increase to wind turbine envelope, reinstatement of 132kV power line and switching station to connect the wind farm to the electricity grid, and minor clarifications to project components; and
- Mod 5 – determined on 15th October 2021 – Increase the maximum width of a section of the cleared easement corridor from 45m to 70m and minor realignment of the 132kV power line route.

The Consolidated Consent MP 08_0252 includes all the modifications to the original determination instrument and associated Conditions of Approval.

4.2.2 Site Layout and Components

The Project encompasses the operation of a wind farm with 38 turbines model GE 3.8-137 and associated infrastructure, which includes the following:

- 33kV underground HV cables
- Overhead lines
- Site building containing
 - Batteries
 - Switch gear
 - Communication equipment
 - Workstations
- Pad-mounted Transformers
- Fence around transformer and O&M site building
- 2 x 20,000L Water Tanks (Switching station)
- 2 x 22,500L Water Tanks (Substation)
- Access tracks
- On-site substation inclusive of switch room
- 132kV transmission line and switching station connecting the project to the grid.

The Project layout plan is shown in Figure 4-3 below.

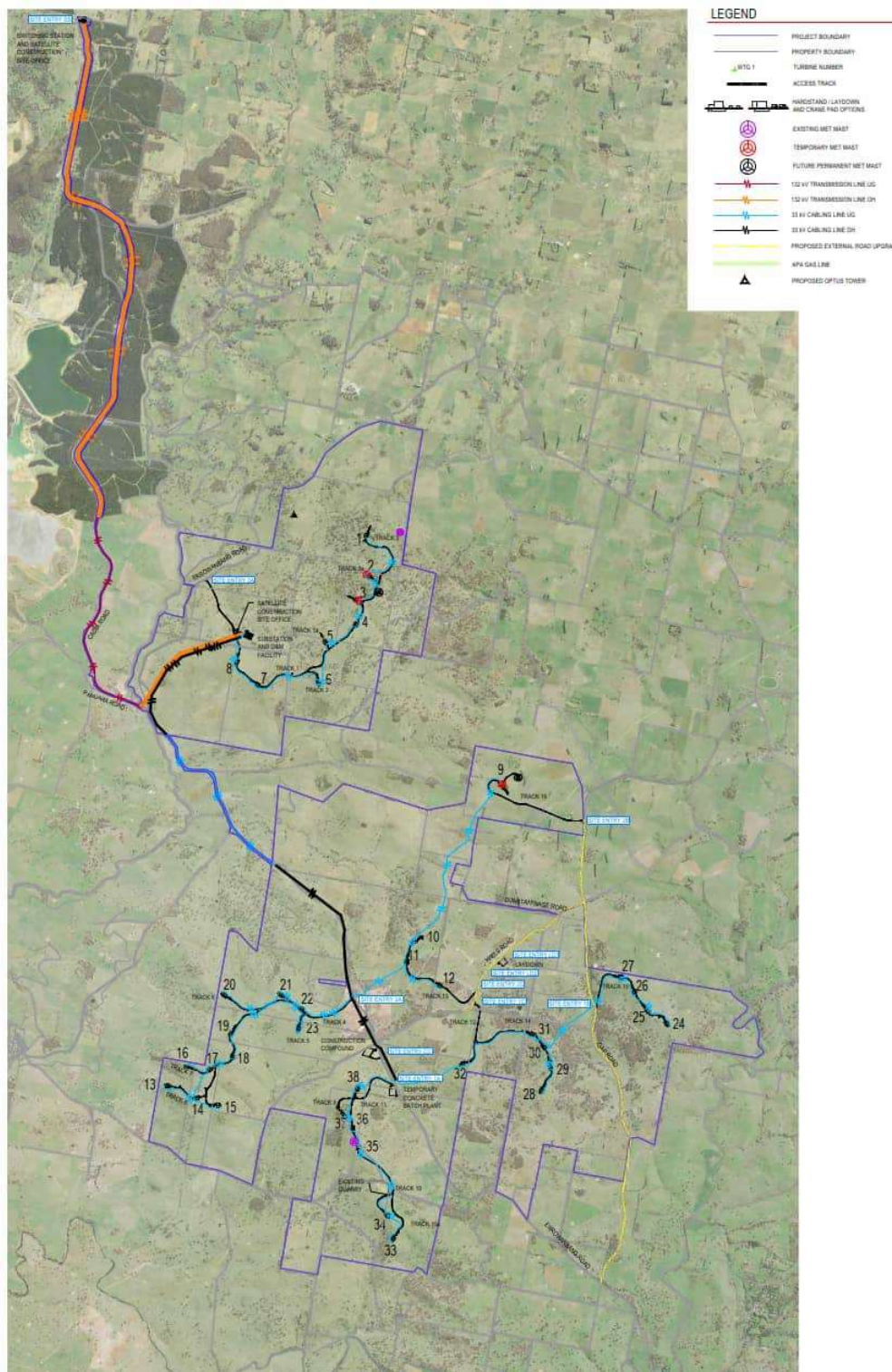


Figure 4-3: Project Layout



4.2.3 Operational Activities

GE International Inc. (GE) has been contracted to carry out the service and maintenance of the WTG during the operational phase. All other activities will be performed and managed by Iberdrola.

The key activities to be undertaken during operations are:

- Generation and supply of electricity to the grid
- Scheduled turbine maintenance
- Unscheduled turbine repairs and maintenance
- Maintenance and repairs of Balance of Plant (civil, electrical and facility)
- Landscaping and weed management
- Dangerous goods storage and refuelling
- Fire safety management
- Waste management
- Bird and bat adaptive management
- Stakeholder management.

Maintenance activities will include monitoring of equipment, lubrication, cleaning, repairs, replacement of worn or broken parts; maintenance of access tracks; and transport of parts, tools and equipment.

The FCWF is expected to have an operating life of 30 years. Daily operations and maintenance by site staff will be undertaken indicatively during standard working hours of:

- Monday to Friday: from 7 am to 6 pm
- Saturday: from 8 am to 1 pm.

Night works or work on Sundays or public holidays would be avoided, except in the event of emergencies or major asset inspection or maintenance programs.

4.2.4 Commissioning and Partial Operations

As part of the Project's transition out of Construction, commissioning and staged Operations are planned to occur between end-October and end-January 2024 pending Hold Point (HP) testing and approval from the Australian Energy Market Operator (AEMO). The wind farm is anticipated to be fully operational by mid 2025.

Energisation and commissioning of the WTGs will occur prior to the HP testing. To confirm success, Flyers Creek Wind Farm Pty Ltd (FCWFPL), the Proponent of the Project, will undertake pre-HP testing 3-5 days prior to AEMO testing. Partial energy generation of the turbines involves reduced rates of blade rotation, however, Project Conditions of Approval will still be triggered (e.g. bird and bat monitoring, and impacts to existing television, radio and telephone/internet transmission quality (if any)). Refer to Appendix H for applicability of Conditions of Approval to the relevant Project phase.



4.3 Flyers Creek Wind Farm Pty Ltd

Any Iberdrola Australia Ltd (Iberdrola) management systems, policies or procedures that are referred to in this document apply equally to FCWF for the purposes of this OEMP.

4.4 Purpose and Objectives

The purpose of this OEMP is to:

- Provide a management framework that aims to control potential operational impacts on the environment. It includes practical and achievable performance requirements, mitigation strategies, a system of monitoring, reporting and auditing, and process for implementation of corrective actions.
- Ensure all operations staff are made aware of the potential operational impacts on the environment, and the associated management strategies in which they are expected to conduct their activities
- Provide evidence of compliance with the development conditions of consent, relevant legislation, policies, guidelines and requirements to Local, State and Commonwealth Authorities, and
- Provide stakeholders with the assurance that the operation of the site is being managed in an environmentally acceptable manner.

The objectives of this OEMP are to:

- Provide for the effective management of the environmental concerns and potential adverse environmental effects arising from FCWF
- Assign management responsibilities and to define reporting requirements
- Identify appropriate impact mitigation measures and management strategies in response to potential adverse environmental effects, and
- Establish a system to test the effectiveness of environmental management actions implementation, by way of audits and inspections.

The scope of the development and its environmental management will be undertaken in accordance with the Conditions of Approval (CoA) listed within the Planning Approval MP 08_0252 as modified. Key references that contributed to the contents of this plan are:

- FCWF Project Approval MP 08_0252
- Environmental Assessments submitted as part of the Project Approval and any subsequent modifications
- Environmental risk analysis.

This OEMP has been prepared to address the Project Approval Condition G11, which requires the description of the environmental management practices and procedures that will be implemented



during the operational life of the wind farm. This OEMP must be read in conjunction with the following documents:

- FCWF Emergency Response Plan
- FCWF Bird and Bat Adaptive Management Program
- FCWF Bushfire Management Plan
- FCWF Workplace Health and Safety Management Plan

The OEMP has been prepared in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004) and is subject to review and written approval by the Secretary of Department of Planning and Environment (DPHI) prior to commencement of operations.

Upon approval, the OEMP will be made publicly available on the FCWF website as soon as practicable.

4.5 OEMP Requirements

DPHI has provided clear guidance for the project environmental management requirements through the Project Approval Conditions and expects FCWFPL to maintain systems that ensure compliance with these conditions and all associated approvals, permits, licences and agreements.

The Project Approval Condition G11 sets out the requirements for this OEMP. Table 4-1 below provides the OEMP conditions as per the Project Approval and a summary of compliance requirements for FCWFPL. The full Project Approval conditions can be found [Flyers Creek Wind Farm | Planning Portal - Department of Planning and Environment \(nsw.gov.au\)](https://www.dpe.nsw.gov.au/flyers-creek-wind-farm/planning-portal).

Table 4-1: OEMP Project Approval Compliance

COA	DESCRIPTION OF CONDITION	IBERDROLA COMPLIANCE
G11	Prior to the commencement of operation, or as otherwise agreed by the Planning Secretary, the Proponent shall prepare and implement (following approval) an Operation Environmental Management Plan for the Project.	This OEMP will be provided to the Secretary prior to operations for approval.
	The Plan shall outline the environmental management practices and procedures that are to be followed during operation, and shall be prepared in consultation with relevant agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004).	This OEMP has been prepared and is aligned to the referenced Guideline. See Appendix G for OEMP compliance checklist completed by Iberdrola HSE Manager. This OEMP will be provided to relevant agencies for consultation.
	The Plan shall include, but not necessarily be limited to:	
	(a) a description of activities to be undertaken during operation of the Project (including staging and scheduling);	The description of activities associated to the operational phase is outlined in Section 4.2.3.
(b)	statutory and other obligations that the Proponent is required to fulfil during operation, including approval / consents, consultations and agreements required from authorities and other stakeholders under key legislation and policies;	Throughout the document.
(c)	overall environmental policies, guidelines and principles to be applied to the operation of the Project;	Throughout the document.
(d)	a description of the roles and responsibilities for relevant employees involved in the operation of the Project, including relevant training and induction provisions for ensuring that employees are aware of their environmental and compliance obligations under these Conditions of Approval;	Sections 5.2 and 5.20
(e)	an environmental risk analysis to identify the key environmental performance issues associated with the	Section 5.14 Appendix F



	operation phase of the Project; and	
(f)	acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts, including those safeguards and mitigation measures detailed in the EA (and any impacts arising from the staging of the construction of the Project).	Throughout the document.

COA	DESCRIPTION OF CONDITION	IBERDROLA COMPLIANCE
G11	The Plan shall be submitted for the approval of the Planning Secretary no later than one month prior to the commencement of operation, or as otherwise agreed by the Planning Secretary. Operation shall not commence until written approval has been received from the Planning Secretary. Upon receipt of the Planning Secretary's approval, the Proponent shall make the Plan publicly available as soon as practicable.	This OEMP will be submitted for the approval of the Planning Secretary. Instructions for obtaining a copy of the current version of OEMP will be on Iberdrola's public website www.Iberdrolaenergy.com.au

FCWFPL has the responsibility to oversee the environmentally responsible implementation of the Project and requires its contractors to conduct all its operations in accordance with the relevant requirements. To ensure compliance, FCWFPL and contractors must have:

- Identified the approval and other statutory requirements
- Allocated responsibilities for management of issues
- Reviewed the proposed activities in the context of potential impacts
- Developed suitable environmental management controls to mitigate the project's impacts.

Details regarding the frequency and scope of environmental monitoring and recording, the complaints management process, and the emergency/incident response procedures can be found in the management sub-plans contained within this document.

4.6 OEMP Implementation Period

The Project Construction Environmental Management Plan (CEMP) will remain in force for the FCWF until Practical Completion is achieved for the EPC contract. At that time, responsibility for the operations and maintenance will be transferred to Iberdrola O&M and GE O&M (as applicable) and the FCWF Operational Environmental Management Plan (OEMP) will take effect until FCWF is decommissioned.

During the Project construction phase, Section Completion will be completed in four (4) stages at FCWF, whereby operation and maintenance activities of the wind turbines, and only the wind turbines, become the responsibility of the GE O&M team. At the time at which each section is formally handed over to the GE O&M team (i.e. section Completion), the OEMP will be the governing document for environmental management of the turbines in the section. The OEMP will be relevant to operation of the turbines, personnel engaged, and the equipment used for operational activities. Once the OEMP is in force any corresponding elements of the CEMP will no longer apply.

4.7 Consultation

The OEMP incorporates management plans and sub-plans prepared to address the Conditions of the Project Approval, commitments made by FCWF under the Project Approval and EPL



conditions. Where appropriate, stakeholders were consulted with, and their comments and feedback were incorporated into respective management plans / sub-plans before submission to the satisfaction of DPHI.

4.8 GE Site Specific Service Environment Management Plan

GE is responsible for the development and implementation of a site-specific Environment Management Plan (EMP) which shall govern operations and maintenance activities, subcontractors and suppliers within their scope, control and influence in relation to the environment. GE's EMP will be consistent with the requirements of this OEMP.

5. Environmental Management

5.1 Environmental Policy

Iberdrola is guided by the Group's Environment Policy. To implement the Group's commitment to the environment and boost environmental sustainability, the following principles apply to all its activities:

- Develop a sustainable model that is respectful of nature, biodiversity, and historical and cultural heritage
- Meeting or exceeding legal and applicable environmental standards
- Apply the principles of avoid, mitigate, or offset in all activities
- Promote innovation through research and support for the development of new technologies and best environmental practices
- Use natural capital sustainably
- Conserve, protect and promote the development and growth of natural heritage.

All personnel are required to comply with all environmental requirements as outlined in this OEMP, including, but not limited to, site employees, subcontractors and suppliers.

GE shall have in place an Environmental Policy within its own environmental management system, and the commitments within this policy will be communicated to all employees, subcontractors, and stakeholders. This will be achieved through site inductions for all personnel regularly working or visiting the site. Records of personnel who have undertaken induction will be kept on-site.

5.2 Structure and Responsibility

The Project Approval has been granted for FCWFPL with ultimate responsibility for the project implementation resting with Iberdrola. GE has been engaged by Iberdrola to maintain the WTG on



its behalf to the extent of the contract arrangement.

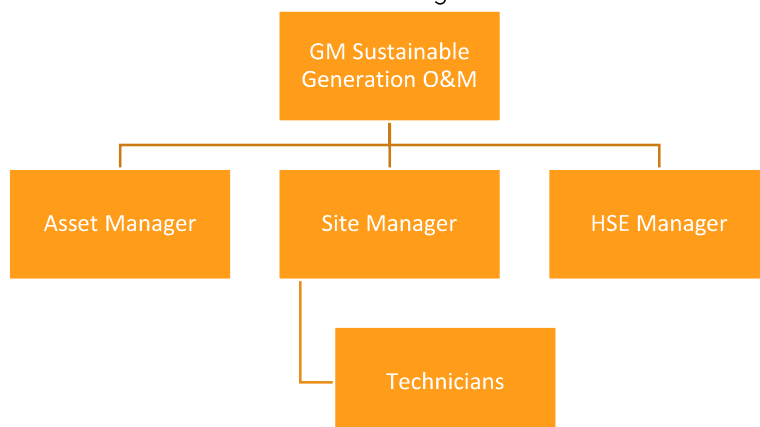


Figure 5-1 below displays the FCWF environmental management organisation structure as predicted at the time of developing this OEMP. Finalisation of the organisation chart will be made by Iberdrola upon receiving any further information.

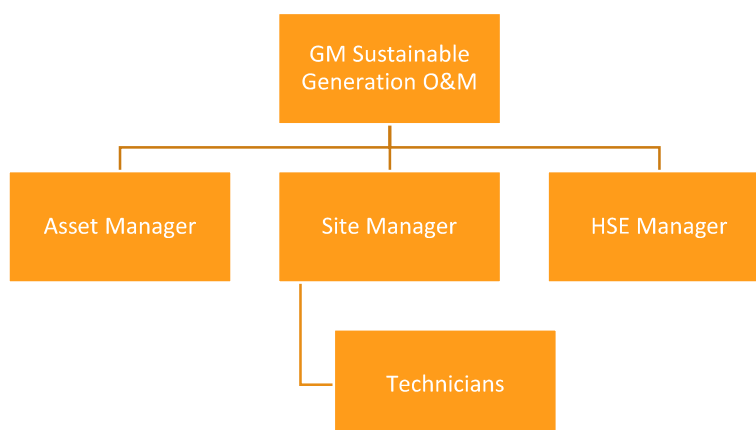


Figure 5-1: FCWF Environmental Management Structure.

All personnel on site have responsibilities and obligations to minimise impacts on the environment, and to work safely and maintain a healthy working environment for themselves, fellow workmates and the public. The responsibilities of key Iberdrola personnel include, but are not limited to:

5.2.1 O&M GM Sustainable Generation (off-site)

It is the responsibility of the O&M GM Sustainable Generation (hereafter referred to as 'Operations Manager') to ensure that sufficient resources are available to implement, develop and maintain this OEMP throughout the life of the wind farm. This role will ensure actions and delegations have been completed to introduce and manage systems to meet Iberdrola's project and corporate requirements. The Operations Manager reports to the Project Owner.

The role of the Operations Manager is to:



- Ensure that adequate resources are available for the implementation of this OEMP
- Assist in setting, defining and communicating the environmental goals and targets
- Ensure that environmental matters relating to the wind farm are reported to relevant personnel and are included in the agenda of management meetings
- Define, document and communicate roles, responsibilities and authorities of all personnel involved in the environmental system in order to facilitate effective HSE management
- Oversee the development, approval, implementation and review of this OEMP
- Ensure contractors are fully aware of their environmental obligations prior to entering into construction contracts
- Implement stop work procedures where they believe a work activity to be an actual or potential cause of pollution to the environment
- Ensure that key personnel for the wind farm are inducted into this framework.

5.2.2 O&M QHSE Manager (off-site)

The O&M Service QHSE Manager (hereafter referred to as 'QHSE Manager') reports to the Operations Manager. The role of the QHSE Manager is to:

- Provide environmental management advice and support the Site Manager
- Assist with environmental monitoring, reviews and audits as required
- Monitors environmental performance at the site
- Assist with environmental incident investigations
- Direct construction teams and personnel to take reasonable measures to prevent or minimise any material harm to the environment.

5.2.3 O&M Site Manager (on-site)

The O&M Site Service Manager (hereafter referred to as 'Site Manager') is responsible for the practical day-to-day implementation of this plan and reports to the Operations Manager. The Site Manager will:

- Plan and organise operations to reduce the risk of adverse environmental impacts
- Ensure operations comply with all relevant regulatory and project requirements
- Notify the Operations Manager of any required operations or changes to site conditions outside the limits of the applicable project approvals/permits/plans to seek the necessary approvals
- Report all environmental incidents and near misses with significant potential to the Operations Manager
- Direct construction teams (i.e. maintenance teams) and personnel to take reasonable measures to prevent or minimise any material harm to the environment



- Conduct or participate in regular site environment inspections
- Participate in incident/hazard investigations where appropriate
- Foster a continuous improvement approach to all HSE matters
- Implement stop work procedures where they believe a work activity to be an actual or potential cause of pollution to the environment.

5.2.4 O&M Site Technicians (on-site)

The O&M Site Technicians (hereafter referred to as 'Site Team') report to the Site Manager. The role of the O&M Site Technicians is to:

- Identify and treat environmental risks before commencing works each day and prevent any material harm to the environment
- Participate in environmental reviews and audits as required for relevant service areas
- Ensure servicing comply with all relevant regulatory and project requirements
- Provide environmental documentation and records for relevant service areas
- Implement and comply with the applicable environmental management measures
- Report on environmental performance at the site for relevant service areas
- Report any environmental incidents (potential and/or actual) in a timely manner.

5.2.5 All Personnel

All personnel must carry out their work in a manner consistent with Iberdrola's Health and Safety and Environment Policies. All personnel are responsible for the environmental impacts of their own actions and have a duty to carry out their work in a manner which does not present a risk to the environment. All personnel are required to report any deviation from the conditions anticipated in this OEMP and report environmental incidents and risks to the Site Manager.

No personnel may interfere, intentionally or recklessly, with environmental controls at the site. This includes interference by way of practical jokes and skylarking. Any such interference will not be tolerated and may lead to counselling or other actions including and up to removal from the site.

5.3 SAFETY MANAGEMENT SYSTEM

The Project Approval Condition G2 requires that at least two months prior to the commencement of commissioning, the Proponent shall prepare a report outlining a comprehensive Safety Management System, covering all on-site systems relevant to ensuring the safe operation of the Project. The System shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept at the site and shall be available for inspection by the Department upon request. The Safety Management System shall be developed in accordance with the Department's Hazardous Industry Planning Manager Paper No. 9, 'Safety Management' and should include:

- (a) procedures and programs for the maintenance and testing of the safety related equipment to ensure its integrity over the life of the Project



- (b) an outline of a documented procedure for the management of change.

FCWF Workplace Health and Safety Management Plan has been prepared and developed in accordance with the Department's Hazardous Industry Planning Manager Paper No. 9.

5.4 Environment Protection Licence

The EPL No. 21404 issued by EPA covers two stages to the scheduled development works:

- Stage 1: Construction & Commissioning
- Stage 2: Operation of wind turbines (annual generating capacity of 0 to 450 Gigawatt-hour).

The EPL Condition A1.2 states that Iberdrola can only progress with Stage 2: Operation of wind turbines if the licence is varied accordingly. An EPL variation request, will be submitted to EPA prior to the commencement of operations.

It is noted that the licence encompasses conditions applicable to the operational phase, including pollution prevention, monitoring and reporting. A copy of EPL 21404 is publicly available on the EPA public register and on Iberdrola's website. Aligned with EPL Condition G1, a copy of the licence will be kept at the wind farm premises and available to any authorised officer of the EPA who asks to see it and for inspection by any employee or agent of the licensee working at the premises.

5.5 Records of Electricity Generation

The Project Approval Condition C8 states that if any wind turbine is not used for the generation of electricity for a continuous period of 12 months, it shall be decommissioned by the Proponent, unless otherwise agreed by the Planning Secretary. The Proponent shall keep independently verified annual records of the use of wind turbines for electricity generation. Copies of these records shall be provided to the Planning Secretary upon request. The relevant wind turbine and any associated infrastructure is to be dismantled and removed from the site by the Proponent within 18 months from the date that the wind turbine was last used to generate electricity.

FCWF will maintain independently verified annual records of the use of wind turbines for electricity generation and provide copies of these records to the Planning Secretary upon request.

5.6 Voluntary Planning Agreement

The Project Approval Condition C16 requires that from the date of the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must implement the Voluntary Planning Agreement (VPA) executed with Blayney Shire Council on 22 October 2015.

FCWF will continue to implement the VPA executed with Blayney Shire Council on 22 October 2015.

5.7 Biodiversity Offset Package

The Project Approval Condition D6 requires the retirement of the required biodiversity credits in accordance with the NSW Biodiversity Offsets Scheme within 2 years of the commencement of construction.



The construction phase commenced on 4th April 2022 as per notice issued to the DPHI. Iberdrola has completed the retirement of the projects biodiversity credits in accordance with Condition D6.

5.8 Notification to the Planning Secretary

The Project Approval Condition C10, requires that prior to the commencement of the construction, operation and/or decommissioning of the Project or the cessation of operations, the Proponent must notify the Department in writing of the date of commencement or cessation. If the construction, operation and/or decommissioning of the Project is to be staged, the Proponent must:

- (a) notify the Department in writing prior to the commencement of the relevant stage, and clearly identify the development that would be carried out during the relevant stage
- (b) inform the local community and the Community Consultation Committee (CCC) about the proposed staging plans.

Operations will not commence until written approval has been received from the Planning Secretary. Upon receipt of the Planning Secretary's approval, Iberdrola will inform the local CCC and make the plans publicly available on FCWF's website as soon as practicable.

5.9 Community Consultative Committee

The Project Approval Condition E1 requires the operation of a CCC from the commencement of construction and to the satisfaction of the Planning Secretary, in accordance with the Community Consultative Committee Guidelines for State Significant Projects (2016), or its latest version.

A CCC for the FCWF was established in 2012 and will continue to function during the operation of the wind farm. The Committee is made up of local representatives and meets quarterly to provide local advice to Iberdrola. The meeting minutes are publicly available on Iberdrola's website.

5.10 Provision of Electronic Information

The Project Approval Condition E4 requires the Proponent to establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the Project, for the life of the Project. The Proponent shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to:

- (a) information on the current implementation status of the Project
- (b) a copy of the environmental assessment and any documentation supporting modifications to the Project Approval that may be granted
- (c) a copy of the Project Approval and any future modification to the Approval
- (d) a copy of each relevant environmental approval / consent, licence or permit required and obtained in relation to the Project
- (e) a copy of each current strategy, plan, program or other document required under the Project Approval



FCWF Project page has been established in Iberdrola's website and will be maintained for the life of the Project. Link to assess FCWF Project page is: <https://www.infigenenergy.com/our-assets/owned-renewable-energy-assets/flyers-creek-wind-farm/>

5.11 Complaints

The Table below details the Conditions outlined in the Project Approval and EPL applicable to complaints management during operations and where these have been addressed:

COA	MITIGATION MEASURE	IBERDROLA COMPLIANCE
Project Approval		
E2	<p>Prior to the commencement of construction, or as otherwise agreed by the Planning Secretary, the Proponent shall ensure that the following are available for community enquiries and complaints for the life of the Project (including construction and operation) or as otherwise agreed by the Planning Secretary:</p> <ul style="list-style-type: none"> (a) a 24 hour telephone number(s) on which complaints and enquiries about the Project may be registered; (b) a postal address to which written complaints and enquires may be sent; (c) an email address to which electronic complaints and enquiries may be transmitted; and (d) a complaints management and mediation system for complaints unable to be resolved, inclusive of a mechanism for complaints to be directed to the Department where the issue cannot be resolved by the Proponent and/or through mediation. <p>The telephone number, the postal address and the email address shall be published in newspaper(s) circulating in the local area prior to the commencement of construction and prior to the commencement of operation. This information shall also be provided on the website (or dedicated pages) required by this Approval.</p>	OEMP Section 5.11.1
E3	<p>Prior to the commencement of construction, or as otherwise agreed by the Planning Secretary, the Proponent shall prepare and implement a Complaints Management System consistent with AS 4269: Complaints Handling and maintain the System for the life of the Project.</p> <p>Information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, shall be maintained in a complaints register and included in the construction compliance reports required by this Approval. The information contained within the System shall be made available to the Planning Secretary on request.</p>	OEMP Section 5.11.1to 5.11.4
EPL		
M4.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	OEMP Section 5.11.1
M4.2	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	OEMP Section 5.11.1
M4.3	The preceding two conditions do not apply until after the date of the issue of this license.	OEMP Section 5.11.1

5.11.1 Enabling lodgement of complaints

Information for community enquiries and complaints, including Iberdrola's Complaints Handling Policy are publicly available in the Project's website. Complaints can be reported verbally (by telephone or in person) or in writing (by letter, facsimile, email or social media channels) to an employee of Iberdrola.



The Project's website provides the contact details to be used by a person seeking to make a complaint:

- Phone: 1800 917 372 (24 hours, free within Australia)
- Email: complaints@iberdrola.com.au
- Post: Level 22 Governor Phillip Tower, 1 Farrer Place, Sydney, NSW 2000

In addition, information on how to lodge a complaint will be available on-site via signage for the site personnel, contractors and visitors.

Iberdrola will publish the information required in newspaper(s) circulating in the local area upon the Secretary's approval of the OEMP and the Operations Staging Plan.

5.11.2 Registering and managing complaints

The FCWF Complaints Management Procedure has been developed for the construction, operation and decommissioning phases of the wind farm, in accordance with the Condition E2 of the Project Approval, the AS/NZS 10002:2014– 'Guidelines for complaint management in organisations', Iberdrola Australia's Complaints Handling Policy and Iberdrola's Complaint Handling Standard. This Procedure will be complied with when registering and managing complaints.

Any complaints received shall be treated seriously and with respect. Iberdrola is committed to dealing with complaints in a reasonable timeframe and commits to ensuring that people who make complaints will be:

- Provided with acceptable ways to make complaints
- Provided with information about the complaint handling process
- Listened to, treated with respect and actively involved in the complaint process
- Provided with reasons for and decisions and any options for redress or review.

All reasonable steps will be taken to ensure that people making complaints are not adversely affected because a complaint has been made by them or on their behalf. The identity of complainants will be protected where practical and appropriate, and personal information that identifies individuals will only be disclosed or used by the FCWF as permitted under the relevant, secrecy provisions and privacy laws, secrecy provisions and any relevant confidentiality obligations.

Complainants will be able to submit anonymous complaints and Iberdrola will carry out an investigation of the issues raised where there is enough information provided. If a person prefers or needs another person/organisation to assist or represent them in making their complaint, the Iberdrola will communicate with them through their representative.

Iberdrola will acknowledge the receipt of any complaint within 1 business day, or as soon as practicable, from receiving the complaint and will ensure that the person handling the complaint is different from any project person whose conduct or service is being complained about. The initial response (being the first contact made with the complainant after the complaint has been



acknowledged) for a written or verbal complaint should be provided to the complainant as soon as practicable, and normally within five business days.

Should any complaints be received by GE, they shall be reported to the FCWF Site Manager within 48 hours for recording in FCWF Complaints Register (see Section 5.11.3).

Where it is verified that the complaint is related to GE, GE shall fully investigate the complaint and undertake all practical measures to immediately modify the activity causing the impacts. GE shall complete and provide an incident report to Iberdrola within 24 hours of implementation of corrective actions.

5.11.3 Complaints Register

The Project Approval Condition E3 requires information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, to be maintained in a complaints register and made available to the Planning Secretary on request.

In addition, the Condition M3 of the EPL requires a legible record to be kept of all complaints made to Iberdrola or any employee or agent of Iberdrola in relation to pollution arising from any activity to which the licence applies. The record must include details of the following:

- (a) the date and time of the complaint
- (b) the method by which the complaint was made
- (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect
- (d) the nature of the complaint
- (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant
- (f) if no action was taken by the licensee, the reasons why no action was.

Furthermore, EPL Condition M3 requires the recording of complaints to be kept for at least 4 years after the complaint was made and produced to any authorised officer of the EPA who asks to see them.

Details of complaints received will be recorded in the Complaints Register in accordance with the requirements outlined in the Project Approval and EPL and managed in accordance with Iberdrola's Complaint Handling Standard. The Complaints Register will be available to any authorised officer of the EPA and DPHI.

5.11.4 Mediation and further action

When a complaint is not resolved within 30 working days of receipt, the following mediation and dispute resolution process will be followed:

- The Community Liaison Officer will suggest an independent Environmental Manager to the complainant and seek their agreement
- The Community Liaison Officer will engage an independent Environmental Manager

- The independent Environmental Manager will make contact with the complainant and begin the appropriate mediation process
- The Environmental Manager will prepare a written statement of any resolution for agreement with approval from Iberdrola and the complainant
- In cases where the mediation process is unsuccessful, the complainant will be advised of their rights to pursue the matter further.

Where the issue cannot be resolved by through mediation, Iberdrola will direct the complaint to the DPHI. If a complainant is not satisfied with the investigation and proposed resolution, the complainant has the right to contact the National Wind Farm Commissioner or seek legal advice.

The flowchart below (Figure 5-2) illustrates the process for receiving, registering, handling, resolving and reporting complaints, as outlined in FCWF Complaints Management Procedure:

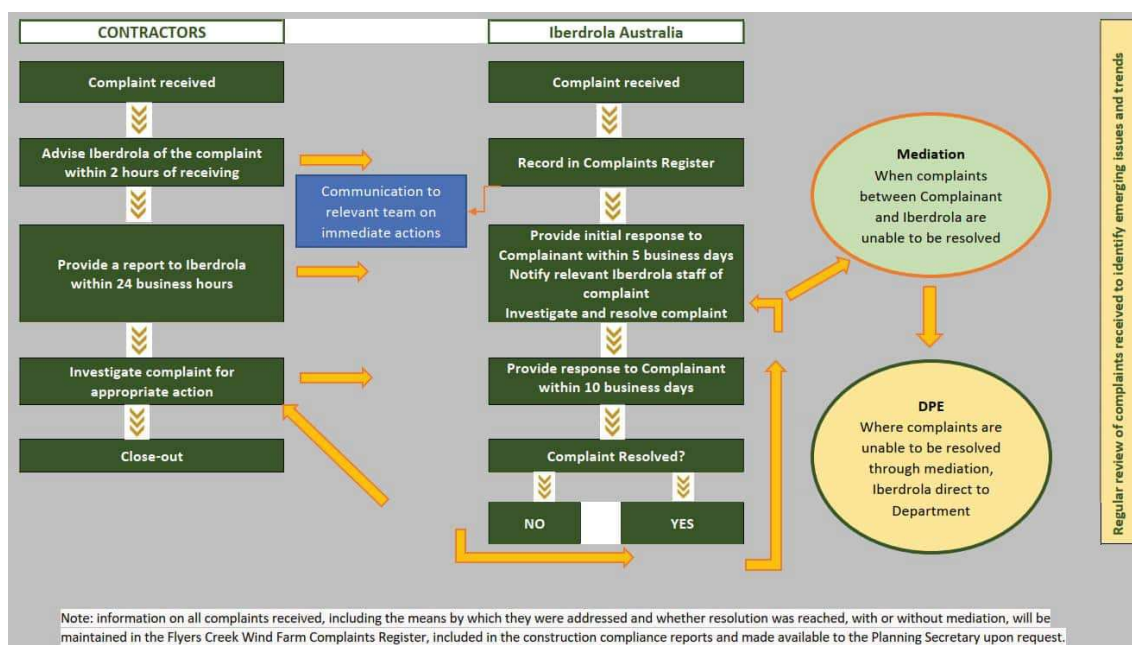


Figure 5-2: FCWF Complaints Management Flowchart

5.12 Compliance Tracking Program

The Project Approval Conditions E5 requires the implementation of a Compliance Tracking Program (CTP) to track compliance with the requirements of the Project Approval. The Program must be submitted to the DPHI Secretary for approval prior to the commencement of construction and operate for the life of the Project. The Secretary shall be provided with a copy of any updates made to the document that change the Program, and a copy of the updated version made available on the Iberdrola's public website. The approved FCWF Compliance Tracking Program (Arcadis, 23 September 2021) is publicly available on Iberdrola's website.

Aligned with the FCWF Compliance Tracking Program (Arcadis, 23 September 2021), a Compliance Report will be submitted to the Department prior to the commencement of operations and will



include a description of the works undertaken for that reporting period, a list of Project Approval Conditions specific to the Phase, a reference to where each Condition is addressed within the compliance report and the compliance status.

Once the wind farm is operational, the Compliance Tracker will be reviewed every six months during the first two years, and then may occur annually, or as required when a new Phase of development (e.g. decommissioning) commences.

5.13 Environmental Incidents

5.13.1 Registering and Managing Incidents

All incidents are to be reported and managed in accordance with [Iberdrola Incident Management Standard](#), including all near misses, injuries, plant damage etc.

An Incident Register of all environmental incidents or potential incidents (near miss) will be administered by Iberdrola. This register will be made available for inspection upon request, by appropriate regulatory authorities and Iberdrola or person/s working on behalf of Iberdrola. Incidents will be managed in accordance with [Iberdrola Incident Management and Investigation Procedure](#).

The FCWF Emergency Response Plan (ERP) sets out the minimum procedures that should be undertaken by personnel at the Site, including contractors, in the event of an emergency, which includes environmental incidents. The ERP will be adhered to throughout the operational life of the wind farm.

GE are required to have in place an incident reporting and communication protocol, reviewed by Iberdrola that will be followed in the event of an environmental incident. To ensure accurate information is provided, Iberdrola QHSE Manager will, with GE, provide notification and all subsequent communication of the incident to environmental regulatory authorities as required.

GE will ensure that an appropriate level of investigation is undertaken for all environmental incidents relating to their scope of work at FCWF. The investigation will be undertaken in a timely manner without delay and a copy provided to Iberdrola upon completion. GE shall implement a system whereby any follow up actions from these incidents can be recorded and status tracked to completion.

5.13.2 Notification of incidents

All incidents, including all near misses, injuries, plant damage etc., will be reported and managed in accordance with procedures outlined in the [Incident Management Standard](#).

The Project Approval Condition E6 states that the Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Proponent becomes aware of the incident. The notification must identify the project, including the project application number and the name of the project, and set out the location and nature of the incident.

It is noted that the DPHI no longer accepts compliance documents via the email address as stipulated in the Project Approval and as such, compliance documents (including incident notification) will be submitted online via the Major Projects Website.



Aligned with the Project Approval Condition E11, within 3 months of the submission of an incident report under condition E6, Iberdrola will review and, if necessary, revise, the strategies, plans and programs required under the Project Approval to the satisfaction of the Planning Secretary.

The Condition R2 of the EPL requires the notification of environmental harm to be made by telephoning the Environment Line service (131 555). The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

Furthermore, the Condition R2 requires Iberdrola to provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.

The Table below summarises the incident notification requirements as per Project Approval and EPL:

Table 5-1: Environmental incident notification requirements

REQUIREMENT	TIMEFRAME	METHOD	RESPONSIBILITY
Notify the incident to the DPHI, EPA and any other relevant regulatory authority.	Immediately after Iberdrola becomes aware of an incident.	DPHI: in writing via Major Projects website. EPA: by phone (131 555)	HSE Manager
Written notification of the incident to the EPA.	Within seven days after Iberdrola becomes aware of an incident	In writing, as per EPA's directions	HSE Manager

5.14 Non-Compliance

The Project Approval Condition E7 states that the Department must be notified in writing to compliance@planning.nsw.gov.au within seven days of Iberdrola becoming aware of any non-compliance with the Conditions of Approval. The notification must identify the project and the application number for it, set out the condition of approval that the project 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.

It is noted that the DPHI no longer accepts compliance documents via the email address as stipulated in the Project Approval and as such, compliance documents will now be submitted online via the Major Projects Website.

The operation of FCWF will be undertaken to avoid instances of non-compliance with this OEMP and the Project Approval requirements. If non-compliance is identified, FCWF Site Manager will be notified immediately and Iberdrola will manage the non-compliance, including undertaking an appropriate investigation into the matter.

As outlined in FCWF Compliance Tracking Program, details of non-compliances will be recorded in the Incident Register, and corrective actions to prevent the recurrence of a non-compliance will be identified, assigned, implemented and monitored using the Corrective Actions Register.



In the event of a non-compliance, relevant stakeholders will also be consulted as required. This could include, but is not limited to:

- Local Council/s
- The local Registered Aboriginal Parties (RAP)
- Neighbours
- Relevant road authority (Council/s or Transport for NSW)
- Biodiversity Conservation Division (BCD).

5.15 Environmental Risk Register Analysis

The Project Approval Condition G11 requires an environmental risk analysis to identify the key environmental performance issues associated with the operation phase of the wind farm. An environmental risk analysis of the Project was conducted as part of the [FCWF Environmental Assessment \(Aurecon, 2011\)](#). The analysis was prepared with reference to the general principles outlined in Australian Standard HB 203:2006 Environmental Risk Management – Principles and process. The relevant and applicable outcomes of this analysis have been included in this OEMP as they relate to the operational phase of the wind farm.

Furthermore, a risk assessment workshop was held with key representatives from operational staff on site and management to review the risk analysis associated to the operation of the wind farm and make any further necessary additions. The results of this risk analysis were also drawn to this OEMP.

The risk analysis methodology is aligned with [Iberdrola Risk Management Framework](#) and will be formally reviewed on a regular basis and updated (as required) upon new information, changes to legislation, changes to the working environment and / or after an incident. This risk analysis will furnish the [Site-Specific HSE Risk Register](#), which will be administered by Iberdrola and GE.

The Site-Specific HSE risk register provides a detailed list of all identified site hazards and the control measures implemented to eliminate or minimise HSE risks so far as is reasonably practicable. Proposed control measures will be reviewed with relevant stakeholders prior to their implementation to ensure they do not create a new hazard or impact.

The results of the site-specific risk register will be communicated to all personnel during relevant site HSE inductions as they are relevant to the work they are undertaking or sites they are visiting. The site-specific risk register is an agenda item on the Monthly site HSE meetings and will be formally reviewed at least annually.

See Appendix F for the risk analysis methodology and Site-Specific Risk Register.

5.16 Inspections

Iberdrola and GE's site technicians will report all environmental hazards they identify as part of their normal day-to-day operations to the FCWF Site Manager (Iberdrola). Weekly inspections of site activities and environmental performance will be undertaken by Iberdrola using the Environmental Inspection Checklist provided in Appendix B.



Minor issues noted in these inspections will be listed in a Hazard Observation Register with the required actions and completion dates and more serious issues (those requiring more than 7 days to address) shall be recorded in the Corrective Action Register. Both these registers will also include the required actions to be undertaken and respective completion dates.

Where necessary, Iberdrola may review the level, scope and timing of inspections to ensure continuous improvement through the life of the wind farm.

5.17 Audits

Iberdrola will conduct periodic audits in accordance with [Iberdrola Audit, Inspection, Review & Improvement Standard](#) to assess compliance with the OEMP and its sub plans. The audit frequency will be determined considering risk and performance assessment. Any non-conformances will be recorded in the Hazard Observation Register and Corrective Action Register. Iberdrola may procure the services of a third-party independent auditor to undertake audits of compliance with this OEMP and / or GE EMP.

GE will be required to undertake an annual audit of their site specific EMP for FCWF. The results and a results report must be provided to Iberdrola [within two weeks of the audit taking place](#). GE shall implement a system whereby any follow up actions from these audits can be recorded and status tracked to completion. GE shall provide the results of audits to Iberdrola upon completion of audits and make it available for Iberdrola or person/s working on behalf of Iberdrola upon request.

Additional audits may be conducted where deemed appropriate and approved by the HSE Manager (Iberdrola). This may include:

- Where changes occur resulting to a significant change to the site's risk profile;
- When indicated by the results of a previous audit;
- Depending on the type of incidents or increased frequency of incidents; or
- When circumstances indicate that an audit is required

Audit outcomes will be communicated by the HSE Manager (Iberdrola) in accordance with [Iberdrola WHS Policy, Planning, Objectives and Reporting Standard](#). At a minimum the auditing findings will be summarised and communicated in the following:

- Quarterly HSE Meetings (attended by the Executive Team)
- Quarterly HSE Board Reports

The audit outcomes may also be reported to the Audit, Risk and Compliance committee if and as appropriate.

Government authorities such as the Department of Planning and the local council are also able to undertake audits of project compliance with approval conditions and relevant legislation at any time.

The Project Approval Condition E8 requires that within 1 year of the commencement of construction, and every 3 years thereafter, unless the Planning Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the



project. Further details on how this audit is to take place is detailed in Conditions E8 to E10. This audit will be conducted by Iberdrola in accordance with the conditions of consent.

5.18 Reporting Requirements

The EPL Condition R4.1 states that within 4 months of the commencement of operations (or the commencement of operation of a cluster of turbines, if the project is to be staged) the licensee must complete and submit to the EPA a report comprising:

- a) data, reported graphically where practicable, for monitoring conducted in accordance with licence requirements
- b) statement of compliance
- c) a complaints summary
- d) an outline of any management actions taken within the period to address any non-compliances identified during construction and the first 3 months following commencement of operations.

Iberdrola will provide EPA with a report developed in accordance with EPL Condition R4.1 within 4 months of the commencement of operations (described in Section 4.2.4).

5.19 Related Documentation

All persons involved with the operational phase of FCWF shall undertake their respective activities in accordance with the relevant requirements of the OEMP. This OEMP shall be read in conjunction with the following related documents which exist as separate documents:

- FCWF – Environment Management Plan (implemented by GE)
- FCWF – Service Management Plan (implemented by GE)
- Site Induction Handbook or similar information format (Service) (implemented by GE)
- FCWF Bird and Bat Adaptive Management Plan (BBAMP)
- FCWF Bushfire Management Plan (2046-LECH-008-3)
- FCWF Fire and Emergency Response Plan

The operation will also be carried out in accordance with the following documents:

- FCWF Environmental Assessment (Aurecon, May 2011) and subsequent updates to the Environmental Assessments for Modification 1, 2, 3, 4 and 5
- The Project Approval MP 08_0252 and modifications
- EPL 21404 and its latest update.

If there is any inconsistency between the CoA and a document listed above, the CoA shall prevail to the extent of the inconsistency.

If there is any inconsistency between documents listed above (other than the CoA) then the most recent document shall prevail to the extent of the inconsistency.



5.20 Training

Iberdrola and key GE Contractor personnel will be inducted to this OEMP. This induction will generally take place at a site “Kick-off” meeting, or similar, meeting for the commencement of operations at FCWF.

Iberdrola Training, Competency & Verification Standard describes Iberdrola’s general requirements for ensuring staff and contractors are trained and competent.

5.20.1 Iberdrola’s Induction & Training

Iberdrola will ensure appropriate HSE training is given to all employees commensurate with their role, work activities and level of risk. The Induction will be conducted on the commencement of employment, for job transfers, for Contractors and visitors to all sites.

Iberdrola’s related training for employees may include the following training courses:

- HSE Responsibilities for Senior Leaders
- HSE Management and Risk Management systems.

5.20.2 Site Specific Training

Minimum needs will be identified for all operational/maintenance job roles within Iberdrola in the FCWF Training Matrix. This will identify and make clear which training, licensing, certificates of competence and qualifications are Mandatory, Preferred and Optional for each role. All competencies required for a role (as per the Position Description) will be included on the Training Matrix including internal induction and training programs and requirements for refresher training. The training matrix will be reviewed and updated at least every 12 months by the Site Manager.

Contractors will refer to their environment management plans, and environmental risk register for the project and conduct a training needs analysis to identify the induction and training requirements for site personnel working or visiting within the site they control or the work they are undertaking. Contractors are responsible for keeping appropriate records of certification and training attendance.

5.20.3 Site Specific Induction

Iberdrola Site Manager will ensure that all employees, contractors and visitors undertake a site-specific induction, which will be developed based on the outcomes of the risks analysis for FCWF. The induction will comprise (as a minimum):

- Any sensitive / no-go locations within the Project area
- The importance of management of spills, leaks, illegal dumping and surface water quality within the Project area to prevent possible impacts to groundwater
- Any areas that contain remnant vegetation that supports distinct vegetation community types – including any identified as threatened ecological communities and the location of these threatened ecological communities
- Threatened fauna species under the Biodiversity Conservation Act 2016 Act within the Project area



- Processes to be followed in the event of discovery of previously unidentified Aboriginal or Non-Aboriginal artefacts
- Incident reporting requirements and methods
- Site emergency procedures
- Site specific rules and procedures
- Operation activities, associated risks and controls
- Regulatory and Relevant Authority requirements relevant to the work.

Records will be maintained in accordance with the Iberdrola Contractor Management and Iberdrola Document Control & Records Management standards.

5.21 Emergency Response Procedures

The FCWF Fire and Emergency Response Plan (FERP) sets out the minimum procedures that should be undertaken by personnel at the Site, including contractors, in the event of an emergency. The key aspects considered in the FERP are:

- Emergency Response Roles and Responsibilities
- Emergency Response Procedures
- Incident management

The FERP identifies major environmental incidents relevant to the site operations and the responses to take in the unlikely event of an incident occurring. Refer to the FCWF Fire and Emergency Response Plan for emergency response arrangements.

6. Bird and Bat Adaptive Management Program

The Project Approval Condition D4 states that prior to the commencement of operations, the Proponent shall, in consultation with the BCS, prepare and submit for the approval of the Planning Secretary a Bird and Bat Adaptive Management Program, which takes into account bird / bat monitoring methods identified in the current editions of AusWEA Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia and Wind Farm and Birds: Interim Standards for Risk Assessment. The Program shall be prepared and implemented by a suitably qualified expert, approved by the Planning Secretary.

The FCWF Bird and Bat Adaptive Management Program (BBAM) has been approved by the DPHI and will be implemented during the operational phase of the wind farm.

7. Flora and Fauna Management Sub Plan

7.1 Introduction

As outlined in the FCWF Biodiversity Offset Report (NGH, October 2021), the majority of the development occurs in private property (Zoned RUI) which has been historically cleared of native



vegetation and cultivated for improved pasture and forage cropping. Agriculture is the dominant land use in the area with livestock grazing occurring on a regular basis.

Comprehensive mapping and field surveys of the development site to determine Plant Community Types, Planted Vegetation and Scattered Paddock trees were completed in accordance with the requirements of the BAM 2017. Vegetation Integrity Plots were undertaken throughout the site within the six plant community types detected within the development site. Four targeted survey periods over different seasons were undertaken to search for candidate threatened species.

The vegetation communities recorded in the project area are listed in Table 7-1. These include woodland, native grassland/pasture and exotic grassland.

Table 7-1: Vegetation communities recorded in the project area


COMMUNITY	KEY SPECIES	OCCURRENCE
Yellow Box – Blakely's Red Gum Woodland	Yellow Box Eucalyptus melliodora, Bundy Eucalyptus gonicalyx and Blakely's Red Gum Eucalyptus blakelyi	Most of the remnant trees, patches of trees and occasional patch of native grassland in the area. Part of a community complex found extensively across central western New South Wales
	Broad-leaved Peppermint Eucalyptus dives and Red Stringybark Eucalyptus macrorhyncha	Scattered across the southern part of the area on soils derived from old sedimentary rocks and form occasional stands
Native Grassland - Native Pasture	Corkscrew Austrostipa scabra, Weeping Grass Microlaena stipoides, Wallaby Grasses Austrodanthonia spp., Swamp Dock Rumex brownii and Oxalis Oxalis perennans	Little native grassland in the area with patches on rocky outcrops and roadsides
Exotic Grasses	Phalaris, Phalaris sp., Ryegrass Lolium sp., Barley Grass Hordeum sp. and Brome Grasses Bromus spp.	Exotic grasses are common throughout the project area and understorey of paddock trees









Two species credit species, the Squirrel Glider (*Petaurus norfolcensis*) and Superb Parrot (*Polytelis Swainsona*) were observed within the development site during site surveys. Impacts to native vegetation and threatened species habitat have been avoided where possible through detailed site design and micro-siting.

7.2 Noxious weeds

Weeds may ingress along the boundary of the development site or transported to and from the site through vehicle movements or staff clothing. FCWF Environmental Assessment Chapter 10 (Aurecon, May 2021) recorded five noxious weed species within the project area as outlined in Table 7-2:

Table 7-2: Noxious weeds recorded in the project area

NAME	HABITAT	PICTURES (EXTRACTED FROM NSW WEEDWISE WEBSITE)	
Blackberry (<i>Rubus fruticosus</i> species aggregate)	Rambling, prickly shrub		

Scotch Thistle (<i>Onopordum acanthium</i>)	Prickly herb		
Serrated Tussock (<i>Nassella trichotoma</i>)	Tussock grass		
St John's Wort (<i>Hypericum perforatum</i>)	Herb		
Sweet Briar (<i>Rosa rubiginosa</i>)	Thorny shrub		

Weeds grow and reproduce rapidly, forming dense areas of vegetation. As they compete with native plants for nutrients, water, sunlight and space, weed infestation can reduce the diversity and abundance of native species and alter the balance of natural ecosystems, including threatening animals that rely on native flora for food and shelter.

In NSW all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.

Any weed propagation on land disturbed by the project will be subject to control measures during the site restoration phase until the former pasture status has been established.

7.3 Performance Criteria

- Stable vegetated landforms
- Minimum 70% groundcover on rehabilitated areas
- Less than 5% weed growth on rehabilitated areas.



7.4 Potential Impacts and Mitigation Measures

Site disturbance associated with the project's construction phase will not be continued during the operation phase. Rehabilitation of areas disturbed during the construction phase will be completed after construction and monitored to ensure the set performance criteria were met.

Mitigation measures to address potential biodiversity impacts are outlined below:

ID	MITIGATION MEASURE	TIMING	RESPONSIBILITY	REFERENCE
BD1	Plant and Equipment Movement Procedures will be developed and implemented to prevent the spread of weed material	Throughout operation	QHSE Manager / Site Manager	EA Chapter 10
BD2	Ground conditions and percentage of grass cover within the wind farm will be weekly monitored in accordance with the Environmental Inspection Checklist. Hand seeding will be undertaken in areas identified for remediation	Weekly	Site Manager	Best Practice
BD3	Weed inspections within the wind farm will be weekly monitored in accordance with the Environmental Inspection Checklist. If inspections indicate that the weed populations are greater than 5% of the site, control measures will be implemented in compliance with the Department of Primary Industry NSW WeedWise	Weekly	Site Manager	EA Chapter 10
BD4	All employees, subcontractors and personnel working on site will undergo induction training covering procedures and protocols included within this OEMP and any relevant management plans	Throughout operation	Site Manager	CoA G11
BD5	Site speed limits will be enforced, and operations personnel will drive carefully and below the designated speed limit	Throughout operation	Site Manager	Best Practice



7.6 Environmental Control Map

A series of Environmental Control Maps (ECM's) are provided in Appendix I which includes environmental sensitive vegetation types and operational project infrastructure including access roads, turbine locations and switching and substation facilities. These ECM's will be utilised in training of site personnel on key no go areas across the site

8.Noise Management Sub Plan

8.1 Introduction

Once the wind farm is operational, there will be a low level of traffic to and from the site and the main noise sources for the wind farm will relate to the operation of the turbines and the substation.

In accordance with the Director-General's requirements, noise generated from wind turbines was assessed against the South Australian Environment Protection Authority's Wind Farms – Environmental Noise Guidelines. This included predicted noise from wind turbines, substation noise, modulation, low frequency noise and infrasound.

During the planning phase of the project, noise predictions were carried out during the original development application and two subsequent times due to turbine specification changes. The noise testing carried out was as follows:

- Appendices G1 and G2 of FCWF Environmental Assessment (Aurecon, May 2011), prepared by ViPAC Engineers and Scientists (ViPAC), which considered the characteristics of 44 turbines model GE2.5xl-2.5MW (hub height of 85 m)
- FCWF Environmental Assessment (Infigen, May 2017) submitted as part of the Modification 3 of the Project Approval and prepared by ViPAC, which considered the characteristics of 38 turbine model GE2.5xl-2.5MW (hub height of 85 m)
- Appendix F of the EA of FCWF Environmental Assessment (Infigen, July 2018) submitted as part of the Modification 4 of the Project Approval and prepared by ViPAC, which considered the characteristics of 38 turbines with capacity of up to 4.2 MW (hub height 92 m).

All the above studies concluded that noise predication levels for non-associated landowners complies with the noise criteria. The Figure 8-1 illustrates the noise monitoring sites and receiver locations:

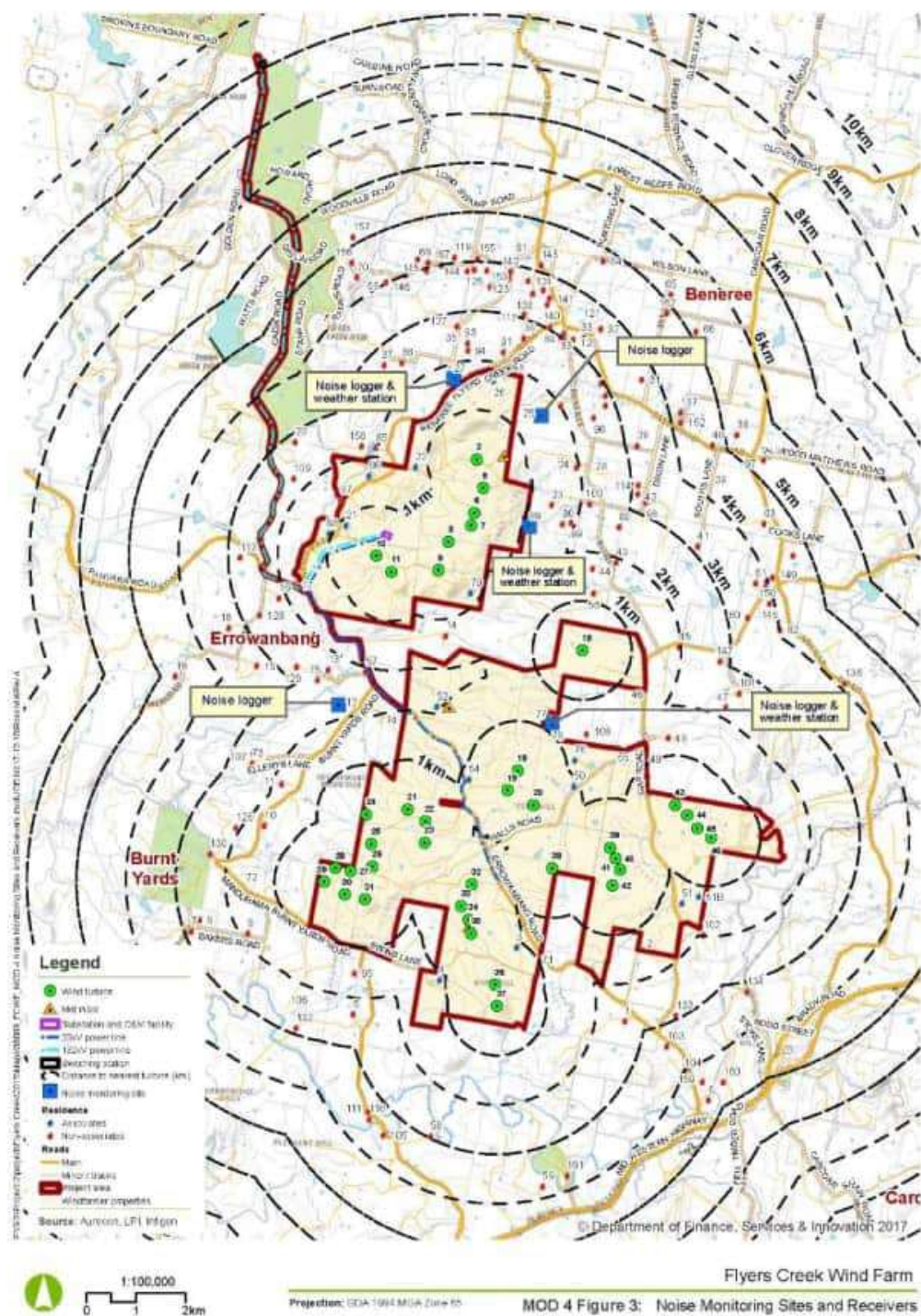


Figure 8-1: Noise monitoring sites and receiver locations (extracted from the Project Approval)

Iberdrola has entered into commercial agreements with a number of landowners. Where an agreement exists, suitable noise criteria for each residence has or will be agreed between the developer and the landowner.



8.2 Project Approval and Licence Requirements

The table below details the CoA outlined in the Project Approval applicable to soil and water management during operations and where these have been addressed:

ID	DESCRIPTION OF REQUIREMENT	IBERDROLA COMPLIANCE
Project Approval		
D9	Any overhead transmission line associated with the Project shall be designed, constructed and operated to minimise the generation of corona and aeolian noise as far as feasible and reasonable at nearest existing sensitive receivers.	OEMP Section 8.7
G7	<p>The Proponent must ensure that the noise generated by the operation of wind turbines does not exceed the relevant criteria in Table 3 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 Wind Energy: Noise Assessment Bulletin (2016) (or its latest version) and the provisions in Appendix 2. If this guideline is replaced by an equivalent NSW guideline, then the noise generated is to be measured in accordance with the requirements in the NSW guideline.</p> <p>However, these criteria do not apply if the Proponent has an agreement with the relevant owner/s of these residences to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	OEMP Section 8.3
G8	<p>The Proponent must ensure that the noise generated by the operation of ancillary infrastructure does not exceed 35 dB(A) LAeq (15 minute) at any residence not associated with the project.</p> <p>Noise generated by the operation of ancillary infrastructure is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (or its equivalent).</p>	OEMP Section 8.3
G9	<p>Within 3 months of the commencement of operations (or the commencement of operation of a cluster of turbines, if the project is to be staged), unless otherwise agreed by the Planning Secretary, the Proponent must:</p> <p>(a) undertake noise monitoring to determine whether the project is complying with the relevant conditions of this approval; and</p> <p>(b) submit a copy of the monitoring results to the Department and the EPA</p>	OEMP Section 8.7
G10	The Proponent must undertake further noise monitoring of the project if required by the Planning Secretary.	OEMP Section 8.7
Appendix 2	<p><u>Applicable Meteorological Conditions – Wind Turbines</u> The noise criteria in Table 3 of the conditions are to apply under all meteorological conditions.</p> <p><u>Applicable Meteorological Conditions – Other Facilities</u> The noise criteria in Condition G7 are to apply under all meteorological conditions except the following:</p> <p>a) wind speeds greater than 3 m/s at 10 m above ground level; or</p> <p>b) temperature inversion conditions between 1.5 °C and 3°C/100m and wind speeds greater than 2 m/s at 10 m above ground level; or</p> <p>c) temperature inversion conditions greater than 3°C/100m.</p>	OEMP Section 8.3 and 8.4
EPL		
L3.1	Noise generated at the premises that is measured at each noise monitoring point established under this licence must not exceed the noise levels specified in Column 4 of the table below for that point during the corresponding time periods specified in Column 1 when measured using the corresponding measurement parameters listed in Column 2.	OEMP Section 8.3
L3.3	The noise limits specified in condition L3.1 do not apply to any non-associated receiver locations (residences) as defined in the Project Approval MP 08_0252, where a noise agreement is in place between	OEMP Section 8.3



	the licensee and the respective landowner(s) in respect to noise impacts and/or noise limits.	
L3.4	For the purpose of condition L3.1, noise must be determined in accordance with the relevant requirements of the Department's Wind Energy: Noise Assessment Bulletin (2016) (or its latest version) and the provisions in Appendix 2 of Project Approval MP08_0252. If this guideline is replaced by an equivalent NSW guideline, then the noise generated is to be measured in accordance with the requirements in the NSW guideline	OEMP Section 8.3
L3.5	<p>For the purpose of condition L3.4, the presence of excessive tonality (a special noise characteristic) must be determined in accordance with ISO 1996.2:2007 Acoustics - Description, measurement and assessment of environmental noise - Determination of environmental noise levels.</p> <p>If tonality is found to be a repeated characteristic of the wind turbine noise, 5 dBA should be added to measured noise level from the wind farm. If tonality is only identified for certain wind directions and speeds, the penalty is only applicable under these conditions.</p> <p>The tonal characteristic penalty applies only if the tone from the wind turbine is audible at the relevant receiver. Absence of tone in noise emissions measured at an intermediate location is sufficient proof that the tone at the receiver is not associated with the wind farm's operation.</p> <p>The assessment for tonality should only be made for frequencies of concern from 25 Hz to 10 kHz and for sound pressure levels above the threshold of hearing (as defined in ISO 389.7:2005 Acoustics - Reference zero for the calibration of audiometric equipment - Part 7: Reference threshold of hearing under free-field and diffuse - field listening conditions).</p>	OEMP Section 8.3
L3.6	For the purposes of condition L3.4, the presence of excessive low frequency noise (a special noise characteristic) must be determined with reference to the NSW Wind Energy: Noise Assessment Bulletin For State significant wind energy development (2016).	OEMP Section 8.3
L3.7	The maximum penalty to be added to the measured noise level from the wind farm for any special characteristic individually or cumulatively is 5 dB(A)	OEMP Section 8.3
L3.8	For the purpose of condition L3.1, wind speed is to be measured in accordance with condition M2.1 at licenced points 8, 9 and 10	OEMP Section 8.3
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	OEMP Section 8.7
M2.1	At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.	OEMP Section 8.3

8.3 Noise Criteria for Wind Turbines

Noise criteria and monitoring requirements for wind turbines are established in the Project Approval and the EPL. These requirements are not identical, and Iberdrola will establish procedures to ensure compliance with both Project Approval and the EPL.

The Project Approval Condition G7 states that the noise generated by the operation of wind turbines must not exceed the relevant criteria outlined in Table 8-1 at any non-associated residence. It is noted that the criteria are referenced to hub height of 85 m AGL and applicable to the residences identified in the far-left column of Table 8-1.



Table 8-1: Noise Criteria dB(A) outlined in Project Approval Mod 5

RESIDENCE	NOISE CRITERIA dB(A) REFERENCED TO HUB HEIGHT (85M AGL) WIND SPEED (M/S)										
	3 or less	4	5	6	7	8	9	10	11	12	13
R010, R011, R012, R013, R014, R046, R048, R057, R071, R072, R074, R095, R102	35	35	36	37	38	39	40	41	42	43	44
R023, R024, R025, R043, R055, R090, R108	35	35	35	35	36	37	38	39	40	40	41
R027, R044	35	35	35	35	35	36	38	39	40	41	42
R056, R077, R078, R099	35	35	35	35	35	35	36	37	38	40	41
R089	35	35	35	35	37	39	40	42	43	43	43
All other residences not associated with the Project and wind speeds > 12m/s	The higher of 35 dB(A) or the existing background noise level plus 5 dB(A)										

The EPL Condition L3 states that the noise generated by the operation of wind turbines must not exceed the relevant the noise levels outlined in Table 8-2 at each monitoring point at all hours. It is noted that the noise levels are referenced at hub height LAeq (10 minute) and applicable to the monitoring point identified in the far-left column of the Table 8-2.

Table 8-2: Noise Levels dB(A) outlined in EPL

LOCATION	NOISE LEVEL dB(A) AT HUB HEIGHT LAeq (10 MINUTE) INTEGER WIND SPEED (M/S)										
	3 or less	4	5	6	7	8	9	10	11	12	13
Point 11 - Logger R012 representing receivers R010, R011, R012, R013, R014, R046, R048, R057, R071, R072, R074, R095 and R102.	35	35	36	37	38	39	40	41	42	43	43
Point 12 - Logger R025 representing receivers R023, R024, R025, R043, R055, R090 and R108	35	35	35	35	36	37	38	39	40	40	40
Point 13 - Logger R027 representing receivers R027 and R044	35	35	35	35	35	36	38	39	40	41	41
Point 14 - Logger R078 representing receivers R056, R077, R078 and R099.	35	35	35	35	35	35	36	37	38	40	40
Point 15 - Logger R089 representing receivers R089.	35	35	35	35	37	39	40	42	43	43	43

The criteria in Table 8-1 and Table 8-2 will not apply where the Iberdrola has an agreement with the landowners to generate higher noise levels .



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). If this guideline is replaced by an equivalent NSW guideline, then the noise generated will be measured in accordance with the requirements in the NSW guideline. Aligned with the CoA and EPL requirements, the noise criteria outlined Table 8-1 and Table 8-2 will apply under all meteorological conditions.

To assess compliance with the criteria outlined in Table 8-1 and Table 8-2, Iberdrola will undertake a noise monitoring within 3 months of the commencement of each cluster of turbines, at each specified noise monitoring point. EPL Condition M5.1 requires the operator attended noise monitoring at each specified noise monitoring point in accordance with the Table 8-3 below:

Table 8-3: Noise monitoring requirements

ASSESSMENT PERIOD	MINIMUM DURATION WITHIN ASSESSMENT PERIOD	MINIMUM NUMBER OF ASSESSMENT PERIOD
Day, Evening, Night	10 minutes	3 consecutive operation days

A copy of the monitoring results will be submitted to the Department and the EPA.

8.3.1 Excessive tonality

EPL Condition 3.5 requires the presence of excessive tonality (a special noise characteristic) to be determined in accordance with ISO 1996.2:2007 Acoustics - Description, measurement and assessment of environmental noise - Determination of environmental noise levels.

If tonality is found to be a repeated characteristic of the wind turbine noise, 5 dBA should be added to measured noise level from the wind farm. However, the EPL states that if tonality is only identified for certain wind directions and speeds, the penalty is only applicable under these conditions.

The tonal characteristic penalty applies only if the tone from the wind turbine is audible at the relevant receiver. The Condition states that absence of tone in noise emissions measured at an intermediate location is sufficient proof that the tone at the receiver is not associated with the wind farm's operation.

Aligned with the EPL, the assessment for tonality will only be made for frequencies of concern from 25 Hz to 10 kHz and for sound pressure levels above the threshold of hearing (as defined in ISO 389.7:2005 Acoustics - Reference zero for the calibration of audiometric equipment - Part 7: Reference threshold of hearing under free-field and diffuse - field listening conditions).

8.3.2 Low frequency noise

Aligned with EPL Conditions L3.6 and L3.7, the presence of excessive low frequency noise (a special noise characteristic) will be determined with reference to the NSW Wind Energy: Noise Assessment Bulletin for State significant wind energy development (2016).

The maximum penalty to be added to the measured noise level from the wind farm for any special characteristic individually or cumulatively is 5 dB(A).



8.3.3 Wind speeds

For the purposes of the noise criteria outlined in Table 8-1 and Table 8-2, wind speed will be measured at the following monitoring points:

- Consolidated weather station, coordinates 33.31'24.20"S, 149.3'53.23"E.

The EPL Condition M2.1 requires Iberdrola to monitor (by sampling and obtaining results by analysis), at each monitoring point, the parameters outlined in Table 8-4:

Table 8-4: Weather monitoring requirements

PARAMETER	SAMPLING METHOD	UNITS OF MEASURE	AVERAGING PERIOD	FREQUENCY
Rainfall	AM-4	mm	1 hours	Continuous
Wind speed at 10 m	AM-2 & AM-4	m/s	15 minutes	Continuous
Wind direction at 10 m	AM-2 & AM-4	Degrees	15 minutes	Continuous
Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous

8.4 Noise Criteria for Ancillary Infrastructure

Aligned with Condition G8 of the Project Approval, noise generated by the operation of ancillary infrastructure must not exceed 35 dB(A) LAeq (15 minute) at any residence not associated with the project.

Noise generated by the operation of ancillary infrastructure will be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (or its equivalent).

Other Facilities

The noise criteria in Condition G7 are to apply under all meteorological conditions except the following:

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

8.5 Non-compliance with Noise Criteria

Where the compliance assessment identifies exceedance of criteria for specific wind speeds or under certain atmospheric conditions, Iberdrola will limit the operation of the contributing turbines and work with GE or a specialist consultant to develop a Noise and Vibration Mitigation Plan, outlining how compliance will be ensured for the operation where exceedance occurs.

Iberdrola will provide the Noise and Vibration Mitigation Plan to the satisfaction of DPHI. Subject to DPHI's approval, Iberdrola will implement the necessary measures to achieve compliance and conduct further assessment to demonstrate the effectiveness of the measures implemented and whether compliance with approved noise criteria has been achieved.



If agreeable to an owner of a relevant receiver residence, Iberdrola may provide improvements to the affected residence in place of or in addition to modification to the wind farm operation to reduce the impact for the specific neighbour.

Note that any changes to the operating regime will trigger the review of this OEMP, as outlined in Section 1.1.

8.6 Noise and Vibrations Complaints Management Procedure

Noise and vibration complaints will be managed in accordance with the procedures outlined in Section 5.10. In addition, the following procedure will be implemented:

1. Iberdrola representative to contact the person(s) who raised the complaint and collect further information regarding the noise and/or vibration, including details about the nature, frequency, tonality, type, time of day, location and weather conditions observed.
2. Prior to the compliance assessment and if the complaint can be reasonably judged to be related to exceedance of relevant criteria, Iberdrola will modify the operation of the wind farm to reduce the noise levels experienced at the affected residence while the investigation is being undertaken and/or will undertake noise testing at the affected residence.
3. Iberdrola will conduct preliminary investigation into the operational modes and local conditions to explore potential issues that could cause exceeded noise emissions or vibrational noise. If any operational issues are identified, the necessary rectifications would be undertaken.
4. If there is a potential for the noise to have exceeded the noise criteria, Iberdrola will continue its investigation and undertake any additional testing as required.
5. If exceedance of noise criteria has been established, the Noise Mitigation Plan will be developed and implemented as discussed in Section 8.5.

8.7 Mitigation Measures

The following mitigation measures will be implemented to ensure noise emissions associated to operations activities meet the relevant criteria.

ID	MITIGATION MEASURE	TIMING	RESPONSIBILITY	REFERENCE
NM1	A noise compliance assessment protocol will be developed by an acoustic engineer to be implemented following completion of commissioning of the wind farm. The protocol will form part of the OEMP and submitted for approval of the DPHI.	Prior to commencement of operation	QHSE Manager	EA Chapter 12
NM2	A noise monitoring will be undertaken to determine whether the Project is complying with the noise criteria, in accordance with procedures outlined in Section 8.3. A copy of the monitoring results will be submitted to the DPHI and the EPA.	Within 3 months of the commencement of operation of each cluster of turbines	QHSE Manager / Site Manager	CoA G9 EPL M5.1
NM3	Further noise monitoring of the Project will be undertaken if required by the Planning Secretary.	As required by the Planning Secretary	QHSE Manager / Site Manager	CoA G10
NM4	If the compliance assessment checks identify exceedance of criteria for specific wind speeds and/or wind	Through operations		EA Chapter 12



	directions, then the proponent will limit the operation of the contributing turbines and provide a management plan to the Department of Planning indicating how compliance will be ensured for the operation where exceedance occurs.			
NM5	Overhead transmission line associated with the Project will be operated to minimise the generation of corona and aeolian noise as far as feasible and reasonable at nearest existing sensitive receivers.	Through operations	Site Manager	CoA D9
NM6	A complaints management system will be established and maintained to respond to noise complaints from the community. Should a complaint be received in relation to noise and/or vibration, the complaint will be processed in accordance with the Complaints Procedure (Section 5.10) and managed in accordance with the Noise and Vibrations Complaints Management Procedure (Section 8.6).	Through operations	Site Manager	CoA E2
NM7	Operation and maintenance activities will not be carried outside standard working hours.	Through operations	Site Manager	Best Practice
NM8	In the event work is required to be undertaken outside the standard working hours, an <i>Out of Hours Work Protocol</i> will be developed and implemented. The Protocol will include (but will not be limited to) noise mitigation measures and notification requirements to relevant regulatory authority and/or nearby residents	Throughout operation	Site Manager	Best Practice

9. Soil and Water Management Sub Plan

9.1 Introduction

The following sub-sections summarise the information available in FCWF Environmental Assessment (Aurecon, May 2011).

9.1.1 Topography

The topography of the Project locality is typically undulating and rolling low hills, but also includes steep, densely vegetated ranges and extensively cleared, flat grazing lands. The surface elevations of the project locality range from around 650 m (Australian Height Datum) in the south to 950 m in the north, with valleys and creek lines up to 200 m below ridges in some places.

The Project area is entirely located within the Belubula River catchment. The ridges are dissected by intermittent creeks that drain ultimately to the south-west.

9.1.2 Drainage and watercourses

The Project area is within the Belubula River Catchment. This catchment is in turn within the Lachlan River Catchment, which represents about 8% of the Murray Darling Basin system. Carcoar Dam, the closest water storage area, is located less than 10 kilometres to the east of the wind farm



site. Drainage of the wind farm site is by several small creeks that subsequently lead to the Belubula River (below Carcoar Dam) as detailed in Figure 9-1, extracted from the environmental assessment.

Sub-catchment	Description of location	Measures to prevent impact on waterway
Slatterys and Flyers Creek	Located in the north west part of the site, Slatterys Creek is a tributary of Flyers Creek. The ridgeline containing the Calvert group turbines drain to the west towards Slatterys and Flyers Creek. The substation is within the Slatterys Creek catchment.	Oil spill containment structures for the substation as well as erosion and sediment controls for all earthworks will prevent impact on this watercourse.
Gooleys Creek	Located in the north eastern and middle portions of the wind farm, this minor tributary of Flyers Creek receives runoff from the eastern facing side of the Calvert Group ridgeline and the slopes of the northern half of the Fern Hill turbine group.	Erosion and sediment controls at the wind farm site will minimise any impacts on this watercourse.
Cheesemans Creek	Located to the west of the wind farm, this minor creek has a catchment area that includes the slopes containing the northern Hopkins group turbines. This creek flows west and feeds into Flyers Creek.	Erosion and sediment controls at the wind farm site will prevent impact on this watercourse.
Kangaroo Flat Creek	Located to the south of the site, this creek has a catchment that takes in the hills containing the southern turbines of the Fern Hill group as well as the ridgelines that contain many of the Hopkins Group turbines.	Erosion and sediment controls at the wind farm site will prevent impact on this watercourse.
Dirty Hole Creek	Located in the south east corner of the site, this creek flows south into the Belubula river. Its catchment area covers the eastern turbines of the Hopkins group and Halls Gap group.	Erosion and sediment controls at the wind farm site will prevent impact on this watercourse.
Cowriga Creek	Located east of the project area. Only a small part of the project is within this catchment.	Erosion and sediment controls will prevent impact on this watercourse.

Figure 9-1: Sub-catchments draining the Project site

It is noted that some creeks listed in Figure 9-1 are ephemeral creeks and therefore not always flowing. Flow in the minor creek lines is highly variable dependant on soil moisture and rainfall. No springs were observed discharging from the upper slopes.

Flooding is not expected to affect the ridges where the turbines are located, but at times of heavy rain some parts of the site may be temporarily affected by swollen creeks or ponded water. Areas of flooding hazard are not likely to significantly affect the wind farm operation. The design and construction of creek crossings for site addressed the potential for occasional short-term flooding along some of these water courses.

9.1.3 Groundwater

Geotechnical investigations across the site performed during the pre-construction early works phase identified standing water in excavations and bore drilling sites at depths greater than 8 metres below ground level.

9.1.4 Precipitation and evaporation

Precipitation across the wind farm site is likely to be variable, depending on the elevation and topography of the particular area. However, it is expected to be in the range of 750 mm to 950 mm a year. Mean monthly rainfall values at the three Bureau of Meteorology (BOM) sites show a trend



of higher winter rainfall than summer rainfall, with the period of June to October generally bringing the most number of rainy days as well as higher total precipitation.

The Mid-West Region and much of NSW in general have been subject to extended drought conditions over the last decade. Around the Project locality the drought was particularly severe in the period between 2002 and 2007, where rainfall was consistently below average, whilst 2008 brought a return to near average rainfall in the region.

Snow also occurs occasionally on the higher elevations of the Mid West ranges, including parts of the Flyers Creek Wind Farm site. Local residents have indicated that on the higher hills and ridgelines in the area snow commonly falls a few days each year.

Based on standard 30-year climatology data (1961 to 1990), the annual average actual evapotranspiration in the FCWF locality is expected to be about 500 mm. In general, evaporation is expected to be greatest in summer and least in winter. Coupled with higher precipitation in the winter months, soil moisture is generally highest in winter months and lowest in summer.

9.1.5 Soil

The NSW Natural Resource Atlas indicates that there are three main soil landscapes within the Flyers Creek Wind Farm site shown in Figure 9-2, extracted from the environmental assessment.

Soil Landscape	Parent rock	Soil Landscape – general characteristics	Erode-ability	Erosion Hazard	USCS Code
Vittoria-Blayney (Alluvial-colluvial) (REvb)	Various, many derived from older andesitic volcanics	Undulating to rolling low hills with drainage lines spaced from 800m – 1,000m apart. Red earths occur on well drained crests and sideslopes, with yellow earths on moderately to imperfectly drained footslopes. Elements of Panuara occur in this landscape.	Low to moderate	Slight to moderate	ML CL CH
Panuara (Alluvial-colluvial) (RPpu)	Andesite, tuff, limestone, siltstone and shale	Undulating low hills to rolling hills with drainage lines running west and spaced from 500m – 800m apart. Red podzolic soils are the main soils occurring on mid to upper slopes. Yellow podzolic soils occur on lower slopes with red earths or brown/red earths.	Low to moderate	Moderate to high	CL CH
Quarry (Colluvial) (SSqu)	Intermediate rocks including syenite and monzonite	Present in small areas within the Panuara district. Rolling low hills with drainage lines spaced 500 – 700m apart. Dominant soils are pale siliceous sands on midslopes, with yellow earths and podzolic soils on lower slopes. Shallow sands and red podzolic soils occur on upper slopes.	Low to moderate	Moderate to high	SP

Note: Unified Soils Classification Scheme (USCS) Codes: Group symbol / name, CL / clay, CH / clay of high plasticity, ML / silt, SP / poorly graded sand.

Figure 9-2: Summary of the soil landscape characteristics at the Project

It is noted that no areas of contamination, significant salinity or occurrence of Acid Sulphate Soils have been identified across the Project area.



9.2 Project Approval and Licence Requirements

The table below details the Conditions outlined in the Project Approval applicable to soil and water management during operations and where these have been addressed:

ID	DESCRIPTION OF REQUIREMENT	IBERDROLA COMPLIANCE
Project Approval		
C1	In addition to meeting the specific environmental performance criteria established under this approval, the Proponent 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 Project.	OEMP Section 9.5
C2	The Proponent shall carry out the Project: (a) generally in accordance with the EA; and (b) in accordance with the conditions of this approval.	OEMP Section 9.5
C3	In the event of an inconsistency between the documents referred to in condition C2, the most recent document shall prevail to the extent of any inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	OEMP Section 9.5
D7	Except as may be provided by an EPL, the Project shall be constructed and operated to comply with section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters.	OEMP Section 9.5
D10	Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with: (a) all relevant Australian Standards; (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and (c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority, 1997). In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirement shall prevail to the extent of the inconsistency.	OEMP Section 9.5
EPL 21404		
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	OEMP Section 9.5
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	OEMP Section 9.5
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	OEMP Section 9.5
O4.8	All chemicals, fuels and explosives must be handled and stored in a bunded area which complies with the specifications of the relevant Australian Standard and legislative requirements.	OEMP Section 9.5
O4.9	Contingency and emergency management plans must be developed and implemented for the spill of any chemical and fuel.	OEMP Section 9.5

9.3 Performance Criteria

- 100% compliance with the Project Approval, Licence and environmental assessment
- No contamination of soil, surface water or groundwater.

9.4 Potential Impacts

Potential impacts on the local drainage system for the operational phase of the wind farm are expected to relate to:



- Unlikely excessive use of local water supplies
- Low potential for loss of oil from electrical or mechanical equipment
- Low potential for leakage from batteries on site
- Operation of a wastewater septic system at the facilities building
- Potential sedimentation and erosion from access roads and other areas of ground disturbance.

9.4.1 Water requirements

FCWF will require a relatively small water supply during operations, which will be supplied primarily from roof drainage at the facilities and auxiliary services buildings and, if necessary, supplemented by importing water from local water supplies, subject to agreement with Council.

Water tanks have been installed at the site and will be maintained during operations (2 x 22,500L tanks at O&M and 2 x 20,000L Fire Water Tanks at PoC). If unregulated water supplies or boreholes are to be used, necessary permits and licenses required for the extraction will be obtained.

9.4.2 Hazardous chemicals

Operations will comprise the use of oil at several parts of the site. Some of the transformers installed contain significant amounts of oil, and it is possible that loss of oil may occur due to equipment failure. Transformers are located within the substation site and generator transformers are located within or adjacent to each wind turbine.

The 0.69 kV/33 kV generator transformers associated with each turbine site are dry type.

Lubricating, hydraulic or insulating oils will be used in smaller quantities in vehicles, mobile plant and equipment maintenance. Refuelling activities will be undertaken in impervious areas or utilising appropriate temporary bunding. Leaks and spillage of hazardous materials may contaminate soil and/or water.

9.4.3 Battery system

A bank of batteries was installed at the substation to supply backup power for control systems in the event of failure of the grid supply. These batteries are located in the Substation Control Building and Switching Station / PoC Control Building and will be maintained by routine checking and adjustment of electrolyte levels and as necessary replacement of batteries.

9.4.4 Wastewater system

The wastewater pump-out septic system has been installed and will be managed in accordance with all relevant standards and guidelines. This OEMP will include requirements for routine inspection and maintenance as required to ensure the site soils are effectively managed.

9.4.5 Erosion and sedimentation

Given the environmental characteristics of the Project site, operational activities may initiate erosion of soils and result in sedimentation of waterways. Erosion and sedimentation controls have



been implemented within the wind farm and will be regularly monitored throughout operations to ensure they are adequate.

9.5 Mitigation Measures

It is considered that the operational phase of the wind farm will have minor potential for impact on the local soils and drainage system. The following mitigation measures will be implemented for the management of soil and water quality, and water requirements throughout the wind farm operations.

ID	MITIGATION MEASURE	TIMING	RESPONSIBILITY	REFERENCE
Water requirements				
SW1	Water tanks has been installed at the site and will be maintained during operations.	Through operations	Site Manager	EA Chapter 7.6.7
SW2	If water is required from local water supplies, an agreement with the Council will be obtained.	Through operations	Site Manager	EA Chapter 7.6.7
SW3	If unregulated water supplies or boreholes are to be used, necessary permits and licenses required for the extraction will be obtained.	Through operations	Site Manager	EA Chapter 7.6.7
Hazardous chemicals				
SW4	Transformers at the Substation are located within bunded areas and provided with a secondary containment of sufficient size to retain the transformer oil.	Through operations	Site Manager	EA Chapter 7.6.5
SW5	Regular inspection of the transformers and associated turbine equipment will be carried out to ensure that they remain in good working condition and leak free. Procedures for maintenance will be documented and followed by maintenance staff	Through operations	Site Manager / GE	EA Chapter 19
SW6	Regular inspection of bunds and secondary containment at the Substation, turbines and O&M Facility will be undertaken to ensure they are adequate and fit for purposes.	Through operations	Site Manager	EA Chapter 7.6.5
SW7	Fuel, oil, chemicals and batteries will be handled and stored in a bunded area which complies with the specifications of the relevant Australian Standard and legislative requirements.	Through operations	Site Manager / GE	EA Chapter 7.6.5
SW8	Procedures for handling and storage of oils, fuel and chemicals will be developed and documented. All staff will be appropriately trained for the minimisation and management of accidental spills.	Through operations	Site Manager / GE	EA Chapter 7.6.5
SW9	Spill kits are provided at the Substation and mobile kits available for turbine maintenance. These will be regularly inspected to ensure they are adequate.	Through operations	Site Manager	EA Chapter 7.6.5
SW10	Contingency and emergency management plans will be developed and implemented for the spill of any chemical and fuel. All staff will be appropriately trained on plans.	Through operations	Site Manager / GE	EA Chapter 7.6.5
Dangerous Goods				



SW11	Dangerous goods, as defined by the Australian Dangerous Goods Code, will be stored and handled strictly in accordance with: (a) all relevant Australian Standards; (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and (c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority, 1997). In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirement will prevail to the extent of the inconsistency.	Through operations	Site Manager / GE	CoA D10
Erosion and sedimentation				
SW12	Ongoing monitoring and maintenance activities will be undertaken to ensure erosion is minimised.	Through operations	Site Manager	EA Chapter 7.5
SW13	Drainage controls will be regularly inspected to ensure they are adequate and working as intended.	Through operations	Site Manager	EA Chapter 7.6.4
Wastewater system				
SW14	Wastewater pump-out system will be managed in accordance with all relevant standards and guidelines	Through operations	Site Manager	EA Chapter 7.6.4

10. Waste Management and Re-use Sub Plan

10.1 Introduction

During operation the solid waste streams would be associated with maintenance activities and presence of employees. Some materials, such as fuels, lubricants and metals may require replacement over the operational life of the project.

Legal requirements for the management of waste are established under the POEO Act and the *Protection of the Environment Operations (Waste) Regulation 2014*. Furthermore, the *Waste Avoidance and Resource Recovery Act 2001* (WARRA) aims to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development. The WARRA outlines the following waste management hierarchy: