

# Mt Fyans Wind Farm Environmental and Social Management Framework

June 2017



**WOOLNORTH**  
WIND FARMS



**MT FYANS  
WIND FARM  
PROJECT**

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## 1. Introduction

Woolnorth Wind Farm Holdings Pty Ltd (Woolnorth) is committed to developing the proposed Mt Fyans Wind Farm in an environmentally and socially responsible manner, and intends to implement best practice environmental management and social engagement strategies throughout the life of the project. This will be achieved by developing and operating the Mt Fyans Wind Farm in accordance with Woolnorth's existing environmental and social policies and management systems which are described below in Section 2.

The Mt Fyans Wind Farm Environmental and Social Management Framework describes Woolnorth's environmental management and social management systems and outlines how they will be applied to the development, construction and operation of the proposed wind farm. The framework addresses a range of interface issues between the project and matters of public / community interest. It is intended to demonstrate how Woolnorth will avoid, or minimise, the potential adverse environmental and social impacts associated with the proposed Mt Fyans Wind Farm.

Hydro Tasmania has been contracted by Woolnorth to develop the Mt Fyans Wind Farm Project. Hydro Tasmania's Health, Safety and Environmental (HSE) system is based on international standards for safety and environmental management, OHSAS18001 and ISO14001 respectively. As such the processes and documents are organised under the continuous improvement model of 'Plan, Do, Check, Act'. Information about Hydro Tasmania's HSE System is available at <https://www.hydro.com.au/health-safety-and-environmental-management>

## 2. Woolnorth Environment and Social Management

Woolnorth largely operates under the Health, Safety and Environmental Management System (HSE System) of Hydro Tasmania. The business strategically supplements or replaces some documents, however, to ensure its HSE system is finely tailored to its design, construction, operation and maintenance interests in the wind industry, which includes any associated infrastructure (e.g. roads, electricity transmission).

Consistent with its ISO 14001 certification, the system is based on a 'Plan, Do, Check, Act' approach and contains the following 16 elements:

- Policy and commitment
- Legal and other requirements
- Hazard identification and risk management
- Planning and objectives
- Accountability and leadership
- Awareness training and competency
- Communication consultation and involvement
- Document and record management
- Project management
- Management of contractors and suppliers
- Emergency preparedness
- Monitoring and measuring
- Incident management
- Audit
- Management review

The elements are interrelated and the implementation of each is necessary for the effective functioning of the system. The HSE system has been endorsed by the Woolnorth Board as the method for establishing effective systems of environmental and social management and contains all the elements necessary to manage risks associated with the proposed Mt Fyans Wind Farm. Woolnorth has adopted the HSE system to develop and operate windfarms in Tasmania and South Australia, ensuring high level of environmental and social performance across all of these projects. The HSE system will apply to all stages of the proposed Mt Fyans Wind Farm.

Sustainability is one of Woolnorth's core values and a Sustainability Code has been developed to embed sustainable practices into Woolnorth's operations. The sustainability code is based on the following seven principles:

- Governance
- Infrastructure and resources
- Economic
- Customers
- Community
- Our people
- Environment

The HSE system is driven by the Sustainability Code. HSE policies are derived from the seven sustainability principles identified in the code and consideration of all principles is given in the underlying HSE system procedures.

Woolnorth has contracted Hydro Tasmania to develop the proposed Mt Fyans Wind Farm. Hydro Tasmania has developed a Wind Farm Development Sustainability Framework. The sustainability framework describes how Hydro Tasmania applies the Sustainability Code (shared with Woolnorth) to the development of wind energy projects. The sustainability framework is based on the seven principles in the Sustainability Code. For each principle, the framework identifies critical issues, desired outcomes (in line with current national and international guidelines and indicators) and contains commitments for each principle against which performance can be assessed. A summary of the sustainability framework is provided in Table 2.1.

Woolnorth is confident that its HSE system, together with the application of the commitments described in the Wind Farm Development Sustainability Framework, will provide effective management of environmental and social values associated with the development of the proposed Mt Fyans Wind Farm.

**Table 2.1: Hydro Tasmania Wind Farm Development Sustainability Framework**

Hydro Tasmania Sustainability Code Principles and Commitments	Hydro Tasmania Wind Farm Development Sustainability Objectives
<p><b>Governance</b>  <i>We make our decisions within comprehensive governance and risk management frameworks while seeking to continually improve our business processes.</i>  <i>We make ethical decisions by applying our values, sustainability principles and Code of Ethical Behaviour, complying with relevant legislation and delivering on the commitments we make</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. corporate business processes, policies and plans relating to the wind farm development are consistent with national and international governance standards;</li> <li>2. corporate, political and public sector risks relating to the wind farm development are identified and managed;</li> <li>3. decisions relating to the wind farm development are ethical and equitable; and</li> <li>4. the wind farm project complies with all relevant State and Commonwealth legislation and regulations</li> </ol>
<p><b>Infrastructure and Resources</b>  <i>We manage our infrastructure and resources optimally for present and future reliability and with the highest standards of safety</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. wind farm siting is optimised for each wind farm taking into account economic, social and environmental values;</li> <li>2. wind turbine and associated assets are selected, designed, constructed and maintained to deliver optimal performance, safety and reliability in the short and long term; and</li> <li>3. the use of recyclable resources is maximised across the project's lifecycle</li> </ol>
<p><b>Economic</b>  <i>We make sound commercial and investment decisions in our chosen markets, to deliver long-term business value and meet shareholder expectations.</i>  <i>We leverage our low carbon generation and competitive customer focus to create value for our shareholders, the people of Tasmania</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. the wind farm investment delivers long term business value to the customer and meets shareholder expectations;</li> <li>2. the wind farm fits within Hydro Tasmania's portfolio of assets and provides benefits through risk reduction and greater operational flexibility within the NEM;</li> <li>3. the wind farm is financially sound throughout its life with sufficient contingency for social and environmental commitments; and</li> <li>4. future market trends which may affect the viability of the wind farm are identified and managed</li> </ol>

Hydro Tasmania Sustainability Code Principles and Commitments	Hydro Tasmania Wind Farm Development Sustainability Objectives
<p><b>Customers</b></p> <p><i>We know that our customers have a choice. We aim to be the first choice through understanding, responding and delivering sustainable solutions to our customers.</i></p> <p><i>We are innovative and creative in developing new products and services in response to the needs of our customers and in order to retain our competitive edge in the marketplace.</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. the wind farm provides a reliable and cost competitive source of renewable energy to its wholesale or retail customers;</li> <li>2. the wind farm is designed and constructed to deliver low risk and sound financial returns for future investors; and</li> <li>3. research and development is applied to wind farms to maintain a competitive edge</li> </ol>
<p><b>Community</b></p> <p><i>We understand that we have the potential to impact on people through our activities. We:</i></p> <p><i>»» aim to have regular, open and transparent dialogue with our community;</i></p> <p><i>»» aim to make a genuine difference in the communities in which we operate; and</i></p> <p><i>»» work with our customers, stakeholders, suppliers and partners to contribute to a sustainable future</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. development of the wind farm is a learning journey with the community, to build a project that meets the needs and interests of all and applies the most sustainable solutions;</li> <li>2. lessons learned from other projects are incorporated into the wind farm project, using approaches that are meaningful, effective and cooperative with those involved;</li> <li>3. potential positive and negative impacts of the project are openly acknowledged, and collaborative approaches are taken to identify how to mitigate challenges and maximise opportunities;</li> <li>4. an engagement process is developed and implemented that maintains and enhances relationships, trust and credibility and avoids pitting people against each other; and</li> <li>5. local government and the community are engaged to ensure wind farming is incorporated into Australian rural communities in a sustainable way and benefits are effectively and fairly spread across the community</li> </ol>
<p><b>Our People</b></p> <p><i>We will continue to:</i></p> <p><i>»» offer opportunities for our employees to grow and develop;</i></p> <p><i>»» reward, recognise and value employee contribution;</i></p> <p><i>»» listen and engage with our employees and maintain sound employment relations;</i></p> <p><i>»» ensure a diverse and equitable workplace; and</i></p> <p><i>»» provide a safe and healthy working environment.</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. support, opportunities and rewards are provided to our wind farm employees to help and encourage them to achieve their career and personal ambitions within Hydro Tasmania’s equal employment opportunity workplace; and</li> <li>2. Hydro Tasmania’s wind farms provide a healthy and safe environment for all employees, contractors and visitors</li> </ol>

Hydro Tasmania Sustainability Code Principles and Commitments	Hydro Tasmania Wind Farm Development Sustainability Objectives
<p><b>Environment</b></p> <p><i>We aim to minimise our impact on the environment and seek opportunities to enhance environmental, cultural and heritage values.</i></p> <p><i>As climate change has significant implications for our business we are committed to being part of a sustainable solution</i></p>	<p>Hydro Tasmania as the developer, owner and/or operator of a wind farm ensures that:</p> <ol style="list-style-type: none"> <li>1. environmental, cultural and heritage values are investigated and assessed in accordance with international and national best practice guidelines and regulatory requirements;</li> <li>2. environmental impacts are addressed in accordance with the hierarchy of controls (avoid, minimise, mitigate or offset) throughout a wind farm’s life;</li> <li>3. opportunities to enhance environmental, cultural and heritage values are identified and implemented where feasible; and</li> <li>4. project related emissions across its life cycle are identified, measured and reduced</li> </ol>

### 3. Mt Fyans Wind Farm Environment and Social Management

This section describes how the elements of the HSE system have been, and will continue to be, applied to the development, construction and operation of the proposed Mt Fyans Wind Farm.

#### 3.1 Policy and commitment

Woolnorth is committed to the highest standards of environmental and social management. Woolnorth’s environmental and social commitments are set out in their Environmental Policy and Sustainability Code. These documents are endorsed by Woolnorth’s General Manager.

As described in Section 2, Woolnorth will develop the proposed Mt Fyans Wind Farm in accordance with these documents and the remaining components of its HSE system. This will be conducted through Hydro Tasmania, as the developer, and will follow approaches contained in the Wind Farm Development Sustainability Framework.

#### 3.2 Legal and other requirements

Through its HSE system Woolnorth has committed to complying with all relevant laws, regulations and standards. Woolnorth will identify relevant legislation and consult with, and obtain consent from, regulatory authorities including National, State and Local Government as required. A compliance framework, based on Hydro Tasmania’s Australian Wind Farm Regulatory Database, will be implemented to identify, manage and monitor regulatory obligations. In addition, regulatory

compliance will be achieved by ensuring all staff and contractors are aware of their responsibilities (refer Section 0) and regularly auditing to monitor compliance (refer Section 0).

Key approvals required for the proposed Mt Fyans Wind Farm will include:

- Approval in accordance with the Planning and Environment Act 1987. The proposal must be approved by the Minister for Planning, through the Victorian Department of Environment, Land, Water and Planning (DELWP), in relation to the relevant aspects of the Moyne Shire Planning Scheme.
- Approval of a Cultural Heritage Management Plan in accordance with the Aboriginal Heritage Act 2006.

Victoria has developed model planning permit conditions for wind energy facilities that will apply to the proposed Mt Fyans Wind Farm. The model permit conditions are contained in Appendix B of the [Policy and planning guidelines for wind energy facilities in Victoria](#)<sup>1</sup> and include conditions associated with:

- development plans including the location and model of all turbines and location of all associated infrastructure
- micro-siting of turbines
- specifications of the wind farm and associated infrastructure
- onsite and offsite landscaping
- noise performance requirements, compliance assessment and complaint evaluation
- turbine blade shadow flicker performance requirements and compliance assessment
- television and radio reception
- lighting (including aviation lighting)
- traffic management
- environmental management plans
- bat and avifauna management plans
- decommissioning

### **3.3 Hazard identification and risk management**

The potential for the development of a wind farm at Mt Fyans has been investigated for more than seven years. The results of investigations and potential for change in both State and National policies regarding renewable energy developments have been considered through a due diligence / risk assessment process. Based on the results of wind monitoring and assessments completed to date the proposed site of the Mt Fyans Wind Farm is cable of supporting an economically viable wind farm whilst avoiding significant adverse impacts to local community, environmental and heritage values.

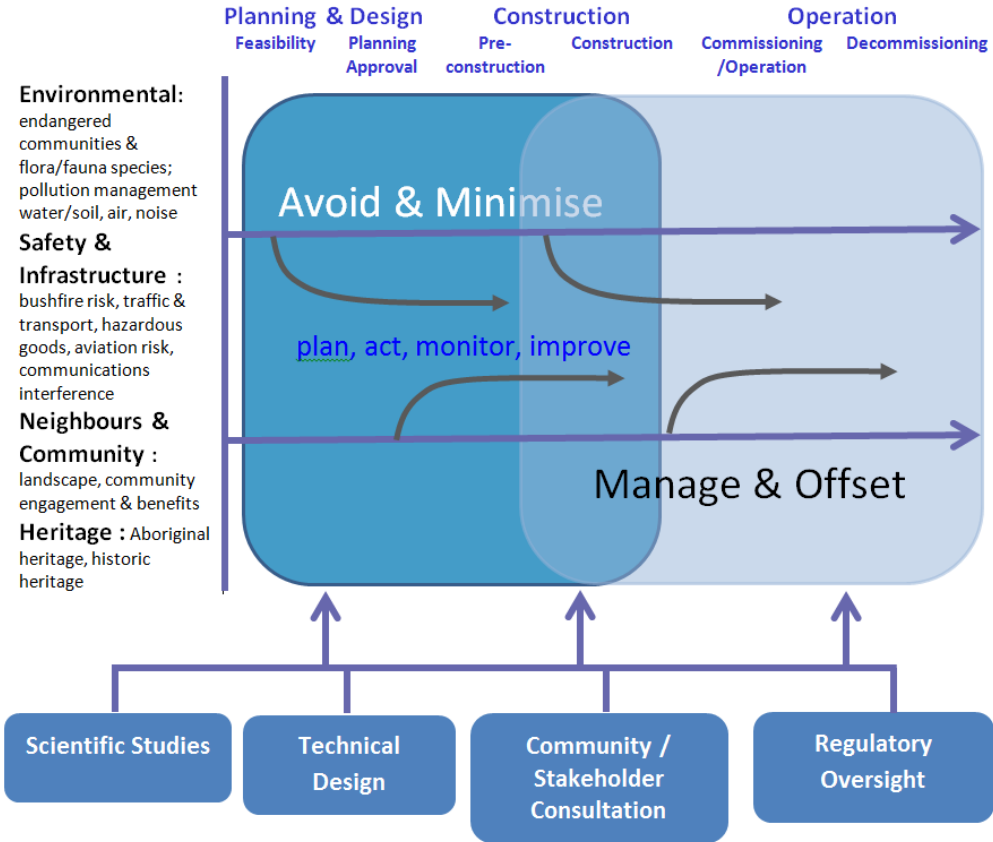
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<sup>1</sup> Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria, DELWP, January 2016



Hazard identification has occurred throughout the initial studies undertaken for the proposed development. Risks associated with the identified hazards have been managed in accordance with a hierarchy of ‘avoid, minimise, manage and offset’, with almost all risks identified to date able to be avoided. For example, locations of potential ecological significance have been identified through flora and fauna studies, with the wind farm design revised to avoid these locations.

Woolnorth recognises that the management of identified risks will change as the project progresses. As the planning and design phase of the development provides the greatest scope to identify and avoid risks, Woolnorth has gone to great efforts to identify risks such as ecological and heritage constraints as early as possible, which has allowed these risks to be avoided through design of the wind farm. Figure 3-1 outlines Woolnorth’s approach to risk management for the Mt Fyans Project.



**Figure 3-1: Mt Fyans Wind Farm Risk Management**

Hazard identification and risk management, through tools such as a Construction and Operation Environmental Management Plans, will continue to be a key component of the development of Mt Fyans Wind Farm. A broad range of management and mitigation measures are anticipated, to ensure that potential risks are acceptable to achieve safety, asset management, environmental or community objectives.

### **3.4 Planning and objectives**

As identified in Section 0, planning of the Mt Fyans Wind Farm has involved the identification of environmental, heritage and social risks consistent with the HSE system. Initial planning has recognised that the greatest opportunity to avoid and thereby eliminate or minimise potential impacts exists at the planning and design stage. The early phases of developing the Mt Fyans Wind Farm has aimed to 'design out' risks, as values and potential impacts have been identified. This has been achieved by adopting a 'development envelope' approach whereby a delineated zone of development for the wind farm and associated infrastructure, has been established within the site boundary that avoids identified risks.

The objectives of the proposed Mt Fyans Wind Farm are to develop a renewable energy project that:

- implements Federal and State Policies for increasing the supply of renewable electricity generation,
- is capable of being connected to the Victoria / South Australia interconnector, and
- uses the proposed sites wind resource to provide cost effective electricity.

Planning and risk management will continue throughout the project. Key planning instruments will include construction and operational environmental management plans as well as daily task control (e.g. work method statements, job hazard analysis) and contractor management (refer Section 0). Construction and operational environmental management plans will include environmental objectives and, where relevant, targets for measuring performance.

### **3.5 Accountability and leadership**

Woolnorth is committed to developing, constructing and operating the proposed Mt Fyans Wind Farm in an environmentally and socially responsible manner. Woolnorth considers that the HSE system is the responsibility of everyone involved in the project, however, the Managing Director is ultimately responsible for HSE performance.

Management plans (e.g. Construction Environmental Management Plans) will clearly identify specific roles and corresponding environmental and social responsibilities to ensure the plan is effectively implemented.

### **3.6 Awareness training and competency**

Woolnorth establishes, implements and maintains procedures to ensure awareness of expected HSE behaviours (for employees, contractors and visitors), HSE consequences of their work activities and roles and responsibilities in achieving conformance to HSE policies and procedures.

Woolnorth and contractors will undertake environmental and social training to ensure they understand the environmental and social commitment and potential impacts of the Mt Fyans Wind Farm project as well as the HSE system requirements. Training will be provided through staff and contractor inductions and, where required, targeted training for specific activities or positions. Training and induction programs will be developed prior to construction and operation and will

address both administrative and technical aspects of its environmental and social management procedures.

### **3.7 Communication, consultation and involvement**

Woolnorth is committed to a meaningful engagement processes whereby emerging community issues associated with the proposed Mt Fyans Wind Farm are able to be identified and managed. Communication with stakeholders, including residents of Mortlake and surrounding communities, will be open and transparent including the results of studies undertaken to assess the potential impacts associated with the wind farm and proposed mitigation strategies.

To date landowners, neighbours (within 3 km), the Moyne Shire Council, council representatives, community groups and a range of other stakeholders have been engaged. During the ongoing design of the wind farm, Woolnorth is committed to gather the greatest depth and breadth of community input by offering multiple opportunities and a variety of avenues to reach all community members. In addition to the development approval process, a range of community consultation activities, including public open days, are planned that will provide updates on the progress of the project and allow an opportunity for stakeholders to ask questions and provide feedback.

Continued effective communication is seen by Woolnorth as a critical component of both the construction and operation of the Mt Fyans Wind Farm. A Mt Fyans Wind Farm Stakeholder Engagement Plan has been developed and is currently being implemented for the initial stages of the project. Further engagement plans will be developed for the construction and operational phases of the project. The construction and operational plans will describe how Woolnorth intends to provide timely information about the wind farm (e.g. website) as well as a grievance management process and complaints register for the wind farm, which provides for timely and accurate response to community concerns procedures for receiving, documenting and responding to communications from external sources.

### **3.8 Document and record management**

Detailed environmental documentation (e.g. Construction and Operational Environmental Management Plans) will be developed for the Mt Fyans Wind Farm to assist in the implementation of the HSE system. A system of internal reporting (from Hydro Tasmania to Woolnorth) and external reporting (to community, regulators and other stakeholders) will be documented.

Woolnorth has a comprehensive document control system which will be utilised for the Mt Fyans Wind Farm.

### **3.9 Assets and operations**

The Mt Fyans Wind Farm has been subject to a staged development approach to ensure that the siting and design of the wind farm considers environmental, social and technical (e.g. wind resource, grid connection) factors to ensure optimal wind farm (asset) configuration. Detailed design will further optimise the wind farm configuration based on the selected turbine type and taking into account construction and operation requirements.

The design of the wind farm will comply with relevant national and international standards and guidelines and Safety in Design requirements. Woolnorth implements a quality management process that includes supply, delivery and construction quality assurance, commissioning of wind farm and individual turbines, and commencement of warranty and maintenance periods.

Woolnorth has an established asset management process that will be implemented for the Mt Fyans Wind Farm. It includes routine maintenance and monitoring of asset condition, safety, availability and reliability as well as long term programs for efficiency improvements and upgrades in asset management process.

### **3.10 Project management**

Woolnorth utilises project management systems and practices that include consideration, consultation, documentation and communication of HSE aspects in all phases of project development. The initial investigation and design of the Mt Fyans Wind Farm has considered environmental and social aspects inherent in the HSE system to avoid potential significant impacts. The project management systems will ensure HSE aspects are continued to be considered as the project is developed, commissioned and operated.

### **3.11 Management of contractors and suppliers**

Woolnorth maintains criteria for contractors and suppliers to ensure HSE systems, capability, experience, equipment, material, products, plans and /or services align with Woolnorth's HSE requirements. Woolnorth has procedures in place to ensure that appropriate consultation, communication and agreement takes place regarding the identification and control of HSE risks from specification through to completion of works. No work will be permitted to commence on site until the appropriate documentation is approved by Woolnorth.

Woolnorth is committed to ensuring that the procurement of goods, services and works is equitable, efficient, transparent, accountable, ethical and timely.

### **3.12 Emergency preparedness**

Woolnorth will develop and maintain construction and operational emergency response plans and ensure that sufficient resources and equipment are available to manage emergencies. Staff and contractors will be made aware of and trained in emergency response procedures. Emergency response plans will include management of potential bush fires in conjunction with the Victorian Country Fire Authority.

### **3.13 Monitoring and measuring**

Monitoring will form an integral part of the construction and operation of the proposed Mt Fyans Wind Farm. Monitoring programs will be developed as part of construction and operation environmental management plans. Environmental monitoring will be used to assess the effectiveness of environmental and social management measures and determine compliance with regulatory conditions and construction and operation plans. Monitoring programs will be systematic, statistically valid and conducted by appropriately qualified people.

Key monitoring programs will include:

- pre and post construction wind farm noise monitoring
- protection of sites of ecological and heritage significance
- conforming of the effectiveness of erosion and sediment control measures during construction
- pre and post construction road maintenance surveys
- operational avifauna monitoring.

### **3.14 Incident management**

Incidents include those with environmental, social, heritage, health and safety impacts. Incidents occurring during the construction or operation of the Mt Fyans Wind Farm will be managed in accordance with Woolnorth's HSE system incident management procedures which require the timely reporting, investigation and communication of incidents, hazards and near misses.

### **3.15 Audit**

Woolnorth will develop an audit program for both construction and operation of the proposed Mt Fyans Wind Farm. The audit program will identify the scope and timing of audits. Audits will be conducted to assess compliance with regulatory requirements (e.g. development approval conditions) and specific environmental or social management plans. Auditors will be appropriately qualified to lead and or participate in audits. Where audits identify non-conformances HSE system procedures are in place to identify, respond to and manage non-conformances and improvement opportunities.

### 3.16 Management review

Woolnorth conducts annual and event based audits and reviews of the HSE system to ensure its ongoing adequacy, suitability and effectiveness. The review documents performance and sets objectives and targets for the upcoming year.

## 4. Environmental management plans

A range of environmental management plans are expected to be developed both in response to planning permit conditions (refer Section 0) and to manage environmental and social risks during the construction and operation of the Mt Fyans Wind Farm.

Based on the model planning permit conditions described in Section 0 key environmental plans expected to be prepared for the Mt Fyans Wind Farm include:

- Noise management plan
- Traffic management plan
- Bats and avifauna management plan
- Landscape Management Plan
- Environmental Management Plan

The Environmental Management Plan is expected to include the following sub-plans:

- Construction and work site management Plan
- Sediment, erosion and water quality management plan
- Hydrocarbon and hazardous substances management plan
- Wildfire prevention and emergency response plan
- Vegetation management plan
- Biosecurity management plan

Each of the plans included in the Environmental Management Plan will describe the objectives and performance targets and provide key management, monitoring and reporting requirements. The plan will describe specific environmental management and monitoring measures based on the final wind farm design and selected construction methods. It is expected that the environmental management plan will be used by the construction contractor as the basis for the preparation of site specific environmental and social management plans including a project Construction Environmental Management Plan.

The Operational Environmental Management Plan will focus on the monitoring and management of potential environmental and social risks and will include sub-plans such as:

- Operational noise management
- Bat and avifauna management
- Landscape management
- Weed and pest management
- Safety and emergency response management

The Operational Environmental Management Plan will also describe the roles and responsibilities of the operator's staff and contractors, the management of operational permits and licences, training and induction, internal and external communication (including complaints management) and compliance and reporting requirements.