



Woodlawn Wind Farm

Operational Environmental Management Plan

Document Control

The Infigen Energy (Infigen) Operations Manager is responsible for the revision and update of this Operation Environmental Management Plan (OEMP) for Woodlawn Wind Farm (Woodlawn). A new revision date is required with any updates or revisions, and will be circulated to those on the Email Distribution List once the revision has been approved by the Infigen General Manager Energy Market Operations (GMEMO). This OEMP will be reviewed formally on an annual basis by the Operations Manager in consultation with the Infigen Health, Safety & Environment (HSE) Manager and Infigen Site Manager for Woodlawn, and other stakeholders as required. Review may also take place immediately after any significant incident or change to the activities, products or services or material changes in the operating conditions.

Document History

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Date	Author	Version	Revision Notes	Approval
21/05/2013	Senvion	1	Update to Senvion template.	CL
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WOOW1-OEMP

Date	Author	Version	Revision Notes (include whether changes are considered minor or significant updates)	Approval
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Email Distribution List

Company	Position / Role
Infigen Energy (Woodlawn Wind Pty Ltd)	Website - details of the current version and instructions for obtaining information about the OEMP.
SEA Energy Australia (SEA)	NSW Service Manager
SEA Energy Australia (SEA)	HSEQ Manager
Independent	Environmental Representative
NSW Department of Planning	Representative
NSW OEH (formally DECCW and DEC)	Representative
Goulburn-Mulwaree Council	Representative
Palerang Council	Representative
Sydney Catchment Authority	Representative

Key Emergency Service Contact Details

Organisation	Telephone Number
All Emergencies (Fire, Ambulance, Police)	000
NSW Rural Fire Service	000
NSW State Emergency Services	000

Goulburn Hospital	(02) 4827 3111
Queanbeyan Hospital	(02) 6298 9211
Canberra Hospital	(02) 6244 2222
Poisons Information Centre	131 126
WIRES (Wildlife Rescue)	1300 094 737
State Emergency Services - Palerang	0429 033 371

1.1 Other Key Environmental Contact Details

Organisation	Telephone Number	To be notified by Woodlawn Wind Pty Ltd or SEA Lead Service Technician when...
NSW Department of Planning and Infrastructure	Sydney HO 02 9228 6111 Queanbeyan 02 6229 7900	Any non-compliance with approval conditions or any proposed departure from the conditions of Project Approval
Palerang Council	02 6238 8111	Major hazardous substance spills or erosion events, especially those that impact upon waterways.
Goulburn - Mulwaree Council (Appropriate regulatory authority under the POEO Act)	02 4823 4444 02 4822 1080 (after hours)	Major hazardous substance spills or erosion events, especially those that impact upon waterways.
NSW OEH (formally DECCW)	131 555	Advice in relation to clean-up of spills or leaks or restoration of site.
NSW OEH (formally DECCW)	Queanbeyan 6229 7000	Significant impact on Flora or Fauna
Sydney Catchment Authority	1800 061 069	Major hazardous substance spills or erosion events that occur within the Sydney Drinking Water Catchment (being the land to the east of the main range)

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2. Executive Summary

This Operation Environmental Management Plan (OEMP) has been prepared by Woodlawn Wind Pty Ltd (Woodlawn Wind) and the Service Provider, to establish the management framework for environment issues relating to the operation phase of the Woodlawn Wind Farm (Woodlawn).

Woodlawn is required to comply with 76 key conditions listed within the NSW Minister for Planning's Conditions of Approval (Project Approval) issued on 4 October 2005. Details of modifications to these conditions are as follows:

- Mod 1 – determined 12 Mar 2010 – reduction to 20 turbines and other infrastructure changes;
- Mod 2- determined 13 Jul 2010 – reinstatement of properties for northern access and transmission line and;
- Mod 3 – determined 29 Oct 2010 – additional three turbines;

In general terms, the Proponent being Woodlawn Wind, must implement all practicable measures to prevent and minimise any harm to the environment that may result from the construction, Commissioning, Operations, and Decommissioning of the Development (Condition 1).

This OEMP has been developed in accordance with Conditions 33 and 34 of the Minister's Project Approval. Project Approval Conditions 35-40, 53, 57, 65 and 73 specify sub-plans that must also form part of the OEMP. These are described below:

Project Condition #	Approval Condition	Proponent's Response (within OEMP)
35	Operation Flora and Fauna Management Sub Plan	Section 5
36	Operation Soil and Water Management Sub Plan	Section 4
37 -39	Bird and Bat Adaptive Management Program	Section 7
40	Offsite Landscape Sub Plan	Section 13
49-52 and 53-55	Noise Compliance Assessment Plan	Section 9
57	Cultural Heritage Management Sub Plan ¹	Section 6
65	Bushfire Risk Management Sub Plan	Section 8
73	Waste Management and Re-use Sub Plan	Section 10

Woodlawn Wind Pty Ltd is the holder of Environment Protection Licence (EPL) number 20436, administered by NSW Environment Protection Agency (EPA) under the Protection of the Environment Operations Act (NSW). The Licence sets out conditions which must be complied with as is relevant to the operations at Woodlawn.

All persons involved in the operation phase of Woodlawn shall undertake their respective activities in accordance with the relevant requirements of this OEMP.

This OEMP shall be read in conjunction with all related Woodlawn Health, Safety, and Environmental (HSE) documents as well as the Woodlawn Wind Farm Service Management Plan and Capital and Woodlawn Wind Farm – Emergency Response Plan.

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.

References:

Plan: Woodlawn Wind Farm – Service Management Plan – WWF-OMS-MAN-87

Plan: Capital and Woodlawn Wind Farm – Emergency Response Plan

Definitions

¹ The Cultural Heritage Management Sub Plan has been maintained in the OEMP due to measures currently in place on site, which will be maintained throughout the operational phase

Term	Meaning
BBAMP	Bird and Bat Adaptive Management Program
CEMP	Construction Environmental Management Plan
Contractor	The Service Provider, the organisation responsible for the total performance of the works under the Operations and Maintenance Agreement.
CWF	Capital Wind Farm
“the Department of Planning”	NSW Department of Planning which can modify its name from time to time such as Department of Planning and Infrastructure and Department of Planning and Environment, however it is commonly known as Department of Planning.
EIS	Environmental Impact Statement
Emergency Response Plan (ERP)	A document that defines the procedures processes and contact details in the event of an emergency.
EPA	NSW Environment Protection Authority
EPC	Engineer, Procure and Construct (Contract)
EPL	Environment Protection Licence
ER	Independent Environmental Representative
HSEC	Health, Safety, Environment and Community
JHA/SWMS	Job Hazard Analysis or Safe Work Method Statement. <ul style="list-style-type: none"> A document that identifies and ranks the likelihood and severity of any potential risks and determines control measures required to mitigate those risks.
OEH	NSW Office of Environment and Heritage, an office of the EPA.
OEMP	Operation Environmental Management Plan
OMS	The Service Provider’s Operation, Maintenance and Service Group.
Pollution Incident	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.
Proponent	Woodlawn Wind Pty. Ltd.
SCA	Sydney Catchment Authority
SEE	Statement of Environmental Effects
Site	The area defined for the Woodlawn Wind Farm.
SMP	Service Management Plan. <ul style="list-style-type: none"> Reference to this document which sets out the specific HSEC and Quality practices, resources, activities and responsibilities as prepared by the Service Provider and as required by the Energy Safety, Safety & Standards Office of Fair Trading (NSW).
Subcontractor	Any company, body or person who is contracted to the Service Provider, or Woodlawn Wind for the purpose of supplying goods and/or services.
Veolia	Veolia Environmental Services (Australia) Pty Ltd - the landowner
WOO	Woodlawn Wind Farm
WTG	Wind Turbine Generator
WWF	Woodlawn Wind Farm

3. Introduction

3.1 Background

The Service Provider is contracted by Woodlawn Wind Pty Ltd (Woodlawn Wind) to carry out the service and maintenance for the Woodlawn Wind Farm (Woodlawn), New South Wales (NSW).

Woodlawn is located on the Great Dividing Range, within the Southern Tablelands of NSW. It is located approximately 50 Kilometres north-east of Canberra, 37 kilometres south of Goulburn, and is adjacent to the operational 140.7 MW Capital Wind Farm.

The site is partially on property that also contains the site of the former Woodlawn Mine and the operating Woodlawn Bioreactor that is using waste to fill a former mine void and produce energy from the methane gas that is released from the waste, and partially on predominantly cleared grazing land.

3.2 Project Description

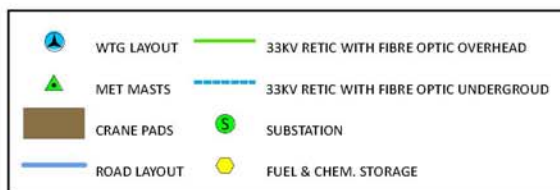
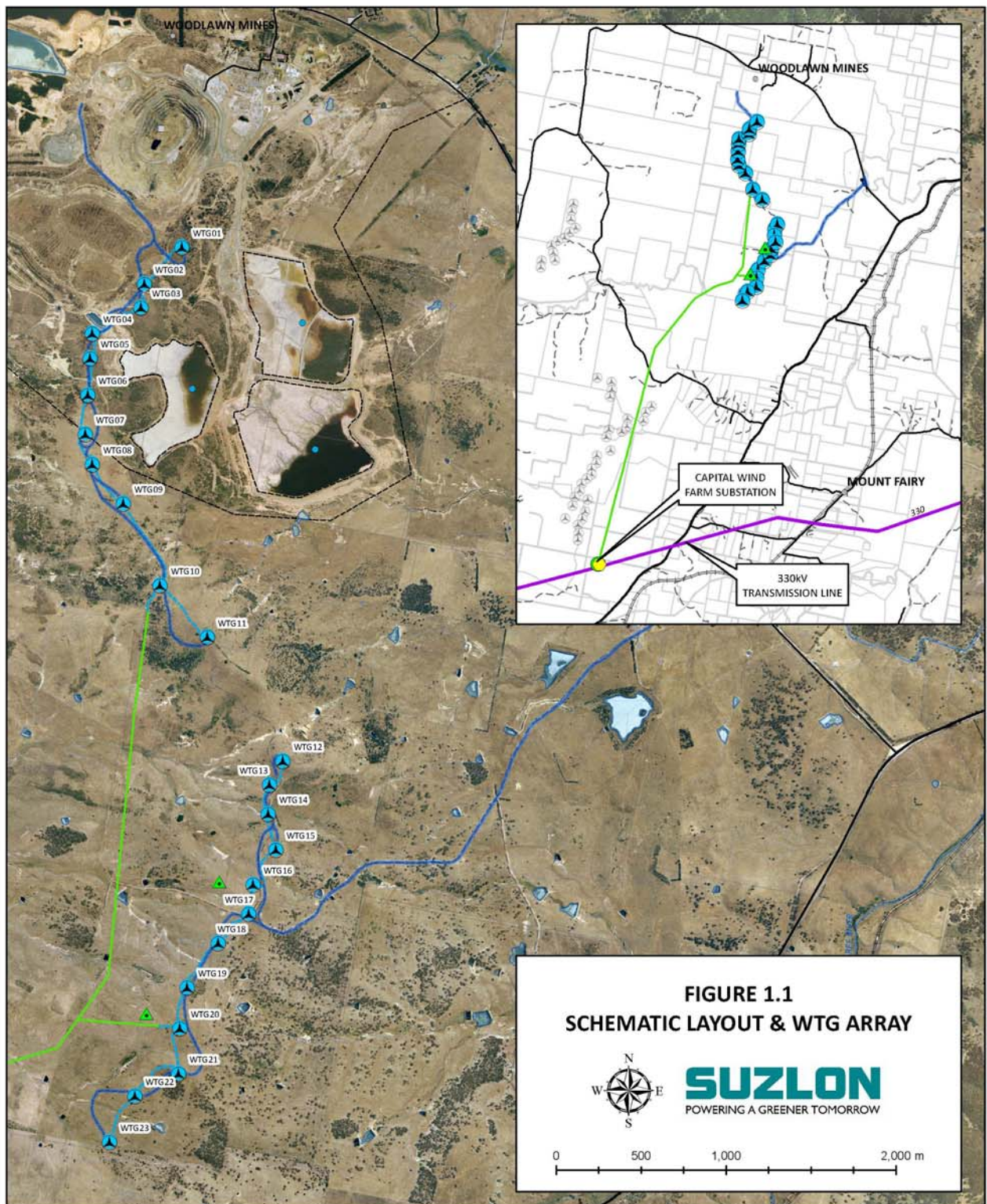
Woodlawn consists of 23 SEA S88 2.1 MW wind turbine generators (WTGs), a modified electrical substation (located at Capital Wind Farm) to facilitate connection to an existing TransGrid 330 000 volt transmission line, a facilities building (also located at Capital Wind Farm), and permanent wind monitoring towers, underground cables, a thirteen internal overhead power line, access tracks, wind tower hardstands, and ancillary works (Figure 3.3.1). Temporary laydown areas within the Veolia site were also created during the construction phase and have been rehabilitated to the requirements of the landowner.

The 23 turbines are distributed in two groups referred to as the northern string and the southern string. The 33,000 volt/330,000 volt (33kV/330kV) substation is located to the south east of the Capital Wind Farms Hammonds Hill Group of turbines. The layout of the site is shown in Figure 3.3.1.

All access tracks, hardstands, underground and overhead electrical lines have been constructed, and wind turbine generators have been erected. Following energisation of the 33kV/330kV Transformer and associated plant and equipment on 4 May 2011, commissioning of the 23 turbines commenced on 31 May 2011. The electrical substation and the associated facilities and services buildings provide the automated control centre for the wind farm during operation.

3.3 Woodlawn Wind Pty Ltd

Woodlawn Wind Pty Ltd is a fully owned subsidiary company of Infigen Energy (Infigen). For the purposes of this OEMP, Woodlawn Wind Pty Ltd will be referred to as “Infigen” throughout this document.



WOO-C-3524 [REV 00]

Figure 3.3.1 - Site Layout

3.4 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 action;
- Ensure all operation staff are made aware of the potential operation impacts on the environment, and the associated management strategies within which they are expected to conduct their activities;
- Provide evidence of compliance with 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 Woodlawn;
- 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 is to be in accordance with the 76 approval conditions listed within the NSW Minister for Planning's Conditions of Approval (Project Approval) issued on 4 October 2005.

Details of modifications to these conditions are as follows:

- Mod 1 – determined 12 Mar 2010 – reduction to 20 turbines and other infrastructure changes
- Mod 2 – determined 13 Jul 2010 – reinstatement of properties for northern access and transmission line
- Mod 3 – determined 29 Oct 2010 – additional three turbines.

3.5 Environmental Management Structure and Responsibility

The Project Approval has been granted for Infigen with ultimate responsibility for the project implementation resting with Infigen. Infigen has engaged the Service Provider to operate Woodlawn on its behalf according to the Project Approval conditions and to the extent of the contract arrangement. Figure 3.5.1 below displays the Woodlawn environmental management organisation structure.

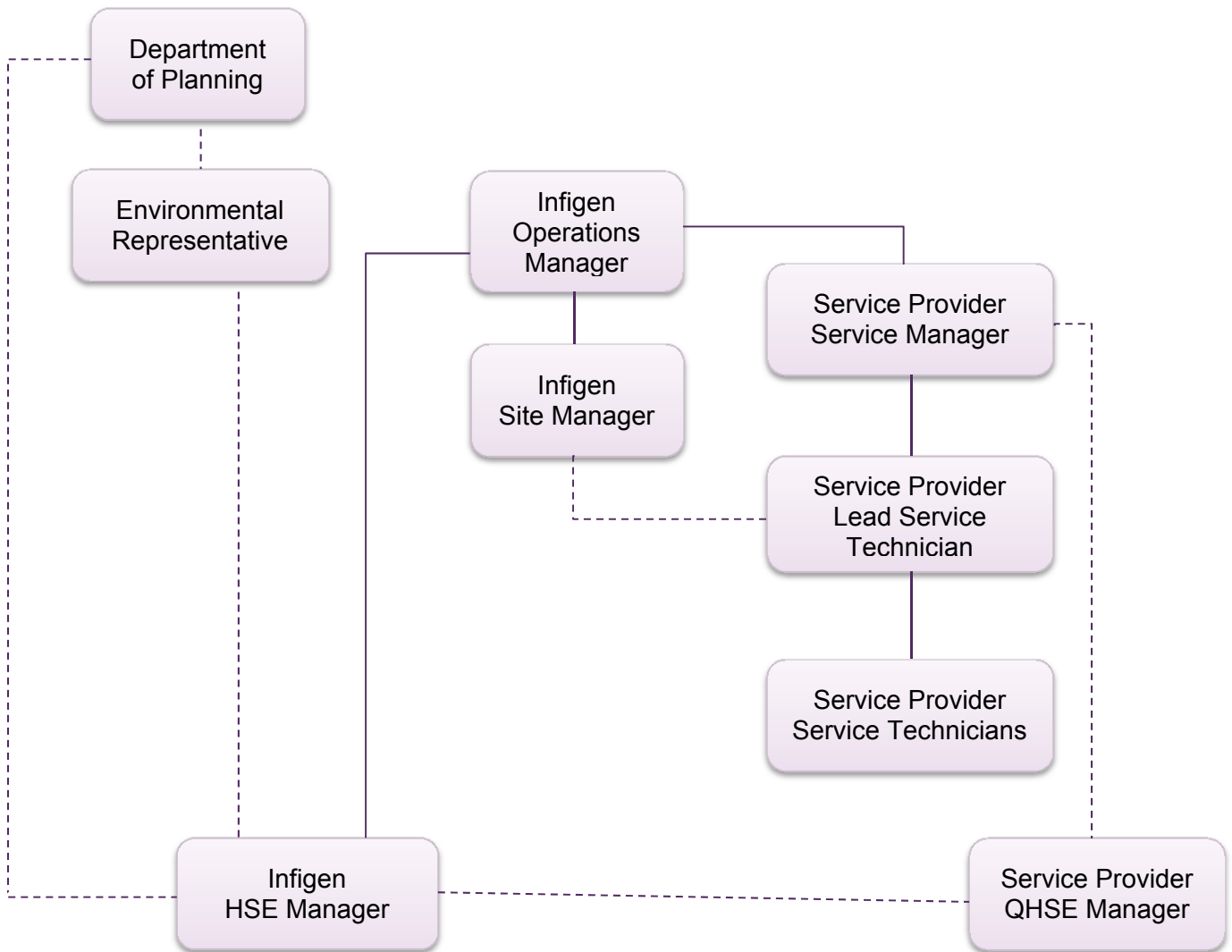


Figure 3.5.1 – Woodlawn environmental management structure.

3.6 Conditions and Licences

The NSW Department of Planning has provided clear guidance for the project environmental management requirements through the Project Approval Conditions and expects Infigen to maintain systems that ensure compliance with these conditions and all associated approvals, permits, licences and agreements. Project Approval Condition 33 and 34 sets out the requirement for this OEMP. Table 3.6.1 below provides the OEMP conditions as per the Project Approval and a summary of how Infigen has or continues to comply with the requirements. The full Project Approval conditions of consent can be found on the NSW Planning website www.planning.nsw.gov.au.

Condition number	Condition requirement summary	Infigen compliance
33	Applicant must implement an OEMP in accordance with Department publication entitled Guideline for the Preparation of Environmental Management Plans.	Compliant - This OEMP has been prepared and is aligned to the Guideline. See Appendix X for OEMP compliance checklist completed by Infigen HSE Manager.
33	Applicant must ensure that the mitigation and monitoring measures identified in the EIS, its attachments and the Project Approval Conditions are incorporated into the OEMP.	Compliant - Monitoring measures identified in these documents have been implemented as part of this OEMP.
33	That the OEMP is Publically Available	Compliant - Instructions for obtaining a copy of the current version of OEMP are on Infigen's public website.
33	OEMP must be prepared in consultation with Relevant Government Agencies and Council and must be certified by the ER.	Compliant - The OEMP was prepared and certified by the independent ER 25/07/2011. Certification letter filed on Infigen's "infinet."
33	OEMP is to be submitted for approval of the Director General no later than one month prior to commencement of operation or otherwise agreed.	Compliant – Submitted 07/10/2011. Submission letter filed on Infigen's "intranet."
34	Operation must not commence until written approval of the OEMP has been received from the DG. Upon approval a copy must be sent to DEC, SCA and Councils as soon as practicable.	Compliant - Approval granted 09/11/2011. Approval letter filed on Infigen's "intranet."

Table 3.6.1 OEMP Project Approval Compliance

Infigen has the responsibility to oversee the environmentally responsible implementation of the project, and requires its contractor (Service Provider) to conduct all its operations in accordance with the relevant requirements. To ensure compliance, Infigen and the Service Provider 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 system, and the emergency response system can be found in the management plans contained within this document.

3.7 Environment Protection Licence

The EPA has issued Woodlawn with an EPL under the Protection of the Environment Operations Act (POEO Act). The licence conditions relate to pollution prevention and monitoring, and cleaner production through recycling and reuse and the implementation of best practice. A copy of the Woodlawn EPL number 20436 is publically available on the EPA public register, on Infigen's intranet "infinet" or by contacting Infigen using contact details on Infigen's public website.

3.8 Health Safety and Environment Management System

Infigen's integrated Health, Safety and Environment (HSE) Management System has been developed to establish and document a framework of requirements, policies, standards, guidelines and management practices for consistent and continuous improvement in health, safety and environmental performance and to help ensure legal compliance.

The HSE Management System is based on the requirements in:

- › ISO 14001 Environmental Management Systems; and
- › ISO 18001 Occupational Health & Safety Management Systems.

The System is designed to meet legislative compliance and to align with recognized management system principles of Plan, Do, Check, Review:

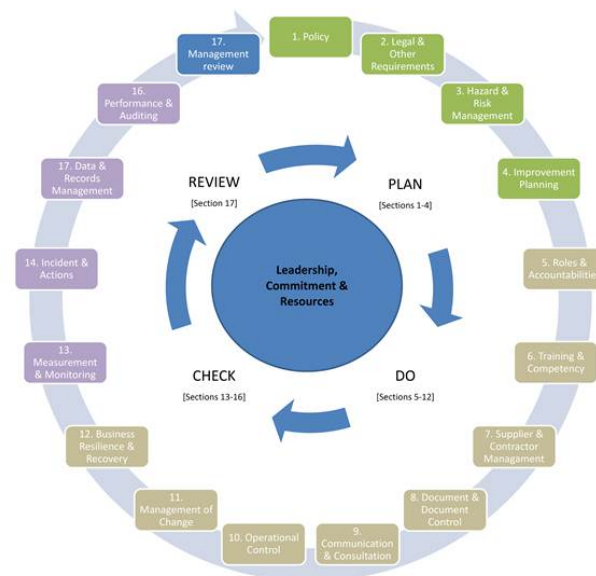


Figure 2 above: Management System Cycle: illustrates the 17 components of Infigen's HSE Management System which complies with the requirements of ISO 18001 and 14001, and is encompassed within the "Plan Do Check Review" model of continuous improvement

3.9 HSE Compliance Guides

The Infigen HSE Management System Compliance Guides set the minimum requirements for a number of specific site activities. The Site Manager is responsible for providing all contractors with the full version of all relevant Infigen HSE Management System Compliance Guides as is relevant to the work they are procured to undertake. Each contractor shall be required to ensure that task specific procedures and guidelines are in place to appropriately manage all tasks and activities.

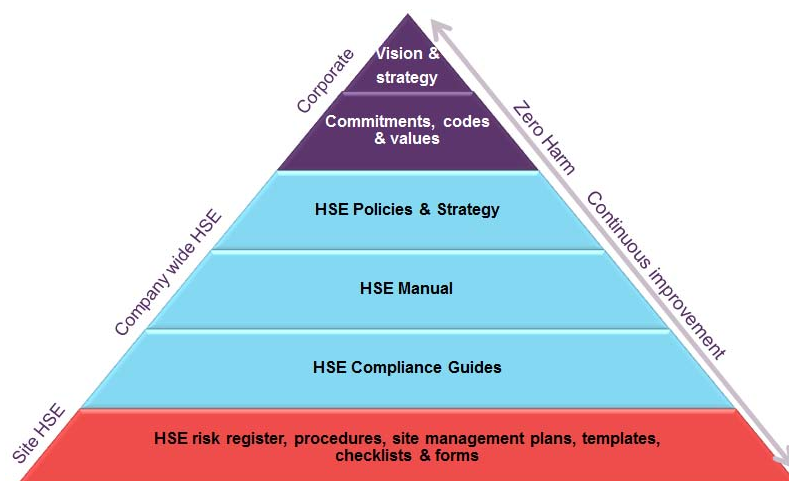


Figure 3.9 above: HSEMS Document Structure: illustrates the hierarchy of documentation found within the hierarchy commences with the Infigen vision, strategy and commitment material including policies followed by HSEMS Manual and minimum standard Compliance Guides. The lower section of the structure includes site management plans such as this OEMP, forms, templates, checklists and audit tools that are used on site.

3.10 Commitment, Policy & Targets

Infigen has established and implemented environment goals and targets for Woodlawn that are consistent with the Infigen HSE policy including the commitment to measuring and improving HSE performance. Site specific targets have been set which comprise of lead indicators. These targets will assist in achieving Infigen's overall aspirational goal of Zero Harm, which means managing the site to ensure the environment is not harmed by our activities. Environmental statistics shall be reported on a monthly basis. Infigen shall communicate these goals and targets during relevant site specific HSE inductions.

Infigen requires that the Service Provider sets environmental goals and targets which are aligned with or in the absence of, are as per the Infigen goals and targets as described. Where the Service Provider implement their own goals and targets, they must be quantified and measurable and should include both outcome-related goals and Key Performance Indicators (KPIs).

The Site Manager and HSE Manager will monitor performance against the designated goals and targets on a regular basis as part of monthly HSE meetings. The Infigen targets are below in Table 3.7

Table 3.7: Woodlawn Environment Targets

Lagging Indicators	Infigen's Zero Harm Target
Number of environmental pollution incidents (No environmental incidents within the reporting month)	0.0

Leading Indicators	Infigen target
Percentage of Infigen and OEM environmental Audits Performed Against Schedule ² (No of Audits Undertaken / Number of Audits Due X 100)	90%
Number of environmental hazards reported (Number of hazards recorded within Infigen's hazard and incident management system within the reporting month)	1 per month
Number of HSE monthly meetings held and minutes recorded (excluding months where a Quarterly Business Review meeting is held and HSE is on the agenda) (number of monthly meetings held / number of meetings due x 100)	90%

3.11 Environmental Policy

Infigen is committed to having a positive impact on the environment.

All employees, contractors (including the Service Provider) and visitors are required to comply with the Infigen HSE Policy. The Policy is intended to clearly inform all relevant parties that HSE is an integral part of Infigen operations and that this commitment is further reinforced by approval of the Policy by Infigen's CEO and Chairman. The HSE Policy can be viewed at the Capital Wind Farm site office.

The Service Provider is committed to achieving environmental superiority as the best renewable energy company in the world. The environmental management of all operations will focus on sustainable and minimal impact procedures, and will continually assess all operations to maintain compliance and identify opportunities for improvement.

The Service Provider's Environmental Policy lies within its 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.

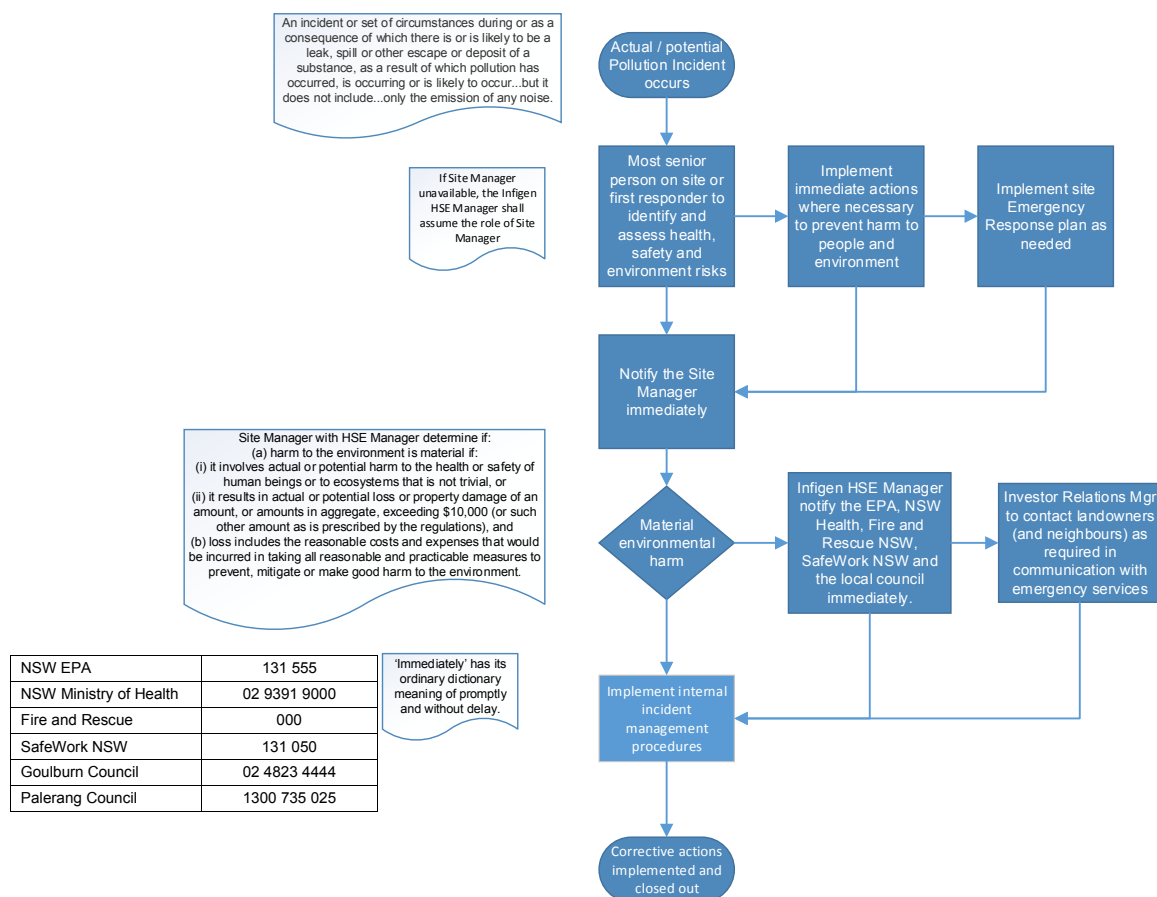
It is obligatory for everyone on site and suppliers to comply with all environmental requirements as outlined in this OEMP.

Reference:

Policy: Infigen HSE Policy

Policy: Service Provider's Environmental Policy

3.11.1 Environmental Pollution Incidents



3.6.1.1 Infigen Pollution Incident Response Flow Chart.

In accordance with the requirements of Woodlawn's EPL, and in the unlikely event of an incident, Infigen shall report pollution incidents *immediately* to the NSW EPA, NSW Ministry of Health, Fire and Rescue NSW, SafeWork NSW and the relevant local council/s. 'Immediately' has its ordinary dictionary meaning of promptly and without delay. The process for notification is provided in the process flowchart below in Figure 3.6.1.1.

The Service Provider's Incident Reporting Communication Protocol is to be followed in the event of a Pollution Incident. Anyone who identifies a pollution incident must verbally report it to the Service Provider's Site Management immediately. The Service Provider's site management must then verbally notify Infigen Site Management immediately. To ensure accurate information is provided, the Infigen HSE Manager shall arrange notification and all subsequent communication of the incident to environmental regulatory authorities as required. Service Provider Site Management must also send preliminary incident information by completing part 1 of the Service Provider Incident Report Form.

Infigen Site Manager shall be verbally notified of all other environmental incidents within 24 hours.

The Sydney Catchment Authority (SCA) is to be notified of any pollution incidents that has occurred in the Sydney drinking water catchment (i.e. to the east of the main range) where there are potential impacts on water quality.

An Incident Register of all environmental incidents, accidents or potential incidents shall be maintained by the Service Provider. This register will be made available for inspection upon request, by appropriate regulatory authorities and Infigen or person/s working on behalf of Infigen.

The Service Provider must ensure that an appropriate level of investigation is undertaken for all environmental incidents relating to the operation of Woodlawn. The investigation must be undertaken in a timely manner without delay and a copy provided to Infigen upon completion. The Service Provider shall implement a system whereby any follow up actions from these incidents can be recorded and status tracked to completion.

The Capital and Woodlawn ERP must be referred to as required in the unlikely event of a pollution incident at Woodlawn.

References:

Procedure:	Service Provider <u>Incident Reporting</u>
Form:	Service Provider <u>Incident Report</u>
Form:	Service Provider <u>Incident Report Communication Protocol</u>
Register:	Service Provider <u>Woodlawn Wind Farm – Incident Register</u>
Plan:	<u>Capital and Woodlawn Wind Farm – Emergency Response Plan</u>

3.12 Site Specific HSE Risk Register

The Site Specific HSE risk register provides a detailed list of all identified site hazards and the control measures implemented in order to eliminate or minimise the risk of harm to persons. The site specific risk register is developed and administered by Infigen and the Service Provider and ensures the risk assessment takes into consideration both the likelihood of an environmental hazard, aspect or impact becoming an event or incident and the consequence and severity of such an incident or event and ensures that prior to the implementation of control measures, the proposed measures are reviewed to ensure they do not create a new hazard or impact.

The hierarchy of controls has been applied so that risks associated with identified hazards are eliminated or controlled to as low as is reasonably practicable. The results of the site specific risk register are communicated to everyone during relevant site HSE inductions as they are relevant to the work they are undertaking or sites they are visiting. The risk register is an agenda item on the Monthly site HSE meetings and is formally reviewed annually.

3.13 Inspections

Service Provider's site technicians will report all environmental hazards they identify as part of their normal day-to-day operations to the Service Provider's Site Management.

Six month inspections of site activities and environmental performance will be undertaken by the Service Provider and may include Infigen personnel using the Inspection Checklist - Environmental Compliance. Records of completion shall be maintained by the Service Provider and made available upon request by a relevant government authority, Infigen, or person/s working on behalf of Infigen. The Service Provider shall implement a system whereby any follow up actions from these inspections can be recorded and status tracked to completion.

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

Reference:

Inspection Checklist:	<u>Environmental Compliance</u>
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3.14 Audits

The Service Provider shall develop a HSE audit schedule for Woodlawn. This will include an annual audit of compliance to this OEMP and its sub-plans to be carried out by the Service Provider.

The Service Provider shall implement a system whereby any follow up actions from these audits can be recorded and status tracked to completion. The Service Provider shall provide a copy of the report to Infigen upon completion of the audit and make it available for Infigen or person/s working on behalf of Infigen upon request. Infigen may procure the services of a third party independent auditor to undertake audits of compliance with the OEMP and its Sub-Plans.

Government authorities such as the Department of Planning and Palerang and Goulburn-Mulwaree Councils are also able to undertake audits of project compliance with approval conditions and relevant legislation at any time.

Reference:

Procedure:	<u>Internal Audits</u>
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Schedule: Woodlawn Wind Farm – Audit Schedule
Register: Woodlawn Wind Farm – Corrective Action Register

3.15 Complaints

Complaints may come from several avenues, for example the complaints line, direct contact with Infigen Infigen's contractors, direct to the site manager by phone (telephone number is displayed on the site notice board) or by personal contact with Infigen or Service Provider staff.

Any complaints received shall be treated seriously and with respect. .

Should any complaints be received by the Service Provider, they shall be reported to the Site Manager immediately. The Service Provider shall record the complaint on the Service Provider Complaints Register.

The Complaints Register will record the details of the complaint, action taken to investigate, any actions taken to address the problem, and any recommendations for further action.

An updated copy of the Complaints Register will be included in the monthly report and made available to Infigen upon request. The Service Provider will ensure a copy of the complaints register is made available to the ER upon request.

Where initial investigations show the complaint is related to the Service Provider and is verified, the Lead Technician shall fully investigate the complaint and undertake all practical measures to immediately modify the activity causing the impacts. The Lead Technician shall complete an Incident Report Form, and submit this to Health, Safety, Environment, and Community management within one hour wherever possible as per the Incident Reporting Communication Protocol.

For complaints regarding significant matters, these shall be referred to the Service Provider's Service Manager, the Infigen Site Manager and the ER within 24 hours.

Complaint response times shall be in compliance with the requirements within the Infigen Energy Complaints Handling Policy

Reference:

Policy: Infigen Energy – Complaints Handling Policy
Register: Woodlawn Wind Farm – Complaints Register

3.16 Non Compliance

The operation of Woodlawn shall be undertaken to avoid instances of non-compliance with this OEMP and the Project Approval requirements.

In the event that a non-conformance involving failure to implement or adhere to the identified requirements of the Project Approval, OEMP or its Sub Plans does occur, the incident will be notified to the Site Manager immediately. Infigen shall manage the non-compliance including undertaking an appropriate investigation into the matter.

3.17 Related Documentation

All persons involved with the operational phase of the Woodlawn Wind Farm shall undertake their respective activities in accordance with the relevant requirements of the OEMP.

This OEMP shall also be read in conjunction with the following related documents which exist as separate documents:

Woodlawn Wind Farm - Service Management Plan

CWF and WWF – Emergency Response Plan

Site Induction Handbook (Service)

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

Woodlawn Wind Farm - Environmental Assessment - URS Australia Pty Ltd 2004 (Volumes 1 and 2);

Woodlawn Wind Farm - Supplementary Environmental Assessments - Aurecon, January 2010 and August 2010;

The consolidated Conditions of Project Approval.

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

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

4. Operation Soil and Water Management Sub Plan

4.1 Introduction

This Soil and Water Management Sub Plan comprises part of the OEMP for Woodlawn. This sub plan has been developed in response to the Minister for Planning's Project Approval.

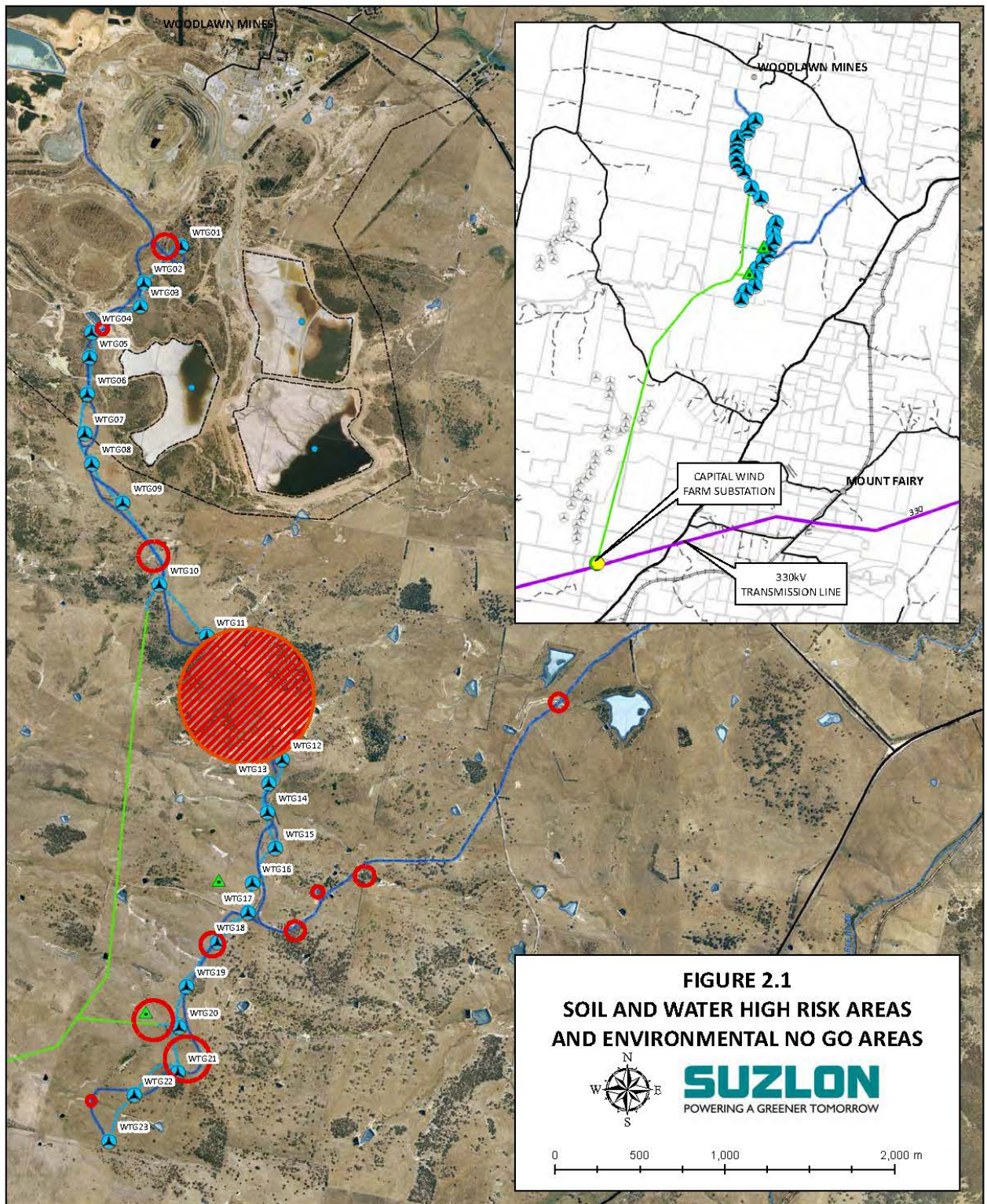
Condition number 36 that requires the preparation of a Soil and Water Management Sub Plan as part of the OEMP. The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within sub-plan
The sub plan must incorporate the mitigation measures identified in the Sections 16.6 and 17.5 of the EIS and Table 5.1 of the report entitled <i>Assessment of Revised Transmission Line Option: Woodlawn Wind Farm</i> .	Section 5.4

Note: The report entitled Assessment of Revised Transmission Line Option: Woodlawn Wind Farm (Feb 2005) has been superseded by the supplementary assessment titled Appendix E Flora and Fauna Assessment (October 2009), as per the first modification of the development approval. Section 2.4 therefore addresses the recommendations outlined in the supplementary assessment.

Due to the extensive vegetation clearing and soil disturbance throughout the project site caused by farming over the last century, it is necessary to consider all areas where soil disturbance takes place and all areas where changes are made to existing surface water flows as being at risk of soil erosion caused by water and wind.

In addition to the potential impacts and associated mitigation strategies contained within section 5.4 of this sub plan, the landscape between turbines 11 and 12 is of significant safety and environmental concern was signposted and marked off as an "Environmental No Go Area" prior to the commencement of construction (see Figure 4.1.1). This is due to the lack of access roads, steep gradient between the two locations and highly erodible nature of the soil. This area will remain an "Environmental No Go Area" for the duration of the life of this development.



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Figure 4.1.1 - Soil and Water High Risk Areas and Environmental No-Go Areas

4.2 Key Legislative Requirement and Guidelines

Key legislative requirements relevant to the project's soil and water management include:

Legislation	Brief Description
<i>Protection of the Environmental Operations Act</i>	Includes provisions relating to contamination – Appropriate regulatory authority includes EPA and local Council/s as site is not a "Scheduled Premises".
<i>Soil Conservation Act</i>	The Commissioner of Soil Conservation may issue notices in respect of activities that cause erosion or degradation of certain land to conserve soil.
<i>Work Health and Safety Regulation</i>	Relates to the handling and storage of certain Dangerous goods identified in the Regulation.
<i>Local Government Act</i>	Purpose is to properly manage, develop, protect, restore, enhance and conserve the environment of the area for which the local government is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development.

The following table outlines the key environmental guidelines relevant to the project's soil and water management and how these have been addressed within the sub plan:

Guidelines	Brief Description
Guidelines for the Control of Erosion and Sedimentation in Roadworks (undated) NSW Roads and Transport Authority;	Mitigation measures identified in Section 4.4 for the maintenance of tracks to minimise erosion
Guidelines for the Planning, Construction and Maintenance of Tracks (1994) NSW Department of Land and Water Conservation	Mitigation measures identified in Section 4.4 for the maintenance of tracks to minimise erosion
Managing Urban Stormwater: Soils and Construction – Volume 1 (2006), Landcom	Mitigation measures identified in Section 4.4 are in line with these guidelines, and includes considerations such as standards for revegetation.
Managing Urban Stormwater: Soils and Construction – Installation of Services, Vol 2A, Department of Environment and Climate Change NSW	Mitigation measures in Section 4.4 have been identified in line with the guidelines for rehabilitation following installation of services (power lines).
Managing Urban Stormwater: Soils and Construction – Unsealed Roads, Vol 2C, Department of Environment and Climate Change, NSW.	Mitigation strategies in Section 4.4 in line with the maintenance of roads to minimise the erosion and sedimentation potential.
Constructed Wetlands Manual (1998) NSW Department of Land and Water Conservation.	Mitigation measures outlined in Section 4.4 to address site rehabilitation measures

4.3 Performance Criteria

The performance criteria for Woodlawn's Operation Soil and Water Management Sub Plan are:

1. no erosion and sediment transport within or beyond turbine hardstands, access tracks, electrical cable routes, laydown areas, the substation site, or to the adjacent landscape as a result of these works;
2. no unmanaged transportation of hazardous chemicals beyond designated storage areas;
3. landscaping and revegetation works are to stabilise disturbed landscape and have a 90% success rate for ground coverage.

4.4 Potential Impacts and Mitigation Strategies

Woodlawn has a highly sensitive landscape in respect to soil and water due to soil types which can potentially erode easily, weather extremes ranging from drought to heavy rains, and the proximity of the site to the Lake George basin, an area listed on the National Directory of Important Wetlands.

Many locations on the ridge where the turbines are located have only shallow soils and exposed rock is common. The turbines are located primarily on "Fairy" and "Moura Creek" soil.

The general subsurface soil profile is shown in the table below:

Approximate Depth Range (m)	Generalised Soil
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0-0.1	Top soil: dry, hard brown silt with rootlets
0.1-0.9	Extremely to highly weathered metasediments: dry extremely low to very low strength, silt(stone) to sand(stone)
0.9-1.6	Highly weathered metasediments: dry, low to medium strength, undifferentiated metasediments

Table 4.4.1 considers potential impacts associated with soil and water management at Woodlawn and presents mitigation strategies for these impacts and must be implemented on site.

These mitigation measures form the Water Management Strategy for operation of the site, as required by the conditions of consent.

Potential Impacts	Mitigation Strategies	Responsibility	
		WW P/L	Service Provider
Soil erosion caused by an increase in velocity and volume of surface water flows due to construction of hard surfaced roads, removal of vegetation, and reshaping of land profile.	<ul style="list-style-type: none"> Retain sediment control measures such as silt fences installed during construction phase until cleared areas are sufficiently revegetated. There are currently only a small number of silt fences some of which have been removed. This is due to sufficient revegetation in the area to capture any runoffs, making the silt fences redundant. Ensure all swale drains are sufficiently revegetated to infiltrate collected surface runoff from all impervious and developed areas. A civil maintenance schedule is in place to ensure that drains remain revegetated and collect runoffs. The site environmental checklist will also monitor runoffs. If it is found that revegetation needs to occur, please use seed mix as outlined in Section 0, clean up any dissipated soil and replace with sandy organic topsoil (maximum thickness 0.5m) to increase infiltration and promote vegetation growth (as per recommendations made in Table 16.4 of the EIS) minimise the clearance of vegetation and ensure final earthworks are formed to widely disperse water and are promptly revegetated; ensure that all roads are sufficiently managing water flows so as to minimise the velocity of surface water and prevent erosion to the surrounding landscape; substation to have rainwater tanks to provide internal supplies - ensure overflow from water tanks does not cause erosion to the surrounding landscape; establish monitoring and reporting system for inspecting all soil and water management controls as per Section 4.5 continue maintenance program for all civil works with the objective of reducing the extent of maintenance works required as areas are effectively stabilised; establish emergency response procedures; report all incidents and near misses to Site Management 		✓
Reduction of water quality in surface flows, natural watercourses, and manmade water bodies due to erosion of soil from disturbed landscape around project works.	<ul style="list-style-type: none"> minimise the clearance of vegetation and ensure final earthworks are formed to widely disperse water and are promptly revegetated; Retain sediment control measures such as silt fences installed during construction phase until cleared areas are sufficiently revegetated. There are currently only a small number of silt fences some of which have been removed. This is due to sufficient revegetation in the area to capture any runoffs, making the silt fences redundant. ensure that all roads are sufficiently managing water flows so as to minimise the velocity of surface water and prevent erosion and subsequent soil transportation; report all incidents and near misses to Site Management 		✓
Contamination of soil and/or water due to hazardous chemical spill, leaking from hazardous	<ul style="list-style-type: none"> any hazardous chemical brought to or stored on site must be accompanied by a Safety Data Sheet (SDS) and remain in place until the chemical is no longer required. SEA must maintain a register of relevant chemicals and 		✓

Potential Impacts	Mitigation Strategies	Responsibility	
		WW P/L	Service Provider
substance storage, or inadequate storage and removal of rubbish/waste.	their SDS. <ul style="list-style-type: none"> a risk assessment incorporating any relevant SDS considerations must be completed prior to commencing any task involving hazardous chemicals only suitably trained persons shall handle or use hazardous chemicals there must be suitable storage of hazardous chemicals with appropriate strategies in place to ensure the risk of pollution incidents is eliminated or mitigated to as low as reasonably practicable including appropriate bunded areas, and secure hazardous chemical storage containers which conform to Australian Standards hazardous chemicals storage containers and areas to be inspected for deterioration monthly hydrocarbon spill kits shall be provided by SEA and placed on site to manage any spills that may occur all hazardous chemicals must be disposed of correctly (see Waste Management and Re-Use Sub Plan in Section 10 of the OEMP) report all incidents and near misses to Site Management 		

Table 4.4.1 - Potential impacts and mitigation strategies associated with soil and water management

Note: where revegetation is required, a minimum of 60% cover is to be established within 10 working days of completion of works, where completion of works refers to a period of inactivity on site of 20 working days, i.e. practical completion of the EPC contract.

4.5 Monitoring and Reporting

Routine and event-based site environmental inspections on all soil and water management control measures will be undertaken by the Service Provider (see Table 4.5.1) to ensure appropriate mitigation measures and controls are being provided and that they are effectively achieving the aforementioned performance criteria.

Inspection / Audit Description	Frequency	Responsibility	
		WW P/L	Service Provider
Informal visual checks of soil and water management control measures by site personnel to ensure that control measures provided are effective and are functioning correctly.	Day to Day		✓
Inspections by Service Provider site or QHSE personnel following significant rainfall (i.e. > 20 mm/24 hours). > All active erosion events where sediment is observed travelling >3m beyond roads/hardstands/laydown areas/cable routes must be reported and investigated as an environmental incident.	Event or observation based		✓
Inspection Checklist - Environmental Compliance to be completed by Service Provider personnel for all areas of site. This will be filed on site and made available to the client upon request.	Every 6 months		✓
An audit of the site against the requirements within the Woodlawn OEMP.	Once a year		✓
A review of the site infrastructure against this management plan by a qualified Soil Conservationist- John Wright from Toepfers Rehabilitation, Environmental, & Ecological Services (T.R.E.E.S.) – 0418434516 - Completed	Every 3 months for the first year of the Operation Phase - Completed		
Provide the Director General with assessment of implemented mitigation measures and safeguards, and assessment of compliance with the systems for operation maintenance and monitoring as part of the <i>Environmental Impact Audit - Operation</i> . - Completed	Within three months after the first 24 month period of operation. - Completed		

Table 4.5.1 - Inspection and reporting responsibilities for soil and water management.

Reference:

Form: Inspection Checklist – Environmental Compliance

4.6 Emergency Response Procedures

Relevant emergency services should be contacted whenever lives are in danger or serious injuries occur (see Capital and Woodlawn Wind Farm - Emergency Response Plan and the contact details within this OEMP).

The Capital and Woodlawn Wind Farm - Emergency Response Plan, which is a sub-plan of the Service Management Plan, provides further details regarding safety considerations and the safety of personnel in the event of the emergencies outlined below.

The key aspects considered in the Capital and Woodlawn Wind Farm – Emergency Response Plan are:

- Responsibilities for management of the emergencies listed below
- Management of risks associated with hazardous/dangerous substances, working at heights etc.
- Incident management
- Corrective actions

The Emergency Response Plan identifies those major environmental incidents relevant to the site operations and the responses to take in the unlikely event of an incident occurring.

Refer to the Capital and Woodlawn Wind Farm - Emergency Response Plan for emergency response arrangements.

Reference:

Plan: Capital and Woodlawn Wind Farm – Emergency Response Plan

5. Flora and Fauna Management Sub Plan

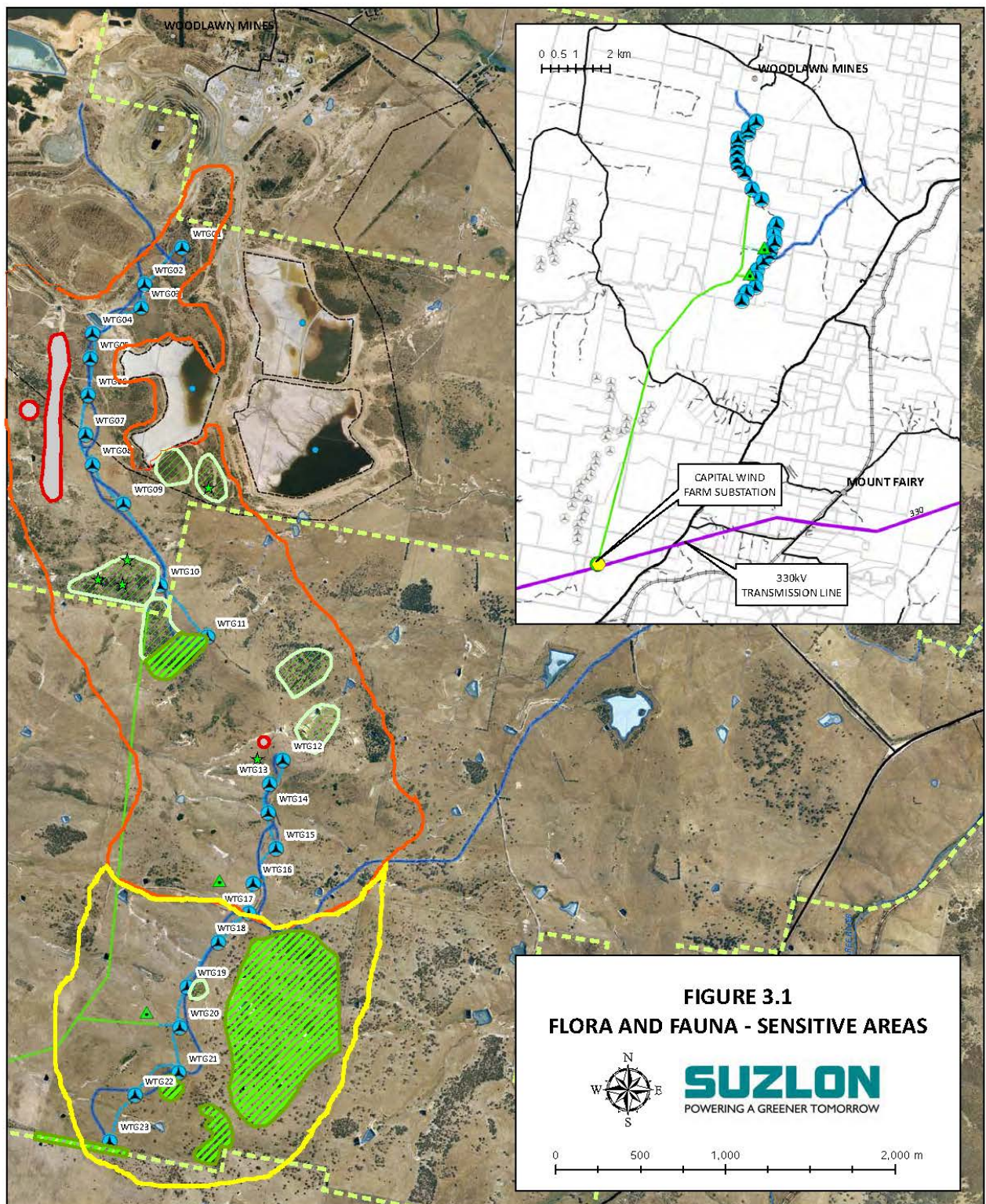
5.1 Introduction

Condition number 35 of the Minister of Planning's Conditions of Approval requires the preparation of a Flora and Fauna Management Sub Plan as part of the OEMP. This sub plan has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within this sub-plan
(a) plans showing terrestrial vegetation communities, important flora and fauna habitat areas, areas to be protected, and areas to be planted;	Figure 5.1.1
(b) methods for managing flora and fauna and their habitats which are directly or indirectly affected by the Development;	Section 5.4
(c) the mitigation measures outlined in: <ul style="list-style-type: none"> (i) Table 11.9 of the EIS; (ii) Section 5 of the report entitled <i>Raptor and Waterbird Movements at Woodlawn Wind Farm Site</i>, as identified in Condition No. 2(f); (iii) Table 5.1 of the report entitled <i>Assessment of Revised Transmission Line Option: Woodlawn Wind Farm</i>, as identified in Condition No. 2(b); (iv) Section 5 of the report entitled <i>Targeted Reptile Search at Woodlawn Wind Farm</i>, as identified in Condition No. 2(g); (v) the section headed Recommendations of the report entitled <i>An Assessment of the Bat Fauna at the Proposed Woodlawn Wind Farm, NSW</i>, as identified in Condition No. 2(h); 	Section 5.4
(d) strategies to control the spread of weeds during Operation.	Section 5.5

Note: The report entitled Assessment of Revised Transmission Line Option: Woodlawn Wind Farm (Feb 2005) has been superseded by the supplementary assessment titled Appendix E Flora and Fauna Assessment (October 2009), as per the first modification of the development approval. Section 5.4 therefore addresses the recommendations outlined in the supplementary assessment.



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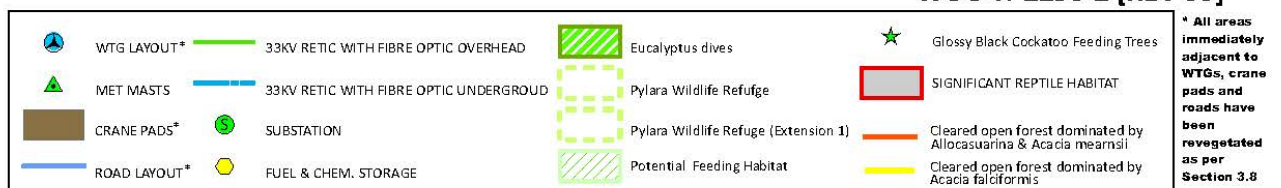


Figure 5.1.1 - Flora and Fauna – Sensitive Areas

It must be noted that the site disturbance associated with the construction works will not continue during the operation phase.

Remaining rehabilitation works of disturbed areas will be completed and monitored to ensure they meet the set performance criteria.

5.2 Key Legislative Requirement and Relevant Guidelines

Key legislative requirements and guidelines relevant to the flora and fauna management of Woodlawn Wind Farm during its Operation Phase are listed in Table 5.2.1 below.

Legislation / Guideline	Brief Description
<i>Environmental Planning and Assessment Act</i>	Project Approval Conditions
<i>Environment Protection and Biodiversity Conservation Act (EPBC Act)</i>	<p>The EPBC Act relates to projects likely to have a significant impact on matters of national environmental significance. This includes world heritage properties, Ramsar wetlands of international importance, nationally threatened animal and plant species and ecological communities, internationally protected migratory species, Commonwealth marine areas and nuclear actions.</p> <p>Expert assessment of species and communities in the vicinity of the project has concluded that the development is “not likely to have a significant effect on any species or ecological communities listed under the EPBC Act, or their habitats”.</p>
<i>Threatened Species Conservation Act (TSC Act)</i>	<p>The TSC Act provides for protection of threatened species, populations and ecological communities as well as areas of critical habitat.</p> <p>Expert assessment of species and communities in the vicinity of the project has concluded that “the development of the wind farm is not likely to have a significant effect on any threatened species, populations or ecological communities listed under the TSC Act, or their habitats”.</p>
<i>National Parks and Wildlife Act</i>	This Act allows for the reservation of land, protection of sites of Aboriginal significance and protection of native flora and fauna.
<i>Native Vegetation Act</i>	The NV Act is in place to protect native vegetation particularly that of high conservation value, by managing broadscale clearing, revegetation, and rehabilitation of native vegetation. Development consent granted in accordance with this Act, or the creations of property vegetation plans are required before broadscale activities can be undertaken.
<i>Noxious Weeds Act</i>	The Minister for Primary Industries has the responsibility for managing and declaring noxious weeds under the Act. There are five classes of noxious weeds which are subject to control objectives under the Act.
<i>Fisheries Management Act (FM Act)</i>	<p>The FM Act provides for the protection of threatened aquatic species, populations and ecological communities as well as areas of critical habitat.</p> <p>There are no aquatic habitats on site that support threatened aquatic species.</p>

Table 5.2.1 - Key legislative requirements and Relevant Guidelines

5.3 Performance Criteria

The performance criteria for the Woodlawn Wind Farm OEMP Flora and Fauna Management Sub Plan are:

- No further disturbance to vegetation or habitat surrounding turbine sites, access tracks, cable routes, substation site and site office (see potential impacts listed in Section 5.4),
- Landscaping / revegetation areas to achieve a 90% survival rate,
- All disturbed areas to be treated by establishing grass cover that will provide effective control of erosion and subsequent sediment transport.
- No additional weed species introduced to the site and no spread of existing weeds within the site.

5.4 Potential Impacts and Mitigation Strategies

The majority of the turbine sites, access routes, cable routes and the substation site occur on cleared land with a long history of grazing, which minimises the potential for wind farm activities to impact native flora and fauna.

The table below shows the key potential impacts and mitigation strategies identified within the suite of studies undertaken for the various environmental assessments. These are required by the NSW Minister for Planning's Conditions of Approval to be included in this document and will be implemented at all times during the operation of this wind farm facility.

Project Approval Conditions require a separate management plan to be developed for impacts on avifauna, and as such the Bird and Bat Adaptive Management Plan which contains more specific information about the management of potential impacts upon avifauna, is provided in Section 7.

Potential impacts and mitigation strategies and will be communicated to site staff and contractors during site inductions.

Potential Environmental Impacts	Impact Type	Mitigation Strategies	Responsibility	
	(Direct/ Indirect)		WWF P/L	Service Provider
Further reduction in native flora diversity due to changes to natural cycles caused by the construction and presence of wind farm infrastructure	Direct and Indirect	<ul style="list-style-type: none">• Use plants grown from seed collected locally in any plantings undertaken, refer to Section Seed mix approved for revegetation works and Section 3.7 Flora Species Suitable For Revegetation/Landscaping Programs• Use species for rehabilitation that have been chosen in consultation with landowners, to be those that are not palatable to livestock, refer to Section 3.8 Seed mix approved for revegetation works• Use Black She-oak (<i>Acacia littoralis</i>), Black Wattle (<i>A. mearnsii</i>), and Hickory Wattle (<i>A. falciformis</i>) for any planting below the ridge line but not along the top of the ridge line (may attract Glossy Black Cockatoos and Yellow-tailed Black Cockatoos).		✓

Potential Environmental Impacts	Impact Type	Mitigation Strategies	Responsibility	
	(Direct/ Indirect)		WWF P/L	Service Provider
Disturbance to natural movements and behaviours of local native fauna	Direct and Indirect	<ul style="list-style-type: none"> Where any new fencing is required during operations, fencing will allow for mammal movement (particularly wombats) across the ridge and between remnant vegetation stands on the lower foothills and gullies either side of the ridge. Fencing must not prohibit any existing access to water sources such as dams and natural water courses minimise the disturbance to birds on site by prohibiting all dogs from entering the project site 		✓
Disturbance to native fauna habitat	Direct	<ul style="list-style-type: none"> bund turbines and substation to prevent leaks and spills entering drainage lines. Use appropriate containment facilities for chemical storage to prevent discharge to ground avoid disturbance at all times to rocky outcrops assessed as being of good quality reptile habitat. Significant reptile habitats are identified in Figure 5.1.1 (as recommended in Targeted Reptile Search at Woodlawn Wind Farm (November 2004)) avoid diverting road drainage structures into rocky outcrops assessed as being of good quality reptile habitat at all times. Significant reptile habitats are identified in Figure 5.1.1 (as recommended in Targeted Reptile Search at Woodlawn Wind Farm (November 2004)) implement Bird and Bat Adaptive Management Plan as described in this OEMP 		✓
Injury or death to birds and bats caused by operating wind turbine generators.	Direct	<ul style="list-style-type: none"> Use mitigation measures outlined in the Infigen Bird and Bat adaptive management plan As per Table 11.9 of the EIS, row 19, the last dot point is relevant to operations, being “turn off turbines that are causing unacceptable bird mortality at peak risk times”. Further details are provided in Bird and Bat Adaptive Management Plan. Use mitigation measures outlined 	✓	✓

Potential Environmental Impacts	Impact Type	Mitigation Strategies	Responsibility	
	(Direct/ Indirect)		WWF P/L	Service Provider
		in the Bird and Bat Adaptive Management Plan.		

Table 5.4.1 - Potential impacts on flora and fauna and mitigation strategies to avoid these impacts

Note: No mitigation measures for the provision of a viewing platform have been considered as per Condition 35 (c) as there are currently no plans for the construction of a viewing platform. Should this be changed in the future, the OEMP will be amended accordingly.

5.5 Weed Management Strategy

5.5.1 Introduction

Weed control on the properties within the project site is not the responsibility of the Proponent (Woodlawn Wind Pty Ltd) or the Contractor (Service Provider).

It is, however, the responsibility of the Service Provider to ensure that the areas within the project site where works have disturbed the landscape are not infested by weeds but rather quickly and effectively rehabilitated with pasture grasses or native grasses.

As construction activities associated with this project have taken place within the Woodlawn Wind Farm project site, along the approved transmission line route, and within a section of the Capital Wind Farm project site, this weed management section will address all weeds of significance identified within all these areas.

5.5.2 Declared Noxious Weeds within the Project Site

Exotic species were identified as being present within the Woodlawn Wind Farm project site, transmission line route, and Capital Wind Farm project site in URS 2004, KMA 2010 a, b, c , and the Capital Wind Farm CEMP (CWF-H-2002 [Q]).

The table below shows those species present within the Woodlawn Wind Farm project site that are declared within the *Noxious Weeds Act* 1993 as being noxious weeds. In the event that any noxious weeds in addition to those listed in this table are identified, this list will be updated accordingly and weed management undertaken as necessary.

Scientific Name	Common Name	Noxious Weed Class ²
<i>Hypericum perforatum</i>	St John's Wort	3
<i>Ulex europaeus</i>	Gorse	3
<i>Onopordum acanthium</i>	Scotch Thistle	4
<i>Cortaderia selloana</i>	Pampas Grass	4
<i>Nassella trichotoma</i>	Serrated Tussock	4
<i>Echium plantagineum</i>	Patersons Curse	4
<i>Lycium ferocissimum</i>	African Boxthorn	4
<i>Cytisus scoparius</i>	English Broom	4
<i>Rubus fruticosus</i>	Blackberry	4
<i>Oxalis sp.</i>	Wood Sorrel	5

² definitions provided in Table 5.5.2

<i>Salix sp.</i>	Willow	5
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Table 5.5.1 - Noxious weeds identified from the site

Noxious Weeds are organised into weed control classes based on the spatial extent of their risk to biodiversity and primary production.

The table below shows the definitions of the weed control classes found within the landscape associated with this project.

Class	Description
Class 3, Regionally Controlled Weeds	Plants that pose a serious threat to primary production or the environment of an area to which the order applies, are not widely distributed in the area and are likely to spread in the area or to another area.
Class 4, Locally Controlled Weeds	Plants that pose a threat to primary production, the environment or human health, are widely distributed in an area to which the order applies and are likely to spread in the area or to another area.
Class 5, Restricted Plants	Plants that are likely, by their sale or the sale of their seeds or movement within the State or an area of the State, to spread in the State or outside the State.

Table 5.5.2 - Weed Control Classes

5.5.3 Guidelines for the Control of Noxious Weeds

General control methods for weeds are listed within the table below. The following noxious weed control methods are presented as a guide only, and any chemical control techniques must be undertaken by an appropriately licensed / experienced operator, in accordance with the guidelines on the product MSDS, and in consultation with the landowners.

The methods outlined in Table 5.5.3 are guidelines for scattered or light infestations, which is the extent of weed control anticipated for the small regions of ground disturbed during construction of this project.

Should larger infestations occur, expert advice must be sought.

Scientific Name	Common Name	Control Method	
		Mechanical	Chemical
<i>Hypericum perforatum</i>	St John's Wort	Manually remove the plant and as much of the root stock as possible, preferably before seeding.	Spot spray with a registered herbicide.
<i>Ulex europaeus</i>	Gorse	Physical removal of bushes with follow up to kill seedlings.	Apply herbicide as per label instructions, either spot spray or cut stump application. Generally apply to actively growing plants (during spring to early summer and after autumn rain).
<i>Onopordum acanthium</i>	Scotch Thistle	Chipping of single plants to remove at least 50mm of the root.	Spot spray with a registered herbicide.
<i>Cortaderia selloana</i>	Pampas Grass	Physical removal - key is to prevent flowering / seed production.	Ensure seed heads are removed and destroyed and then spray with a registered herbicide.

Scientific Name	Common Name	Control Method	
		Mechanical	Chemical
<i>Nassella trichotoma</i>	Serrated Tussock	Remove by chipping.	Spot spray with a registered herbicide.
<i>Echium plantagineum</i>	Patersons Curse	Chipping of young plants to remove 20-40mm of the tap root.	Spot spray from rosettes to pre-flowering stage with a registered herbicide.
<i>Lycium ferocissimum</i>	African Boxthorn	Small plants can be dug up while large plants may require heavy machinery. All plants should be destroyed as dead plants may provide shelter for vermin. Once plants are removed monitor the area and remove any regrowth for root sections or germinating seedlings.	Use a registered herbicide in accordance with the label instructions. Herbicide should only be applied when plants are leafy and actively growing.
<i>Cytisus scoparius</i>	English Broom	Remove small plants by hand or cut larger plants at ground level and treat stumps with herbicide. Preferably remove plants before flowering (generally October to December).	Spot spray with a registered herbicide when plants are in full leaf. Treat any cut stumps with applicable herbicide.
<i>Rosa rubiginosa</i>	Sweet Briar	Removal of plants by machine or hand being careful to remove as much of the plants as possible as regrowth often occurs from root pieces.	Spot spray with a registered herbicide when plants are in full leaf (late spring to autumn).
<i>Rubus fruticosus</i>	Blackberry	Remove small plants with a shovel or mattock and larger plants using earth moving equipment. Remove as much of root system as possible as Blackberry will regrow from any root fragment left in the soil.	Spot spray with a registered herbicide on actively growing plants.
<i>Oxalis sp.</i>	Wood Sorrel	Remove entire plant by hand including the Bulbs.	Spot spray with a registered herbicide.

Scientific Name	Common Name	Control Method	
		Mechanical	Chemical
<i>Salix sp.</i>	Willow	Remove seedlings by hand. Use heavy machinery to remove large trees. Be aware that broken branches pushed into the soil will generate a new plant.	If willows are located near waterways, use a herbicide registered for use near waterways. Spot spraying of juvenile plants can be undertaken while they are vigorously growing. Stem injection of mature trees. Paint stumps of trees after lopping.

Table 5.5.3 - Noxious weed control methods

5.6 Monitoring and Reporting

Flora and Fauna related aspects of the project site must be regularly inspected and audited in order to ensure compliance to the NSW Minister for Planning's Conditions of Approval, Service Provider's General Scope of Works, as well as Commonwealth and State legislation.

Potential impacts and mitigation strategies and will be communicated to site staff and contractors during site inductions.

Inspection / Audit Description	Frequency	Responsibility	
		WW P/L	Service Provider
Monitor "No Go Areas" protecting areas of significant native vegetation - visibility and integrity of pickets and bunting delineating these areas to be monitored. Evidence of disturbance within these zones to be reported.	Weekly		✓
Monitor rehabilitating areas previously disturbed by wind farm earthworks to ensure at least 90% survival rate as per the Service Provider's General Scope of Works. Replant and re-sow as necessary.	Weekly		✓
Monitor rehabilitated areas previously disturbed by wind farm earthworks to ensure that sediment is not being transported and is smothering adjacent vegetation or entering drainage lines/water bodies.	Weekly		✓
Monitor areas disturbed by wind farm earthworks for enhanced weed growth. Organise eradication of weeds as necessary (See section 3.5 - Weed Management Strategy).	Weekly		✓
<u>Inspection Checklist - Environmental Compliance</u> to be completed by Service Provider personnel for all areas of site. This will be filed on site and made available to the client upon request.	Every 6 Months		✓
An audit of the site against the NSW Minister for Planning's Conditions of Approval and performance criteria and requirements within this OEMP document will be carried out by SEA.	Once a year		✓

Inspection / Audit Description	Frequency	Responsibility	
		WW P/L	Service Provider
Provide the Director General with assessment of implemented mitigation measures and safeguards, and assessment of compliance with the systems for operation maintenance and monitoring as part of the <i>Environmental Impact Audit - Operation</i> . - <u>Complete</u>	Within three months after the first 24 month period of operation. - <u>Complete</u>		

5.7 Flora Species Suitable for Revegetation / Landscaping Programs

The species in the table below are indigenous to the area where the project site is located, and are therefore most suitable for the environment and most beneficial for local floral diversity.

Scientific Name	Common Name
<i>Eucalyptus rossii</i>	Scribbly Gum
<i>Eucalyptus dives</i>	Broad-leaved Peppermint
<i>Eucalyptus pauciflora</i>	Snow Gum
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Acacia implexa</i>	Hickory
<i>Acacia falciformis</i>	Broad-leaved Hickory
<i>Acacia mearnsii</i>	Black Wattle
<i>Acacia littoralis</i>	Black She-oak
<i>Acacia dealbata</i>	Silver Wattle
<i>Leptospermum myrtifolium</i>	Grey Tea-tree
<i>Persoonia linearis</i>	Narrow-leaved Geebung
<i>Ozothamnus diosmifolius</i>	Everlasting
<i>Pimelia curviflora</i>	Curved Rice-flower
<i>Lomandra longifolia</i>	Spiny-headed Mat Rush
<i>Lomandra filiformis</i>	Wattle Mat Rush
<i>Goodenia hederacea</i>	Forest Goodenia
<i>Viola hederacea</i>	Ivy-leaved Violet
<i>Dianella caerulea</i>	Flax-lily
<i>Danthonia carphoides</i>	Short Wallaby Grass
<i>Stipa bigeniculata</i>	Tall Speargrass
<i>Themeda australis</i>	Kangaroo Grass
<i>Microleana stipoides</i>	Weeping Grass
<i>Panicum effusum</i>	Hairy Panic

Table 5.7.1 - Flora species suitable for revegetation

Infigen Energy's Site Manager is to ensure revegetation work is carried out in accordance with section 5.4 of this document. It is recommended that revegetation work carried out use Black She-oak (*Acacia littoralis*), Black Wattle (*A. mearnsii*), and Hickory Wattle (*A. falciformis*) or any

planting below the ridge line but not along the top of the ridge line (may attract Glossy Black Cockatoos and Yellow-tailed Black Cockatoos).

It is recognised that regeneration work may be carried out by Taylors Creek Landcare group in co-operation with Veolia. Infigen Energy 's Site Manager is to maintain contact with Veolia and Taylors Creek Landcare Group to ensure work can be carried out without encouraging birds at potential strike risk on to the ridgeline.

5.8 Seed Mix Approved for Revegetation Works

The grass species in the table below have been approved for use for revegetation works in consultation with landowners.

Scientific Name	Common Name
<i>Dactylis Glomerata</i>	Porto Cocksfoot
<i>Panicum decompositum</i>	Native Millett
<i>Trifolium repens</i>	White Clover
<i>Phalaris aquatica</i>	Holdfast Phalaris
<i>Phalaris aquatica L</i>	Australian Phalaris
<i>Festuca arundinacea</i>	Quantum Fescue

Table 5.8.1 – Approved Seed Mix

5.9 Stock Management

The Infigen Energy Site Manager is to ensure no feeding of grain to stock within 100 m of turbine sites. Monitor site and communicate with landholders to ensure this requirement is maintained.

6. Cultural Heritage Management Sub Plan

6.1 Introduction

This Cultural Heritage Management Sub Plan comprises part of the Operation Environmental Management Plan for the Woodlawn Wind Farm. This sub plan has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

Condition numbers 57 and 57A of the Minister of Planning's Conditions of Approval require the preparation of a Cultural Heritage Management Sub Plan as part of the Construction Environmental Management Plan. The reference to a requirement for one as part of the Operation Environmental Management Plan is limited to the conditions in the table below. This Sub Plan, therefore, has been prepared to be consistent with Condition 57A and the Construction Environmental Management Plan, to ensure that Indigenous and European heritage values are managed effectively during the operational phase of the project.

Minister's Requirement	Location within this sub-plan
57A. The mitigation measures identified in the SEE (August 2010) in section 10.4.3 of the main report and section 8.1 of Appendix G, shall be incorporated in the CEMP, within the Cultural Heritage Management Sub Plan. The CEMP shall include evidence of the consultation undertaken to date with Key Aboriginal Stakeholders, clearly indicate the issues raised by stakeholders during consultation, and how those matters have been addressed.	n/a
SEE (August 2010), Section 10.4.3: <i>The project Cultural Heritage Management Sub-Plan under the project CEMP and subsequent OEMP will be updated to reflect safeguarding the integrity of the additional artefact sites identified in this assessment.</i>	Throughout this Sub Plan

This Sub Plan has the following objectives:

- To ensure compliance with statutory requirements relating to the protection of Indigenous and European heritage values;
- To avoid impact of wind farm operations on cultural heritage artefacts;
- To consult with relevant agencies and Indigenous stakeholders should any items of Indigenous heritage be detected during operations;
- To consult with relevant agencies should any items of European heritage be detected during the operations.

6.2 Background

6.2.1 Assessments

The assessment of Indigenous and European heritage issues for the project area has been addressed through a number of investigations including those listed below:

- Woodlawn Wind Farm EIS 2004 and associated Section 87 Permit and Section 90 Consent with Salvage (assessment by Biosis Research);
- Woodlawn Wind Farm Archaeological Sub-Surface Testing (Biosis Research July 2005);
- Capital Wind Farm Substation Site and much of the southern part of the proposed 33kV transmission line (assessment by Austral Archaeology 2005);
- Woodlawn Wind Farm SEE 2010 – Northern part of the 33kV transmission line (assessment by Austral Archaeology January 2010);

- Woodlawn Wind Farm NSW: S90 Compliance Report (Biosis Research June 2010);
- Woodlawn Wind Farm SEE August 2010 – Additional three turbines (assessment by Biosis Research July 2010);
- Letter from Biosis July 2010 regarding pegging of Indigenous heritage sites.

The matters addressed by these assessments principally relate to the following areas:

- Woodlawn Wind Farm Site and access to the wind farm site (in conjunction with URS EIS 2004 and subsequent studies), and salvage of selected items under Permit (June 2010);
- The 33kV line easement (in conjunction with the Woodlawn modification application in 2010);
- The Capital Wind Farm 33kV/330kV substation and access to the substation (in conjunction with Capital Wind Farm Project Application).

Activities in all three of these project sub-areas are subject to this OEMP.

6.2.2 Consultation

The assessments listed above were undertaken in conjunction with relevant agencies and Indigenous stakeholders: the Buru Ngunawal Group, Pejar Local Aboriginal Land Council and OEH.

The primary outcome from consultation for construction and operations was that stakeholders are very supportive of the fencing that has been installed to protect sensitive sites. It was emphasised by stakeholders that conservation of the sites is the first preference.

The stakeholders also outlined the salvage permit application process required to be carried out in the event of impacts being unavoidable, however this is not outlined in this document because disturbance was not required. The control measures in this plan would be updated in the event of this expectation changing.

6.3 Potential Impacts to the Wind Farm Site

6.3.1 Vicinity of Turbines 1 to 20

Following assessments and testing of the wind farm site as part of the development application process during 2004 and 2005, salvage activities were conducted by Biosis Research in February 2010. This involved the collection of artefacts from specified ground surface areas and was carried out in accordance with relevant permits, as detailed in the Construction Environmental Management Plan.

In addition to the salvage of artefacts located in areas of likely impact, a number of areas with cultural heritage sensitivity which could be avoided by the project activities were also identified (see Figures 4.1 - 4.8).

To ensure that these areas were avoided, Biosis Research pegged sites covering the extent of all sensitive areas in the Woodlawn Wind Farm site. The pegged areas were the basis for the implementation of fencing control that was installed prior to construction and will be maintained during operations. These sites are described in this plan.

Biosis Research in letter of 15 July 2010 advised that no further archaeological work is required in regards to the identified Indigenous cultural heritage sites.

6.3.2 Overhead Transmission Line

The assessment of the 33kV transmission line route was undertaken in January 2010 and several areas of sensitivity were identified. These are shown in the following table, Figure 4.7, and Figure 4.8.

As described in the table under Section 4.1 below, the transmission line route was designed to avoid placing poles in areas of sensitivity and where possible, sensitive areas have been identified by signage on the overhead line poles.

6.3.3 Vicinity of Turbines 21 to 23

The assessment of the additional 3 turbine sites was undertaken in June 2010 and 3 further areas of sensitivity, included in table under Section 4.1 and Figure 4.6, were identified. As described below, these sites have been fenced off.

6.3.4 Location of Sensitive Sites

The following table lists the sensitive sites and the status of controls for each:

Site Name	Co-Ordinated in AGD		Coordinates in MGA (equivalent to WGS84 and used by GPS)		Permit Details	Control
	Easting	Northing	Easting	Northing		
WL11	733,860	6,114,970			2201,2202, 2288,2289	Salvaged
WL12	734,250	6,114,550			2201,2202, 2288,2289	Salvaged; impact will continue to be avoided during operations because WL12 is significantly clear of the closest part of the project (access track between WTG9 and 10)
WL13	734,973	6,113,268			2201,2202, 2288,2289	Salvaged; impact will continue to be avoided during operations because WL13 is significantly clear of the closest part of the project (WTG12 and the associated access track)
WL14	734,943	6,112,675			2201,2202, 2288,2289	Salvaged; fencing
WL16	733,661	6,114,849			n/a	West of northern turbine group - Not impacted by project
WL17	733,587	6,114,963			n/a	
WL18	733,485	6,115,041			n/a	
WL19	733,253	6,115,496			n/a	
WL20	733,178	6,115,682			n/a	
WL21	732,723	6,116,466			n/a	
Hammonds Hill 4 Isolated Find Capital WF	729,691	6,106,181			n/a	West of Woodlawn 33kV transmission line route – Not impacted

WLTL-N PAD 1			734,167 734,196	6,113,699 6,113,787	n/a	The transmission line route has been designed to avoid placing poles in these sites. There will be no removal of top soil or sub surface material within these areas. It may be necessary to have truck crossings for line maintenance during operations; however impact will be avoided by not working in wet conditions. If necessary geo-fabric and a soil layer will be placed on top of sites to provide protection. Sensitive areas will be identified by signage on the overhead line poles.
WLTL-N PAD 2			734,116 734,145 733,966	6,113,285 6,113,439 6,113,346	n/a	
WLTL-N IF & Associated PAD			734,116	6,113,102	n/a	
WLTL-C PAD 1			734,316	6,112,356	n/a	
WLTL-C PAD 2			734,176	6,112,240	n/a	
WLTL_C IF 1			734,295	6,112,115	n/a	
WLTL-C SITE 1			733,043	6,111,015	n/a	
WLTL-C SITE 2			732,948	6,110,909	n/a	
WLTL-C SITE 3			733,056 733,062 733,071 733,087 733,101 733,135 733,118 733,106 733,091 733,071	6,110,849 6,110,847 6,110,840 6,110,834 6,110,820 6,110,785 6,110,786 6,110,795 6,110,807 6,110,822	n/a	
WLTL-S PAD 1			730,910	6,108,398	n/a	
WLTL-C PAD 3			732,700 – 733,300	6,110,600 – 6,111,300	n/a	Avoid impact during operations and apply for S.87 Preliminary Research Permit to characterise archaeological resources if avoidance is not possible
WLWF1			734,282	6,111,339	n/a	Fencing; impact has been avoided during construction and will remain in place during operations. If impact cannot be avoided during operations then permission to salvage will be applied for
WLWF2			734,495	6,111,439	n/a	
WLWF3			734,610	6,111,530	n/a	

References:

Biosis Research surveys and salvage reports for Woodlawn Wind Farm Site

Austral Archaeology, 2005 Archaeological Survey for an Aboriginal Heritage Assessment – Capital Wind Farm

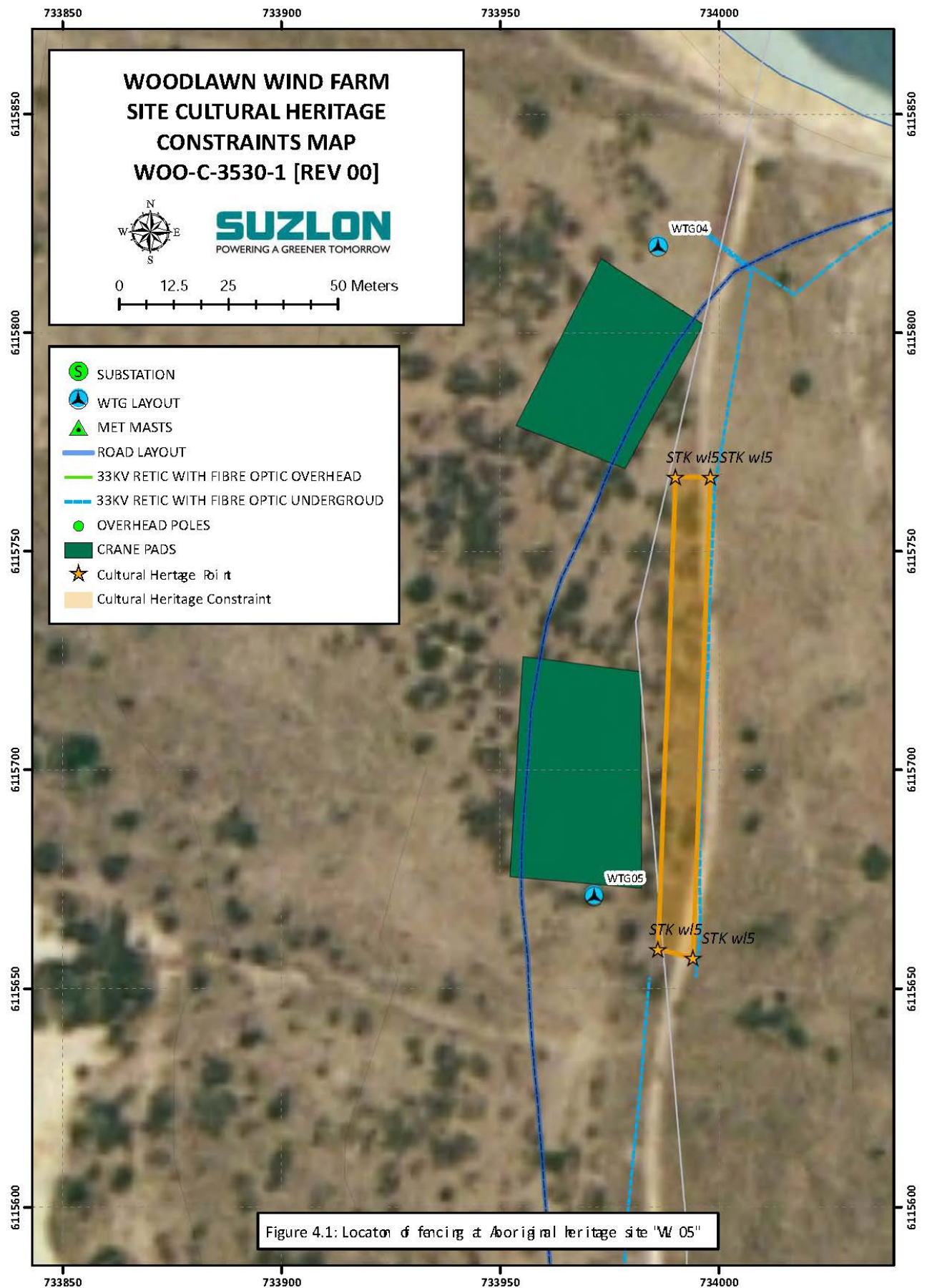


Figure 6.3.1 - Location of fencing at Aboriginal Heritage Site WL06

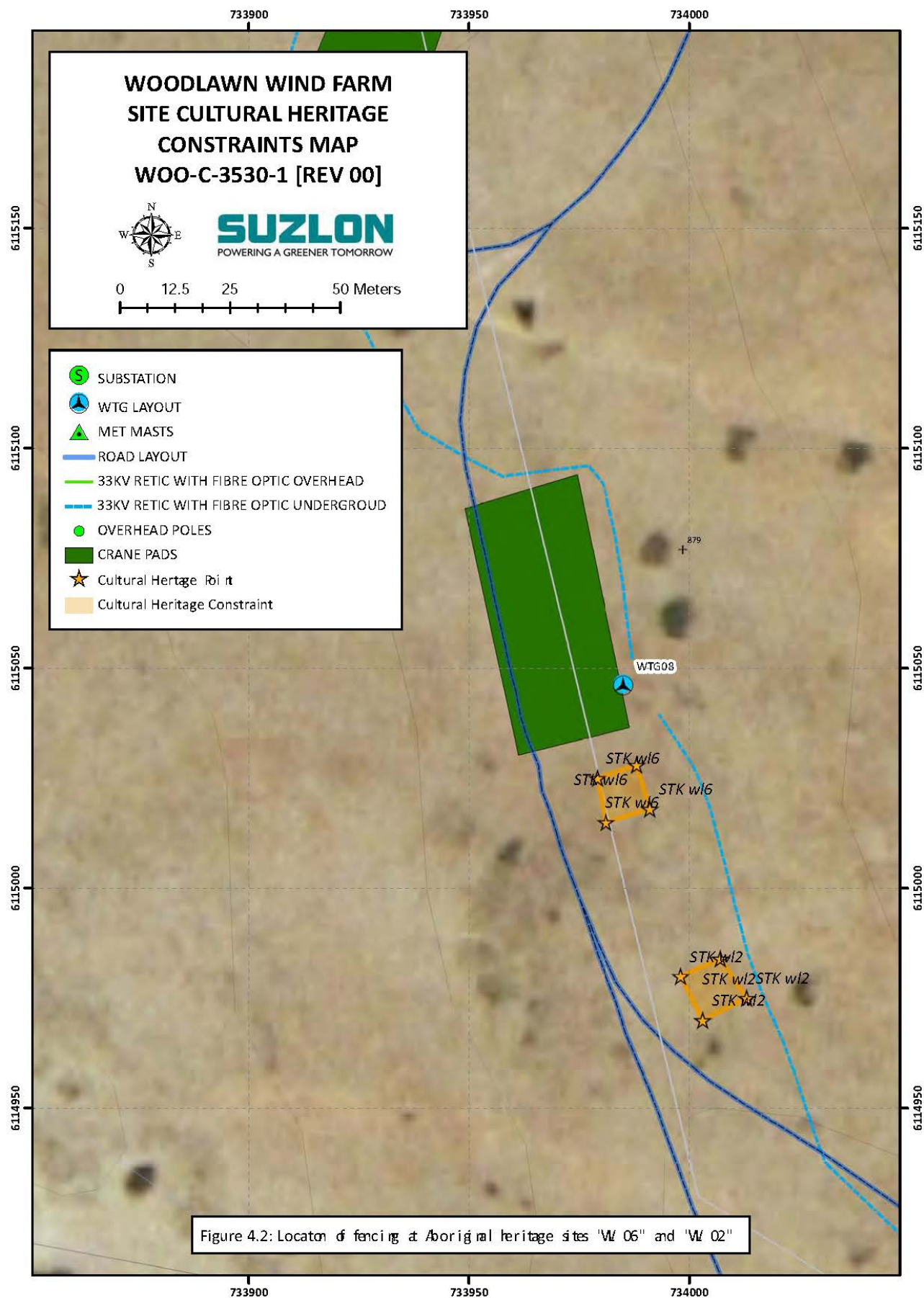


Figure 6.3.2 – Locations of Fencing at Aboriginal Heritage Sites WL06 and WL02

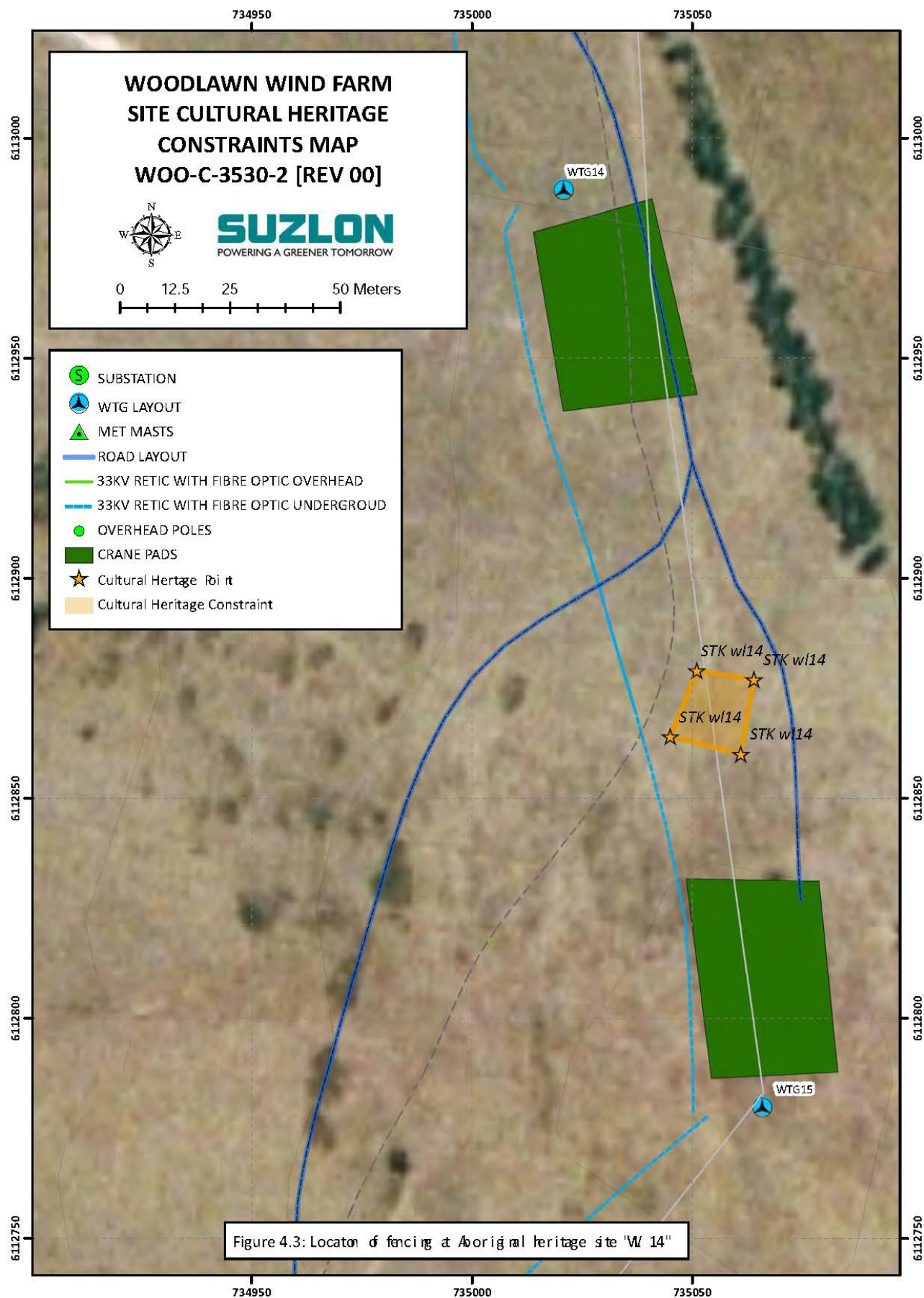


Figure 6.3.3 - Location of fencing at Aboriginal Heritage Site WL14

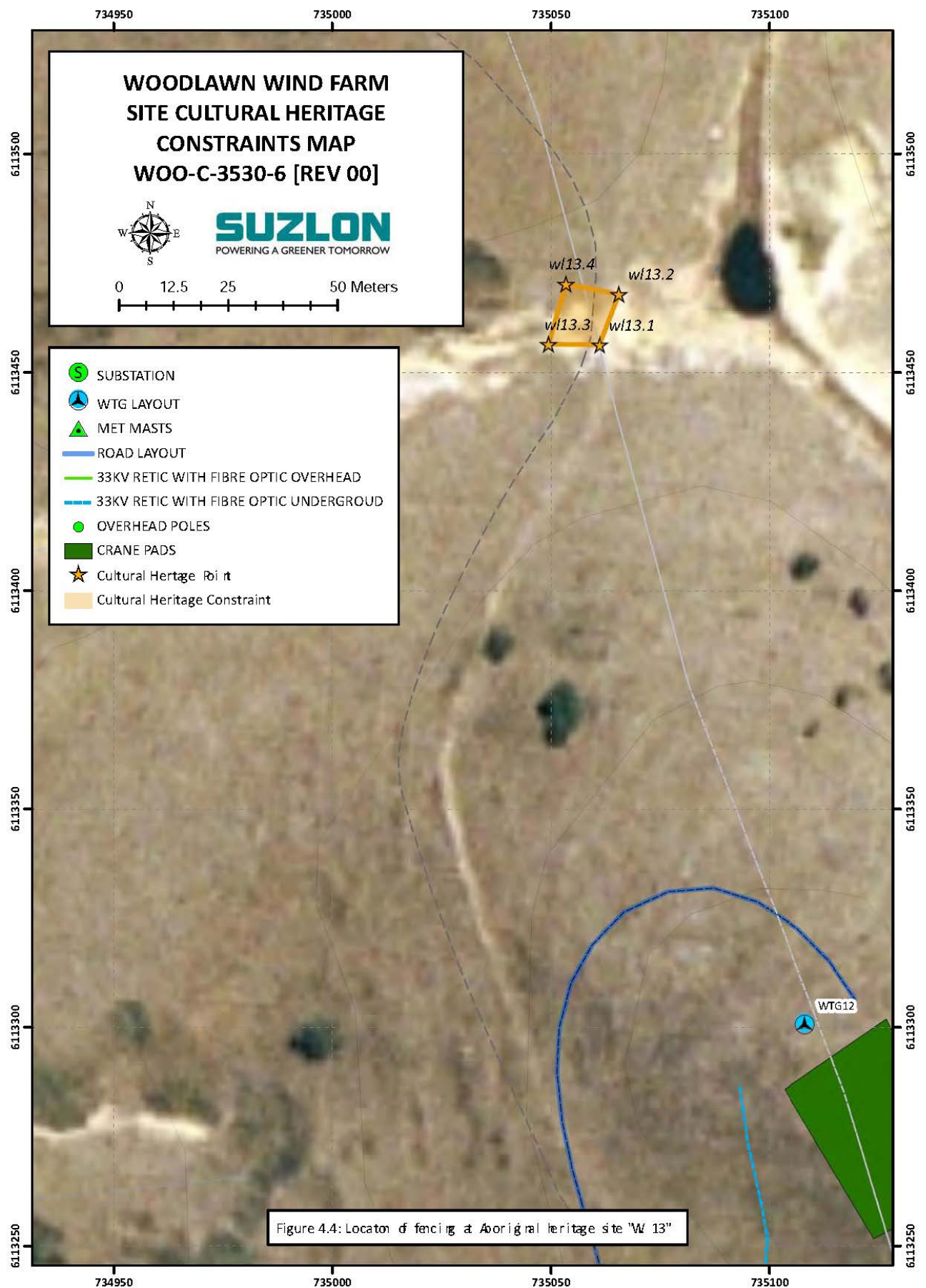


Figure 6.3.4 - Location of fencing at Aboriginal Heritage Site WL13

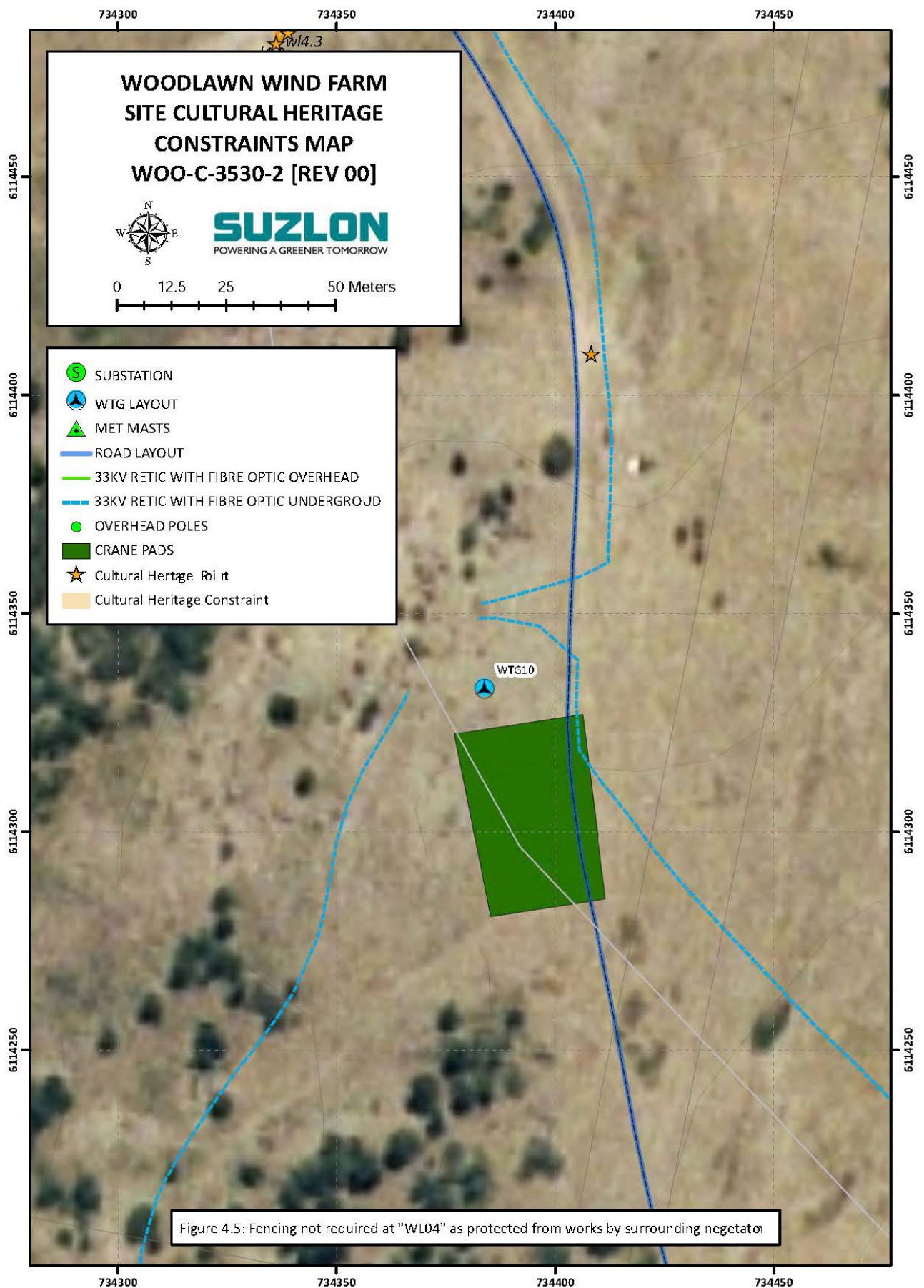


Figure 6.3.5 - Fencing not required at WL04 as protected from works by surrounding vegetation

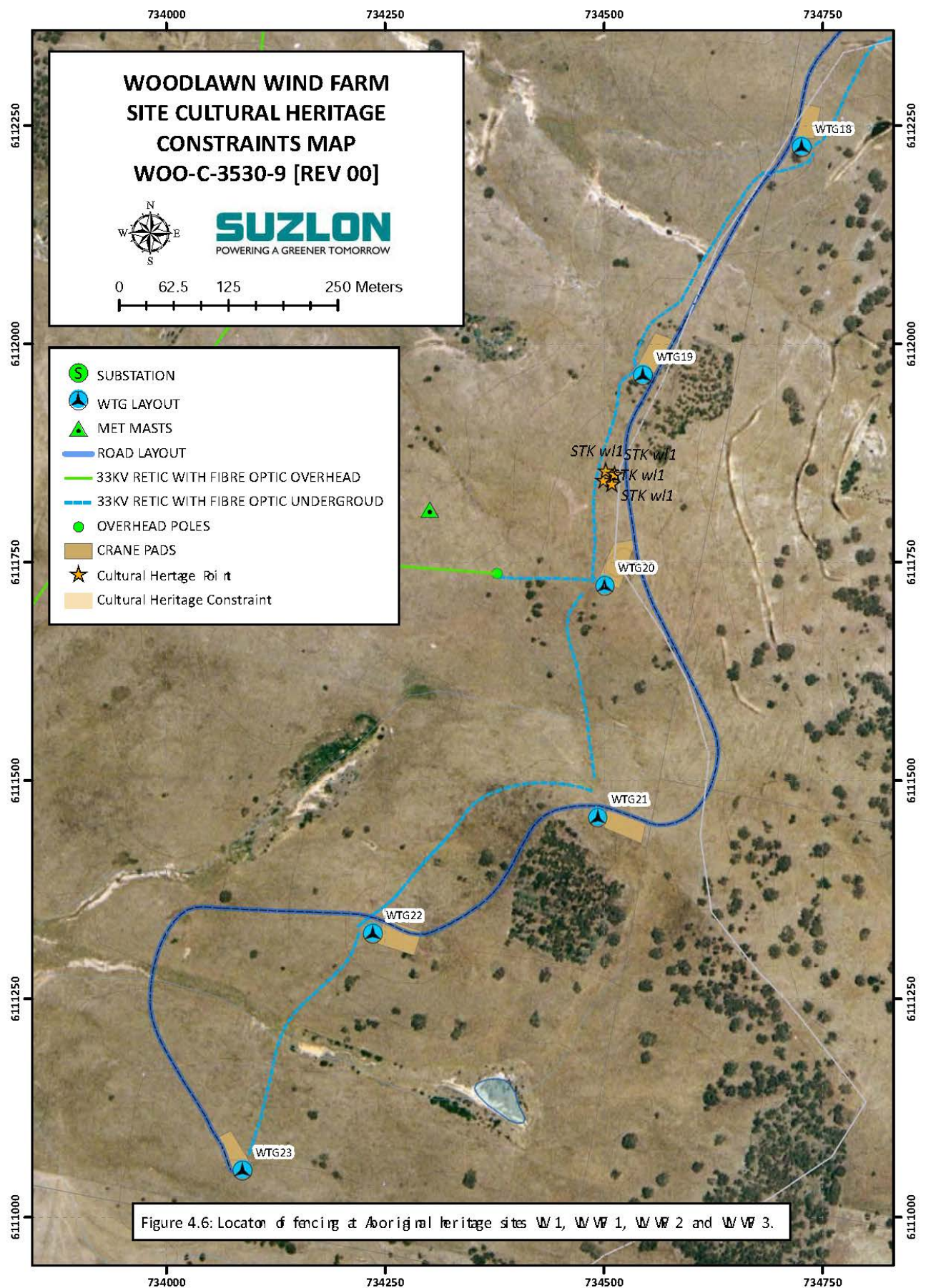


Figure 6.3.6 - Location of fencing at Aboriginal heritage sites WL1, WL2 and WL3

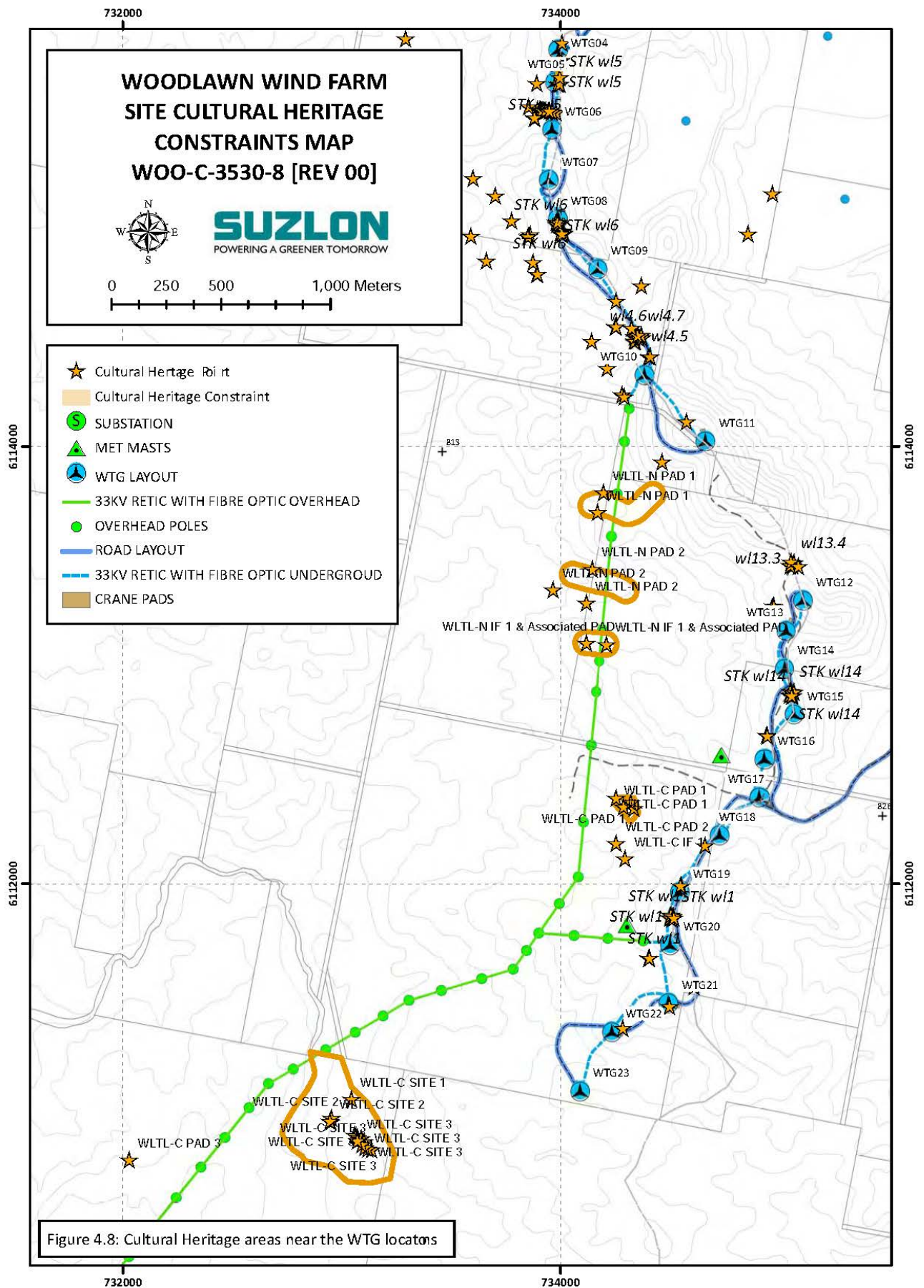


Figure 6.3.8 - Cultural Heritage areas near the WTG locations

6.4 Mitigation Strategies

This section sets out the measures implemented for various parts of the project area to mitigate impacts on Indigenous and European heritage values during operations. This is an overview of the measures referred to above in Section 4.1.

The following key strategies are incorporated in site induction material and all personnel are required to include them in their work method statements and risk management documentation.

Action		Timing	Responsibility	
			WWF P/L	Service Provider
1	Barrier fencing is in place to ensure sites WL01, 02, 05, 06 and 14 and WLWF1-3 are not accessible to staff and vehicles. This will ensure that topsoil from these sites will not be moved. WL04 does not have barrier fencing but is signposted and is protected by the surrounding trees.	At all times		✓
2	The wind farm has been constructed around the sites referred to under Action 1. Access during operations is very unlikely to be required. If it is not possible to avoid accessing these sites, topsoil will be protected by placing a layer of fill or geofabric on the site. In the case of WLWF1-3, if it is not possible to avoid impact, these areas despite the fencing, then a salvage will be undertaken by following the permitting process required in the Consent Conditions.	As Required		✓
3	Avoid All Aboriginal archaeological material and areas of potential archaeological deposit identified in areas identified in Section 6.3.4 above.	At all times		✓
4	Although it is not expected that any operation activities will impact on any of the identified sensitive sites, in the event that any Aboriginal archaeological material or European Heritage sites or artefacts are encountered, activities within 100m will cease immediately to allow an archaeologist to make an assessment of the finds. The archaeologist may need to consult with the relevant Aboriginal stakeholder groups (BNAC, PLALC, NLALC and GTCAC), NSW Heritage Council, and the Heritage Branch - Department of Planning concerning the significance of any further Aboriginal archaeological material encountered. In addition previously unrecorded Aboriginal or European artefacts or sites will be reported to the NSW DECCW within a reasonable timeframe.	As Required		✓
5	Each of the areas of sensitivity near the proposed transmission line (identified in Section 6.3.4 with "WLTL") will be protected from impact. There will be no removal of top soil or sub surface material within these areas. It will be necessary to have truck crossings for line maintenance; however impact will be avoided by not working in wet conditions. If wet conditions prevail, geo-fabric and a soil layer will be placed on top of sites to provide protection when vehicle usage is necessary. Sensitive areas will be identified by signage on the overhead line poles.	At all times		✓

6.5 Monitoring

Due to the mitigation measures including prior salvage, access prevention and use of protection layering if required, it is not proposed to utilise an archaeologist or Indigenous stakeholders to monitor operations.

Reviews will be performed on work methods to ensure controls are noted, and work will be monitored for evidence that controls are being carried out.

7. Bird and Bat Adaptive Management Plan

7.1 Introduction

Condition number 37 of the Minister of Planning's Conditions of Approval requires the preparation of a Bird and Bat Adaptive Management Program as part of the Operation Environmental Management Plan.

This sub plan has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within this sub-plan
37 A Bird and Bat Adaptive Management Program (BBAMP) must be prepared as part of the OEMP and undertaken by a suitably qualified expert approved by the Director General and must:	0 Summary
a) incorporate monitoring, and a decision matrix that clearly describes how the Applicant will respond to the outcomes of monitoring	BBAMP:
b) incorporate an on-going role for the suitably qualified expert	Throughout this Sub Plan and BBAMP
c) set out monitoring techniques, taking into account best practice bird and bat monitoring method for wind farms such as those identified in the current editions of AusWEA Best Practice Guidelines for the Implementation of Wind Energy Projects in Australia and Assessing the Impacts of Wind farms on Birds – Protocols and Data Set Standards	BBAMP:
d) account for natural and human changes to the surrounding environment that might influence bird and/or bat behavior such as changes in land use practices, and significant changes in water levels in nearby waterbodies	Various sections of this Sub Plan and BBAMP
e) incorporate a decision making framework that sets out specific actions and when they may be required, to reduce identified impacts on birds and bats	BBAMP
f) identified 'at risk' bird and bat groups and include monthly censuses of their movements	BBAMP
g) Set out available mitigation measures including, but not limited to, those identified in Condition No. 35 (c).	BBAMP

7.2 Summary

The program involves monitoring the presence and behaviours of birds and bats on or near Woodlawn Wind Farm, monitoring of 'at risk' species, and a reporting regime. It is an adaptive program; as such mitigation measures will be regularly reviewed to reduce the risk of bird/bat mortalities as information is gathered.

The ongoing surveys for the Bird and Bat Adaptive Management Plan will be carried out by an expert approved by the Director-General. Approval for the experts has been received on 11 October 2011.

Resourcing will include bird/bat experts as well as Woodlawn Wind Farm staff.

Item	Timing	Responsibility	
		WWF P/L	Service Provider
Bird and bat mortality monitoring	<ul style="list-style-type: none"> Monthly, starting post-construction. Frequency for 2nd year onwards may need to increase/decrease, depending on findings. Note that change in level of nearby lakes will require review of frequency of monitoring Completed		
Scavenger trials	<ul style="list-style-type: none"> Completed 	✓	
Searcher efficiency trials	<ul style="list-style-type: none"> Completed 	✓	
Recording of incidental carcass finds	<ul style="list-style-type: none"> Event based 	✓	✓
Bird and bat utilisation surveys	<ul style="list-style-type: none"> Birds: quarterly, starting post-construction Bats: annually, for 4 consecutive nights during the period October – March Completed 	✓	
Lake George and Lake Bathurst monitoring for waterbird movements	<ul style="list-style-type: none"> Completed 	✓	
Monitoring of rare bird and bat species	<ul style="list-style-type: none"> Monthly, starting post-construction for 1 year, with the necessary level of further monitoring to be determined Completed 	✓	
Habitat management	<ul style="list-style-type: none"> Removal of perching and roosting sites: as required, following investigation of undesirable or unacceptable impacts being identified Improving habitats away from wind turbines: ongoing 	✓	
Turbine management	<ul style="list-style-type: none"> As required, following investigation of undesirable or unacceptable impacts being identified 	✓	

Power line management	<ul style="list-style-type: none"> • As required, following investigation of undesirable or unacceptable impacts being identified 	✓	
Carcass management	<ul style="list-style-type: none"> • Notification to landowner of non avi fauna incidental carcass finds. • Restricting lambing to paddocks away from wind turbines: ongoing discussions with landowner • Review of carcass occurrence rates:: ongoing 	✓	
Integrated rabbit control program	<ul style="list-style-type: none"> • Ongoing 	✓	
Reporting to the Department and OEH	<ul style="list-style-type: none"> • Within 2 months of the 1st year of post-construction monitoring • Within 2 months of the 2nd year of post construction monitoring • Further reporting requirements to be determined 	✓	

Reference:

Plan: Bird and Bat Adaptive Management Program.

8. Bushfire Risk Management Sub Plan

8.1 Introduction

Condition numbers 65 and 66 of the Minister of Planning's Conditions of Approval require the preparation of a Bushfire Risk Management Sub Plan as part of the OEMP.

This sub plan has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

This plan has been developed in consultation with the NSW Rural Fire Service mapping office and the Taylors Creek Rural Fire Service. A map of fire prone areas in or adjacent to the project site has been formed by the Rural Fire Service and is included in this sub plan as Figure 8.1.1.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement		Location within this sub-plan
65	Prepare Bushfire Risk Management Sub Plan in consultation with Taylors Creek Rural Fire Service and base plan on the guidelines <i>Planning for Bushfire Protection</i> (RFS, 2001 or latest edition).	Section 8.2 and throughout
	a) details of the bushfire hazards and risks associated with the development;	Section 8.4
	b) mitigation measures including contingency plans;	Sections 8.4 and 8.6
	c) procedures and programs for liaison and regular drills with the Taylors Creek Rural Fire Service;	Sections 8.3, 8.4 and 0
	d) procedures for regular fire prevention inspections by the Taylors Creek Rural Fire Service and implementation of any recommendations.	Section 8.4, 0, 8.6
66	Implement the measures identified in Sections 20.5.1 and 20.5.2 of the EIS.	Section 8.4

8.2 Key Guidelines

Guideline	Brief Description
<i>Planning for Bushfire Protection</i> (RFS, 2006)	This document provides the necessary planning considerations when development sites are in close proximity to areas likely to be affected by bushfire events and replaces Planning for Bushfire Protection 2001.
<i>Emergency Management Guidelines for Wind Farms</i> (CFA, V3, 2007)	This document is designed to provide awareness information for CFA members and wind farm operators relating to emergency management at wind farms.

8.3 Performance Criteria

The performance criteria for this Bushfire Risk Management Sub Plan is focused on preventing fires and being prepared in the event that a bushfire is either ignited or passes through the project site.

The performance criteria include:

- manage all works that have the potential to cause ignition of fire using the permit to work system - hot works permit;
- ensure adequate fire-fighting equipment is located sufficiently around the site, in vehicles, offices, and wherever the JSA for a task requires;
- procedures and programs maintained with Rural Fire Service including periodic workshops and drills.

8.4 Potential Impacts and Mitigation Measures

Potential Environmental Impacts	Mitigation Strategies	Responsibility	
		WWF P/L	Service Provider
Ignition of trees, bushes, and / or grasses caused by welding, metal cutting, etc. and escalation of situation into a mobile bushfire.	Hot Works Permits must be obtained for all works which may result in the ignition of a fire. A hot work permit is issued by an authorised person before any hot work (grinding or cutting using angle grinders, cutting or welding works using arc /gas equipment or any activity that generates a flame or spark) is carried out.		✓
	Hot Works Permits must not be issued on Total Fire Ban Days, on days when the Fire Danger Rating is Very High or above, or on days with high wind present.		✓
	Fire blankets, shields, extinguishers, and any other fire prevention devices identified in the JSA for the task must be present.		✓
	Use of explosives is not permitted during periods of high fire risk.		✓
	Appropriate fire extinguishers must be located around substation, in all vehicles, and in all wind towers.	✓ (WWF Vehicles)	✓

	Regular fire prevention inspections by the Taylors Creek Rural Fire Service and implementation of any recommendations.		✓
Build-up of dry fuel leading to increased risk of fire.	Ensure paper/cardboard/rags/etc waste receptacles are regularly emptied.		✓
	Ensure there are no areas containing large amounts of dry vegetative fuel (such as leaves, felled trees or shrubs, tall dry grass) adjacent to any work areas of the project site.		✓
	Ongoing vegetation management to ensure pasture in vicinity of site infrastructure is controlled	✓	
Ignition source created by electrical short circuit, malfunction, or explosion.	All electrical tools to be tested and tagged monthly.		✓
	Required servicing on all electrical equipment to be carried out as per product manuals and standard procedures.		✓
	Appropriate fire extinguishers located around substation, in all vehicles, and in all wind towers.	✓ (WWF Vehicles)	✓
Ignition from lightning strikes	Adoption of lightning protection measures for both turbines and substations		✓
Ignition of bushfire caused by cigarette smoking and disposal of butts.	Smoking permitted only on laydown areas where appropriate disposal units are provided.	✓	✓
	Appropriate fire extinguishers located around substation, in all vehicles, and in all wind towers.	✓ (WWF Vehicles)	✓
Ignition of bushfire caused by Catalytic converters on petrol driven vehicles.	Only diesel operated vehicles to be used on un-constructed roads and at all other times where possible.	✓ (WWF Vehicles)	✓
	Appropriate fire extinguishers located in all vehicles.	✓ (WWF Vehicles)	✓
	Avoid parking in long grass.	✓	✓
	Ensure ongoing maintenance of all vehicles used on site to minimise sparking from exhaust systems	✓ (WWF	✓

		Vehicles)	
Inadequate storage of combustible or flammable substances.	All Hazardous Chemicals and Dangerous Goods must be kept in secure storage facilities according to the regulations and designation of the SDS requirements.		✓
Inadequate knowledge of bushfire contingency plan in an emergency situation.	All Woodlawn Wind Farm inductions are to clearly explain the site's bushfire contingency plan and emergency response procedure.	✓ (Infigen Visitors)	✓
	Everyone entering any part of the project site must either be accompanied by someone who is inducted to Woodlawn Wind Farm or be inducted to Woodlawn Wind Farm themselves.	✓ (Infigen Visitors)	✓
	Liaison with emergency services, site familiarisation tours, and workshops including carrying out contingency plan.		✓
	Clearly display site plan with relevant contact details and mitigation information.		✓
Site personnel being unaware of a bushfire in vicinity of project site.	Establish effective liaison with emergency services.		✓
	Site personnel to check Rural Fire Service website (www.rfs.nsw.gov.au) at least twice daily during the fire season (October 1st - March 31st).		✓
Site personnel having no knowledge of declared Total Fire Ban Days	Establish effective liaison with emergency services.		✓
	Site personnel to check Rural Fire Service website (www.rfs.nsw.gov.au) at least twice daily during the fire season (October 1st - March 31st).		✓
	Hot Works Permits not to be issued on Total Fire Ban Days, on days when the Fire Danger Rating is Very High or above, or on days with high wind present.		✓

8.5 Monitoring and Reporting

Bushfire Risk related aspects of the project site must be regularly inspected and audited in order to ensure compliance to the NSW Minister for Planning's Conditions of Approval as well as Commonwealth and State legislation.

Potential impacts and mitigation strategies and will be communicated to site staff and contractors during site inductions.

Item / Audit Description	Frequency	Responsibility	
		WWF P/L	Service Provider
Monitor all work areas for appropriate fire extinguishers, tagged electrical equipment, correctly stored combustible substances, build-up of dry vegetative fuel (such as leaves, felled trees or shrubs, or tall dry grass) or other dry combustible materials (paper, cardboard, rags).	Day to Day		✓
<u>Inspection Checklist - Environmental Compliance</u> to be completed by SEA personnel for all areas of site. This will be filed on site and made available to the Proponent upon request.	Every 6 months		✓
An audit of the site against the NSW Minister for Planning's Conditions of Approval and performance criteria and requirements within this OEMP document will be carried out by SEA.	Once a year		✓
Liaison, regular drills, and regular fire prevention inspections by the Taylors Creek Rural Fire Service and implementation of any recommendations.	Annually in August/September (prior to the commencement of the bushfire season in October)		✓
Provide the Director General with assessment of implemented mitigation measures and safeguards, and assessment of compliance with the systems for operation maintenance and monitoring as part of the <i>Environmental Impact Audit - Operation</i> . - Complete	Within three months after the first 24 month period of operation. - Complete	✓	

8.6 Bushfire Contingency Plan

There are three scenarios that could cause an emergency situation affecting all people on the wind farm site:

- a Total Fire Ban is announced by the authorities;
- a bushfire is known to be nearby/approaching the wind farm site;
- a bushfire originates within the wind farm site or is travelling through the site.

The Capital and Woodlawn Wind Farm – Emergency Response Plan outlines the actions to be taken in these scenarios in order to effectively manage the situation and reduce the risk to all people on the wind farm site.

Reference:

Plan: Capital and Woodlawn Wind Farm – Emergency Response Plan

9. Noise Compliance Assessment Plan

9.1 Introduction

Conditions number 49-55 of the Minister of Planning's Conditions of Approval requires the preparation of a Noise Compliance Assessment Plan (NCAP).

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

	Minister's Requirement	Location within this sub-plan
49	Prescribes operational noise criteria for relevant receiver locations and that the noise from the development must not exceed the criteria	Infigen NCAP
50	The noise limits applied to the four properties identified in Condition 49 must be applied to all residences that were identified as being representative as described in Section 2, Volume 2 of the EIS	Infigen NCAP
51	Noise from the premises is to be measured at the most affected point within the residential boundary, or at the most affected point within 30m of the dwelling where the dwelling is more than 30m from the boundary, to determine compliance with the noise level limits set out in the table at Condition 49	Infigen NCAP
52	The modification factors presented in Section 4 of the NSW Industrial Noise Policy (NSW EPA, January 2000) must be applied to the measured noise level where applicable.	Infigen NCAP
53	The Applicant must prepare a Noise Compliance Assessment Plan which must be submitted to and approved by the DEC prior to commissioning of the wind turbines. The Noise Compliance Assessment Plan must outline how the Noise Compliance Assessment, as described in Conditions 54-55 will be undertaken	Infigen NCAP
54	<p>The noise compliance assessment must include, but not be limited to:</p> <ul style="list-style-type: none"> a) A commitment that noise compliance monitoring must be undertaken within three calendar months of the commissioning of the wind turbines. If prevailing meteorological conditions do not allow the required monitoring to be undertaken in this period, the DEC must be notified and an extension of time may be sought. b) A requirement that all noise compliance monitoring results are to be submitted to the DEC within one month of completion of the monitoring. The DEC may request that additional noise compliance monitoring be undertaken and completed within a timeframe defined by the DEC c) A demonstration that wind measurements at the proposed wind monitoring station Woodlawn 15 is consistent with the Woodlawn 2 wind monitoring station; and d) An assessment of the performance of the wind farm against the noise limits contained in Condition 49 	Infigen NCAP
55	In the event that the Noise Compliance Assessment indicates that noise from the wind turbines exceeds the noise limits contained in Condition 49, the Applicant must investigate and propose the mitigation and management measures that are available to achieve compliance with the noise limits. The Noise Compliance Assessment must be undertaken in accordance with procedures presented in the SA Guidelines	Infigen NCAP

9.2 Summary

As per the Project Approval, Infigen was required to engage a third party to conduct post construction noise compliance monitoring and assessment. Since that time, Infigen became aware that the NSW Department of Planning were arranging their own independent noise compliance testing of all NSW wind farms. Infigen therefore believed this to be a better independent test and has relied on the results of this testing which found Infigen to be compliant with its conditions. .

The Service Provider will provide the relevant wind data and wind turbine operational data as required to support the report and any future testing.

Item	Timing
Noise monitoring	Within three calendar months of commissioning of wind turbines. N/A
Reporting to the Department of Planning	Within one calendar month of completion of monitoring. N/A

Reference:

Plan: Noise Compliance Assessment Plan (NCAP).

10. Waste Management and Re-use Sub Plan

10.1 Introduction

Condition number 73 of the Minister of Planning's Conditions of Approval requires the preparation of a Waste Management and Re-Use Sub Plan as part of the Operation Environmental Management Plan.

This sub plan has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within this sub-plan
The sub plan must address the management of wastes during the Operation stage in accordance with the NSW Government's Waste Reduction and Purchasing Policy.	Section 10.2 and throughout
a) identify requirements for the application of the waste minimisation hierarchy principles of avoid/reduce/ reuse/recycle/dispose;	Section 10.2
b) identify requirements for minimising the volume of wastewater produced and include, as a minimum, a commitment to install AAA-rated water conservation devices in the control room / facilities building;	Section 10.3
c) identify requirements for waste handling and storage. There shall be no on-site wastewater management system associated with the operation of the project;	Section 10.3
d) identify requirements for disposal of wastes. Specific details must be provided for cleared vegetation, contaminated materials, glass, metals and plastics, hydrocarbons (lubricants and fuels) and sanitary wastes; and	Section 10.4
e) identify requirements for any waste material that is unable to be re-used, re-processed or recycled, which must be disposed at a facility approved to receive that type of waste.	Section 10.4

10.2 Waste Minimisation

10.2.1 General

The Service Provider is committed to the waste minimisation hierarchy principles (Figure 10.2.1) for all its activities associated with the operation stage of Woodlawn Wind Farm.

This waste management plan aims to minimise waste by maximising reduction, re-use, and recycling of all relevant items, in particular paper products, office equipment and components, vegetation material, and construction and demolition material (as proposed by the NSW Government's Waste Reduction and Purchasing Policy (WRAPP).

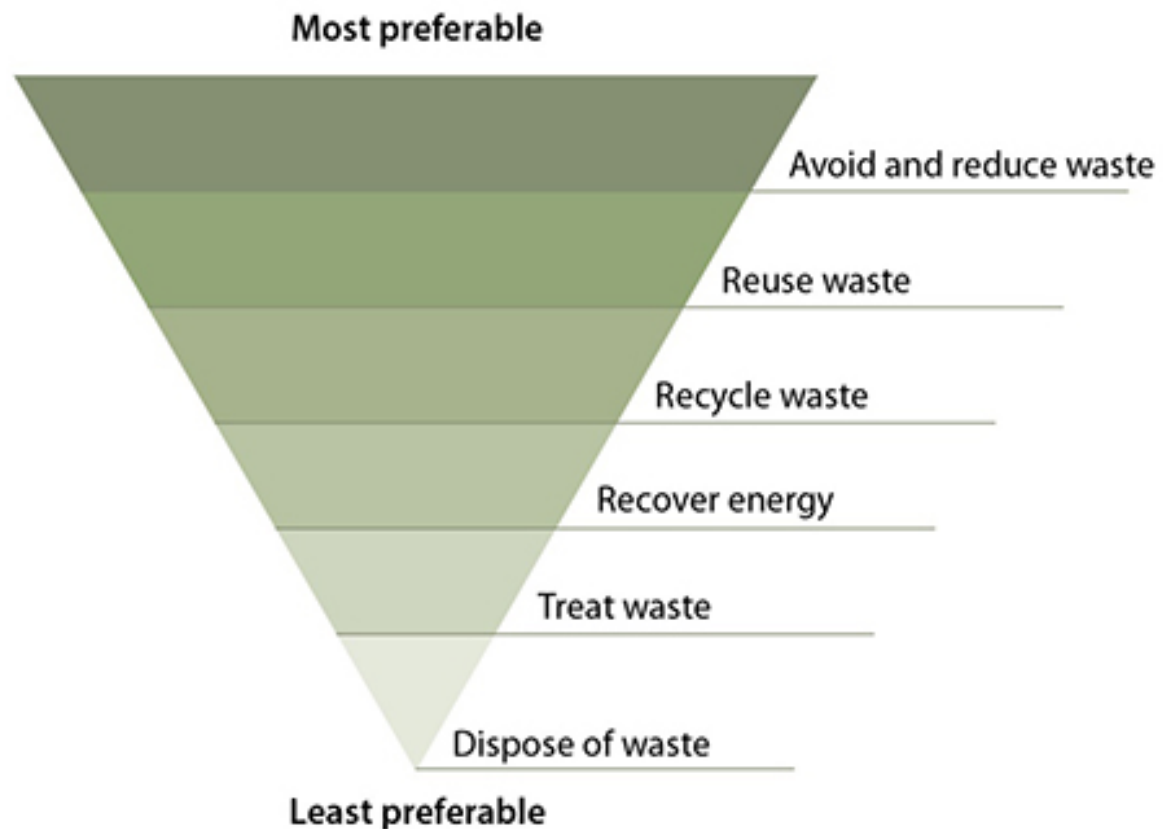


Figure 10.2.1 - Waste Minimisation Hierarchy Principles arranged in ascending order from least preferable to most preferable (Source: www.epa.nsw.gov.au)

10.2.2 Waste Avoidance/Reduction

Wherever possible the following measures should be implemented on site to avoid/reduce the generation of waste:

- Plan to source materials in correct quantities and size;
- Order pre-cut and/or prefabricated materials wherever possible;
- Fabricate materials offsite wherever possible;
- Plan to purchase materials in quantities that reduce packaging;
- Organise to return packaging to supplier or re-use packing wherever possible;
- Minimise the need for re-work through efficient construction planning.

10.2.3 Waste Re-use

Reuse of materials should be maximised by:

- Reuse of earthen fill or access track/hardstand capping for rehabilitation or maintenance applications;
- Organise to return packaging to supplier or re-use packing wherever possible;
- Reuse of felled trees by mulching trees and using material for revegetation applications;
- Reuse of any cattle grids that are no longer required in current position during operation phase.

10.2.4 Waste Recycling

Bins/skips will be located around the site to ensure efficient waste separation for non-recyclable waste, paper and cardboard, glass/recyclable plastics, scrap metal and tins, oily rags, timber and concrete.

Bins will be clearly labelled, have secure lids which are kept closed, will not be overfilled, and should be emptied at fixed intervals or as soon as full.

10.3 Wastewater Management

The Woodlawn Wind Farm project and the adjacent Capital Wind Farm share an Operation & Maintenance (O&M) Office and workshop building which is located within the common substation area.

Wastewater from the O&M Office and workshop buildings is minimised through the installation of AAA-rated water conservation devices.

A biological wastewater treatment system developed by Biolytix Technologies incorporating the Biolytix® Filter Model BF6. This system meets all requirements of AS/NZS 1547 - 2000.

Following the completion of a SepticSafe Local Approval Application, an approval was obtained for an On-Site Sewerage Management Facility from Palerang Council.

A requirement of the SepticSafe Local Approval Application was an Effluent Disposal Report prepared by a qualified Soil Scientist. This report assessed Capital Wind Farm's wastewater management requirements, and used a systematic approach to land use planning, site assessment, and the selection, design and operation of a human wastewater management system as recommended by Environment and Health Protection Guidelines for On-Site Sewage Management for Single Households.

The requirements and guidelines of the local council, Palerang Council, were also used during this planning and assessment process.

The Biolytix® system installed at Capital Wind Farm consists of a holding tank where the wastewater is biologically treated, and a subsurface drip-irrigation system which pumps the treated wastewater from the tank to a fenced and mulch-covered subsurface discharge zone within the landscape immediately adjacent to the substation.

10.4 Disposal of Wastes

Disposal will be viewed as the last option in the management of waste if avoidance/ re-use or recycling is not practical.

Waste materials, which cannot be either re-used or recycled, are to be removed from site by a suitably qualified and experienced waste contractor and disposed of to a facility that may accept that category of waste.

A register of waste removed from the site will be maintained by site administration. The following table outlines examples of wastes that may be generated on site and their disposal methods:

Waste Type	Disposal Method
Waste oil, oily rags	Licensed waste transport contractor
Waste skips (general waste)	Licensed waste transport contractor
Recycled waste skips (paper & cardboard)	Licensed waste transport contractor

This register will detail the type of waste removed from site, the quantity, the contractor who removed the waste and the destination for the particular waste.

This data will be recorded on the Waste Register, and will be used by the Service Provider to monitor and evaluate the success of the waste management system implemented on the site, and to identify any areas that require further action (Figure 10.4.1).



Figure 10.4.1 - Process by which waste management system will be monitored and evaluated, and improved where necessary through identification and action in any areas that may require further action.

To further ensure compliance with this management system the following measures will be carried out:

- Inspect waste receptacles to check that materials are segregated and recycled as appropriate;
- Incorporate the inspection of site waste management practices into regular site environmental audits.

10.5 Monitoring and Reporting

Waste Management and Re-Use related aspects of the project site must be regularly inspected and audited in order to ensure compliance to the NSW Minister for Planning's Conditions of Approval as well as Commonwealth and State legislation.

Potential impacts and mitigation strategies and will be communicated to site staff and contractors during site inductions.

Item / Audit Description	Frequency	Responsibility	
		WWF P/L	Service Provider
Monitor all work areas to ensure all wastes are being correctly managed and that waste receptacles are being regularly emptied. Ensure that the waste register is kept up to date.	Day to Day		✓
<u>Inspection Checklist - Environmental Compliance</u> to be completed by Service Provider personnel for all areas of site. This will be filed on site and made available to the Proponent upon request.	Every 6 months		✓
An audit of the site against the NSW Minister for Planning's Conditions of Approval / the performance criteria and requirements within this OEMP document will be carried out by the Service Provider.	Once a year		✓
Provide the Director General with assessment of implemented mitigation measures and safeguards, and assessment of compliance with the systems for operation maintenance and monitoring as part of the <i>Environmental</i>	Within three months after the first 24 month period of	✓	

Impact Audit - Operation. - Complete	operation. - Complete		
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References:

Procedure: Waste Management

Form: Waste Disposal

Register: Woodlawn Wind Farm – Waste Register

11. Greenhouse and Energy Management Strategy

11.1 Introduction

Condition number 24 of the Minister of Planning's Conditions of Approval requires the preparation of a Greenhouse and Energy Management Strategy.

It has been included in the Operation Environmental Management Plan and has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within this sub-plan
A <i>Greenhouse and Energy Management Strategy</i> must be prepared to ensure the use of non-renewable <i>resources</i> from Operation is minimised. The strategy must incorporate the mitigation measures identified in Section 19.4 of the EIS.	Section 11.2

11.2 Key Strategies

The following key strategies must be implemented into everyday site activities during operation to create a responsible culture among all site personnel that effectively reduces the greenhouse and energy footprint of site operations:

- Efficient usage of vehicle onsite i.e. minimise idle equipment, shutdown when not in active usage, minimise double-handling of material;
- Maintenance of all equipment and vehicles in accordance with manufacturer specification;
- Only energy-saving light bulbs to be used, and AAA-rated plumbing fittings;
- Switch off office lights, air conditioning, and other equipment when not in active usage;
- Recycle all materials whenever possible to minimise waste;
- Utilise local sources or recycled materials where practicable in the construction process.

11.3 Monitoring and Reporting

Greenhouse and Energy Management related aspects of the project site must be regularly inspected and audited in order to ensure compliance to the NSW Minister for Planning's Conditions of Approval as well as Commonwealth and State legislation.

Potential impacts and mitigation strategies and will be communicated to site staff and contractors during site inductions.

Item / Audit Description	Frequency	Responsibility	
		WWF P/L	Service Provider
Monitor all work areas to ensure that all aspects of this management strategy are being followed.	Day to Day		✓
<u>Inspection Checklist - Environmental Compliance</u> to be completed by Service Provider personnel for all areas of site. This will be filed on site and made available to the Proponent upon request.	Every 6 months		✓
An audit of the site against the NSW Minister for Planning's Conditions of Approval / the performance criteria and requirements within this OEMP document will be carried out by the Service Provider.	Once a year		✓
Provide the Director General with assessment of implemented mitigation measures and safeguards, and assessment of compliance with the systems for operation maintenance and monitoring as part of the <i>Environmental Impact Audit - Operation</i> . - Complete	Within three months after the first 24 month period of operation. - Complete	✓	

12. Air Quality Management Strategy

12.1 Introduction

Condition number 25 of the Minister of Planning's Conditions of Approval requires the preparation of an Air Quality Management Strategy.

It has been included in the Operation Environmental Management Plan and has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within this sub-plan
An <i>Air Quality Management Strategy</i> must be prepared to control dust and air emissions resulting from Operation. The strategy must incorporate the mitigation measures identified in Section 18.5 of the EIS.	Section 12.2

The key operational activities that have the potential to generate air quality impacts include:

- operational traffic on site by service personnel (generally using 2WD vans)
- operational traffic from equipment that may be required on site (i.e. cranes)
- operation of the equipment required on site (i.e. cranes)

The nearest receptors to site are located 2.6 to 2.8km from site and therefore there is an extremely low potential for air quality impacts during operation.

The key strategies outlined below are to be implemented to prevent air quality impacts.

12.2 Key Strategies

The following key strategy must be implemented into everyday site activities during operation:

- Limit vehicle speeds to 40km/hr on unsealed access tracks within the project site to minimise dust generation;
- Utilise dust suppression controls during periods of excessive dust that have potential to impact surrounding residences.

12.3 Monitoring and Reporting

Air Quality Management related aspects of the project site must be regularly inspected and audited in order to ensure compliance to the NSW Minister for Planning's Conditions of Approval as well as Commonwealth and State legislation.

Potential impacts and mitigation strategies and will be communicated to site staff and contractors during site inductions.

Item / Audit Description	Frequency	Responsibility	
		WWF P/L	Service Provider
Monitor all work areas to ensure that all aspects of this management strategy are being followed.	Day to Day		✓
<u>Inspection Checklist - Environmental Compliance</u> to be completed by Service Provider personnel for all areas of site. This will be filed on site and made available to the Proponent upon request.	Every 6 months		✓
An audit of the site against the NSW Minister for Planning's Conditions of Approval / the performance criteria and requirements within this OEMP document will be carried out by the Service Provider.	Once a year		✓
Provide the Director General with assessment of implemented mitigation measures and safeguards, and assessment of compliance with the systems for operation maintenance and monitoring as part of the <i>Environmental Impact Audit - Operation</i> . - Complete	Within three months after the first 24 month period of operation. - Complete	✓	

13. Off-Site Landscape Sub Plan

13.1 Introduction

Condition number 40 of the Minister of Planning's Conditions of Approval requires the preparation of an Off-Site Landscape Sub Plan as part of the Operation Environmental Management Plan.

This sub plan has been developed in response to the NSW Minister for Planning's Conditions of Approval issued on 4 October 2005, and the two modifications issued on 12 May 2010 and 29 October 2010.

The table below shows the Minister's specific requirements for this sub-plan and where they have been addressed:

Minister's Requirement	Location within this sub-plan
As part of the OEMP the Applicant must develop and implement an <u>Off-Site Landscape Sub Plan</u> to address visual impacts of the proposed development for any owner of an existing or approved residential dwelling with views of turbine(s) located within four kilometres of their dwelling. The Applicant must notify in writing all owners of a residential dwelling with views of turbines located within four kilometres of their residential dwelling, prior to the commencement of Commissioning. These owners may request, no later than six months after commencement of Operation, inclusion of their property in the <u>Off-Site Landscape Sub Plan</u> . The Applicant must implement all Reasonable and Feasible requirements for landscape works to provide screening from the turbines. The sub plan is to be fully implemented within 18 months of the commencement of Operation.	Section 12.2 and <u>Off-Site Landscape Sub Plan</u>

13.2 Summary

Landscape screening options include tree planting, screens and fencing. The plan for each property participating in this Sub Plan will be documented and agreed before works proceed, at Woodlawn Wind's expense.

In 2015, the NSW Department of Planning conducted an audit of compliance for the offsite landscaping requirements. The Department of Planning found no non-conformances nor required Infigen to conduct any follow up actions.

The Proponent is responsible for delivering the Off-Site Landscape Sub Plan.

Item	Timing
Notification letters delivered to landowners	21 March 2011 Completed
Commissioning of turbines commenced	31 May 2011 Completed
Operational status expected	31 August 2011 Completed
Expected latest date that landowners can request to be included in Off-Site Landscape Sub Plan	28 February 2012 Completed
Expected latest date that referrals would be made to the Department where agreement on individual plans has not been reached	30 April 2012 Completed
Expected completion of plan implementation	28 February 2013

	Completed
Ongoing maintenance is the responsibility of landowners	Ongoing, once individual plans are implemented

Reference:

Plan: Off-Site Landscape Sub Plan.

14. Reference Documents

Infigen and the Service Provider both endeavour to achieve best practice for all their work activities and acknowledge the importance of the relevant legislative requirements. These requirements include relevant Act, Regulations, Australian Standards, State and National Codes of Practice etc, along with Infigen's and the Service Provider's own procedures and policies.

The processes and procedures incorporated into this OEMP are designed to meet the following documents (but not limited to these):

1. Environmental Legislation

- Environmental Planning and Assessment Act, 1979
- Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act)
- Threatened Species Conservation Act, 1995
- National Parks and Wildlife Act, 1974
- Native Vegetation Act, 2003
- Noxious Weeds Act, 1993
- Fisheries Management Act, 1994
- State Environmental Planning Policy No. 44 – Koala Habitat Protection
- Protection of the Environmental Operations Act, 1997
- Soil Conservation Act, 1938
- Work Health and Safety Act, 2011
- Work Health and Safety Regulation 2011
- Local Government Act, 1993

2. Infigen Policies

- Environmental Policy
- Complaints Handling Policy

3. Service Provider Policies

- Environmental Policy

4. Service Provider Procedures

- Hazardous Substances and Dangerous Goods.
- Risk Assessment and Control
- Incident Reporting
- Permits to Work
- Incident Investigation
- Job Safety Analysis / Safe Work Method Statement
- Internal Audits
- Management Review
- Corrective Action Register

5. Australian Standards

- AS/NZS ISO 9001:2008 – Quality Management Systems
- AS/NZS 4801:2001 – Occupational Health and Safety Management Systems
- AS/NZS ISO 14001:2004 – Environmental Management Systems
- AS3000-2007 – Wiring Rules
- AS3760-2003 – In Service Safety Inspection and Testing of Electrical Equipment.

6. Service Provider Forms

- JSA/SWMS
- Incident Report Form
- Hot Work Permit
- Incident Reporting Communication Protocol
- Vehicle Inspection Checklist
- Hazard Observation Card

- Site Induction and Personal Details
- Safety Toolbox Meeting Minutes
- Service Safety Inspection
- Compliance Inspection – Environmental

7. Service Provider Woodlawn Wind Farm Plans and Documents

- Woodlawn Wind Farm – Service Management Plan
- Capital and Woodlawn Wind Farm – Emergency Response Plan
- Service HSE Risk Register
- Woodlawn Wind Farm – Audit Schedule
- Woodlawn Wind Farm – Incident Register
- Woodlawn Wind Farm – Corrective Action Register
- Woodlawn Wind Farm – MSDS Register

8. Infigen Woodlawn Wind Farm Plans and Documents

- HSE Policy
- Complaints Handling Policy
- Off-Site Landscape Plan
- Bird and Bat Adaptive Management Program
- Noise Compliance Assessment Plan