

# White Rock Wind Farm Stage 1

## CEMP Annex B – Construction Compound and Ancillary Facilities Management Plan



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Prepared by:

White Rock Wind Farm Pty Ltd



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White Rock Wind Farm Pty Ltd

White Rock Wind Farm  
Stage 1

*Construction Compound and  
Ancillary Facilities  
Management Plan*

December 2018

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**ACRONYMS AND ABBREVIATIONS**

<b>Acronyms</b>	<b>Definitions</b>
BoP	Balance of Plant
CCAFMP	Construction Compound Ancillary Facilities Management Plan
CEMP	Construction Environmental Management Plan
CFFMP	Construction Flora and Fauna Management Plan
CHMP	Construction Heritage Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CSWQMP	Construction Soil and Water Quality Management Plan
CTAMP	Construction Traffic and Access Management Plan
EA	Environmental Assessment defined as: <i>White Rock Wind Farm Environmental Assessment (Epuron, April 2011) as amended by:</i> <ul style="list-style-type: none"> <li>• <i>the Submissions Report; and</i></li> <li>• <i>the Modification Application seeking administrative changes to the conditions of approval, dated 15 June 2015 (MOD 2)</i></li> <li>• <i>the Modification Application for changes to construction and operation infrastructure dated December 2015 and supporting documents dated March 2016 (MOD 3);</i></li> </ul>
EPA	NSW Environment Protection Authority
EP&A Act	NSW Environmental Planning and Assessment Act 1979
ER	Environmental Representative
EWMS	Environmental Work Method Statement
GIS	Geographic Information System
LGA	Local Government Area
MCoA	Ministers Condition of Approval
OEH	Office of Environment and Heritage
SoC	Statement of Commitments
WRWF	White Rock Wind Farm (the Project)
WRWFPL	White Rock Wind Farm Pty Ltd

## 1 INTRODUCTION

This Construction Compound and Ancillary Facilities Management Plan (CCAFMP) is a sub-plan of the White Rock Wind Farm Construction Environmental Management Plan (CEMP). The CCAFMP has been prepared by Environmental Resources Management Australia Pty Ltd (ERM) for White Rock Wind Farm Pty Ltd (WRWFPL) to manage the potential impacts associated with construction and operation of temporary site compound and other ancillary facilities during the construction phase of Stage 1 of the White Rock Wind Farm Project (WRWF, or the Project). The CEMP was conditionally approved by DPE in December 2015. The CCAFMP sub-plan has been updated as follows:

- April 2016 – Updated to address revised layout from Mod 3 approval;
- July 2016 – Updated to address off-site temporary construction office; and
- December 2016 – Updated to address Gravel Stockpile locations and maintenance facility on T22 hardstand.
- November 2018 – updated to address construction of the Harmonic Filters at substation

### 1.1 PURPOSE AND SCOPE

The primary purpose of this CCAFMP is to detail how impacts to the environment will be minimised and managed during construction of the construction compounds and associated ancillary facilities. In doing so, the Plan:

- describes how WRWFPL will manage and control risks associated with the construction of the site compounds and other ancillary facilities required during the construction phase of the Project;
- addresses the requirements of applicable legislation;
- meets the Minister's Conditions of Approval (CoA) E18, E19, E21 and E22; and
- address the performance requirements of the White Rock Wind Farm Environmental Assessment (EA) documents relevant to the Project Approval Condition B1 (and definitions), including Statement of Commitments (SoC).

### 1.2 STAGE 1 CONSTRUCTION DETAILS

The WRWF gained Project Approval (MP 10 0160) on 10 July 2012 under Part 3A of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) and is subject to the Ministers Conditions of Approval (McoA). The Project Approval was modified on 24 July 2015 (MOD 2) and 1 April 2016 (MOD 3). It allows for construction of up to 119 wind turbines and ancillary facilities for access, substation and grid connection, electrical connection of the turbines

to the substation, temporary construction facilities and permanent meteorological monitoring masts.

The project is also subject to EPL 20665 that was issued on 27 April 2016.

Stage 1 of the WRWF Project involves the installation of 70 wind turbines, substation access trench and 33 kV collection facilities, construction compounds and associated ancillary facilities, to which the overall WRWF Stage 1 Construction Environmental Management Plan (CEMP) and this CCAFMP applies.

Further detailed Project information can be found in the following documents:

- White Rock Wind Farm Stage 1 Construction Environmental Management Plan (ERM 2016); and
- White Rock Wind Farm EA documents.

### 1.3

#### *PROJECT LOCATION*

The Project is to be located generally in the area between the Gwydir Highway in the north and Maybole Road in the south. The Project site is approximately 20 kilometres (km) west of Glen Innes. The Project is within two Local Government Areas (LGA's), the Glen Innes Severn LGA and the Inverell Shire LGA with the Guyra Shire LGA located to the south of the project area.

The Project is wholly located on private lands where the landowners lease the land to WRWFPL. In addition, parts of some access routes and electrical collections circuits cross Crown lands under agreements between Crown Lands Office and WRWFPL.

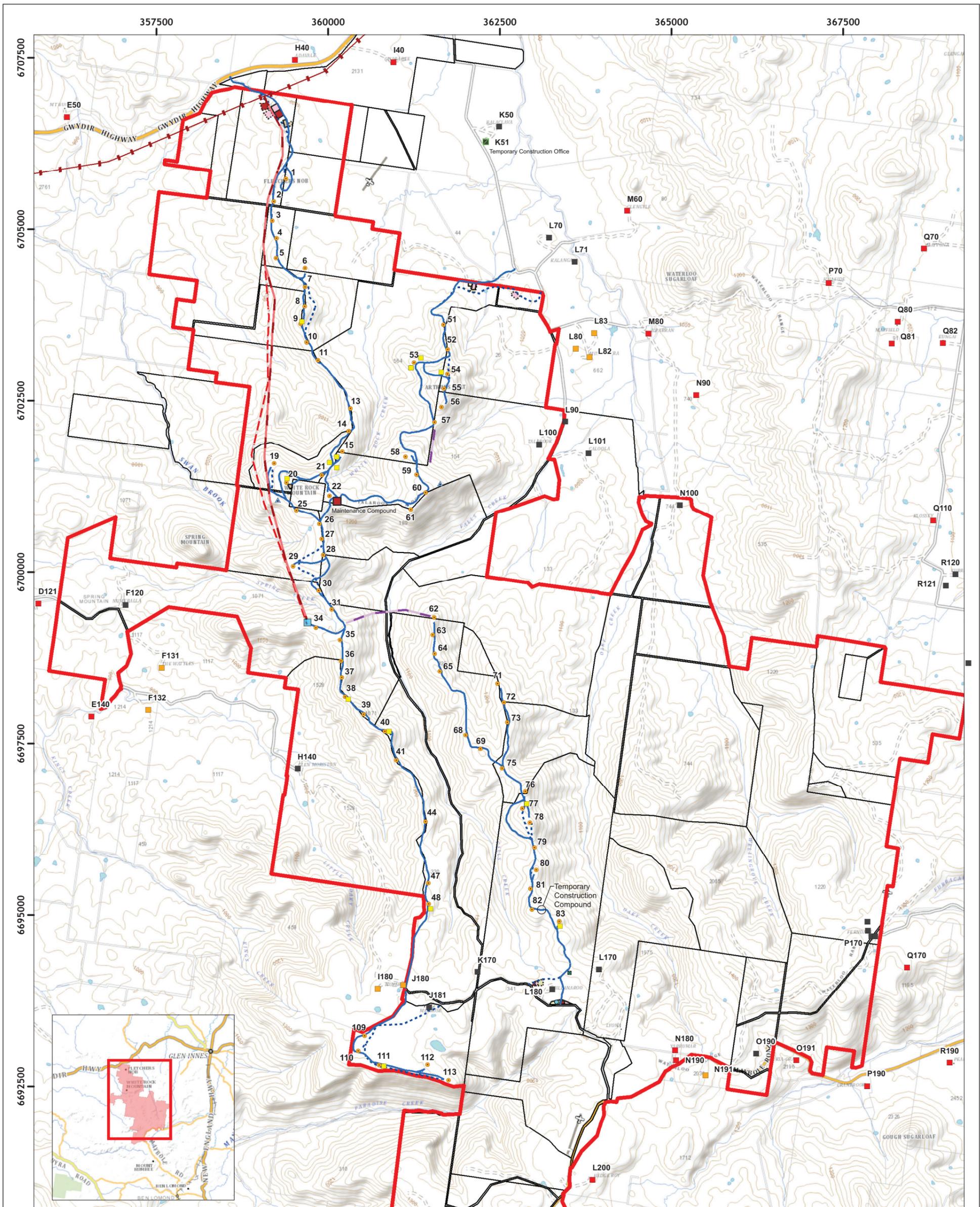
The WRWF site is located in steep hilly rural land that ranges in elevation from about 1,000m in the north to over 1,300m on some of the higher ridges including White Rock Mountain. The land has been partly cleared to provide exotic pastures for stock (cattle and sheep) grazing. Much of the steeper land retains remnant woodland vegetation that included endangered ecological communities. Cleared areas are common along ridgetops to facilitate grazing and farm access.

The general layout of the WRWF site and proposed location of associated ancillary facilities is shown on *Figure 1.1*.

The Stage 1 project site extends about 13km from north to south and at commencement there will be no access tracks from north to south suitable for the vehicles that will be accessing the site. To facilitate efficient construction of the project it will be necessary to establish temporary construction facilities at the northern and southern ends of the project site. Additionally, a construction compound and laydown area is located in the northeast near the entry from Ilparran Road and an interim office was located off-site prior to establishing such facilities on site. Details of the proposed facilities are provided in this document and *Annex A*.

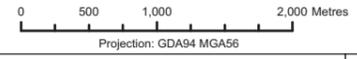
Due to the widespread nature of the turbine sites and associated facilities and time involved traversing the site; it will be efficient to have satellite facilities for

staff amenities and shelter during unfavourable or extreme weather conditions. Additional facilities can be established subject to meeting the criteria set out in Condition E18 and with the location shown in the CEMP.



- LEGEND**
- Site Perimeter
  - Cadastral Boundary
  - Turbine Layout 66
  - Permanent Met Mast
  - Involved Residence
  - Temporary (Interim) Construction Office
  - Uninvolved Residence
  - Neighbour Agreement
  - Existing 132kV Transmission Line
  - 33kV Overhead Line
  - Substation / Switchyard
  - Material Stockpile Site
  - Approximate Fuel Cell Location
  - Approximate Tank Location

- Original PA Approved Layout**
- Operation & Maintenance Facility
  - Temporary Construction Compound
  - Laydown Area
  - Concrete Batching Plant
  - Laydown Area & Batching Plant
  - Access Tracks
  - 132kV Overhead Line
- MOD 3 Approved Layout**
- Operation & Maintenance Facility
  - Temporary Construction Compound
  - Laydown Area
  - Concrete Batching Plant
  - Access Tracks
  - 132kV Overhead Line



Client: Goldwind	<b>Figure 1-1 Construction Layout</b>
Drawing No: 0295776m_CCFMP_C001_R3.cdr	White Rock Wind Farm
Date: 03/03/2017	Environmental Resources Management ANZ
Drawn by: GR / GC	Auckland, Brisbane, Canberra, Christchurch, Melbourne, Newcastle, Perth, Port Macquarie, Sydney
Reviewed by: NL	

GOLDWIND  
 Doc Name: WRWF\_MOD3\_009\_1H  
 MOD 3 Approved Layout: Overview Map  
 Rev 1H

## 2 CONSTRUCTION METHODOLOGY

This section provides an overview of the WRWF Stage 1 construction methodology as relevant to this CCAFMP and presents:

- an overview of the required WRWF works and locations of the temporary construction facilities;
- a list of construction activities and facilities and types of construction methods with the potential to generate impacts environmental impacts;
- a summary of the hours of work; and
- the indicative construction schedule.

### 2.1 OVERVIEW

Construction aspects of wind farm projects present a range of potential impact risks and management issues due to the nature of works, the times of day required for some activities and the large project areas in which works can occur. The plant, equipment and machinery, or activities to be undertaken for the WRWF will vary throughout the Project site, depending on various phases of construction at each location. Project activities and types of construction with the potential to generate impacts associated with ancillary facilities include:

- preliminary works (vegetation clearing; large vehicles entering site, materials delivery);
- site establishment (setting up temporary offices, amenities, parking areas and any fencing);
- civil works (earthworks, stockpiling topsoil and excess rock and soil);
- laydown area establishment (typically involving some cut and fill and formation of drainage);
- development of site compounds, concrete batching plant; and construction maintenance facility;
- installation of temporary monitoring masts;
- water supply infrastructure, pumps, pipelines, tanks; and
- communications facilities for radio, mobile phone or other site communications.

Construction of the WRWF will be undertaken on behalf of WRWFPL by construction contractors. At the time this version of the CCAFMP was prepared the engagement of construction contractors includes:

- Fulton Hogan is undertaking Balance of Plant for the wind farm;
- TransGrid is undertaking construction of switching/substation and connection services; and
- A transport contractor, Rex J Andrews has been appointed.

## 2.2 *PROPOSED HOURS FOR CONSTRUCTION*

Construction Hours are specified under Conditions of Project Approval E5 and E9. These conditions distinguish requirements for:

- standard construction hours;
- noise requirements for works outside of standard construction hours; and
- working hours for blasting.

Works must comply with the requirements of Conditions E5 and E9 as applicable. These requirements are summarised in *Table 2.1*. This table outlines the working hours applicable to the construction compounds and ancillary facilities, as shown in McoA E5 and works supervisors must be familiar with requirements of the applicable conditions.

**Table 2.1** *Summary of Working Hours*

<b>Time</b>	<b>Standard Construction Hours (Condition E5)</b>	<b>Hours for Blasting</b>
Monday to Friday	7:00am to 6:00pm	9am to 5pm
Saturday	8:00am to 1:00pm	9am to 1pm
Sunday or NSW public holidays	At no time	At no time
Outside standard hours	Work outside standard construction hours in circumstances prescribed in Condition E5.	At no time

Some works, including the delivery of turbine structures and blades will require oversize and overmass vehicles and may be undertaken outside the recommended standard hours in accordance with Transport Permits.

Annex C of the CEMP is the Construction Noise and Vibration Management Plan (CNVMP) which provides further guidance on management of noise and vibration. An out-of-hours works protocol for construction is provided in Annex B of the CNVMP.

## 2.3 *CONSTRUCTION SCHEDULE*

The WRWF Stage 1 construction works will extend over 2 years and will involve the following key phases identified in *Table 2.2*

**Table 2.2 Indicative Timing of Phases of Project Implementation**

TIME	2015	2016				2017				2018
ACTIVITY	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>Pre-construction Phase</b>										
Gain all pre-construction approvals	■	■	■							
Install Met Masts	■									
<b>Construction Phase</b>										
Site entry upgrade					■					
Local road upgrades				■	■					
Site establishment, compounds and amenities				■	■					
11KV Power supply					■	■				
Access Tracks, clearing and earthworks			■	■	■	■				
Prepare turbine hardstands and turbine footings				■	■	■				
Batch Plant operation				■	■	■	■			
Install 33kV Cabling					■	■	■			
Install 33kV OH Line						■	■	■		
Deliver Turbine components					■	■	■	■		
Erect Towers, nacelles and rotors						■	■	■	■	
Sub Station Footings						■				
Sub Station construction						■	■	■	■	
Install 132kV line						■	■	■		
Install O&M Building						■	■	■		
De-mobilise Site										■
Restore site including on-site screen planting							■	■	■	■

The Network Operator's requirement for improved Generator Power Quality has required the construction of additional facilities at the Substation approximately 6 months after Operations commenced. The construction works are expected to comply with the CEMP, including this updated CCAMP. Construction is occurring Nov/Dec 2018.

### 3 LEGAL AND OTHER REQUIREMENTS

#### 3.1 LEGISLATION AND POLICIES

The applicable legal and other requirements related to construction of ancillary facilities for the Project are outlined in *Table 3.1*.

**Table 3.1** *Legislation and Policies*

<b>Legislation and Policies</b>
<b>Commonwealth Legislation</b>
<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<b>State Legislation</b>
<i>Environmental Planning and Assessment Act 1979</i>
<i>Environmental Planning and Assessment Regulation 2000</i>
<i>Protection of the Environment and Operations Act 1997</i>
<i>Protection of the Environment Operations (Waste) Regulation 2014</i>
<i>Protection of the Environment Operations (General) Regulation 2009</i>
<i>Environmentally Hazardous Chemicals Act 1985</i>
<i>Pesticides Act 1999</i>
<i>Waste Minimisation and Management Act 1995</i>
<i>Environmentally Hazardous Chemicals Regulation 1999</i>
<i>Contaminated Land Management Act 1997</i>
<i>Environmentally Hazardous Chemicals Act 1985</i>
<i>Waste Avoidance and Resource Recovery Act 2001</i>
<i>Soil Conservation Act 1938</i>
<i>Native Vegetation Act 2003</i>
<i>National Parks and Wildlife Act 1974</i>
<i>Threatened Species Conservation Act 1995</i>
<i>Work Health and Safety Act 2011</i>
<i>Roads Act 1993</i>
<i>Local Government Act 1993 (Section 68 Approval for On-site Sewage Management)</i>

#### 3.2 GUIDELINES AND STANDARDS

Relevant environmental standards, policies and guidelines are provided in *Table 3.2*. The CEMP and its Sub-plans incorporate requirements of these standards and guidelines.

**Table 3.2 Environmental Standards, Policies and Guidelines**

Environmental Risk Issue	Standards and Guidelines
Noise	<ul style="list-style-type: none"> <li>• NSW Environmental Noise Management – Industrial Noise Policy (EPA, 2000);</li> <li>• NSW Interim Construction Noise Guideline (DECC, 2009);</li> <li>• NSW Road Noise Policy (DECCW, 2011z0);</li> <li>• Structural Vibration – Effects of Vibration on Structures (German Institute for Standardisation – DIN 4150 (1999-02) Part 3);</li> <li>• NSW Environmental Noise Management – Assessing Vibration: a Technical Guideline (DEC, 2006); and</li> <li>• Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZEC, 1990)</li> </ul>
Heritage	<ul style="list-style-type: none"> <li>• Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW, 2010); and</li> <li>• Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010).</li> </ul>
Ecology	<ul style="list-style-type: none"> <li>• Biodiversity Offsets for Major Projects;</li> <li>• State Environmental Planning Policy 44 – Koala Habitat Protection; and</li> <li>• Biobanking Methodology (OEH 2014).</li> </ul>
Soil and Water Quality	<ul style="list-style-type: none"> <li>• Landcom NSW(2004) Managing Urban Stormwater Soils and Construction (Volume 1, 4<sup>th</sup> edition);</li> <li>• DECC (2008) Managing Urban Stormwater Soils and Construction – Volume 2A installation of Services;</li> <li>• DECC (2008) Managing Urban Stormwater Soils and Construction – Volume 2D Unsealed Roads;</li> <li>• ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality Guidelines; and</li> <li>• Glen Innes Severn Council On-site Sewage Management Strategy (GISC, 2010).</li> </ul>
Traffic and Access	<ul style="list-style-type: none"> <li>• Traffic Control at Work Sites (RTA, 2010); and</li> <li>• Supplements to Austroads Guide to Road Design.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>• AS 3580 Methods of Sampling and Analysis of Ambient Air;</li> <li>• Approved methods and guidance for the modelling and assessment of air pollutants in NSW (DEC 2005); and</li> <li>• Action for Air (DECCW, 2009).</li> </ul>
Dangerous Goods and Hazardous Substances	<ul style="list-style-type: none"> <li>• AS1940 The Storage and Handling of Flammable and Combustible Liquids;</li> <li>• AS3780 The Storage and Handling of Corrosive Substances;</li> <li>• AS/NZ4452 The Storage and Handling of Toxic Substances; and</li> <li>• Storage and Handling Liquids: Environmental Protection Participants Manual, 2007.</li> </ul>
Waste	<ul style="list-style-type: none"> <li>• NSW Waste Classification Guidelines (NSW EPA 2014);</li> <li>• The excavated natural material order and exemption 2014 (EPA 2014); and</li> <li>• Fact sheet: Virgin excavated natural material (DECC 2008).</li> </ul>
Concrete Batching Plants	<ul style="list-style-type: none"> <li>• Environmental Guidelines for the Concrete Batching Plant Industry (VIC EPA, 1998).</li> </ul>

### 3.3 *MINISTER’S CONDITIONS OF APPROVAL*

In accordance with Section 75J of the EP&A Act, the Project was granted Project Approval by the Minister for Planning on 10 July 2012 and was modified on 24 July 2015 (MOD 2), 1 April 2016 (MOD 3), 31 May 2017 (MOD 4) and 11 October 2017 (MOD 5). A Modification for the implementation of Stage 2 of the WRWF project is currently under review by the NSW Department of Planning and Environment. The Minister’s Conditions of Approval (McoA) include a number of conditions relating to ancillary facilities as presented in *Table 3.3*.

### 3.4 *STATEMENT OF COMMITMENTS*

Under the now repealed Part 3A, Proponents were required to provide a Statement of Commitments (SoC) on how they propose to implement measures for environmental mitigation, management and monitoring for the Project. The SoC relating to ancillary facilities during construction are presented in *Table 3.4*.

**Table 3.3 Minister’s CoA (MP10\_160) Relating to Ancillary Facilities during Construction**

CoA	Requirement	Section this is Addressed
Definition: Ancillary Facility	<i>Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop, testing laboratory or material stockpile area.</i>	
E18	<p><i>Unless otherwise approved by the Secretary, the location of ancillary facilities associated with the construction of the project shall:</i></p> <ul style="list-style-type: none"> <li><i>(a) be located more than 50 metres from a waterway;</i></li> <li><i>(b) be located within or adjacent to the project;</i></li> <li><i>(c) have ready access to the road network;</i></li> <li><i>(d) be located to minimise the need for heavy vehicles to travel through residential areas;</i></li> <li><i>(e) be sited on relatively level land;</i></li> <li><i>(f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);</i></li> <li><i>(g) not require vegetation clearing beyond that already required by the project;</i></li> <li><i>(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;</i></li> <li><i>(i) not unreasonably affect the land use of adjacent properties;</i></li> <li><i>(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and</i></li> <li><i>(k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.</i></li> </ul> <p><i>The location of the ancillary facilities shall be identified in the Construction Environmental Management Plan required under condition E21 and include consideration of the above criteria. Where any of the above criteria cannot be met for any proposed ancillary facility, the Proponent shall demonstrate to the satisfaction of the Secretary that there will be no significant adverse impact from the facility’s construction or operation. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan.</i></p>	Figure 3.1, Section 5, Annex A.
E19	<i>All construction ancillary facility sites shall be rehabilitated to at least their preconstruction condition, unless otherwise agreed by the affected landowner.</i>	Section 5
E21	<p><i>Prior to the commencement of construction, or as otherwise agreed by the Director- General, the Proponent shall prepare and implement (following approval) a Construction Environmental Management Plan for the project. The Plan shall outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the relevant agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:</i></p> <p>.....</p> <p><i>e) details of how environmental performance will be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the project). In particular, the following environmental performance issues shall be addressed in the Plan:</i></p> <p>.....</p> <p><i>(i) compounds and ancillary facilities management;</i></p>	Sections 5, 6 and 7.

CoA	Requirement	Section this is Addressed
E22	<p>As part of the Construction Environmental Management Plan for the project required under condition E21 the Proponent shall prepare and implement:</p> <p>(a) a Construction Compound and Ancillary Facilities Management Plan to detail the management of site compounds associated with the project. The Plan shall include but not necessarily be limited to:</p> <p>(i) a description of the facility, its components and the surrounding environment;</p> <p>(ii) details of the activities to be carried out at each facility, including the hours of use and the storage of dangerous and hazardous goods;</p> <p>(iii) details of the mitigation and management procedures specific to the facility that would be implemented to minimise environmental and amenity impacts and an assessment of the adequacy of the mitigation or offsetting measures;</p> <p>(iv) identification of the timing for the completion of activities at the facility and how the site will be decommissioned (including any necessary rehabilitation); and</p> <p>(v) appropriate monitoring, review and amendment mechanisms.</p>	<p>This CCAFMP</p> <p>Section 2.1 and 3.5.1 Section 2.1 and 3.5.1</p> <p>Section 5</p> <p>Section 2</p> <p>Sections 6 and 7</p>

**Table 3.4 SoC Relating to Ancillary Facilities during Construction**

SoC	Commitment	Section this is Addressed
9	Ensure infrastructure, including turbines, tracks, substations, control buildings, stockpiles, and site compounds and turnaround areas, is not sited within 40 metres of a major drainage line or water course, where practical.	Section 5, Annex A
45	At the conclusion of the construction period, where practical, the disturbed areas of the site would be rehabilitated to a level suitable for the ongoing agricultural use of the land. The topsoil removed for construction activities would be stockpiled and reused for the rehabilitation of the areas around the turbine foundations, lay down and hardstand areas and along the access tracks.	Section 5, Annex A Section 5

### 3.5 ASSESSMENT BACKGROUND

The White Rock Wind Farm EA documents identified a number of ancillary facilities required to support the construction and operation of the Project. A description of these facilities is provided in *Sections 3.5.1* and *Figure 1.1* provides an overview of their location (further location details provided in *Annex A* of the CEMP). This CCAFMP also includes temporary construction facilities at the southern end of the site due to the distance (13km) between the northern and southern parts of the project. Any additional facilities required during the course of construction are to be assessed as per Section 5.1.2. A summary of the key impacts associated with the construction of all these ancillary facilities is provided in *Section 3.5.2*.

The BoP contractor has proposed an additional temporary (interim) construction office (*Section 3.5.1* and *Figure 1.1*) prior to establishment of construction compounds and site offices within the project area. The Temporary Construction office has been assessed against criteria from Condition E18 (*Annex A*). It has not required clearing, earthworks or construction of new facilities. Stockpile sites have also been identified during the course of construction and required assessment as to the suitability of the sites and update of location details in the CEMP, specifically in this CCAFMP. The locations of these sites are shown on *Figure 1.1* *Error! Reference source not found.* and are described at *Section 3.5.1* below.

#### 3.5.1 Ancillary Facilities

##### *Construction Compounds*

During the construction phase there are six proposed locations for construction compounds and a temporary (interim) construction office off site:

- Temporary (interim) construction office (arranged and occupied by the BoP contractor) located at Balaclava Cottage, Ilparran Road (Lot 14/DP753319);
- Adjacent to WTG 82 – within the southern part of the Project site;
- Northern Site Entrance – located off the Gwydir Highway;
- Northeastern Site Entrance – located off Ilparran Road;
- Southern Site Entrance – located off Kelleys Road; and
- Substation construction facilities for construction of the Harmonic Filter System.

The compounds will include car parking, site offices, and amenities for the construction work force, and a lay down area for the temporary storage of construction materials, plant, equipment and wind turbine components. Hazardous materials, for example diesel fuel, oil and pesticides will be stored within the compounds in accordance with relevant HSE requirements. A temporary power supply will be required to be connected to the northern and southern construction compounds using either the existing 11kV low voltage

network, internal 33kV wind farm network or a stand-alone diesel generator (or equivalent) as appropriate. A construction compound would encompass an area of approximately 100m x 100m.

### ***Operation and Maintenance Facility***

A permanent operation and maintenance facility will be constructed near the northern site entrance, adjacent to the temporary construction compound. This facility will include car parking, offices and amenities for the maintenance staff, a control room and storage facilities for spares and equipment needed for the maintenance of the wind turbines when the site is operational. A similar facility will also be constructed near WTG 22. During construction, only a small maintenance / workshop area will be required for servicing construction plant and equipment. This facility will be installed at a later stage of the construction phase.

A smaller, satellite permanent operation and maintenance facility, of a similar function to the northern facility, is proposed for the southern site entrance to be located within the location of the temporary construction compound.

### **Concrete Batching Plant**

One or two portable concrete batching plants would be required on-site to produce the concrete requirements for the wind turbine foundations and other concrete slabs (e.g. substation and buildings). Three sites have been identified.

The concrete batching plant will produce up to 500m<sup>3</sup> of concrete per day when a turbine foundation is being poured. The operational period would consist for up to 14 months as required for concrete pours in accordance with the construction schedule.

Correct siting is of vital importance in providing a manageable design as well as minimising risks due to flora and fauna, heritage, erosion and sedimentation during construction and the pollution hazard (noise, wastes, dust) overall during operation. The proposed concrete batching plants have been sited within the Project site on suitable, flat and cleared land adjacent to access tracks. Locations have been selected to provide easy construction access, minimise potential environmental impacts of the plant and provide an adequate amenity buffer distance of at least 300m between the plant and sensitive receivers, unless otherwise agreed with the Secretary under McoA E18.

There are currently three locations proposed for batching plants within the construction area:

- Northern Site Entrance;
- Southern Site Entrance; and
- Adjacent to Turbine 20 on White Rock Mountain.

These sites have been selected to remove/reduce movements of agitator trucks within the site, particularly where there are difficult haulage routes with steep slopes. Depending on the construction schedule, it may be necessary to operate

concrete batching plants concurrently, due to the distance between the northern and southern extents of the Project Site. Additional sites may be selected for batching plants which will be sited in accordance with McoA E18.

The concrete batching plant would nominally encompass an area of approximately 50m x 100m but may be up to 50m x 150m (up to 6,000m<sup>2</sup>).

### *Laydown Areas*

Laydown areas are associated with the main construction compounds in the north (Laydown Area 1), southern satellite office (Laydown Area 3) and laydown area (Laydown Area 2) accessed off Ilparran Road. These laydown areas are proposed for the temporary storage of construction materials, plant, equipment and wind turbine components. Fuel may also be stored at these locations for refuelling plant and equipment.

### *Material Stockpile Sites*

A considerable volume of gravel is required for construction of access tracks and hardstands. The BoP contractor has identified a number of locations where stockpiling of gravel is required as an interim measure between extractive and crushing activities and reuse of the material at other parts of the project site. Assessments of the Stockpile locations have been subject to Minor Consistency Reviews (MCRs) where there is a change to the project footprint to cater for the temporary stockpile site. The stockpiles assessments in respect of Criteria listed in Condition E18 are provided in *Annex A*. Locations of the stockpiles are also shown in *Figure 1.1*. Minor topsoil stockpiles are considered part of track and hardstand works, are shown on PESCPs and not addressed in this CCAFMP.

### *Pumps, pipelines and water storage tanks*

Water obtained at the site (under water access licences and responding to Condition E16) needs to be moved around the site to the location where it is used. This is partly addressed using water trucks and partly by pumping water using temporary poly-pipe pipelines to temporary water storage tanks where water trucks deliver it to locations where it is used. These facilities are of low impact

### *Meteorological Masts*

Two permanent masts (MM-2025 and MM-5960) have been installed and do not represent ancillary facilities. Additionally four temporary meteorological masts are required. Three temporary masts were initially installed to obtain data on wind and atmospheric conditions at turbine sites and removed once sufficient data was obtained. A fourth temporary mast was then installed using one of the removed temporary masts. The one remaining temporary mast will be removed prior to wind turbine construction. These masts are required for wind farm performance assessments and compliance monitoring that references hub height wind speeds using instrumentation on the monitoring masts. The masts are approximately 90m high and supported by a single footing at the base of the mast and up to 4 sets of anchored guy wires. The

masts have markings for aviation safety purposes. The location of the masts is within the assessed impact area in accordance with the EA. Installation of the masts as early works was in accordance with a task specific EMP.

### *Substation and Switching Station*

A combined substation and switching station will be constructed as a permanent facility adjacent to Turbine 34. These facilities will be constructed by TransGrid, separate from the construction of the Balance of Plant (BoP) for the wind turbines. The substation and switching station is permanent and is not an ancillary facility. However, the construction of these facilities had separate temporary construction site offices/amenities/laydown areas, at the substation site. This location will be further utilised for construction of the Harmonic Filter System.

### 3.5.2 *Summary of Key Impacts*

The construction ancillary facilities will only be required during the construction phase of Stage 1 of the Project and therefore the potential associated environmental impacts will be temporary.

The key potential impacts which have been considered include:

- Ecology (clearing of vegetation and habitat impacts);
- traffic management and safety (changes to transport and impacts);
- noise (from activities at location and facility or for transport);
- air quality (from activities at location);
- waste management (nature of wastes, handling and disposal);
- pollution of water (use, storage or handling of hazardous substances);
- aboriginal heritage (impact on sites); and
- erosion and sedimentation resulting from site changes to water runoff.

Management of these issues has been addressed for the Project within the relevant construction management plans, including relevant management and mitigation measures. This plan focusses on the siting of the ancillary facilities and suitability of the sites.

### 3.6 *RELATED MANAGEMENT PLANS*

This CCAFMP forms part of an overarching Construction Environmental Management Plan (CEMP) for the Project. Where relevant, reference should also be made to the other Sub-Plans for the Project list in *Table 3.5*.

**Table 3.5** *Relevant Project Sub-Plans*

<b>CEMP Annex</b>	<b>Environmental Sub-Plan</b>
Annex C	Construction Noise and Vibration Management Plan (CNVMP).
Annex D	Construction Traffic and Access Management Plan (CTAMP).
Annex E	Construction Soil and Water Quality Management Plan (CSWQMP).
Annex F	Construction Heritage Management Plan (CHMP).
Annex G	Construction Flora and Fauna Management Plan (CFFMP).

## **4 OBJECTIVES AND PERFORMANCE TARGETS**

### **4.1 OBJECTIVES OF THE CCAFMP**

Objectives for the environmental management of construction compounds and ancillary facilities for the Stage 1 construction works are described below:

- to identify relevant obligations and legislative requirements to be addressed for the temporary construction phase facilities;
- to describe specific effective environmental controls for the construction compounds and ancillary facilities that are practical for implementation and enable achievement of the required environmental performance;
- to outline record keeping and management plan monitoring requirements; and
- to define key roles and responsibilities.

### **4.2 PERFORMANCE TARGETS FOR THE CCAFMP**

Targets for management of environmental issues for the construction compounds and ancillary facilities during the construction of the Project are provided below:

- 100% compliance with all applicable legislation, regulations, standards, codes and licenses that relate to the Project, including the siting requirements for the facilities;
- no significant degradation to the environment as a result of the construction of site compound and ancillary facilities;
- standard industry environmental management practices implemented for construction of site compound and ancillary facilities; and
- implementation of measures listed in the Statement of Commitments.

## 5 MANAGEMENT STRATEGY

This section presents the management strategy that will be applied to minimise impacts associated with the construction and operation of the temporary site compounds and other ancillary facilities described in this plan.

### 5.1 APPROPRIATE SITING OF ANCILLARY FACILITIES

All construction compounds and ancillary facilities will be assessed for consistency against McoA E18 prior to establishment. Location criteria for ancillary facilities are provided below.

#### 5.1.1 Assessment against Location Criteria

The following are the set of criteria against which the locations of ancillary facilities will be assessed as outlined in McoA E18:

- (a) be located more than 50 metres from a waterway;*
- (b) be located within or adjacent to the Project;*
- (c) have ready access to the road network;*
- (d) be located to minimise the need for heavy vehicles to travel through residential areas;*
- (e) be sited on relatively level land;*
- (f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary concrete batching plant);*
- (g) not require vegetation clearing beyond that already required by the Project;*
- (h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the Project;*
- (i) not unreasonably affect the land use of adjacent properties;*
- (j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and*
- (k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.*

An assessment of all currently proposed ancillary facilities against these criteria is provided in *Annex A* of the CCAFMP.

Where the above criteria cannot be met for any proposed ancillary facility, it will be demonstrated to the DPE and the Secretary that there will be no significant adverse impact from that facility's construction or operation. Following satisfactory provision and approval of the information by the Secretary the location of the ancillary facilities will be included within the Plan as a revision to the Plan.

### 5.1.2 *Additional Ancillary Facilities*

Any additional ancillary facilities that are required during the course of construction will be assessed against the location criteria outlined in *Section 5.1.1*. The Construction Ancillary Facilities Assessment Checklist provided in *Annex B* of this CCAFMP provides guidance to Project staff on the assessment and approval process. An additional temporary (interim) construction office has been required by the BoP contractor and assessed against E18 Criteria (recorded in Annex A). A maintenance compound adjacent to T22 has also been assessed, along with an additional temporary construction compound adjacent to WTG 82. A new water tank and a fuel cell inside of the existing Kelleys Road compound have also been proposed. Twelve stockpile locations (some with multiple stockpiles) have been assessed and addressed in Annex A.

### 5.2 *SITE SURVEY/INSPECTIONS*

Prior to commencement of any construction work at ancillary facility sites, the following site inspections, where sites have not been previously assessed, must be undertaken to confirm any constraints:

- ecological inspection to confirm suitability of the proposed location and no significant increase to impacts to flora or fauna;
- heritage inspection to confirm no potential impacts to heritage values or sites;
- consideration of visual impact and any mitigation measures;
- review of site drainage issues;
- consideration of potential noise impacts for nearby residences; and
- accessibility from public road network and any upgrades needed.

Assessments may be compiled in a Minor Consistency Review (MCR) to obtain ER endorsement of an ancillary facility that was not previously assessed for the Mod 3 Project Approval.

### 5.3 *ENVIRONMENTAL WORK METHOD STATEMENTS*

Environmental Work Method Statements (EWMS) will be progressively developed for each of the ancillary facilities (prior to their construction commencing), including any future ancillary facilities and as required by the issue specific management plans. The EWMS preparation may utilise information compiled for a Minor Consistency Review (MCR).

EWMS are designed to provide site-specific detail and will include:

- GIS based illustrative and descriptive management and control measures, e.g. no-go zones, haulage routes, sensitive receivers etc.;

- overview of the scope of works; and
- clear references to internal Hold Points and relevant Environment Procedures.

The EWMS will initially be prepared to address site establishment works and may require progressive updates as construction progresses (if conditions change for the ancillary facilities).

The Environment Representative is required to review each EWMS to ensure compliance with the Project Approval prior to the commencement of works.

#### 5.4 *DECOMMISSIONING AND REHABILITATION*

Temporary construction facilities are not required for the operating wind farm and will be removed once they are no longer required for the construction and site restoration works.

Site restoration works will involve stabilising all disturbed ground that can be rehabilitated. Where these stabilised areas were former pasture then they will be revegetated in consultation with the landowner. Where there are areas of native vegetation then these will be preferentially restored using suitable local native vegetation. However, large growth species will not be planted in close proximity to turbines.

All ancillary facilities will be removed and the areas rehabilitated as per the Construction Flora and Fauna Management Plan (CFFMP) following completion of construction, to at least their pre-construction condition, unless otherwise agreed by the landowner where relevant.

#### 5.5 *MITIGATION AND MANAGEMENT MEASURES*

Management and mitigation measures to address issues of relevance to the ancillary facilities including ecology, noise and vibration, air quality, traffic and access, soil and water impacts and heritage issues have been developed and are included in the relevant construction management plans outlined in *Section 0*. The respective EWMS may document specific measures deemed critical for particular ancillary facilities.

#### 5.6 *TRAINING AND AWARENESS*

WRWFPL will ensure that all personnel responsible for the implementing this CCAFMP are competent on the basis of education, training and experience.

All site personnel (including sub-contractors) will be provided with environmental training appropriate to their scope of activity and level of responsibility. General staff and contractors will be inducted to the Project with training provided on management of potential impacts associated with the

construction of ancillary facilities. Details of training and induction will focus on:

- objectives of the CEMP including those of this CCAFMP;
- performance goals;
- mitigation measures required to be implemented;
- monitoring and reporting requirements; and
- incident investigation and response.

Training is to be provided prior to commencement of construction of ancillary facilities and updated if task, equipment or procedures are expected to, or have changed.

## 5.7

### *COMMUNITY LIAISON AND COMPLAINT HANDLING*

Consultation will be undertaken during the Project on a case by case basis and coordinated by the Community Engagement Manager. The format of this consultation may include letter box drops, formal written notification (e.g. for scheduled and potentially impacting works); phone calls, SMS, email correspondence and/or face to face meetings. The consultation elements are described in the main volume of the CEMP.

#### *Grievance Mechanism*

Complaints arising from WRWF works will be treated sensitively and in a manner that recognises the potential for the construction compounds and ancillary facilities to cause environmental impacts. The grievance mechanism will record:

- contact details for the complainant: name and phone number or email;
- location of the complainant: a general, indicative location relative to the wind farm if complainant chooses not to give address;
- reply or response given: including any actions and any follow up consultation that is required or has been undertaken by project staff; and
- review to assess whether the issue has been resolved.

**6*****INSPECTION AND MONITORING***

Routine site environmental monitoring will be undertaken on a regular basis in accordance with the process outlined in the CEMP and the monitoring programs detailed in the specific construction management plans. The ancillary facilities will be monitored as part of these environmental inspections.

## 7 *REPORTING, INCIDENT MANAGEMENT AND REVIEW*

### 7.1 *REPORTING*

All necessary reporting would be prepared and documented, covering inspection and monitoring requirements, findings and inspection times. Internal notifications and reporting regarding incidents will be done in accordance with the WRWF HSE Reporting and Investigation Procedures. All records of environmental complaints and non-conformances will be forwarded to the Environmental Representative who will be involved in all investigations and approval of corrective actions to the extent required by the McoA.

### 7.2 *INCIDENT MANAGEMENT*

All environmental incidents on the Project will be managed in accordance with the incident response process described in Sections 4.3 and 4.4 of the CEMP. This includes internal and external notification, recording, reporting and response processes.

### 7.3 *CORRECTIVE ACTIONS*

Where planning, checks or monitoring identify that an incident or non-conformance has occurred or a validated complaint was received, an incident report and set of corrective actions will be raised by the construction contractor (e.g. in their Health, Safety and Environmental management system) and immediately reported to the Site Environmental Manager.

Measures already implemented, additional measures to be implemented as a result and any corrective actions will be identified and reported to the Development Compliance Manager. Actions will be implemented to the satisfaction of the Environmental Representative and Development Compliance Manager. The effectiveness of response actions will be confirmed to ensure that:

- appropriate measures have been implemented to prevent reoccurrence of impacts; and
- complainants have received a response that addresses their concern and explains the reasons for the actions that the proponent has taken.

### 7.4 *CCAFMP REVIEW*

As with the overall CEMP, the CCAFMP will be a working document that requires review and, if necessary, amendment prior to and during the construction phase of the Project. The Development Compliance Manager shall undertake a review of the CCAFMP at least annually, or where:

- an audit makes findings or recommendations identifying a need;
- there is a significant change to the construction schedule, the site layout or a change in the construction methodology;
- site based conditions require a change to the environmental controls and procedures identified within the CCAFMP;
- an environmental incident occurs that requires corrective actions to be incorporated in the CCAFMP; and
- directed to do so by the Environmental Representative acting within the requirements of the McoA.

The review shall consider the environmental controls and procedures set out within the CCAFMP to make sure the environmental controls and procedures remain applicable to the activities being carried out.

Any recommendations from the review will be reported to the EPC Project Manager and Environmental Representative and (following adoption) be communicated to relevant stakeholders. The Environmental Representative can approve CCAFMP updates if they meet the criteria nominated in Section 2.3.5 of the CEMP.

Changes to the CCAFMP will be communicated through toolbox talks to existing onsite personnel and be incorporated into environmental induction material.

**REFERENCES**

EPURON (2011) *White Rock Wind Farm – Environmental Assessment.*

ERM (April 2016) *WRWF Stage 1 Construction Environmental Management Plan*

Goldwind Australia (December 2015) *White Rick Wind Farm – Modification Application Environmental Assessment Report.*

EPA (1998) *Environmental Guidelines for the Concrete Batching Plant Industry.*

Fulton Hogan (2016) *Minor Consistency Review 10 – Stockpile Sites near T53 and T54*

*Fulton Hogan (2016) Minor Consistency Review 16 – Stockpile Sites near T20*

*Fulton Hogan (2016) Minor Consistency Review 17 – Stockpile Sites near T21 and T15*

*Fulton Hogan (2016) Minor Consistency Review 18 – Extension of hardstand for Northern Batching Plant*

Annex A

## Assessment of Ancillary Facilities against Location Criteria

Table A.1 - Ancillary Facilities excluding  
Stockpiles

Table A.2 - Material Stockpile Locations

Table A.1 – Ancillary Facilities excluding Stockpiles

Table A.1 Ancillary Facility (not including Stockpiles that are shown in Table A.2)	Location	(a) be located more than 50 metres from a waterway	(b) be located within or adjacent to the project;	(c) have ready access to the road network;	(d) be located to minimise the need for heavy vehicles to travel through residential areas;	(e) be sited on relatively level land	(f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);	(g) not require vegetation clearing beyond that already required by the project;	(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;	(i) not unreasonably affect the land use of adjacent properties;	(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and	(k) Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.	Criteria met?	Additional actions required
Northern Construction Compound, site office/amenities Building and Laydown Area 1	Northern end of Project, near access to Gwydir Highway	Yes, approx.. 130m from ephemeral drainage line	Yes, within project boundary	Yes, access close to Gwydir Highway	Yes, facility is located in rural area.	Yes, located on relatively flat ridgeline with approx. 7% slope.	Yes, approx. 670m	Located within area of exotic pasture in close proximity to scattered native vegetation. Any adjustment in location to avoid Yellow Box Woodland and minimise impact on scattered native vegetation.	No known sites in immediate vicinity.	Yes, located sufficient distance from adjacent residences and will be rehabilitated following construction.	No flooding data available, but is located on elevated land, approx130m from ephemeral drainage line.	Yes, 1ha considered sufficient	Yes	None, although a specific EWMS will be prepared for construction of the site compound.
Temporary (interim) Construction Office	Balaclava Cottage, Ilparran Rd	Located at least 200m from White Rock Creek	The office is adjacent to the project site, on land owned by host property owner	Access via Ilparran Rd. Office is 100m from Ilparran Rd	No heavy vehicles have access to the temporary (interim) construction office, all heavy vehicles enter the project through the relevant construction gates	The office building is leased from the property owner and is located on level land	The office building occupies a portion of the farm property. There are no other residences within 200m of the site	No vegetation clearing is required	There are no known heritage sites in the vicinity of the farm. Site is substantially disturbed	Temporary (interim) construction office and parking for light vehicles does not unreasonably affect adjacent properties	The farm is located above the 20 ARI flood level	There will be no storage of raw materials on site	Yes	None, temporary (interim) construction office based in the existing Balaclava Cottage, no clearing or excavation required.
Concrete Batch Plant (northern site access)	Northern end of Project, near access to Gwydir Highway	Yes, approx100m from ephemeral drainage line	Yes, within project boundary	Yes, access close to Gwydir Highway	Yes, facility is located in rural area.	Yes, located on relatively flat ridgeline with approx.. 4% slope	Yes, approx.. 900m	Located within area of exotic pasture in close proximity to scattered native vegetation. Any adjustment in location to avoid Yellow Box Woodland and minimise impact on scattered native vegetation.	No known sites in immediate vicinity.	Yes, located sufficient distance from adjacent residences and will be rehabilitated following construction.	No flooding data available, but is located on elevated land, approx100m from ephemeral drainage line.	Yes, 0.5ha considered sufficient Extension approved through MCR 18 for back-up batch plant.	Yes	None. Assessed by MCR 18. A specific EWMS will be prepared for construction of the batching plant.
Concrete Batch Plant (Turbine 20)	Adjacent to Turbine 20	Yes, approx350m from ephemeral drainage line	Yes, within project boundary	Yes, via Kelleys Road, Maybole, Grahams Valley Road and New England Highway	Yes, facility is located in rural area.	Yes, located on relatively flat land with <5% slope	Yes, approx2.9km	Yes within cleared area of pasture comprising mostly exotic pasture.	No known sites in immediate vicinity.	Yes, located sufficient distance from adjacent residences. Will avoid neighbouring Crown Land	No flooding data available, but is located along ridgeline on elevated land.	Yes, 0.5ha considered sufficient	Yes	Avoid impacting neighbouring Crown Land.

<b>Table A.1 Ancillary Facility (not including Stockpiles that are shown in Table A.2)</b>	<b>Location</b>	<i>(a) be located more than 50 metres from a waterway</i>	<i>(b) be located within or adjacent to the project;</i>	<i>(c) have ready access to the road network;</i>	<i>(d) be located to minimise the need for heavy vehicles to travel through residential areas;</i>	<i>(e) be sited on relatively level land</i>	<i>(f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);</i>	<i>(g) not require vegetation clearing beyond that already required by the project;</i>	<i>(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;</i>	<i>(i) not unreasonably affect the land use of adjacent properties;</i>	<i>(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and</i>	<i>(k) Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.</i>	<b>Criteria met?</b>	<b>Additional actions required</b>
Concrete Batch Plant (southern site access)	Southern portion of Project, access from Kelleys Road	Yes, approx170m from ephemeral drainage line	Yes, within project boundary	Yes, via internal access track to Gwydir Highway	Yes, facility is located in rural area.	Yes, located on relatively flat land with approx5% slope	No, approx205m. Agreement with host landowner.	Located within area of exotic pasture in close proximity to scattered native vegetation. Any adjustment in location to avoid Yellow Box Woodland and minimise impact on scattered native vegetation.	No known sites in immediate vicinity.	Yes, located sufficient distance from adjacent residences and will be rehabilitated following construction. Agreement with landowner for facility location.	No flooding data available, but is located on elevated land, approx170m from ephemeral drainage line.	Yes, 0.5ha considered sufficient	Yes	Residence located to the east has been consulted regarding the proposed construction office and laydown facility and has agreed to location. An EWMS would be produced to mitigate potential environmental impacts.
North Eastern Construction Compound, office/amenities building and laydown area.	Eastern portion of Project, near access to Ilparran Road.	Yes, approx300m from ephemeral drainage line.	Yes, within project boundary	Yes, access via Ilparran Road, which connects to Gwydir Highway	Yes, facility is located in rural area.	Yes, located on relatively flat land with approx7% slope	Yes, approx1.2km	No – to be confirmed via ecological assessment prior to construction.	No known sites in immediate vicinity.	Yes, located sufficient distance from adjacent residences and will be rehabilitated following construction.	No flooding data available, but is located on elevated land, approx300m from ephemeral drainage line.	Yes, 0.5ha considered sufficient	Yes	None, although a specific EWMS will be prepared for laydown facility.
Southern Construction compound, office/ amenities building and Laydown Area.	Adjacent Kelleys Road access point to T62-83.	Yes, approx120m from ephemeral drainage line.	Yes, within project boundary	Yes, via Kelleys Road, Maybole, Grahams Valley Road and New England Highway	Yes, facility is located in rural area.	Yes, located on relatively flat land with approx5% slope	No, approx.. 170m from associated residence	Preliminary ecological assessment indicates site is suitable.	No known sites in immediate vicinity.	Yes, although located in vicinity of nearby residence. Will be rehabilitated following construction.	No flooding data available, but is located on elevated land, approx.. 150m from ephemeral drainage line.	Yes, 0.5ha considered sufficient	No	Landowner of Residence located to the east has agreed to the proposed office and laydown facility. Confirm no significant increase in impacts to ecology. An EWMS would be produced to mitigate potential environmental impacts.
Additional Maintenance compound within the centre of the site.	Adjacent to T22 on hardstand. Near existing access roads.	Yes, approx300m from Falls Creek	Yes, within project boundary	Yes, access along existing internal access roads	Yes, facility is located in rural area.	Yes, located on hardstand.	Yes, approx.. 2.7 km	Preliminary ecological assessment indicates site is suitable.	No known sites in immediate vicinity.	Yes, located sufficient distance from adjacent residences and will be rehabilitated following construction.	No flooding data available, but is located on elevated land, approx300m from ephemeral drainage line.	Yes, 0.5ha considered sufficient	Yes	None, A specific EWMS will be prepared for laydown facility.

<b>Table A.1 Ancillary Facility (not including Stockpiles that are shown in Table A.2)</b>	<b>Location</b>	<i>(a) be located more than 50 metres from a waterway</i>	<i>(b) be located within or adjacent to the project;</i>	<i>(c) have ready access to the road network;</i>	<i>(d) be located to minimise the need for heavy vehicles to travel through residential areas;</i>	<i>(e) be sited on relatively level land</i>	<i>(f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);</i>	<i>(g) not require vegetation clearing beyond that already required by the project;</i>	<i>(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;</i>	<i>(i) not unreasonably affect the land use of adjacent properties;</i>	<i>(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and</i>	<i>(k) Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.</i>	<b>Criteria met?</b>	<b>Additional actions required</b>
Additional Temporary Construction Compound	Adjacent to WTG 82, near existing access road	Yes, the proposal is not within 40m of a waterway and is not subject to flooding.	Yes, within project boundary.	Yes, access along existing internal access roads	Yes, facility is located within the site boundary.	Yes, located on relatively flat land.	The closest non-associated residence (N180) is located approximately 2.5km to the southeast of the proposed facility.	The proposal does require the clearing of up to three trees identified as scattered vegetation on the CEMP Flora and Fauna mapping	No works will occur within 50m of a known heritage site or within an area of potential heritage value.	Yes, located sufficient distance from adjacent residences and will be rehabilitated following construction.	The proposal is not within 40m of a waterway and is not subject to flooding.	Yes, 0.5ha considered sufficient	Yes	All works will be managed through the existing commitments and approval requirements provided in the CEMP and relevant sub-plans.
Water Tank	Approx. 500 metres north of the Kelleys Road Compound	Yes, Water tank will be located greater than 200m from the closest waterway	Water Tank site is within the project site.	Water Tank site is within the project site.	No additional heavy vehicles will need to travel through residential areas.	The location has been chosen due to the relatively flat ground.	The proposed location of the proposed water tank is approximately 420m from the nearest resident.	Minor clearing/stripping (approx.. 30m x 30m) of pasture grass is required to construct an access track and pad for tank to sit on.	There are no known heritage sites in the vicinity of the Water tank	There are no known heritage sites in the vicinity of the Water tank	No flooding data available, but is located on elevated land.	No deliveries outside standard construction hours are anticipated.	Yes	All works will be managed through the existing commitments and approval requirements provided in the CEMP and relevant sub-plans.
Fuel Cell	Within the Kelleys Road Compound	Yes, approximately 120m from ephemeral drainage line	The fuel cell is located within to the project site.	Access is via the Kelly's Road	A refuelling truck which is estimated to refuel the pod 1-2 times per week will be required.	The Fuel Cell will be located on a level section on the Kelly's Rd compound area	Yes, the fuel cell will be located >200m from the nearest residence	No vegetation clearing is required.	There are no known heritage sites in the vicinity of the Fuel Cell.	The fuel cell will not unreasonably affect the land use of the adjacent properties. It will be situated within the Kelly's Rd compound site	No flooding data available, but is located on elevated land, approx.. 120m from ephemeral drainage line.	No deliveries outside standard construction hours are anticipated.	Yes	All works will be managed through the existing commitments and approval requirements provided in the CEMP and relevant sub-plans.
Contractors construction facilities at Substation Site	Substation Site	Yes	Within the project area	Access from WRWF Tracks	Yes - Within WRWF Project area	Located on level ground	Nearest residence > 2km away	No additional vegetation clearing - Disturbed area	No known heritage sites	No change in use - within substation land	On ridgetop - No chance of flood inundation	Adequate storage available	Yes	Works consistent with CEMP

See following page for Material Stockpiles

Table A.2 – Material Stockpile Locations

Table A.2 Stockpiles	Location	(a) be located more than 50 metres from a waterway	(b) be located within or adjacent to the project;	(c) have ready access to the road network;	(d) be located to minimise the need for heavy vehicles to travel through residential areas;	(e) be sited on relatively level land	(f) be separated from nearest residences by at least 200 metres	(g) not require vegetation clearing beyond that already required by the project;	(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;	(i) not unreasonably affect the land use of adjacent properties;	(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and	(k) Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.	Criteria met?	Additional actions required
Near T53 (two stockpile sites)	Adjacent T53 hardstand	Yes, approx. 150m from ephemeral drainage line	Yes, within project boundary	Yes, close to internal access track, load directly to trucks	Yes, facility is located in rural area.	Yes, located on relatively flat bench in break of slope.	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences and will be rehabilitated following construction.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	None. Addressed by MCR 10. A specific EWMS will be prepared for construction of the stockpile.
Near T54	Adjacent T54 hardstand	Yes, located on ridgeline	Yes within project boundary	Yes, close to internal access track, load directly to trucks	Yes, facility is located in rural area.	Yes, located on relatively flat bench in break of slope.	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences and will be rehabilitated following construction.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	None. Addressed by MCR 10. A specific EWMS will be prepared for construction of the stockpile.
Near T21 and T15 (three Stockpile sites)	Between T21 and T15	Yes, located on ridgeline	Yes within project boundary	Adjacent internal access track	Yes, facility is located in rural area.	Located on gently sloping land, avoids steeper areas	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences and will be rehabilitated following construction.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	None. Addressed by MCR 17. A specific EWMS will be prepared for construction of the stockpile.
Near T20	Adjacent T20	Yes, located on ridgeline	Yes within project boundary	Adjacent internal access track	Yes, facility is located in rural area.	Located on gently sloping land, avoids steeper areas	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences. Avoids adjacent Crown Land.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	Avoid Crown Land. A specific EWMS will be prepared for construction of the stockpile.
Near T38	Adjacent T38	Yes, located on ridgeline	Yes within project boundary	Adjacent internal access track	Yes, facility is located in rural area.	Located on gently sloping land, avoids steeper areas	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences and will be rehabilitated following construction.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	None. A specific EWMS will be prepared for construction of the stockpile.
Near T77	Adjacent T77	Yes, located on ridgeline	Yes within project boundary	Adjacent internal access track	Yes, facility is located in rural area.	Located on gently sloping land, avoids steeper areas	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences and will be rehabilitated following construction.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	None. A specific EWMS will be prepared for construction of the stockpile.

Table A.2 Stockpiles	Location	(a) be located more than 50 metres from a waterway	(b) be located within or adjacent to the project;	(c) have ready access to the road network;	(d) be located to minimise the need for heavy vehicles to travel through residential areas;	(e) be sited on relatively level land	(f) be separated from nearest residences by at least 200 metres	(g) not require vegetation clearing beyond that already required by the project;	(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;	(i) not unreasonably affect the land use of adjacent properties;	(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and	(k) Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.	Criteria met?	Additional actions required
Near T8	Near T8 and T9	Yes, located on ridgeline	Yes within project boundary	Adjacent internal access track	Yes, facility is located in rural area.	Located on gently sloping land, avoids steeper areas	Yes, greater than 1km	Located within area of exotic pasture in close proximity to woodland native vegetation. Avoids impact on native vegetation.	No known sites in immediate vicinity.	Yes, large setback from adjacent residences and will be rehabilitated following construction.	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	Yes	None. A specific EWMS will be prepared for construction of the stockpile.
Near T83	Adjacent T83	Yes,	The crushing and screening will be carried out on Pad #83. Temporary stockpiling to occur on the southern side of Pad 83 slightly outside the Mod 3 footprint, but within the project area.	Access is via Kelly's Road	No substantial change to original heavy vehicle travel requirements, however the stockpiles will enable suitable material to be crushed close to its source and also used for the pavement of the surrounding haul roads, thereby minimizing internal heavy vehicle requirements and avoiding additional heavy vehicle movements on public roads.	The location of the proposed temporary stockpile area has been chosen due to its relatively flat ground in the area between two valleys.	Yes. Located approximately 875m from nearest residence. Crushing will occur within approved CEMP limits.	Minor clearing/stripping of pasture grass is required to construct an access track.	There are no known heritage sites in the vicinity of the Crushing & Stockpiling area.	The crushing and stockpiling operation will not affect the land use. All stockpiles to be placed temporarily and will be removed within 1-2 months	On elevated land, well above potential flood prone areas.	Yes, considered sufficient for the materials to be stockpiled at this site	No	A specific EWMS will be prepared for construction of the stockpile. Crushing will occur within approved CEMP limits. In addition sprays have been fitted to crushing trains to minimize dust emissions.
Near T 40	Adjacent T40	Yes.	The stockpile area is within the approved Mod 3 layout/ alignment	Access is via Kelly's Road or Ilparran Road and through the internal WRWF road network	No substantial change to original heavy vehicle travel requirements, however the stockpiles will enable suitable material to be crushed close to its source and also used for the pavement of the surrounding haul roads, thereby minimizing internal heavy vehicle movements.	Yes	The nearest residence is located approximately 1.4km from the stockpiling site (H140).	No vegetation clearing is required.	There are no known heritage sites in the vicinity of the site.	Stockpiles are temporary and will only be in place for a period of approximately one month. The current and approved PESCP plans will not be affected by the stockpile area.	No flooding data available, but is located on elevated land, approx. 150m from ephemeral drainage line.	Area is approx. 4550m <sup>2</sup> which will be sufficient for the stockpiling of crushed material.	Yes	A specific EWMS will be prepared for construction of the stockpile. Crushing will occur within approved CEMP limits. In addition sprays have been fitted to crushing trains to minimize dust emissions.
Near T 48	Adjacent T48	Yes. SW-1-1548- is located 200m away from pad 48.	The stockpile area is within the approved Mod 3 layout/ alignment	Access is via Kelly's Road or Ilparran Road and through the internal WRWF road network	No substantial change to original heavy vehicle travel requirements, however the stockpiles will enable suitable material to be crushed close to its source and also used for the pavement of the surrounding haul roads, thereby minimizing internal heavy vehicle movements.	Yes	The nearest residence is located approximately 1.3km from the stockpiling site (J180).	No vegetation clearing is required.	There are no known heritage sites in the vicinity of the site.	Stockpiles are temporary and will only be in place for a period of approximately one month. The current and approved PESCP plans will not be affected by the stockpile area.	No flooding data available, but is located on elevated land, approx. 150m from ephemeral drainage line.	Area is approx. 3200m <sup>2</sup> which will be sufficient for the stockpiling of crushed material.	Yes	A specific EWMS will be prepared for construction of the stockpile. Crushing will occur within approved CEMP limits. In addition sprays have been fitted to crushing trains to minimize dust emissions.

Table A.2 Stockpiles	Location	(a) be located more than 50 metres from a waterway	(b) be located within or adjacent to the project;	(c) have ready access to the road network;	(d) be located to minimise the need for heavy vehicles to travel through residential areas;	(e) be sited on relatively level land	(f) be separated from nearest residences by at least 200 metres	(g) not require vegetation clearing beyond that already required by the project;	(h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already approved to be impacted by the project;	(i) not unreasonably affect the land use of adjacent properties;	(j) be above the 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and	(k) Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.	Criteria met?	Additional actions required
Near T111	Adjacent T77	Yes. SW-1-18450 is located 175m away from proposed facility	The stockpile area is adjacent to the approved Mod 3 layout/alignment	Access is via Kelly's Road and through the internal WRWF road network	No substantial change to original heavy vehicle travel requirements, however the stockpiles will enable suitable material to be crushed close to its source and also used for the pavement of the surrounding haul roads, thereby minimizing internal heavy vehicle movements.	Yes	The nearest residence is located approximately 800m from the stockpiling site (J181).	No vegetation clearing is required.	There are no known heritage sites in the vicinity of the site.	Stockpiles are temporary and will only be in place for 3-4 weeks. Any disturbed areas will be re-vegetated once stockpiling is complete.	No flooding data available, but is located on elevated land, approx. 150m from ephemeral drainage line.	Area is approx. 4550m <sup>2</sup> which will be sufficient for the stockpiling of crushed material.	Yes	A specific EWMS will be prepared for construction of the stockpile. Crushing will occur within approved CEMP limits. In addition sprays have been fitted to crushing trains to minimize dust emissions.

Annex B

Construction Ancillary  
Facilities Assessment  
Checklist

**B.1****WRWF - CONSTRUCTION ANCILLARY FACILITIES ASSESSMENT CHECKLIST**

Checklist to be used for any future Ancillary Facilities not identified in the EA.

<b>Facility:</b>	<b>Location:</b>	
<b>Review by:</b>	<b>Position:</b>	<b>Date:</b>
<b>Criteria</b>	<b>Comments</b>	<b>Compliant (Y/N)</b>
More than 50 metres from a waterway?		
Within or adjacent to the Project site?		
Ready access to the road network?		
Minimises the need for heavy vehicles to travel through residential areas?		
On relatively level land?		
More than 200 metres (or at least 300 metres for a temporary batching plant) from residence?		
Not require vegetation clearing beyond that already required by the Project?		
Not impact on heritage sites?		
Not unreasonably affect the land use of adjacent properties?		
Above the 20 year ARI flood level? Or contingency plan to manage flooding prepared?		
Provide sufficient area for the storage of raw materials to minimise deliveries required outside standard construction hours?		
Note: if any of the above is non-compliant, approval must be sought from the Director-General of the Department of Planning and Environment. WRWFPL will demonstrate to the satisfaction of the Director-General that there will be no significant adverse impact from the facility's construction and operation"		
ER Endorsement: Name:	Signature:	Date: