

White Rock Wind Farm

MP10_0160

Staging Report



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For: White Rock Wind Farm Pty Ltd



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Document Approvals

*The signatures of the people below indicate an understanding in the purpose and content of this document by those signing it.
By signing this document you agree to this as the formal
Communication Management Plan for the Project.*

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1 INTRODUCTION

1.1 Purpose of this document

This document provides a revision of the White Rock Wind Farm (WRWF) Staging Report that was originally prepared prior to the commencement of Stage 1 construction. The Report was initially required by Condition B11 of the White Rock Wind Farm Project Approval MP10_160. However, the Modification No 4 (Mod 4) Approval removed the requirement for a Staging Report from Condition B11. This revised Staging Report has been prepared by White Rock Wind Farm Pty Ltd (WRWFPL) following the Mod 4 approval and prior to the commencement of operations for WRWF Stage 1 to provide the details of WRWF staging of the development.

1.2 Background

White Rock Wind Farm received planning approval on 10 July 2012, from the NSW Minister for Planning under Section 75J of the Environmental Planning and Assessment (EP&A) Act, 1979. The Project Approval was subsequently modified under Section 75W, on 24 July 2015 (MOD 2), on 01 April 2016 (MOD 3), on 31 May 2017 (Mod 4) and 11 October 2017 (MOD 5).

The Project Approval allows for construction of up to 119 wind turbines and associated infrastructure including access tracks, a 33kV/132kV substation, approximately 8km of 132kV transmission line to connect to TransGrid's existing 132kV Glen Innes to Inverell transmission line and an alternative grid connection at 330kV (additional 13km of 132kV transmission line and a 132kV/330kV substation).

White Rock Wind Farm is located approximately 20km southwest of Glen Innes, 42km to the east of Inverell and approximately 75km north of Armidale. WRWF layout is shown in Figure 1.1

Planning for the project and gaining of Project Approval was initially undertaken by Epuron Pty Ltd (Epuron) during 2010-2012. The proponent is White Rock Wind Farm Pty Ltd (WRWFPL). Goldwind Capital Australia (GWCA) subsequently acquired WRWFPL and the WRWF project from Epuron. In 2016, CECWP has acquired 75% of WRWFPL.

WRWFPL is developing WRWF in two primary stages with each stage having construction (A) and operations (B) phases. Stage 1 has an additional phase (Stage 1C) for installation of solar farm infrastructure within the WRWF footprint. Timing for Stage 1 development is set out in Section 2.4.1.

The Stage 1 development utilizes all of the available capacity of the existing transmission facilities to which the wind farm will connect. Stage 1 construction commenced in May 2016 and all turbines have been installed and are being commissioned during second half of 2017.

The Stage 2 development could involve up to 49 additional approved wind turbines and additional facilities for grid connection. The ability to progress Stage 2 requires an increased grid connection capacity as provided for by the MOD 4 Approval and suitable commercial arrangements being in place for Stage 2 to progress to implementation.

Ultimately the full WRWF development could include all 119 approved turbine sites.

Stage 3 represents the decommissioning stage of the WRWF.

White Rock Solar Farm (WRSF) is located close to the northern extent of the wind farm but is subject to a separate planning approval (Development Consent SSD-7487). WRSF has commenced construction and will be operational in first half of 2018. WRSF will connect to the grid via WRWF substation and shares some of the WRWF infrastructure.

1.3 White Rock Wind Farm Project Approval Conditions

The WRWF Project Approval MP10_160 (MOD 5) has been granted subject to Conditions of Approval that must be complied with. The conditions allow staging of the project and that conditions of approval must be complied with at the relevant time and to the extent that they are relevant to the specific stage.

1.3.1 Conditions B11 and B17

Condition B11 originally set out a requirement to submit Staging Reports to the Secretary of the Department and Planning (DPE) and the matters to be addressed by the Staging Reports. Condition B11 has since been modified, Condition B12 has been deleted and Condition B17 has been added. Conditions B11 and B17 are set out below.

Condition B11 Staging

The Proponent may construct, operate and decommission the project in stages.

Where staging of the project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).

The revised Condition B11 no longer requires submission of a Staging Report. Nevertheless, this updated Staging Report has been prepared for continuity and to clearly represent ongoing obligations as was the case for the previous version of Condition B11.

Condition B17. Updating and Staging of Strategies, Plans or Programs

With the approval of the Secretary, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.

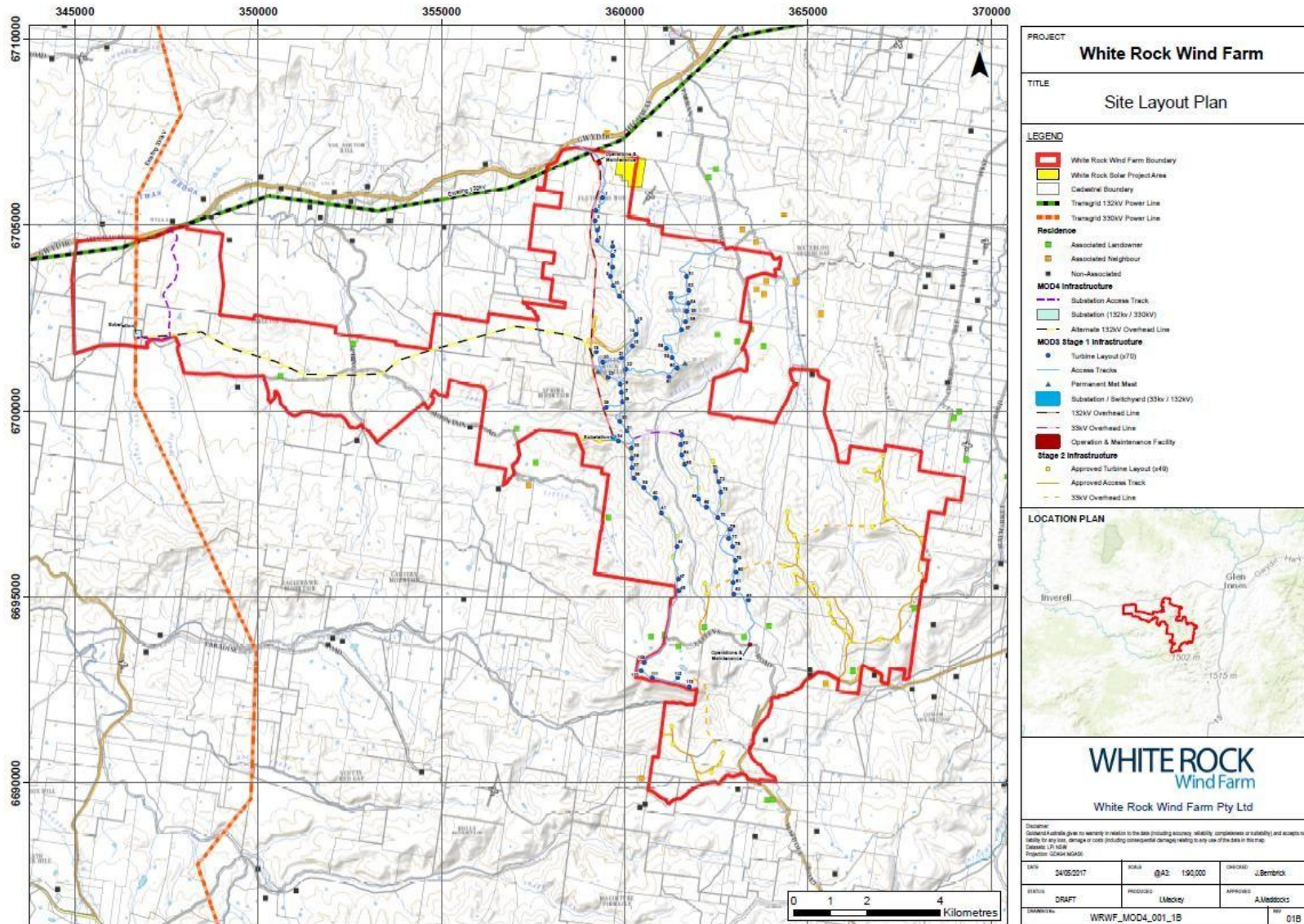
To ensure the strategies, plans or programs under the conditions of this approval are updated on a regular basis, the Proponent may at any time submit revised strategies, plans or programs to the Secretary for approval.

With the agreement of the Secretary, the Proponent may prepare any revised strategy, plan or program without undertaking consultation with all the parties referred to under the relevant condition of this approval.

Notes:

- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent must ensure that all development being carried out on site is covered by suitable strategies, plans or programs at all times.*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or programs.*

Figure 1.1 White Rock Wind Farm Layout including alternative grid connection as per Mod 4 approval



2 DETAILS OF STAGING OF THE WRWF PROJECT

The development of WRWF involves the following stages:

- Early works – Preparatory works prior to commencement of Stage 1 works (complete);
- Stage 1 – Installation and operation of 70 Goldwind GW121-2.5MW wind turbines (installed);
- Stage 2 – Installation and operation of up to 49 approved turbines (details to be confirmed); and
- Stage 3 – Decommissioning at end of project life.

2.1 Early works preparatory to Stage 1

A limited scope of preparatory work was undertaken prior to commencement of Stage 1 construction. These works included:

- Installation of two permanent meteorological masts (and four temporary masts on turbine sites)
- Preparatory planning for road upgrades to provide a safe site entry from the Gwydir Highway to the site, a safe access via Ilparran Road and southern site access points from Kellys Road in the Maybole locality.

2.1.1 Permanent met masts

Permanent met masts are required for the wind farm. Two masts were required to provide reference wind speed data that needed to be collected at the same time that background noise monitoring was undertaken to satisfy Condition F6 of the Project Approval. The background noise monitoring required by Condition F6 was obtained prior to commissioning (and before construction) of the Stage 1 wind farm, as required by Condition F6. WRWFPL undertook background noise monitoring from December 2015 through January 2016 prior to Stage 1 construction works commencing in May 2016.

To enable two permanent masts to be used to provide reference wind speeds for the abovementioned background noise monitoring without any interference from construction noise, the masts were installed in November 2015, instruments fitted and operation commenced.

Given the low environmental risks of installing the met masts, WRWFPL managed construction impacts through an effective and targeted Environmental Management Plan (EMP) / Environmental Work Method Statement (EWMS). WRWFPL prepared an EMP and EWMS that were reviewed by the Environmental Representative (ER) who provided approval for the works to proceed in accordance with the EMP. A copy of the EMP was provided to DPE with the ER endorsement prior to mast works proceeding.

2.1.2 Site access road upgrade works

A number of locations required upgrades to facilitate the safe and efficient access to the WRWF Stage 1 Site. Upgrades of roads and/or site entry points involved works in areas external to the WRWF project area. The locations of road upgrades included:

- Northern site entrance from Gwydir Highway – Completed works approved by RMS
- Gwydir Hwy intersection with Ilparran Road, upgrade of Ilparran Road and northeast site access point from Ilparran Road – Completed works approved by RMS and Glen Innes Severn Council, as relevant.
- Kelleys Road upgrade and southern access points from Kelleys Road – Completed works were approved by Glen Innes Severn Council and on behalf of Inverell Council, as relevant.
- Ben Lomond Over Dimensional Vehicle Route – Completion of works approved by respective Councils.

Upgrade works at these site entry points and access roads have been subject to approvals and appropriate agreements with relevant road authorities, as relevant.

2.2 Stage 1

Stage 1 comprises the following phases:

- Stage 1A – Construction and Commissioning of Stage 1 infrastructure (from May 2016 through to late 2017), and
- Stage 1B – Operations and Maintenance once all turbines have been commissioned (from late 2017)
- Stage 1C – Installation of shared infrastructure for White Rock Solar Farm (33kV cabling from Turbine 1 to Substation and minor changes at the substation). This was addressed by the Mod 3 Approval.

The Stage 1 construction has involved installation of up to 70 wind turbines (GW121 2.5MW) with a total installed wind farm capacity of 175MW. The Project Approval allows for the associated infrastructure, a 33kV/132kV substation, 8 km of 132kV transmission line, access tracks, 33kV cables and 1.3km of 33kV overhead line to connect the turbines to the substation, permanent monitoring masts, permanent maintenance facilities and temporary construction facilities.

The 70 Stage 1 turbines were installed in accordance with the approved turbine sites and micro-siting allowance provisions of the Project Approval. The location of the 70 Stage 1 turbines are shown in Figure 2.1. Of the 70 turbines comprising Stage 1, 34 have been subject to micro-siting in accordance with allowance provided in the Project Approval. Appendix I of the WRWF Stage 1 CEMP provides details for assessment of impacts of turbine micro-siting. Figure 2.1 also shows the location of the 132kV/33kV Substation, 8km of 132kV transmission line and 1.3km of 33kV line.

Properties subject to Stage 1 are shown on Figure 2.2 and listed in Schedule of Land in Appendix 1 of the Project Approval.

An overlap of Stages 1A and 1B occurs due to the extension of Stage 1 rehabilitation beyond commencement of Stage 1B operation. Stage 1C occurs during the period of transition for 1A to 1B but is a separate activity.

2.3 Stage 2 Wind Turbines and Alternative Grid Connection

Stage 2 could involve up to 49 turbines to increase the total number of installed wind turbines for WRWF to 119. The full details for Stage 2 are subject to further engineering and commercial studies and a proposed Modification Application (Mod 6). For Stage 2, it is proposed to upgrade the 132kV/33kV substation and install an alternative grid connection arrangement for connection at 330kV (Mod 4 Approval). An application for a further modification of the Project Approval for the Stage 2 infrastructure is anticipated to be lodged in last quarter of 2017. Construction for Stage 2 could commence from Q2 2018.

2.4 Stage 3 - Decommissioning

Stage 3 involves decommissioning of part or all of the wind farm. This is expected to occur at the end of the working life of the wind farm development and could also be phased. The property leases include requirements for decommissioning. DPE has reviewed the lease conditions and advised that they satisfy requirements of Approval Condition B8. On 26 April 2016, DPE approved the WRWF Stage 1 Decommissioning and Rehabilitation Plan required by Condition G10. Retrofitting of newer model turbines is possible.

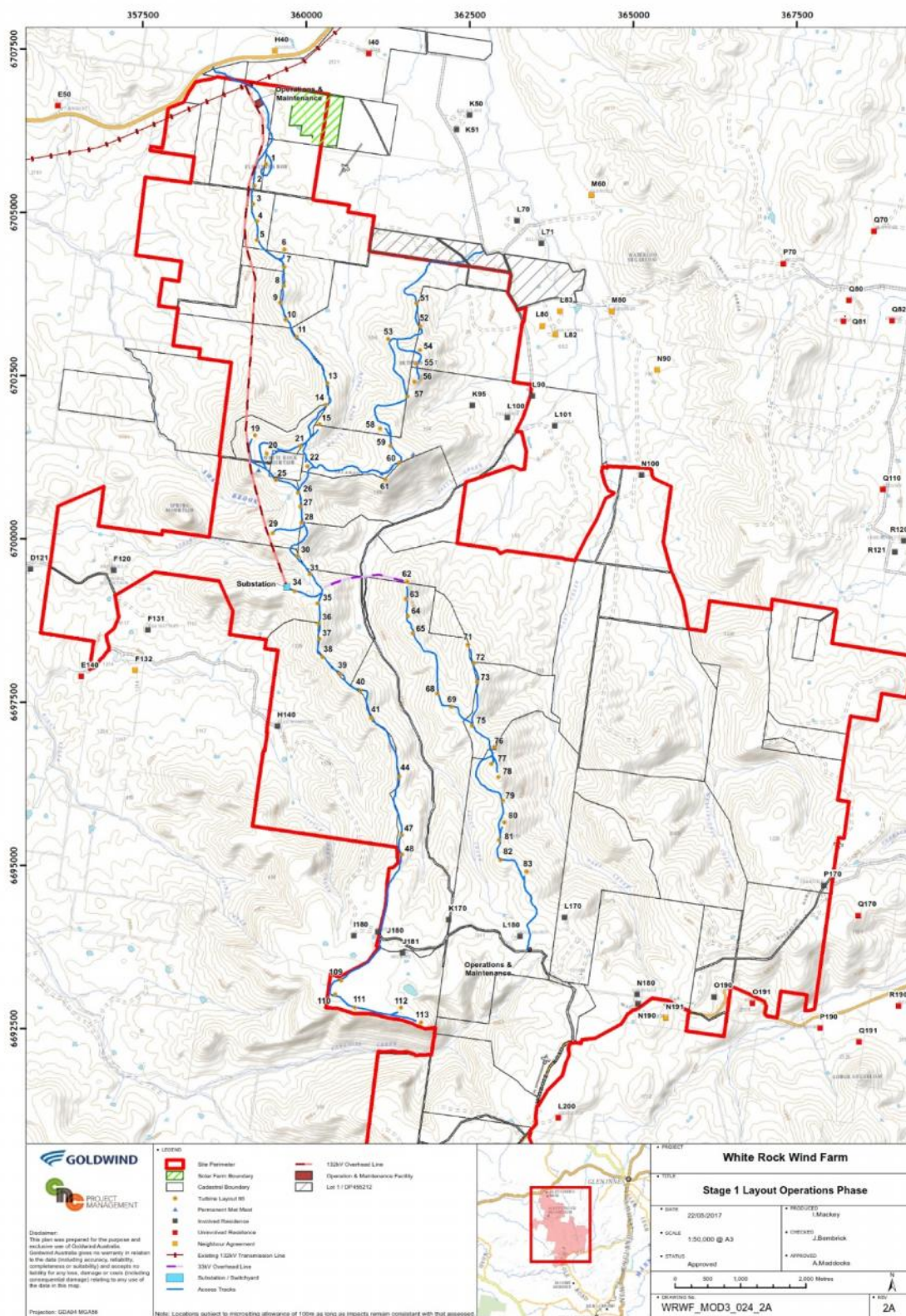


Figure 2.1 Locality sketch and project layout of White Rock Wind Farm Stage 1.

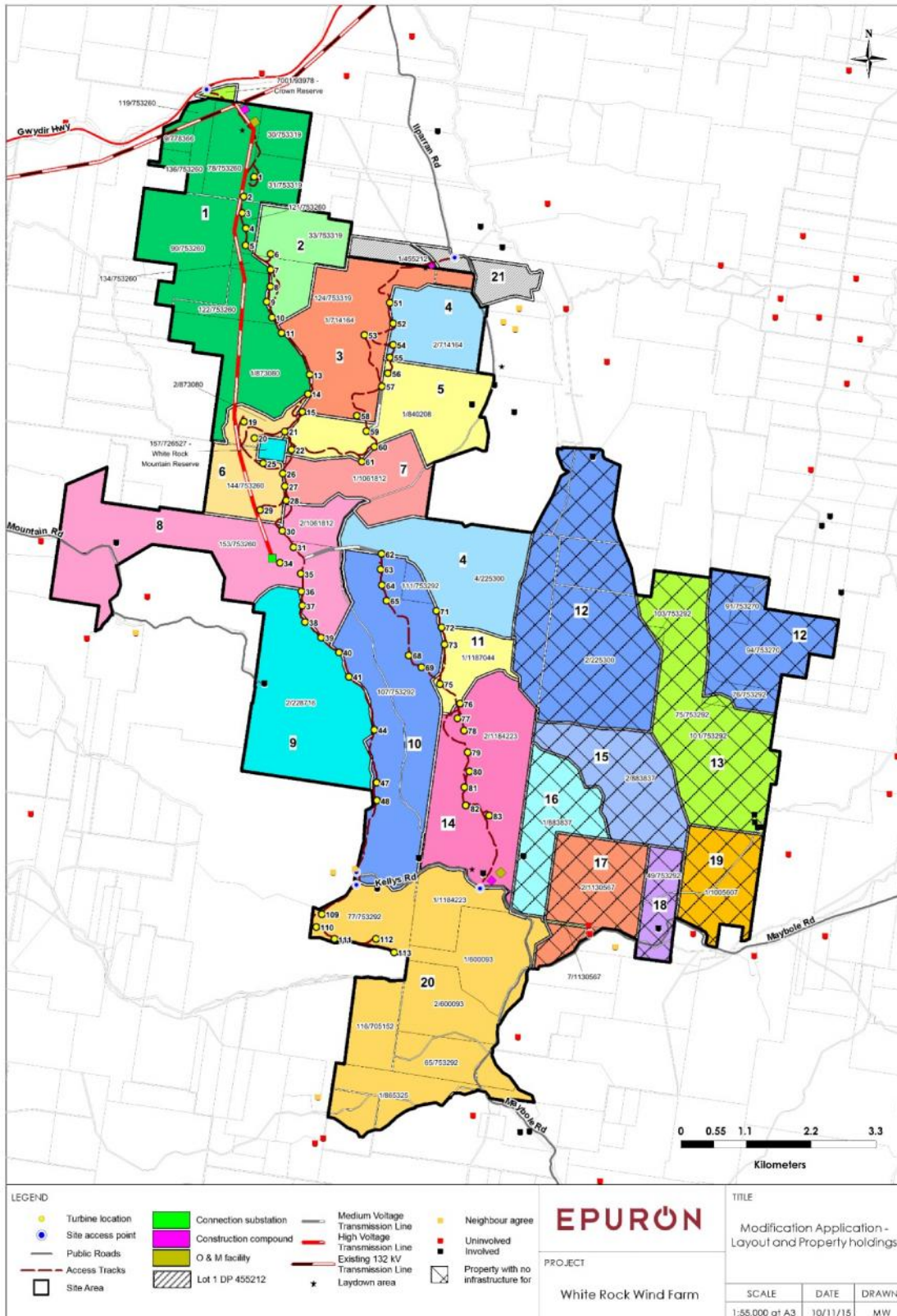


Figure 2.2 White Rock Wind Farm – Properties applicable to Stage 1 development

2.4.1 Stage 1 timeframe

The proposed construction timeframe for Stage 1 is shown in Table 2.1.

Table 2.1 Indicative Phases of Stage 1 Implementation

TIME	2015	2016				2017				2018
ACTIVITY	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
WRWF Pre-construction (early works) Phase										
Gain all pre-construction approvals										
Install Met Masts										
Stage 1A – WRWF Construction Phase										
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										
Stage 1B – WRWF Operations Phase										
Wind Farm Operation										
Stage 1C WRWF_WRSF Shared Infrastructure										

Note: Timing for Stage 2 is still to be confirmed

3 STAGING AND COMPLIANCE WITH PROJECT APPROVAL CONDITIONS

The Project Approval (July 2012) Conditions (as modified by MOD 5 in October 2017) are listed in Appendix A, showing which stage and phase they are applicable to.

- Stage 1 – Comprises Stage 1A Construction, Stage 1B Operation and Stage 1C involving WRWF-WRSF Shared infrastructure
- Stage 2 – Comprises Stage 2A Construction and Stage 2B Operation
- Stage 3 – Comprises decommissioning at end of the project life

Each of the Conditions of Approval will be addressed at the appropriate time relevant to the Stage and Phase of the development and as indicated in Appendix A.

The Compliance Tracking System matrix provides details of the status of compliance with each of the respective conditions of approval and is regularly reviewed and updated in accordance with the Compliance Tracking System. Quarterly updates of the Compliance Tracking Matrix are provided to DPE.

Appendix A – White Rock Wind Farm – Applicability of Project Approval Conditions to Project Stages

Condition	Description	Stage 1			Stage 2	
		Phase	1A and 1C Construction	1B - Operation	2A - Construct	2B - Operation
Schedule A	Project	Up to 70 turbines and associated infrastructure (Complies)			Balance of turbines and associated infrastructure	
	Land	Properties applicable to Stage 1 (Complies)			Additional properties for Stage 2 turbines and infrastructure	
Schedule B	Administrative Conditions					
B1 – B4	Terms	Complies			Applicable	
B5	Limits (Commenced before July 2017)	Complies			NA	
B6	Not exceed 119 turbines	Complies (Up to 70 turbines)			Applicable	
B8	Lease agreements & decommissioning	Complete	-		Applicable	-
B9	Statutory Requirements	Complies			Update as required	
B10	Statutory Requirements (CCs)	Complies				
B11	Staging (modified condition)	Staging Report	Updated Rpt.		Update Report as required	
B12 – B14	Deleted					
B15	Compliance (Process for disputes)	Applicable			Applicable	
Schedule C	Environmental performance					
C1	Biodiversity/Clearing Limit	Complies			Applicable	
C2	Biodiversity/Clearing	Complies			Applicable	
C3	Biodiversity/Design & Micro-Siting	Complies			Applicable	
C4	Biodiversity/Design & Micro-Siting	Complies			Applicable	
C5	Biodiversity/ Design & Micro-Siting	Complies			Applicable	
C6	Bird and Bat Monitoring and Management	BBAMP approved by DPE			Update BBAMP for Stage 2	
C7	Biodiversity Offset Package (BOP)	BOP submitted and review by OEH			BOP updated for Stage 2	
C8	Soil, Water Quality & Hydrology	Complies			Applicable	
C9	Waterways	Complies			Applicable	
C10	Hazards & Risk	Complies			Applicable	
C11	Aviation Obstacles and Hazards	Complete			Applicable	
C12	Aviation Obstacles and Hazards – Consultation	Complies			Applicable	
C13	Aviation Obstacles and Hazards – Notification	NA	Complies		Applicable	Applicable
C14	Bushfire Risk	Complies			Applicable	
C15	Bushfire Risk	Complies			Applicable	
C16	Radio Communication	Complies			Applicable	

Condition	Description	Stage 1			Stage 2		
		Phase	1A and Construction	1C	1B - Operation	2A - Construct	2B Operation -
C17	Noise/Overhead Transmission Line		Complies			Applicable	
C18	Waste Generation and Management		Complies			Applicable	
C19	Waste Generation and Management		Complies			Applicable	
C20	Waste Generation and Management		Complies			Applicable	
C21	Waste Generation and Management		Complies			Applicable	
C22	Utilities & Service		Complies			Applicable	
C23	Visual Amenity/Views		Complies			Applicable	
C24	Visual Amenity/Views		NA		Applicable	Applicable new residences and existing impacted residences	
C25 – C26	Deleted						
C27	Shadow Flicker		NA		Applicable		Applicable
C28	Visual Appearance		Complies			Applicable	
C29	Visual Amenity/Night Lighting				Applicable		Applicable
C30	Design and Landscaping Plan (DALP)		Stage 1 DALP approved by DPE			DALP updated for Stage 2	
C31	Property Impacts/Crown Land		Complies			Applicable	
C32	Property Impacts/Crown Land		Complies			Applicable	
C33	Property Impacts/Trig Reserves		No Trigonometric Reserves				
C34	Property Impacts/Mineral Resources		Complete			Complete	
D1	Community Consultative Committee		Complies			Applicable	
D2	Complaints & Enquiries Procedure		Complies			Maintain	
D3	Complaints & Enquiries Procedure		Complies			Applicable	
D4	Provision of Electronic Information		Established and maintained			Update and maintain	
D4A	Revision of Strategies, Plans & Programs		Applicable			Applicable	
D5	Compliance Tracking Program (CTP)		CTP approved by DPE - Complies			Applicable	
D6	Incident Reporting		Applicable			Applicable	
D7	Incident Reporting		Applicable			Applicable	
D8	Operational Performance Audit Report		NA		Applicable	Applicable	Applicable
E1	Air Quality - Dust Generation		Applicable			Applicable	
E2	Heritage		Applicable			Applicable	
E3	Heritage		Applicable			Applicable	
E4	Heritage		Applicable			Applicable	
E5	Construction hours		Applicable			Applicable	

Condition	Description	Stage 1			Stage 2	
		1A and Construction	1C	1B - Operation	2A - Construct	2B Operation -
E6	Noise & Vibration/Construction hours	Deleted				
E7	Noise & Vibration/Construction hours	Deleted				
E8	Construction Noise & Vibration	Deleted				
E9	Construction Noise & Vibration	Complied			Applicable	
E10	Construction Noise & Vibration	Complied			Applicable	
E11	Construction Noise & Vibration	Deleted				
E12	Construction Noise & Vibration	Deleted				
E13	Property Impacts	Applicable			Applicable	
E14	Property Impacts	Applicable			Applicable	
E15	Construction Soil & Water Management	Applicable			Applicable	
E16	Construction Soil & Water Management	Applicable			Applicable	
E17	Transport & Access - Road Dilapidation	Applicable			Applicable	
E18	Ancillary Facilities	Applicable			Applicable	
E19	Ancillary Facilities - Rehabilitation	Applicable			Applicable	
E20	Environmental Representative	Applicable			Applicable	
E21	Construction Environmental Management Plan	Stage 1A CEMP approved by DPE			Stage 2A CEMP	
E22	Construction Environmental Management Plan – Sub Plans	Stage 1A CEMP – Sub Plans – Approved by DPE			Stage 2A Updated Sub Plans	
F1	Safety Management System	Complies		Applicable		Applicable
F2	Television & Radio Interference	Applicable			Applicable	
F3	Television & Radio Interference	NA		Applicable		Applicable
F4	Ecology/Rehabilitation & Revegetation	Applicable			Applicable	
F5	Ecology/Rehabilitation & Revegetation	Applicable			Applicable	
F6	Background Noise Survey and Verification Report	Complete		Complies	Update Verification	
F7	Operational Noise Criteria – Wind Turbines	NA		Applicable		Applicable
F8	Noise/Operational Noise Criteria – Ancillary Infrastructure			Applicable		Applicable
F9	Operating Conditions			Applicable		Applicable
F10 – F18	Deleted					

Condition	Description	Stage 1			Stage 2	
		Phase	1A and Construction	1C 1B - Operation	2A - Construct	2B Operation -
F19	Operational Environmental Management (OEMP)	NA	Complies	NA	Update	
F20	Deleted					
G1	Land Acquisition & Criteria	NA		Applicable		
G2	Turbines	NA		Applicable		
G3	Turbines	NA		Applicable		
G4	Turbines	NA				
G5	Turbines	NA				
G6	Turbines	NA				
G7	Turbines	NA				
G8	Decommissioning	NA			NA	
G9	Decommissioning		Stage 3		Stage 3	
G10	Decommissioning & Rehabilitation Plan	D&R Plan approved by DPE Applies to Stage 3			Stage 3	
G11	Decommissioning Road Dilapidation	Stage 3			Stage 3	
G12	Decommissioning Environmental Management Plan	Stage 3			Stage 3	