SSD-10807896

THUNDERBOLT WIND FARM

Environmental Management Strategy

16 AUGUST 2024

NEOEN AUSTRALIA PTY LTD

THUNDERBOLT WIND FARM

SSD-10807896

ENVIRONMENTAL MANAGEMENT STRATEGY

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ACRONYMS AND DEFINITIONS

Acronym	Definition
ACHA	Aboriginal Cultural Heritage Assessment
ADWG	Australian Drinking Water Guidelines
AES	Accommodation and Employment Strategy
AHIMS	Aboriginal Heritage Information Management System
ARI	Average reoccurrence interval
BAL	Basic left treatment
BBAMP	Bird and Bat Adaptive Management Plan
BC Act	*Biodiversity Conservation Act 2016*
BCF	Biodiversity Conservation Fund
BCS	Biodiversity, Conservation and Science Department of NSW DEECCW
BDAR	Biodiversity Development Assessment Report
BMP	Biodiversity Management Plan
BoM	Bureau of Meteorology
CBSP	Community Benefits Sharing Program
CCC	Community Consultive Committee
CCS	Community Communication Strategy
CHR	Channelised right treatment
CoN	City of Newcastle
EMM	Environmental Management Measure
EMS	Environmental Management Strategy
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement
HMP	Heritage Management Plan
CCC	Community Consultative Committee
CCO	Chemical control order
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CoC	Conditions of Consent
Construction	Includes all work required to construct the Project as described in the EIS and RtS (NSW CoC A1) including commissioning trials of equipment and temporary use of any part of the Project.
CLM Act	*Contaminated Land Management Act 1997*
CPESC	Certified Professional in Erosion and Sediment Control
CRM	Customer Relationship Management
CRP	Community Relations Plan
DAWE (Cth)	Department of Agriculture, Water and Environment (now DCCEEW)
dB (A)	A-weighted decibels. This is the weighted decibels averaged over an eight-hour workday.

Acronym	Definition
DCCEEW (Cth)	Commonwealth Department of Climate Change, Energy, Environment and Water (formerly DAWE)
DCCEEW (NSW)	NSW Department of Climate Change, Energy, Environment and Water (formerly DPE)
Development Corridor	The assessment of the Project has focused on a Development Corridor, which forms a buffer to the conceptual project layout (50 m buffer either side of the centreline of internal access tracks and a 140 m buffer to the WTG locations). The Development Corridor is approximately 568 ha, with a total disturbance area (contained within the Development Corridor) of approximately 215 ha.
DPE	Department of Planning and Environment (now DPHI)
DPHI	Department of Planning, Housing and Infrastructure (was DPE)
DPIE Guideline	*Environmental Management Plan Guideline for Infrastructure Projects*
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	NSW Environment Protection Authority
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence
ERP	Emergency Response Plan
ERSED	Erosion and sedimentation
ESC	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement
ha	hectare
HMP	Heritage Management Plan
HSE	Health Safety and Environment
INP	Industry Noise Policy
IPC	Independent Planning Commission
km	Kilometres
kV	kilovolt
LV	Light vehicles
m	metres
MM	Management Measures
MSC	Muswellbrook Shire Council
MW	Megawatt
Neoen	Neoen Australia Pty Ltd
NGER Act	*National Greenhouse and Energy Reporting Act 2007* (Commonwealth)
NPW	National Parks and Wildlife
NPWS	National Parks and Wildlife Services

Acronym	Definition
NSW	New South Wales
NVA	Noise and Vibration Assessment
O&M	Operation and maintenance
OEM	Original Equipment Manufacturer
OEMP	Operation Environmental Management Plan
PIRMP	Pollution Incident Response Management Plan
Planning Secretary	Secretary to the DPHI
POEO Act	*Protection of the Environment Operations Act 1997*
Project Area	The Project Area encompasses two freehold properties and is approximately 5,918 ha. The Project Area includes the Development Corridor (See Figure 2-1).
Proponent	Neoen Australia Pty Ltd
RAP	Registered Aboriginal Party
REZ	Renewable Energy Zone
ROL	Road Occupancy Licence
RtS	Response to Submissions
SAPs	Sensitive Area Plans
SDS	Safety Data Sheets
SMS	Safety Management Strategy
SSD	State Significant Development
TECs	Threatened Ecological Communities
TfNSW	Transport for NSW
TSS	Total Suspended Solids
TTMP	Traffic and Transport Management Plan
The Project	Thunderbolt Wind Farm
VPA	Voluntary Planning Agreement
WAD	Works Authorisation Deed
WM Act	*Water Management Act 2000*
WSP	Water Sharing Plan
WTG	Wind turbine generator

1 INTRODUCTION

1.1 Overview

Neoen Australia Pty Ltd (Neoen or the Proponent) is developing the Thunderbolt Wind Farm to generate wind energy to supply New South Wales (NSW) with renewable electricity. The proposed Thunderbolt Wind Farm (the Project) is located within the Kentucky area of NSW, approximately 47 kilometres (km) northeast of Tamworth and adjacent to the New England Highway (refer to Figure 1-1).

The Project is a direct response to the NSW Government's commitment to transition to renewable electricity generation. The Project Area is strategically located within the New England Renewable Energy Zone (REZ), identified in the *NSW Government's Electricity Strategy* (NSW Government, 2020). The Project Area has ready connection to the existing transmission infrastructure and is in an area with identified high wind resource potential. The Project will contribute to the implementation of the NSW Electricity Strategy which seeks to establish a reliable, affordable and sustainable electricity future for NSW.

An Environmental Impact Statement (EIS) for the Project was prepared in April 2022 to describe and assess the Project and recommend management measures to address impacts. The EIS was exhibited by the then NSW Department of Planning and Environment (DPE)[1] from 27 April 2022 to 24 May 2022 to give the community and stakeholders the opportunity to provide comment. A Response to Submissions (RtS) was submitted in August 2023 to address the identified issues.

Approval for the Project was granted by the Independent Planning Commission (IPC) on 8 May 2024, (SSD-10807896), under Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as a State Significant Development (SSD). A detailed description of the Project is provided in Section 2.

This Project was also deemed a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (EPBC Number: 2021/9048) on 28 October 2021. It was assessed under the bilateral agreement between the NSW and Commonwealth Governments.

[1] Now Department of Planning, Housing and Infrastructure (DPHI)

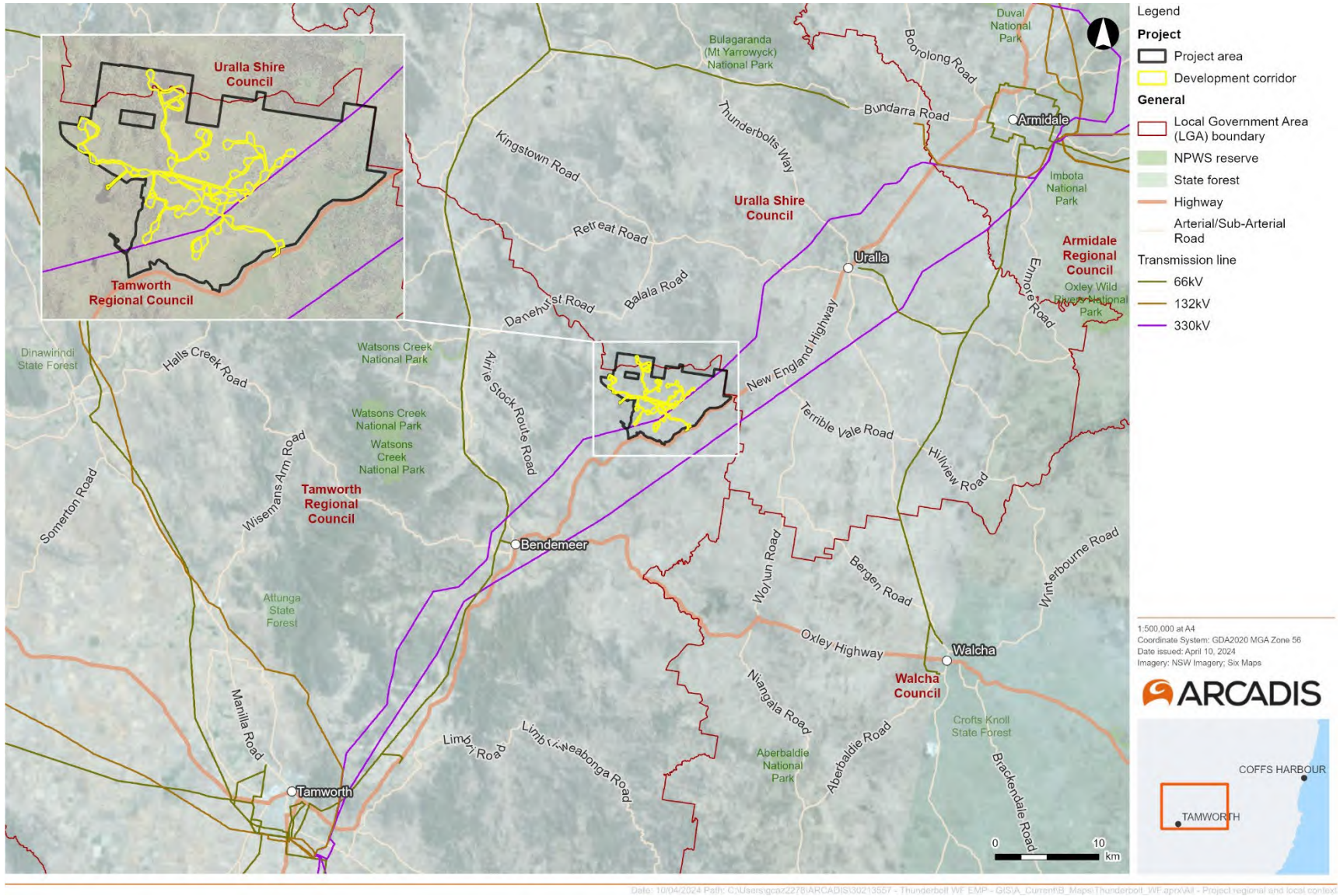


Figure 1-1: Project regional and local context

1.2 Purpose of the EMS

This Environmental Management Strategy (EMS) and associated management plans provide an overarching management strategy to enable the Construction Contractor to establish and maintain best practice controls to manage potential environmental impacts during the construction of the Project.

This EMS has been prepared to be consistent with:

- Independent Planning Commission of NSW Development Consent dated 8 May 2024 (SSD-10807896)
- Federal Minister for the Environment Approval (EPBC 2021-9048)
- *Thunderbolt Energy Hub Environmental Impact Statement* prepared by Umwelt for Neoen Pty Limited dated March 2022 (EIS)
- *Thunderbolt Wind Farm Response to Submissions* prepared by Umwelt for Neoen Pty Limited dated August 2023 (RtS)
- *Thunderbolt Wind Farm Amendment Report* prepared by Umwelt for Neoen Pty Ltd dated August 2023
- *Environmental Management Plan Guideline for Infrastructure Projects* (Department of Planning, Industry and Environment, 2020) (the DPIE Guideline).

This EMS includes general requirements for implementation, monitoring and auditing which will be applied by the Construction Contractor responsible for delivering the Project. In meeting the specific performance measures and criteria included in this EMS and as required by Condition A1 of the Development Consent, all reasonable and feasible measures will be implemented to prevent any material harm to the environment that may result from the construction, commissioning, operation, upgrading, rehabilitation or decommissioning \of the development. If prevention is not reasonable and feasible, any potential material harm to the environment will be minimised.

The EMS will be available to all Construction Contractor personnel and sub-contractors via the Project document control management system and onsite, as well as being available for public inspection on the Project website (refer to Section 3.4.2). Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents before being made available to the public.

This EMS and the associated management plans apply to, and must be followed by, all employees, contractors and visitors during the construction, operation and decommissioning of the Project.

1.3 Staged Submission of this Plan

Subject to the approval of the Secretary (NSW CoC C3), the Proponent has elected to stage the submission of the EMS (NSW CoC C4-C6). The EMS and all management plans, except for the Traffic and Transport Management Plan (TTMP), will be staged as follows:

- Stage 1: Construction of the TWF
- Stage 2: Operation of the TWF
- Stage 3: Decommissioning of the TWF at end of life.

The TTMP will be staged as follows:

- Stage 1a: Construction of the Project access point off the New England Highway
- Stage 1b: Commencement of construction of the wind farm and construction of the balance of the road upgrades detailed in Table 7-2 of Appendix 7 of the Development Consent

- Stage 1c: Continuation of construction of the wind farm and the transport of OSOM vehicles
- Stage 2: Operation of the TWF
- Stage 3: Decommissioning of TWF at end of life.

Consultation with the relevant stakeholders has commenced for Stage 1 of the respective management plans and Stage 1a and Stage 1b of the TTMP.

All later stages of the plans will include necessary consultation with the relevant stakeholders. Each Staged revision of the EMS and management plans will be approved by the Secretary, prior to the commencement of each stage.

This EMS is for Stage 1 Construction only and will be updated prior to the commencement of operation and decommissioning when appropriate.

1.4 Conditions of Consent

This EMS provides a consistent approach to address the requirements of the Independent Planning Commission of NSW Development Conditions of Consent (NSW CoC), and where applicable the Commonwealth Conditions of Approval (EPBC CoA). Conditions have been defined as primary CoC and secondary CoC. Primary CoC are specifically related to the development of the EMS and have been considered within Table 1-1.

All other NSW CoC relating to the Project have also been included in Appendix B, and includes links to the relevant Section in the EMS or a link to the relevant management plan. Each management plan provides more details on how compliance with the NSW CoC or EPBC CoA (where relevant) has been achieved (refer to Section 3 and relevant appendix of each management-plan).

NOTE: Appendix B provides an overview of compliance at the pre-construction phase of the Project. A separate compliance tracker will be prepared and will be the main document used to continually monitor compliance with the NSW CoC and EPBC CoA.

The tracker is a live document and will be regularly reviewed and updated by the Construction Contractor throughout construction.

1.4.1 EPBC Approval (Commonwealth) EPBC 2021-9048

This Project was also deemed a controlled action under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* (EPBC Number: 2021/9048) on 28 October 2021. It was assessed under the bilateral agreement between the NSW and Commonwealth Governments.

1.4.2 State Significant Development Consent (SSD-10807896)

The requirements of the Development Consent relevant to the development of this EMS are detailed in Table 1-1. A cross reference is also included to indicate where the NSW CoC is addressed in this EMS or other Project management documents.

Table 1-1: NSW CoCs relevant to the EMS

No.	Requirements	Document reference
C1	Prior to carrying out any development, the Applicant must prepare an **Environmental Management Strategy** for the development to the satisfaction of the Planning Secretary. This strategy must:	This EMS
(a)	provide the strategic framework for environmental management of the development;	Section 3
(b)	identify the statutory approvals that apply to the development;	Section 4.1
(c)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 3.2
(d)	set out the procedures that would be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development;	Section 3.4.4
	(ii) receive, handle, respond to, and record complaints;	Section 3.4.4
	(iii) resolve any disputes that may arise;	Section 3.4.5
	(iv) respond to any non-compliance;	Section 3.4.4 Section 6.2
	(v) respond to emergencies; and	Section 6.3
(e)	include: (i) references to any strategies, plans and programs approved under the conditions of this consent; and	Section 3.1 Section 3.1.2 Table 3-1
	(ii) a clear plan depicting all the monitoring to be carried out in relation to the development, including a table summarising all the monitoring and reporting obligations under the conditions of this consent.	Section 7.1 Table 7-1 Table 7-3
	Following the Planning Secretary's approval, the Applicant must implement the Environmental Management Strategy	Table 1-2 EMM01-GEN
C2	The Applicant must:	Section 7.4
(a)	update the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site; and	Section 7.2
(b)	review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary within 1 month of the: (i) submission of an incident report under condition C10 of Schedule 2;	Section 7 Section 6
	(ii) submission of an audit report under condition C14 of Schedule 2; or	Section 7.2
	(iii) any modification to the conditions of this consent.	Section 7.4.1

1.4.2.1 Management Measures

The primary Environmental Management Measures (EMMs) presented in the RtS, relevant to the development of this EMS, are detailed in Table 1-2. A cross reference is also included to indicate where the EMM is addressed in the EMS or other Project management documents.

All EMMs relating to the Project have been included in Appendix B.

The table in Appendix B also includes links to the relevant Section in the EMS or a link to the relevant management plan. Each management plan provides more details on how compliance with the EMMs for the specific management-plan aspect has been achieved (refer to Section 3 and Appendix C of each management-plan).

Table 1-2: Primary EMMs relevant to the development of this EMS

No.	Requirements	Timing	Document reference
EMM01-GEN	Neoen will prepare and implement a **Construction Environmental Management Plan**[2] (CEMP) for the Project, incorporating all relevant management and mitigation measures outlined in the EIS.	Pre-construction	This EMS
EMM11-NV	The CEMP will include the following noise management measures: • site works will be centralised within the site where possible and materials stored as far from dwellings as practicable • works will be undertaken to reduce noise levels wherever possible (no excessive dropping of materials from height to reduce peak noise events) • plant known to emit noise strongly in one direction, such as the exhaust outlet of generator set, shall be orientated so that the noise is directed away from noise sensitive areas if practicable • machines that are used intermittently shall be shut down in the intervening periods between works or throttled down to a minimum • worksite induction training will cover noise reduction requirements for all construction staff • all equipment will have Original Equipment Manufacturer (OEM) mufflers (or better) installed where these are available • equipment will be maintained and fitted with adequately maintained silencers which meet the OEM design specifications. Inspection monitoring will be undertaken. If plant and equipment is determined to be noisier than other similar machines it will be replaced or rectified as required.	Pre-construction	Section 5.5 Table 5-7
EMM56-WAR	The CEMP will include relevant erosion and sediment control (ESC) measures, developed in accordance with *Managing Urban Stormwater: Soils and Construction Volume 1* (Landcom, 2004) and Volume 2 (DECC, 2008) (the 'Blue Book').	Pre-construction	Section 5.3 of this EMS ESCP Table 5-3
EMM59-WAR	The CEMP will likely include the following ESC measures: • Undertake targeted soil testing (in particular, to identify any dispersive soils) to determine topsoil and subsoil properties in high-risk areas to be disturbed (e.g., steep slopes, in close proximity to streams). • Diversion of clean water around disturbed areas. • Staging of works to minimise the extent of ground disturbance at any one time and progressive rehabilitation • Stockpiles managed in accordance with 'Blue Book' standard drawing SD 4-1 Stockpiles	Pre-construction	Section 5.3 of this EMS ESCP Table 5-3

[2] The preparation of the EMS replaces the need to develop a Construction Environmental Management Plan (CEMP) required in some of the EMMs and includes all EMS requirements that are addressed in the CEMP and will include measures where a management has not been identified in the CoC.

No.	Requirements	Timing	Document reference
	• Constructed batters with maximum slopes consistent with Figure 4.7 of Volume 1 of the 'Blue Book' • Access tracks that are constructed and maintained consistent with Volume 2C Unsealed Roads of the 'Blue Book' • Fuels, chemicals and liquids are stored in impervious bunded areas, a minimum of 50 m away from: – rivers, creeks or any areas of concentrated water flow – flooded or poorly drained areas – slopes above 10% • Chemical spill kits will be available and personnel will be trained in spill response • All vehicles and mobile plant will be appropriately maintained and subject to daily pre-start checks for fluid leakage. • Bunded concrete wash-out bunds lined with plastic sheeting will be provided and sign posted so they are clearly identified by contractors and concrete agitator/pump drivers. No concrete wash-out will occur within 50 m of drainage lines or waterways. • Inspection and maintenance of installed erosion and sediment controls • Monthly downstream water quality monitoring (pH, turbidity and TSS). An appropriate downstream water quality monitoring location(s) will be identified during preparation of the CEMP.		
EMM73-AIR	The CEMP will include relevant management measures to limit off-site dust impacts. Specific measures will include: • application of water and/or dust suppressants using a water cart (as required) to minimise dust emissions from areas exposed by construction • locate, shape and seed longer-term topsoil stockpiles in a strategic manner to minimise dust erosion from exposed surfaces • implement and enforce speed limits for construction vehicles and equipment on unsealed access tracks and hardstand areas • limit construction activities during unfavourable (windy) weather conditions • dust controls (such as water sprays or dust capture systems) for the construction phase concrete batching plants • undertake blasting activities in accordance with a detailed methodology prepared by a suitably qualified person and implement a blast monitoring program • regular inspections/audits to ensure appropriate air quality controls are being implemented during construction activities	Pre-construction	Section 5.4 Table 5-4

1.5 EMS Approval and Consultation

Under NSW CoC C1, the EMS must be developed to the satisfaction of the Planning Secretary and submitted for the Planning Secretary's approval. Those management plans that must also be prepared in consultation with various stakeholders and agencies (NSW and Commonwealth). The consultation requirement for each, is summarised in Table 1-3. Details of consultation is provided in Appendix A of each of the specific management plans.

Table 1-3: EMS and management plan approval requirements

Document	CoC / EMM	Relevant agency and stakeholders to be consulted	DPHI Approval (Y/N)
Environmental Management Strategy (EMS)	NSW CoC C1 EMM-GEN01	DPHI	Y
Biodiversity Management Plan (BMP)	NSW CoC B25	DCCEEW[3] (Commonwealth) DCCEEW – BCS[4]	Y
Bird and Bat Adaptive Management Plan (BBAMP)	NSW CoC B26 EMM27-BIO	DCCEEW (Commonwealth) DCCEEW - BCS	Y
Heritage Management Plan (HMP)	NSW CoC B29 EMM36-AH	Aboriginal stakeholders Heritage NSW	Y
Traffic and Transport Management Plan (TTMP)	NSW CoC B34 EMM33-TR	Transport for NSW (TfNSW) Tamworth Regional Council Uralla Shire Council	Y
Emergency Response Plan	NSW CoC B42 EMM50-BUS EMM69-WAR	Rural Fire Service Fire and Rescue NSW Tamworth Regional Council Uralla Shire Council NSW State Emergency Services	N
Waste Management Plan	EMM71-WAS	N/A	N
Erosion and Sediment Control Plan	EMM56-WAR	N/A	N

As per NSW CoC C20, all plans, except for the Emergency Response Plan, must be made publicly available on the Project website (refer to Section 3.4.2).

1.6 Notification of Construction

In accordance with NSW CoC C7, DPHI will be notified by Neoen of the commencement of construction. Additionally, as per NSW CoC C8, Neoen must submit detailed plans of the final layout of the development to DPHI via the Major Projects website prior to commencing construction. The detailed plans should include:

- Details on siting of wind turbines, including micro-siting of any wind turbines and/or ancillary infrastructure (including wind monitoring masts)
- The gps coordinates of the wind turbines
- Showing comparison to the approved layout.

[3] DCCEEW - Department of Climate Change, Energy, the Environment and Water
[4] BCS - Biodiversity, Conservation and Science Department

2 PROJECT DESCRIPTION

2.1 Project Overview

The Thunderbolt Wind Farm is located in the Kentucky area of NSW, approximately 47 kilometres northeast of Tamworth adjacent to the New England Highway. A total construction period of approximately 18 – 24 months is expected. Based on currently estimated Project timing, construction is expected to commence in mid-late 2024.

The Project will comprise up to 32 wind turbine generators (WTGs), with a maximum tip height of 260 metres (m). The WTGs will have a generating capacity of approximately 5 Megawatt (MW) to 8 MW. Associated infrastructure includes internal access roads, operation and maintenance (O&M) buildings, civil works and electrical infrastructure (including substations and switching station) required to connect to the existing 330 kilovolt (kV) transmission network. The Project also includes a temporary above ground pipeline to an existing dam located to the southwest of the Project Area and temporary water storage facilities within the Project laydown compound. The WTGs are expected to have an operating life of approximately 25-30 years.

The Project Area encompasses two freehold properties and is approximately 5,918 hectares (ha) and is accessed directly from the New England Highway (refer to Figure 2-1). The assessment of the Project has focused on a Development Corridor, which forms a buffer to the conceptual project layout (50 m buffer either side of the centreline of internal access tracks and a 140 m buffer to the WTG locations). The Development Corridor is approximately 568 ha, with a total disturbance area (contained within the Development Corridor) of approximately 215 ha. Table 2-1 provides an overview of the key components of the Project.

Table 2-1 Overview of Key Project Components

Key Components	Approximate Dimensions/Detail	Quantity
WTGs		
Tip Height	Maximum of 260 m	Up to 32
Tower (hub) height	Maximum of 170 m	
Blade Length	Maximum of 90 m (split blade)	
Electrical Reticulation		
Transmission Line	33 kV electrical cabling (underground and/or overhead)	N/A
	330 kV overhead transmission line connecting the switching station and substation	N/A
33 kV/330 kV Substation	Approximately 1 ha	One
330 kV Switching Station	Connects the Project transmission line (from the substation) to the existing 330 kV transmission lines. Approximately 2.6 ha – the Project also includes subdivision to create a separate lot for the switching station for ownership to be transferred to TransGrid	One
Internal Access Roads	Road surface width ranging 6–9 m (providing for delivery of WTG components and access during operations)	Approximately 50 km

Key Components	Approximate Dimensions/Detail	Quantity
Project Access	Construction of new intersection on New England Highway for direct access to Project Area with basic left (BAL) and short channelised right (CHRs) treatments	One entry point
Meteorological Monitoring Mast	Height 170 m	Two temporary masts are currently installed (80 m and 110 m) and will be removed prior to construction commencing Up to six will be installed during operations in proximity to WTGs
O&M Building	Approximately 1 ha	One, includes storage shed, office and parking
Operations Workforce	N/A	Nine personnel
Temporary Construction Facilities		
Construction Compound and Laydown Areas	Main compound approximately 2.4 ha	One main compound (offices, amenities, parking, storage, laydown areas and associated facilities) Three Satellite Compounds
Mobile Concrete Batch Plant	Approximately 2 ha per batching plant	Two co-located plants – three possible assessed locations
Temporary Water Supply Facilities	• Temporary above ground pipeline (approximately 1 km) approximately 150 mm diameter • Temporary storage (turkeys nest dam approximately 30 m x 30 m) • Pump	One One One
Construction Workforce	N/A	190 personnel (average)

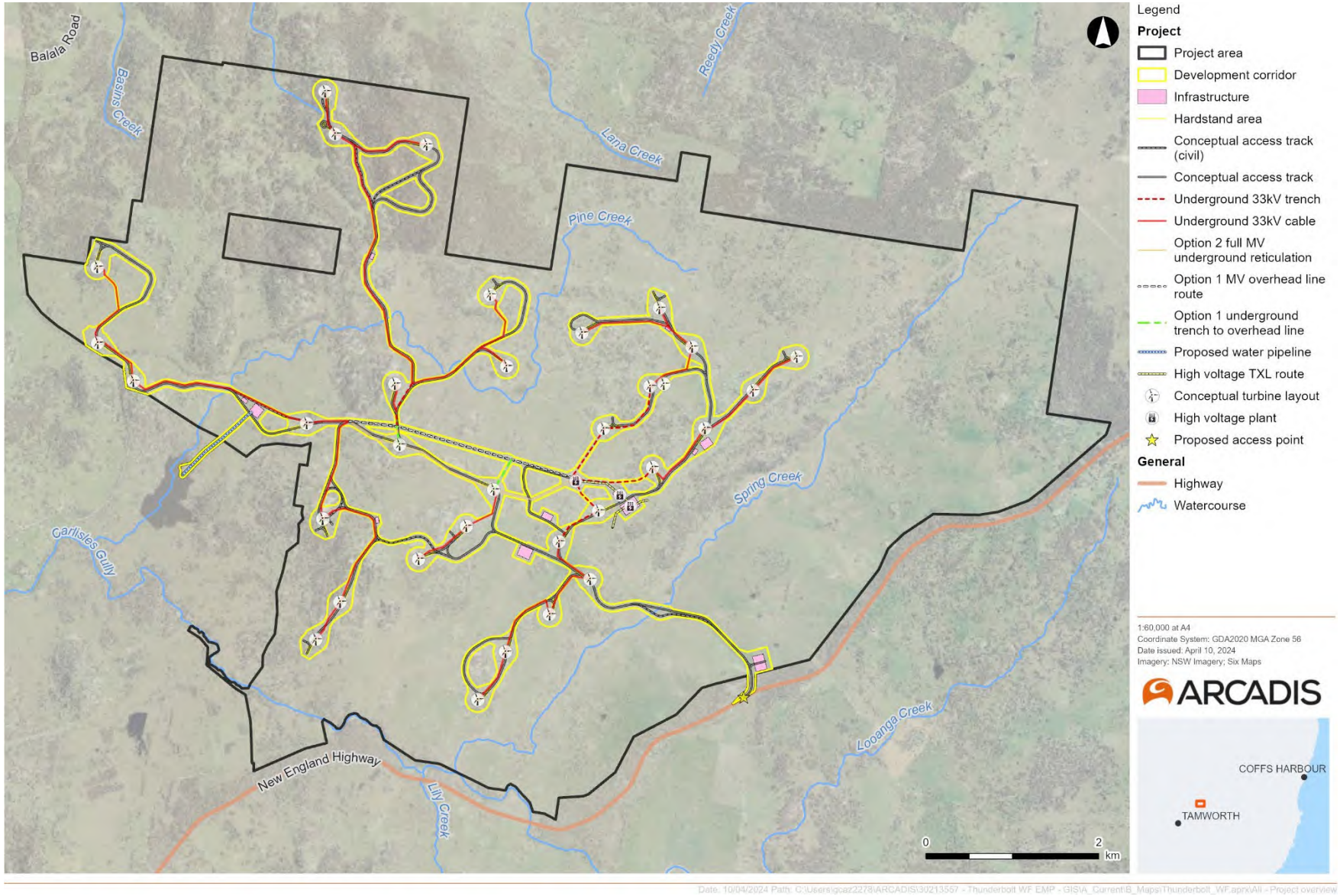


Figure 2-1: Project overview

2.2 Construction Activities

The Project will be constructed using conventional methods, which may be refined during the detailed design and construction planning to minimise environmental impacts. An overview of the construction activities associated with each construction phase are summarised in Table 2-2.

Table 2-2: Overview of construction activities

Phase	Activities	Plant / Equipment
Enabling works	• Establish temporary construction facilities and site utilities • Establish temporary fencing and exclusion zones and demarcation of work site • Traffic management measures such as safety barriers and signage • Temporary environmental safeguards such as erosion, sediment, and water quality controls • Site investigation • Property adjustment works • Adjustment and relocation of utilities.	• Generator • Transport truck • Excavator • Low loader
Access roads	• Minor upgrades to the proposed transport route from the Port of Newcastle to the Project Area. • Construction of approximately 50 km of internal access roads including the upgrade of existing access tracks and the establishment of new tracks and will include cut and fill batters and drainage structures as required.	• Mobile crushing and screening plant • Bulldozer • Rollers / compactors • Tipper • Excavator • Scraper • Transport truck
Construction of WTGs and meteorological monitoring masts	• Excavation of WTG foundations via mechanical plant and equipment or blasting as required • Pouring of concrete foundation approximately 30 m x 30 m (hardstand construction) • Stockpiling of spoil and topsoil for backfilling of the foundation and vegetation rehabilitation • Installation of up to six additional meteorological monitoring mast approximately 170 m high • Installation of WTG components using cranes • Testing and commissioning of equipment	• Mobile crushing and screening plant • Bulldozer • Low loader • Front end loader • Tipper • Excavator • Rollers / compactors • Scraper • Truck mounted concrete pump • Concrete mixer truck • Mobile crane • Extendable trailer truck • Grinder • Rattle gun

Phase	Activities	Plant / Equipment
Electrical reticulation	• Trenching for, and installation of, 33 kV underground cabling • Excavation for installation of the overhead poles and stringing of the Transmission Line • Ground levelling and concrete pouring for foundation for the on-site substation • On-site switching station (approximately 200 m x 130 m) • Testing and Commissioning of equipment	• Rock trencher • Concrete mixer truck • Low loader • Tipper truck • Mobile crane
Delivery of Oversize and/or overmass (OSOM) components	• Delivery of WTG components and cranes • Delivery of transformers • Delivery of transmission line, substation and switching station components	• Heavy vehicles • Oversize/overmass vehicles
Permanent operations and maintenance facility	• Will include an office with staff amenities, carpark, workshop/shed and laydown/temporary storage area.	• Concrete mixer truck • Low loader • Tipper truck • Mobile crane
Post-Construction Site Rehabilitation	When construction is complete, disturbed areas not required for the operational phase of the Project will be rehabilitated to allow for future agricultural land use. This will include reinstatement of fencing, access tracks or other infrastructure temporarily impacted during construction activities.	• Transport truck • Excavator • Low loader

2.3 Temporary Construction Facilities

As defined by the Development Consent, temporary facilities for construction, upgrading and/or decommissioning of the development, include but are not limited to, site offices and compounds, rock crushing facilities, concrete or asphalt batching plants, materials storage compounds, maintenance workshops, material stockpiles, laydown areas and parking spaces.

Temporary construction facilities will be required to support construction of the Project. An overview of the temporary construction facilities is provided in Table 2-3.

Table 2-3: Overview of temporary construction facilities

Phase	Activities
Main Construction Compound	A main construction compound (approx. 2.4 ha) and approximately three satellite compounds (approx. 0.3 ha each) will be required for the duration of the Project construction phase (refer to Figure 2-1 . The temporary construction compound and laydown area will include a hardstand and blade storage area, boom assembly area and auxiliary crane pads. Appropriate erosion and sediment controls (refer to Section 5.3) will be implemented to ensure construction impacts are minimised and the sites will be stabilised and rehabilitated following construction.

Phase	Activities
Crane Pads and Assembly Areas	A crane pad hardstand and assembly area will be constructed next to the base of each WTG to facilitate assembly of the tower, nacelle and blade components. Each hardstand and assembly area will comprise crushed rock and gravel, however, the final design will depend on the topography and will be subject to detailed geotechnical investigations. WTG components including towers, nacelles and blades will be removed from delivery vehicles with mobile cranes. The cranes will assist in the assembly and erection of the rotor and the final installation of the WTGs.
Mobile Concrete Batch Plants	Two mobile, temporary concrete batching plants will be required to supply the concrete needed for the turbine footings. The area required for each plant is approximately 2 ha. The conceptual layout proposes three possible locations for these two plants (refer to Figure 2-1).

2.4 Construction Hours

Construction of the Project will take approximately 18 – 24 months.

In accordance with NSW CoC B5, road upgrades, construction, demolition, upgrading or decommissioning activities (excluding blasting) may only be undertaken between:

- 7 am to 6 pm Monday to Friday;
- 8 am to 1 pm Saturdays; and
- at no time on Sundays and NSW public holidays unless the Planning Secretary agrees otherwise.

Exceptions to Construction Hours

As detailed in NSW CoC B6, the following activities may be carried outside of the standard construction hours:

- Activities that are inaudible at non-associated residences
- The delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons
- Emergency work to avoid the loss of life, property or prevent material harm to the environment.

Variation of Construction Hours

The hours of construction activities specified in NSW CoC B5 may be varied with the prior written approval of the Planning Secretary. Any request to alter the hours of construction must be:

- Considered on a case-by-case or activity-specific basis
- Accompanied by details of the nature and justification for activities to be conducted during the varied construction hours
- Accompanied by written evidence that appropriate consultation with potentially affected sensitive receivers and notification of Councils (and other relevant agencies) has been or will be undertaken
- Accompanied by evidence that all feasible and reasonable noise mitigation measures have been put in place
- Accompanied by a noise impact assessment consistent with the requirements of the *Interim Construction Noise Guideline* (DECC, 2009), or its latest version.

3 ENVIRONMENTAL MANAGEMENT FRAMEWORK

The EMS has been prepared in accordance with the overarching environmental management principles.

All activities during construction will be conducted broadly consistent with the Environmental Management Principles of an Environmental Management System (EMS) that is certified to, or aligns with, *AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements with Guidance for Use*.

3.1 Environmental Management Documentation

3.1.1 Environmental Management Strategy (EMS)

This EMS is the overarching management plan for a suite of environmental management documents for the Project. It provides a structured and systematic approach to environmental management.

Figure 3-1 shows an overview of a suite of environmental management documents that are applicable to the Project. This EMS establishes the system for implementation, monitoring and continual improvement to minimise impacts from the Project on the environment.

The strategies defined in this EMS have been developed with consideration of the Development Consent and the EMMs, as well as the Commonwealth EPBC approval.

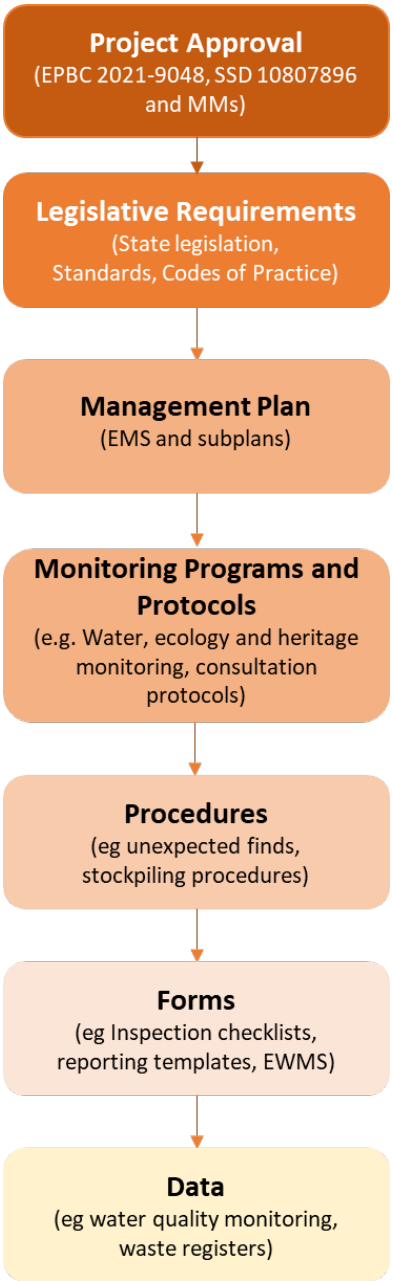


Figure 3-1: Environmental management documentation

3.1.2 Environmental Management Plans and Monitoring Programs

Several environmental management plans and monitoring programs support the EMS. These documents are prepared to identify requirements and processes applicable to specific impacts or aspects of the activities and address the requirements of Development Consent and the EMMs.

The environmental management plans define the management controls and monitoring programs (where relevant) required to ensure that each potential aspect and impact identified is eliminated, reduced or mitigated. Environmental management plans developed for the Project are provided in Table 3-1.

Table 3-1: Environmental Management Plans

Environmental Management Plans	Appendix	CoC / EMM
Biodiversity Management Plan	Appendix E	NSW CoC B25 / EPBC CoA
Bird and Bat Adaptive Management Plan	Appendix F	NSW CoC B26 / EMM27-BIO
Heritage Management Plan	Appendix G	NSW CoC B29 / EMM36-AH
Traffic Management Plan	Appendix H	NSW CoC B34 / EMM33-TR
Emergency Response Plan	Appendix I	NSW CoC B42 / EMM50-BUS / EMM69-WAR
Waste Management Plan	Appendix J	EMM71-WAS
Erosion and Sediment Control Plan	Appendix K	EMM56-WAR

In addition to the EMS and associated environmental management plans, additional documentation is required to support the delivery of construction. This documentation is detailed in the following sections.

3.1.3 Environmental Work Method Statements (EWMS)

EWMS will be prepared to manage and control high risk activities that have the potential to negatively impact on the environment. EWMS will be prepared by the Construction Contractor and reviewed by Neoen's Project Manager before commencement of the construction activities to which they apply.

EWMS incorporate appropriate mitigation measures and controls, including those identified in relevant management plans. They also identify key procedures to be used concurrently with the EWMS. EWMS are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simple written instructions. The Sensitive Area Plans (SAPs) will also be included within the EWMS as a reference for the contractors undertaking the works. An example template EWMS is provided in Appendix D.

3.1.4 Erosion and Sediment Control Plans

Erosion and Sediment Control Plans (ESCPs) are planning documents for managing erosion and sedimentation and show the site layout and the location of erosion and sediment control mitigation on-site. They cover all construction stages from initial vegetation clearing through to rehabilitation when erosion and sediment control are no longer required and are removed. The ESCPs will be developed by a person with demonstrated skills and experience in accordance with the 'Blue Book' guidelines (Landcom, 2004) and implemented for construction. Progressive ESCPs will be developed and modified as construction progresses. The ESCPs will be reviewed by the Neoen's Project Manager. Refer Section 5.3 and Appendix K for further detail.

3.1.5 Sensitive Area Plans

Construction works are located amongst and in proximity to sensitive areas and sites. To assist pre-construction planning and on-site construction management, these site constraints have been consolidated on a series of map-based sheets that extend the length of the Project. SAPs will also be referenced on the EWMS and ESCPs.

SAPs for the Project are provided in Appendix C and include information pertaining, but not limited to:

- Project boundaries and location of compounds and offices
- Threatened Ecological Communities (TECs) and threatened species (NSW and Commonwealth)
- Areas of vegetation to be retained and biodiversity offset areas
- Aboriginal heritage sites
- Non-Aboriginal heritage items
- Waterways e.g., Spring Creek, Pine Creek
- Noise-sensitive receivers e.g., non-associated dwellings (dwellings located outside of the Project Area and not associated with the Project).

The SAPs in Appendix C include the data from the EIS (Umwelt, March 2022) and RtS (Umwelt, May 2024) and are based on site investigations and surveys undertaken during their development, as well as publicly available data (e.g., Tamworth Regional LEP, State Heritage listings etc).

3.1.6 Environmental System, Procedures, Forms and Other Documents

The Project EMS procedures, forms and other documents provide instructions and records related to activities (both environmental and non-environmental) undertaken during construction and operation of the Project. Project specific procedures may be developed as required. A register of relevant environmental procedures and forms will be maintained. The following documents (but limited to) will be maintained for the duration of construction:

- Project induction and training register
- Weekly environmental inspection
- Water discharge permit (if applicable)
- Noise and vibration monitoring form
- Air quality monitoring form
- Water quality monitoring form (if applicable)
- Corrective actions register
- Waste monitoring register
- Complaints and Incident Management Database including Incident register and Complaints Register
- Pre-clearing checklist
- Energy consumption register (greenhouse gas reporting)
- Water consumption register
- Materials register
- Clearing permits.

3.1.7 Document Control and Records

All Project documentation, including accurate environmental records, will be maintained by Neoen and the Construction Contractor. Environmental records will be kept as objective evidence of compliance with environmental requirements and will be monitored through audits and inspections.

Relevant documentation, including the EMS and management plans, results of monitoring (e.g., water quality) and audits undertaken in accordance with the requirements of the Development Consent, will be uploaded to the Project website (refer to Section 3.4.2).

3.2 Resources, Roles, Responsibilities and Authority

The key environmental management roles and responsibilities for the construction of the Project are described below. The general structure of these roles is shown in Figure 3-2. Sufficient resources to implement the requirements of this EMS and management plans will be provided.

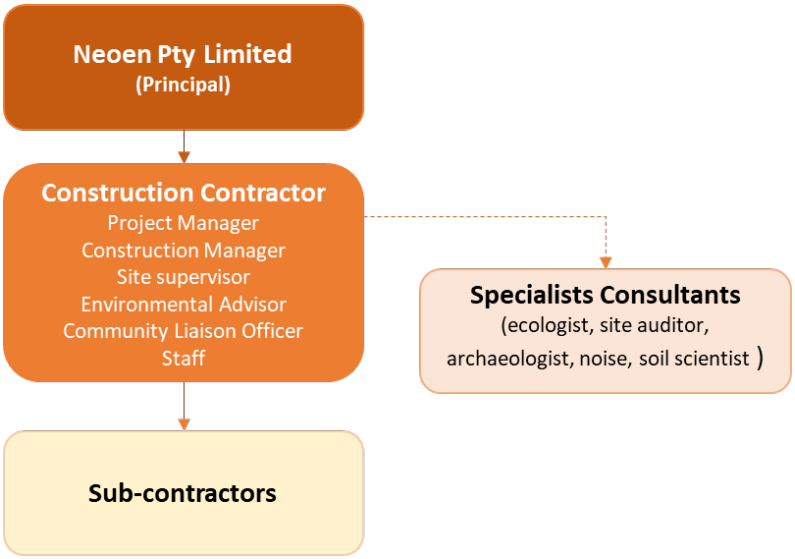


Figure 3-2: Project organisational structure

3.2.1 Neoen Pty Limited (Neoen)

Key personnel from Neoen relevant to construction, including a description of their responsibilities, are outlined in Table 3-2.

Table 3-2: Neoen roles and responsibilities

Role	Responsibility
Neoen Project Manager	• Act as the applicant for the Development Consent • Provide advice and leadership on environmental policy and regulation • Liaise with relevant government authorities, as required • Direct that works be stopped immediately where there is an actual or potential risk of harm to the environment, property and/or human health • Evaluate and advise on compliance with Neoen environmental requirements • Review the EMS and any management plans for the Project • Review of environmental documentation (e.g., EWMS, monitoring reports) as required • Review minor Project refinements that are consistent with the Project EIS and RtS

Role	Responsibility
	• Review and approve related activities that are not required to be approved by the Planning Secretary • Liaise with the relevant project manager of major projects in the vicinity of the Project to coordinate disruptive activities to minimise cumulative impacts (if required) • Monitor the environmental performance of the Project in relation to Neoen requirements • Provide guidance and where appropriate, monitor compliance with the EMS and management plans • Coordination of contractor activities • Ensure that incidents are reported and investigated, and issues are resolved in accordance with the EMS • Act as a 24-hour contact for the Project
Community Liaison Officer	• Manage and maintain the Community Relations Plan • Assist the Construction Contractor's Environmental Advisor and Neoen Project Manager in consulting with regulatory agencies and the community • Ensure that complaints are investigated, and issues are resolved in accordance with the community and stakeholder engagement plan • Communicate potential environmental impacts to the community and all stakeholders • Manage the resolution of environmental complaints • Act as a 24-hour contact (if other staff as outlined above or below are not available)

3.2.2 Construction Contractor

The environmental responsibilities of the Construction Contractor are provided in Table 3-3.

Table 3-3: Construction Contractor roles and responsibilities

Role	Responsibility
Construction Contractor Project Manager	• Ensure all works comply with relevant regulatory requirements, including compliance with the Development Consent, Environment Protection Licence (EPL) and EMMs • Ensure the requirements of this EMS and management plans are fully implemented, and in particular, that environmental requirements are not secondary to other construction requirements • Liaise with Neoen and other government authorities as required • Participate and provide guidance in the regular review of the EMS and management plans • Provide adequate resources (personnel, financial and technological) to ensure effective implementation of this EMS and the management plans • Ensure that all personnel receive appropriate induction training, including details of the environmental and community requirements • Ensure that complaints are investigated to ensure effective resolution • Stop work immediately if an unacceptable impact on the environment, property and/or human health is likely to occur • Point of contact in the event of an environmental site emergency • 24-hour person of contact for environmental regulatory authorities

Role	Responsibility
Construction Manager	• Plan construction works in a manner that avoids or minimises impact to the environment, property and/or human health • Ensure the requirements of this EMS and management plans are fully implemented • Ensure construction personnel manage construction works in accordance with statutory and approval requirements • Support the Construction Contractor's Environmental Advisor in achieving the Project environmental objectives • Ensure environmental management procedures and protection measures are implemented • Ensure all Project personnel attend an induction prior to commencing works • Liaise with Neoen and other government authorities as required • Stop work immediately if an unacceptable impact on the environment, property and/or human health is likely to occur • Point of contact in the event of an environmental site emergency • 24-hour person of contact for environmental regulatory authorities if the Project Manager is not available.
Site Supervisor	• Communicate with all personnel and sub-contractors regarding compliance with the EMS and management plans and site-specific environmental issues • Ensure all site workers attend an environmental induction prior to the commencement of works • Co-ordinate the implementation of the EMS and the management plans • Develop EWMS in consultation with Construction Contractor's Environmental Advisor • Co-ordinate the implementation and maintenance of pollution control measures • Identify resources required for implementation of the EMS and the management plans • Support the Construction Contractor's Environmental Advisor in achieving the Project environmental objectives • Report any activity that has resulted, or has the potential to result in, an environmental incident immediately to the Construction Contractor's Environmental Advisor • Co-ordinate action in emergency situations and allocate required resources • Stop activities where there is an actual or immediate risk of harm to the environment, property and/or human health and advise the Construction Contractor's Construction Manager and Construction Contractor's Environmental Advisor • Present and participate in toolbox talks and meetings and train staff in their obligations under the EMS, management plans, EWMS etc.
Environmental Advisor	• Oversee the overall implementation of this EMS and management plans • Present and participate in toolbox talks and meetings (as required) • Ensure all relevant personnel have and understand the most up-to-date copy of this EMS and management plans • Report all incidents and unexpected finds • Ensure that any required actions arising from the detection of unexpected items (e.g., heritage artefacts) are effectively implemented • Conduct regular checks/inspections of the site to ensure environmental controls such as sediment controls and dust suppression are functioning effectively • Ensure all monitoring and reporting requirements are met and maintained • Act as a 24-hour contact (if other staff as outlined above are not available) • Assist with the preparation of the EWMS • Review minor Project refinements that are consistent with the Project EIS and RtS

Role	Responsibility
	• Monitor the environmental performance of the Project in relation to Neoen requirements • Provide guidance and where appropriate, monitor compliance with the EMS and management plans • Provide Construction Contractor staff with environmental advice and/or directions • Liaise with relevant government authorities • Coordination of unexpected finds and mitigation
Specialist consultants	• Project Ecologist (refer BMP Appendix E for more detail) • Project Arborist (refer BMP Appendix E for more detail) • Project Archaeologist (refer to HMP Appendix H for more detail) • Certified Professional in Erosion and Sediment Control (CPESC) (refer to Section 5.3 and Appendix K)
Subcontractors	• Observe all legislative and statutory requirements relating to environmental protection • Nominate site representatives to liaise with the Construction Contractor Project Manager/Construction Contractor Site Supervisor with respect to, and take responsibility for, environmental requirements for all site activities • Adhere to the requirement of this EMS and management plans as it applies to their activities on the site • Cooperate fully with site incident and reporting procedures
All Staff	• Adhere to all aspects of the site induction and to directions from the Contractor Site Supervisor • Work in accordance with the Contractor's systems and processes • Comply with General Environmental Duty • Comply with Cultural Heritage Duty of Care • Comply with Contractor and project specific environmental requirements • Report environmental issues, incidents or near misses to the Contractor Site Supervisor

3.2.3 Subcontractor Management

The Construction Contractor will be responsible for environmental performance of the sub-contractor/s. The Construction Contractor will specify environmental requirements and responsibilities to sub-contractors in the contract documentation. The Construction Contractor's Environmental Advisor (or delegate) will participate in the tender assessment and selection process where it is deemed necessary due to associated environmental risks.

All sub-contractors are required to work in accordance with the approved EMS and management plans and the Construction Contractor will monitor sub-contractors to ensure that compliance with the EMS and management plans is achieved.

All sub-contractors are required to attend Project and/or site inductions where the requirements and obligations of the EMS and management plans are communicated. A record of all sub-contractors inducted will be maintained as part of the Project induction and training register.

All environmental documentation submitted by sub-contractors will be subject to review and approval by the Construction Contractor to ensure compliance with contract requirements and the Development Consent, EPL and EMMs before works may begin.

3.3 Competence, Awareness and Training

All workers on the site, including sub-contractors, shall be competent to conduct their work without harm to people, the environment or assets. Workers shall complete all necessary site training and induction requirements before commencing work on site.

The Construction Contractor, in consultation with the Neoen Project Manager, will be responsible for the development and review of all training material and training registers, including records of all workers' qualifications and training, undertaken on and off site. Each worker on the Project shall have copies of certificates of competency for their relevant roles retained on their personal/training file. All training undertaken will have attendance records to assist with auditing purposes.

The primary EMS training and awareness methods include, but are not limited to:

- Induction training
- Daily pre-start meeting
- Toolbox talks
- Role-specific training.

Role-specific training and competency assessments for topics, such as chemical handling, noise monitoring and emergency response, are to be conducted and attended by workers who may need specialist training based on their Project responsibilities.

These methods are described in more detail in the following sections. Other EMS training and awareness methods may include:

- Daily coordination meetings
- Noticeboard bulletins
- Health Safety and Environment (HSE) alerts
- HSE observations
- Weekly Project meetings.

3.3.1 Induction

Project specific environmental management requirements will be explained in Project inductions. All project workers must complete a Project induction as a component of their Project onboarding. The Project induction includes general information and expectations and provides details on site specific risks and general controls. The induction will include a presentation of the requirements of this EMS.

The purpose of the induction is to ensure that, at a minimum, all site workers understand:

- Key issues relating to the Project and existing environment
- Concepts of due diligence and duty of care
- Approved hours of construction
- Relevant requirements of environmental documents and relevant conditions of environmental licences, permits and approvals
- Site specific issues, such as:
  - Location and protection of environmentally sensitive areas
  - Waste management and minimisation

  - Washing, refuelling and maintenance of vehicles, plant and equipment
  - Efficient use of plant, equipment and materials
  - Minimising potential environmental impacts including noise, air and water quality
  - Unauthorised clearance of vegetation outside the approved development corridor
  - Loss of threatened species habitat and/or TECs
  - Injury and/or death of native fauna through interactions with construction vehicles/plant
  - Poor management of construction traffic, traffic arriving to site all at once, causing queueing on local roads
  - Surface water quality impacts due to erosion and the migration of sediment as a result of the Project
- Site-specific erosion and sedimentation controls, and use of spill kits to contain and clean up spills
- Site-specific heritage requirements and accidental discovery procedures
- Environmental emergency plans and incident reporting procedures for environmental harm/incidents
- Environmental protection offences and penalties, and duty to notify of environmental harm apply to all workers on the Project
- Roles and responsibilities relating to environmental management for the Project.

Attendance records of all training and briefing sessions will be maintained by the Construction Contractor Project Manager and provided to the Neoen Project Manager for their records.

A less detailed induction may be completed by site visitors who will not be undertaking work tasks but tailored to address the purpose and nature of the visit.

3.3.2 Toolbox Talks

Toolbox talks are topic-specific meetings that serve as a forum for the work crew to raise specific HSE concerns or issues and will be used to present pertinent Project-related topics. Toolbox talks will be undertaken weekly, and are used to:

- Obtain feedback on HSE performance from the workers, including subcontractors
- Provide feedback regarding HSE performance and matters
- Discuss and reinforce the requirements of Construction Hazard Identification and HSE rules and procedures
- Communicate the results of HSE activities.

Special toolbox meetings may follow an incident. These meetings will report on the findings and ensure any risks associated are understood and the necessary precautionary measures have been identified for each task to be conducted.

Participants in toolbox talks shall sign the attendance sheet. The attendance sheet shall be filed by the Construction Contractor Project Manager and provided to the Neoen Project Manager for their records.

3.3.3 Pre-start Meetings

Pre-start meetings are Project team meetings that are undertaken every morning on site, and will address:

- Overview of the work to be performed during working hours
- Review of the EWMS for the tasks for the day's activities

- Any new hazards and risks
- HSE issues from the previous day
- Interfaces with other work
- Work restrictions regarding time or place
- Emergency planning or provisions.

The Environmental Advisor will be responsible for providing regular Toolbox talks or pre-start meetings for topical aspects for high-risk activities (e.g., activities occurring near heritage sites, areas of ecological importance, working in waterways etc.) that are relevant for the construction of the Project.

A pre-start risk assessment such as shown in Appendix D will be undertaken as part of pre-start meetings, as described below.

3.3.3.1 Pre-start Site Risk Assessment

The pre-start risk assessment is designed to ensure time is taken prior to the start of an activity to review the work-specific environmental aspects and impacts. The work crew must be included in the process to ensure critical environmental information is communicated and to use their knowledge to identify any additional risks.

The pre-start risk assessment must be conducted on a daily basis at the start of work and repeated when there is a change in work scope or conditions. The process aims to:

- Communicate site requirements and HSE controls (e.g., permits, plans/studies and drawings)
- Identify job site specific aspects not captured and managed in the risk register
- Itemises the work that will be undertaken during the day, and where applicable, the following environment-related components:
  - Weather observations/forecast
  - Work area restrictions or activities that may affect the works
  - Fire Danger Rating for the day
  - Environmental focus for the day (e.g., housekeeping/litter clean-up, water management, dust control)
  - Feedback on environmental issues that have recently occurred within the area.
- Notices about up-and-coming events such as environment and community meetings, audits, environmental inspections
- Feedback on previous day's work practices
- Feedback from environment, community and stakeholder meetings

All construction crew will sign onto the pre-start attendance record form.

3.3.4 Role Specific Training

Additional training will be given to staff who are responsible for technical activities such as, but not limited to:

- Erosion and sediment control installation, inspection and maintenance
- Chemical and hazardous substances handling
- Environmental monitoring described in this EMS and management plans
- Traffic control

- Emergency response.

A training matrix will be prepared that identifies any training required for specific roles. Additional training will focus on training workers in the correct procedures for their technical activities and ensure that they are competent to carry out the task.

3.4 Communication

All staff (including plant operators and truck drivers) and sub-contractor personnel working on the delivery of the Project will be required to behave in a courteous and professional manner when in dialogue with any community member. All personnel will be:

- Trained on how to respond to community queries
- Aware of and abide by the requirements for the release of information
- Advised on the identity of the community within which they are working prior to their involvement in the Construction Contractor's work.

Community involvement obligations will be included in the site induction of all personnel working on the Project.

3.4.1 Community Communication Strategy

Management Measure SOC01 requires the preparation of a Community Relations Plan (CRP). The CRP was prepared and provided as part of the RtS. The CRP is an ongoing action plan which will be updated iteratively to manage and mitigate potential negative impacts and enhance positive social impacts throughout each stage of the Project including construction.

The CRP identifies the community relations approach and objectives for the Project and surrounding communities. It outlines the overall framework across the phases of the Project lifecycle (from development through construction to operations) and proposed plans. It also provides a summary of the key stakeholders including landholders, neighbours, the local community and local government.

3.4.2 Availability of Documentation

A Project website has been established for the Project and will be maintained for the duration of construction and throughout operation of the Project.

The Project website is: https://thunderboltenergyhub.com.au/

Under NSW CoC C20, Neoen will make the following documentation publicly available on its Project website.

- Information on the current implementation status of the Project
- The EIS
- The final layout plans of the Project
- A copy of each statutory approval, licence or permit required and obtained in relation to the Project
- A copy of the most recently approved version of each document required under the terms of the NSW CoC
- Proposed staging plans for the Project if construction, operation and/or decommissioning is to be staged

- A comprehensive summary of monitoring results for the Project, which have been reported in accordance with the various plans and programs approved under the NSW CoC, including annual BBAMP reports
- Information regarding how a complaint related to the Project can be made
- A copy of the reports of audits and response required under the terms of the NSW CoC.

Where information or a document relates to a particular activity or is required to be implemented, it will be published before the commencement of the relevant activity to which it relates and before its implementation.

All information will be ordered in a logical sequence and easy to navigate.

3.4.3 Community Consultative Committee

A Community Consultative Committee (CCC) has been established for the Project in accordance with the *Community Consultative Committee Guidelines: State Significant Projects* (DPE, 2023) or its latest version, in accordance with NSW CoC A18.

To date, six CCC meetings have been held (3 August 2021, 15 September 2021, 21 February 2022,1 April 2022, 25 July 2022 and 31 October 2022). The meeting minutes and presentations are available on the Thunderbolt Wind Farm website:

https://thunderboltwindfarm.com.au/community-consultative-committee/

3.4.4 Complaints Management and Response

Inquiries or concerns can be lodged with Neoen via:

Toll Free phone: 1800 966 207

Email: contact@thunderboltenergyhub.com.au

Mail: GPO Box 1950, Canberra, ACT 2601

Complaints will be handled in alignment with Neoen's six-step complaints process which is provided on the Project website, as outlined in Table 3-4.

Table 3-4: Complaints Management

Steps	Description of activities
Step 1: Receive and Register	Upon receiving an inquiry or concern, Neoen will record as available: • Name and address • Date, time, conditions and a description of your complaint. A unique reference number will be attributed to each complaint which will then be entered into Neoen's project customer relationship management (CRM) database. Anonymous complaints can also be lodged.
Step 2: Acknowledge	Complaints will be acknowledged by providing a summary of the complaint with a reference number. Responses will aim to: • Clarify any issues or ask for more information • Confirm how the complaint will be investigated • Confirm how long it will take to respond. Acknowledgment timeframes would vary depending on the urgency of the complaint:

Steps	Description of activities
	• Non-urgent complaints will be acknowledged via phone or email within 3 business days • Urgent complaints will be acknowledged within 24 hours.
Step 3: Investigate	Every complaint will be investigated with reasonable attempts to resolve the complaint made. This will be carried out by the Neoen Project Manager in consultation with the Construction Contractor. Accurate records of the investigation will be maintained, including meetings, discussions and activities. The investigation may include: • A site visit • Consultation with relevant construction staff • Collection of relevant data and evidence • Consultation with other community members and stakeholders
Step 4: Respond	Each complaint will be responded to.
Step 5: Close	If the complainant is not satisfied with the investigation and resolution, they have the right to request a review, which will be undertaken by a Neoen Senior Manager to ensure the process has been properly followed. Further escalation of the complaint would be to: • Uralla Shire Council • Tamworth Regional Council • Department of Planning, Housing and Infrastructure • National Energy Infrastructure Commissioner (who has also responsibility for large-scale wind farms, solar farms and battery storage)
Step 6: Record and register	Upon closure of a complaint, the following will be recorded: • The process undertaken to investigate and resolve the complaint • The proposed resolution • Whether this was accepted and how it was implemented • Whether or not the complaint was resolved to the complainant's satisfaction • The reason why the complaint was closed.

As required, complaint details, including type and corrective actions, will be communicated to site workers via toolbox talks and/or pre-start meetings (refer to Section 3.3), as appropriate.

The Complaints Register will be maintained and provided to the Planning Secretary upon request.

3.4.5 Disputes

Should a complaint not be able to be resolved between a complainant (which could include any stakeholders or local community) or a dispute about the implementation of any measures, then either party may refer the matter to the Planning Secretary for resolution.

3.4.6 Project Coordination

The Construction Contractors Project Manager will liaise with the relevant project manager at adjacent major project sites if required, to coordinate disruptive construction activities to minimise potential cumulative environmental impacts as well as impacts to program.

4 PLANNING

4.1 Relevant Legislation and Guidelines

4.1.1 Legislation

Approval for the Project was obtained under Division 4.7 of Part 4 of the NSW EP&A Act as the Project was declared a SSD under the *State Environmental Planning Policy (State and Regional Development) 2011*. A register of legal requirements for the Project is contained in Appendix B.

Additionally, this Project was deemed a controlled action under the EPBC Act (EPBC Number: 2021/9048) on 28 October 2021. It was assessed under the bilateral agreement between the NSW and Commonwealth Governments.

This register will be maintained and reviewed at regular intervals. Any changes made to the legal requirements register will be communicated to the wider Project team, including sub-contractors where necessary, through toolbox talks, specific training and other methods detailed in Section 3.3 of this EMS.

4.1.2 Approvals, Permits and Licences

The Project will comply with all written requirements or directions of the Planning Secretary. A number of approvals, permits and licenses have and/or will be obtained for the Project. These are summarised in Table 4-1. Responsibility for obtaining the licences or permits is also included.

Table 4-1: Approvals, permits and licences required for the Project

Aspect	Approval	Responsibility
Approval		
Independent Planning Commission of NSW Development Consent (SSD--10807896)	8 May 2024	Neoen
Commonwealth EPBC Approval (EPBC 2021-9048)		Neoen
Licences		
An EPL under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) for 'electricity generations – electricity works (wind farms)' and for 'crushing, grinding and separating' where construction meets the criteria.	The application for the EPL is currently being prepared	Neoen
An aquifer interference approval/licence may be required under S91(3) of the *Water Management Act 2000* if construction requires intersection of a groundwater source.	If required	Construction Contractor
Water access licence under the *Water Management Act 2000* for the extraction of water for construction activities (e.g., cement manufacture and civil construction activities)	If required	Construction Contractor
A water-use approval (Section 89), a water management work approval (Section 90) or an activity approval (other than an aquifer interference approval) (Section 91) of the *Water Management Act 2000*	If required	Construction Contractor
Under S138 of the *Roads Act 1993*, a Road Occupancy Licence (ROL) will be required from the Transport Management Centre prior to any road closures and/or upgrades	As required prior to any road closures	Construction Contractor

Aspect	Approval	Responsibility
A Works Authorisation Deed (WAD) from TfNSW for roadworks required on the State road network and/or traffic control signals	As required	Construction Contractor
Permits		
Heavy vehicle permits for the use of over-dimensional vehicles under the *Roads Act 1993* would be required	As required	Construction Contractor
Exemptions to allow hot works to be undertaken on Total Fire Ban days as detailed under Section 99 of the *Rural Fires Act 1997*	As required	Construction Contractor
Specific Resource Recovery Exemptions, where determined	As required	Construction Contractor
Undertaking prescribed activities involving environmentally hazardous chemicals or declared chemical wastes, as detailed under Section 28 of *Environmentally Hazardous Chemicals Act 1985.*	As required	Construction Contractor

Environmental approvals, permits and licences applicable under the legislation are also noted within the register in Appendix B.

All necessary licences, permits and approvals required for the development of the Project will be obtained and maintained as required for construction of the Project. No condition of the Development Consent removes the obligation for Neoen or the Construction Contractors to obtain, renew or comply with such necessary licences, permits or approvals.

4.1.3 Guidelines and Standards

The main guidelines, specifications, and policy documents relevant to the EMS include, but are not limited to:

- *Post-Approval Guidance: Environmental Management Plan Guideline – Guideline for Infrastructure Projects* (DPIE, 2020). Appendix A provides a checklist of EMS requirements and where they are addressed in this document
- AS ISO 31000:2018 Risk management – Guidelines
- AS 1940:2017 The storage and handling of flammable and combustible liquids
- *NSW EPA: Storing and Handling Liquids: trainers manual, including Review of Best Practice and Regulation*
- *Managing Urban Stormwater: Soils and Construction Volume 1*, Landcom, (4th Edition) March 2004 (reprinted 2006) and *Volume 2*, DECC, January 2008 (the “Blue Book”)
- Interim Construction Noise Guideline (DECC, 2009)
- Construction Noise and Vibration Guidelines (RMS, 2016)
- AS/NZS ISO 14001: Environmental Management Systems (EMS)
- AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems
- AS/NZS 4801: Safety Management Systems.
- ISO 9001: Quality Management Systems

The guidelines and standards listed above are specifically relevant to this EMS. Relevant guidelines and standards will vary for each management plan and the specific guidelines and standards have been included within each of these plans.

4.2 Environmental Objectives and Targets

Table 4-2 outlines the overarching environmental objectives and targets set out for the management of the Project during construction, and generally reflect the performance outcomes proposed in the EIS and RtS. More detailed targets and objectives are provided in each management plan.

Table 4-2: Project environmental targets

Objective	Target	Timeframe	Responsibility
Ensure compliance with relevant NSW CoC, EPBC CoA and applicable legislation	No written warnings or infringement notices Zero non-compliance	Throughout construction	Construction Contractor
Avoid unacceptable impacts on surrounding residents and commercial stakeholders	No exceedances of air quality, noise, vibration and/or light spill criteria and no complaints	Throughout construction	Construction Contractor
Minimise the potential for environmental incidents	No reportable incidents	Throughout construction	Construction Contractor
Diversion of waste from landfill	Spoil beneficially reused on-site or locally (not including contaminated material) and construction and demolition waste to be recycled	Throughout construction	Construction Contractor
Minimise social impacts	100% of complaints to be responded to within agreed timeframes of the complaints management steps	Throughout construction	Neoen Community Liaison Officer

5 IMPLEMENTATION

5.1 Construction Environmental Impacts

Construction environmental impacts were identified and evaluated in the EIS (Umwelt, March 2022) and RtS (Umwelt, May 2024). Section 2.2 provides as overview of the construction activities that have the potential for environmental impact. A summary of the key potential environmental impacts that require management during the construction are listed below and form the basis of the environmental risk. The section of the EMS or the document that addresses the management of the risk, is also included.

- Soil and water management, including erosion and sedimentation control (Section 5.3 and Appendix K)
- Air Quality and dust management (Section 5.4)
- Noise and vibration (Section 5.5)
- Biodiversity (Appendix E)
- Bird and bat management (Appendix F)
- Heritage (Appendix G)
- Traffic and Transport (Appendix H)
- Waste Management (Appendix J)

Construction Contractors will be required to work under this EMS and management plans. The developed documentation and materials are required to consider the activity risk assessment, any relevant mitigation measures and any site/task-specific risks that may require other or additional mitigation measures and controls to be applied.

5.2 Risk Assessment

Environmental impacts will be controlled to a degree which is commensurate with the level of risk, with greater emphasis on managing impacts that are high risk and are detailed within the EMM of each aspect-specific management plan. The potential environmental aspects and impacts associated with construction activities is outlined in Table 5-1.

The Project risks will be reviewed throughout construction (refer to Figure 5-1). A review of the aspects and impacts may be triggered by:

- Material changes to the construction methodology
- Findings of incidents, non-compliances or audits
- Modification to SSD-10807896.

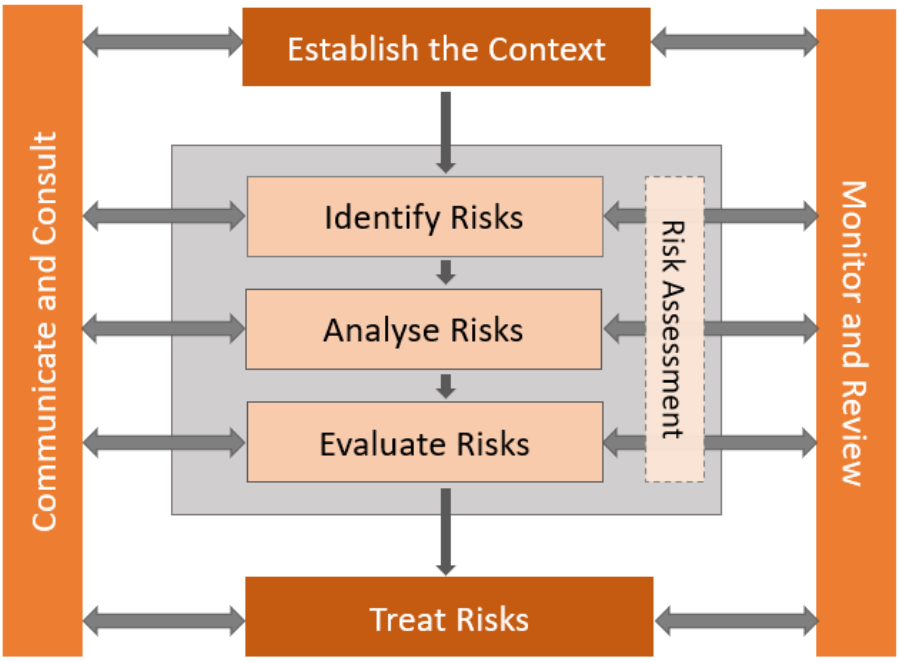


Figure 5-1: Risk Assessment Process

As a minimum, the aspects and impacts will be reviewed at the commencement of each construction phase and activity identified in Table 2-2.

Table 5-1 Aspects and impacts

Environmental Aspect	Potential impacts
Landscape, visual and shadow flicker	• Change in the landscape character of the area as the Project will become a visual feature of the area • Impact of night lighting of WTGs (if required, however, not currently proposed) and lighting on surrounding receivers
Noise and vibration	• Noise levels of greater than 45 A-weighted decibels (dB(A)) for some activities at non-associated residences • Vibration impacts on non-associated dwellings • Impacts due to blasting • Impacts related to road construction which is linear construction work
Biodiversity	• Loss of biodiversity such as threatened species habitat and/or TECs as a result of construction • Unauthorised clearance of vegetation outside of the approved development corridor • Fragmentation and fauna movement restrictions • Injury and/or death of native fauna through interactions with construction vehicles/plant • Changes to runoff regimes and sedimentation having impacts on waterways • Spread of weeds across the Project Area • Increase in predatory pest species as a result of construction • Light, vibration and noise pollution leading to a modification of animal behaviour

Environmental Aspect	Potential impacts
Traffic and transport	• Increase in traffic volumes on nearby roads • Vehicles using routes to the site which have not been approved or taking shortcuts along lower order roads • Unclear signage causing issues with movement in and around the Project site • Delays to permits causing delays to construction and opening • Inappropriate road safety controls causing accidents • Disruptions to the road network due to OSOM vehicle movements
Heritage	• Potential impact on unexpected finds for non-Aboriginal and Aboriginal heritage • Unintended impact to Aboriginal archaeological sites and/or artefacts • Potential impact on Aboriginal sites due to ground disturbance
Hazards	• Potential to impact aerial fire-fighting • Storage and transport of hazardous materials • Increased bushfire risk as a result of the construction activities • Damage to newly constructed road assets as a result of bushfire in the area • Construction works impeding responder access to manage fire situations • Hot work activities during construction start a fire • Construction works not providing access to water for firefighting, increasing potential impact of a fire • Lack of awareness of bushfire emergency response procedures • Failure of contractor to provide training, run drills, monitor fire danger rating etc., resulting in inadequate response to bushfire events
Air Quality	• Exhaust emissions from equipment, machinery and construction vehicles. • Generation of dust due to construction activities
Waste Management	• Waste handled and disposed of inappropriately • Generation of large volumes of unsuitable material or unexpected finds of contamination that require storage and disposal and cannot be reused on the project • Migration of waste from site impacting neighbouring properties (e.g., windblown litter)
Soil and water	• Discharge of sediment laden water to the environment during construction • Spills and leaks from construction equipment/machinery • Disturbance of unexpected contaminated soil • Erosion particularly along water courses due to construction of the project
Social	• Impacts on accommodation and housing due to the construction work force
Cumulative	• Concurrent construction of renewable projects within the REZ

5.3 Soil and Water Management

The Project Area is subject to a Water Sharing Plan (WSP) for the *Namoi and Peel Unregulated Rivers Water Sources 2012* and the *Gwydir Unregulated River Water Sources 2012*. The latter WSP consists of 28 individual water sources and the Project Area is located in the Roumalla Creek Water Source. Spring Creek and Pine Creek and other minor tributaries traverse the Project Area and impacts to these watercourses will be limited to creek crossings associated with the internal access tracks.

The Project Area occupies land within the headwaters of the Namoi River and the Gwydir River catchments, with the majority of the Project Area (94%) lying within the Carlisles Gully Catchment. This catchment flows westerly to the Macdonald River which drains to the Namoi River 30 km north west of the Project Area. Pine Creek and other minor tributaries, traverse the Project Area and flow into Carlisles Gully to the south of the Project Area (refer to Figure 2-1).

The soils within the Project Area are highly erodible and some of the subsoils have the potential to be dispersive. The steep gradients across the Project Area and the infrastructure (access tracks and cables) that will cross streams further add to the potential for erosion of soils and the subsequent pollution of surface water resources and potential impacts (e.g. turbidity) on the downstream waterways, including Carlisles Gully.

In accordance with NSW CoC B19, it is an offence under Section 120 of the POEO Act, to pollute any waters. Where negative impacts (i.e. increased turbidity) are recorded, this will be categorised as an incident and a detailed investigation into the cause of the impact will be undertaken in accordance with the procedure detailed in Section 6.1 The mitigation measures detailed in Table 5-2 will be implemented by the Construction Contractor to ensure compliance with Section 120 of the POEO Act and to minimise any potential impacts.

The extent of disturbance is considered small when compared to the overall Project Area which limits the overall potential for erosion-related impacts. Erosion and sedimentation are considered the primary risk to soil and surface water resources for the Project during the construction phase. An Erosion and Sediment Control Plan (Appendix K) has been prepared and prescribes where controls will be located on site to provide adequate mitigation against erosion and sediment loss from the Project during construction.

5.3.1 Construction impacts

The potential soil and water quality impacts associated with construction of the Project would arise from:

- Preliminary enabling works
- Vegetation clearing and topsoil stripping
- Construction of ancillary facilities, site compounds and storage areas for plan, construction materials and spoil
- Earthworks and excavations during construction
- Temporary and permanent watercourse crossings and work platforms
- Construction of the access roads and cut and fill
- Construction in areas of highly erodible soil
- Material stockpiling
- Hardstand construction
- Construction discharges including surface water runoff and dewatering of sediment basins.

5.3.2 Mitigations measures

Management actions aiming to avoid and minimise impacts on soil and water impacts are summarised in Table 5-2.

Table 5-2: Soil and water management and mitigation measures

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
Erosion and Sediment Control					
SW01	The Construction Contractor must prepare ESCPs for the duration of construction. The ESCPs must be prepared by a person with demonstrated skills and experience in preparing ESCPs in accordance with the *Managing Urban Stormwater – Soils and Construction, Volume 1* (Landcom, 2004) – (Blue Book guidelines). The ESCPs must be reviewed and updated to reflect site conditions during construction.	Prior to construction During construction	Construction Contractor	EMM56-WAR EMM57-WAR	ESCP
SW02	Erosion and sediment control measures will be implemented, maintained and inspected at a regular interval at all work sites in accordance with the principles and requirements of *Volume 1* (Landcom 2004) and *Volume 2D* (DECC, 2008) of the 'Blue Book'.	During construction	Construction Contractor	EMM56-WAR EMM59-WAR	ESCP
SW03	Construction activities will be staged where possible to minimise clearing and total disturbance of an area, particularly around drainage lines and watercourses which should remain in their natural state. This will include: • Constructing clean water diversions and drains to accommodate up to the 10-year average recurrence interval (ARI) design storm event • Revegetating areas of disturbance following construction in accordance with the Blue Book (Landcom, 2004) • Stabilisation and rehabilitation of works areas as soon as practicable.	Prior to construction During construction	Construction Contractor	EMM59-WAR	ESCP
SW04	Construct batters with maximum slopes consistent with Figure 4.7 of Volume 1 of the 'Blue Book'.	During construction	Construction Contractor	EMM59-WAR	ESCP
SW05	Access tracks will be constructed and maintained consistent with Volume 2C Unsealed Roads of the 'Blue Book'.	During construction	Construction Contractor	EMM59-WAR	ESCP
SW06	Targeted soil testing (in particular, to identify any dispersive soils) will be undertaken to determine topsoil and subsoil properties in high-risk areas to be disturbed (e.g., steep slopes, in close proximity to streams) prior to disturbance activities.	Prior to construction During construction	Construction Contractor	EMM59-WAR	ESCP

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
SW07	Soil amelioration and rehabilitation will comply with the following: • Minimum 200 mm of topsoil to cover any dispersive subsoils (outside of rocky areas) • Ameliorate dispersive subsoils with gypsum around hard surfaces (e.g., turbine foundations) where concentrated flows have the potential to erode non-dispersive topsoil • Use of biodegradable rolled erosion control products (e.g., jute mesh or mat) to provide stability during revegetation of disturbed areas • Use appropriate flora species suited to the low fertility soils.	During and post construction	Construction Contractor	EMM60-WAR	ESCP
Working in waterways					
SW08	Work on waterfront land (within 40 m of top of bank) must have regard to the following guidelines: • *Guidelines for Controlled Activities on Waterfront Land* (Department of Planning, Industry and Environment (DPIE) Water, 2018) • *Why Do Fish Cross the Road? Fish Passage Requirements for Waterway Crossings* (NSW Department of Primary Industries (DPI) Fisheries, 2003) • *Fisheries NSW Policy and guidelines for fish habitat conservation and management* (NSW DPI, 2013).	Prior to construction During construction	Construction Contractor	EMM66-WAR	Best practice as required
SW09	Where work is required within waterways, an EWMS will be prepared for the work(s) (Appendix A of the EMS) which will include the ESCP developed in consultation with a CPESC. The EWMS for work in waterways must detail the control measures and include the following: • Plan work to avoid, where practicable, any activities in aquatic habitats and riparian zones • Where possible, plan works during periods when no rainfall has been forecast • Properly protect and signpost as environmentally sensitive areas, all waterways areas in or adjacent to the site which are excluded from the work areas • Minimise riparian vegetation removal where practicable, and restrict access to the waterways to the minimum amount of bank length required for the activity	Prior to construction	Construction Contractor	EMM67-WAR	EWMS

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
	• Retain stumps in riparian zones and aquatic habitats, where practicable, to reduce the potential for bank erosion • Carry out any refuelling of plant and equipment, chemical storage and decanting at least 50 m away from aquatic habitats.				
SW10	The following measures will be carried out to manage activities within watercourses or on waterfront land (within 40 m of top of bank): • Utilise stream crossings for co-location of services to avoid the need to trench through stream bed • Progressive rehabilitation of disturbed areas • Provision of scour protection to bed and banks • Undertaking bank stabilisation and installing instream structures • Maintaining minimum flows to assist in maintaining the viability of aquatic communities and preventing barriers to fish passage • Constructing instream crossings during low flows and design so that drainage flow from crossings doesn't contribute sediment load to the stream • Undertake works between April and mid-October where possible, to minimise impacts on fish passage • All drainage feature crossings (permanent and temporary watercourse crossings and stream diversions), drainage swales and depressions will be designed by a suitably qualified and experienced professional and will be designed and constructed in accordance with relevant guidelines.	During construction	Construction Contractor	EMM67-WAR	Inspection records
SW11	If waterway crossings are required, the following measures will be implemented: • The crossing will be designed by a suitably qualified and experienced person and will be consistent with the guidelines • Hard, sound, durable rock, free of fine particles and not contaminated with foreign materials will be used to avoid erosion of fine sediment material entering the waterway. • Erosion and sedimentation (ERSED) controls (e.g., rumble grids) will be implemented at the entry and exits points of temporary waterway crossings to minimise mud tracking on the crossing. • All personnel will complete the induction training for ERSED control.	During construction	Construction Contractor	Best practice	ESCP

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
Stockpile Management and Trenching					
SW12	Stockpile management will be carried out in accordance with 'Blue Book' standard drawing SD 4-1 Stockpiles	Prior to construction During construction	Construction Contractor	EMM59-WAR	ESCP Inspection records
SW13	Stockpile management will comply with the following: • Locate stockpiles outside of the tree protection zone of trees or native vegetation identified for retention. Delineate exclusion zones in accordance with AS 4970-2009 Protection of trees on development sites. • Minimise the number of stockpiles, area used for stockpiles, and time that they are left exposed • Stabilise stockpiles, establish appropriate sediment controls and suppress dust as required (e.g., seeding of stockpiles, polymer sprays) • Locate stockpiles at least five metres from likely areas of concentrated water flows and at least 10 metres from waterways that are classified as Class 1 and Class 2 from the DPI Fisheries guideline "*Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings*". • Keep stockpile heights to no greater than two metres, unless otherwise approved by the Neoen Project Manager, and slopes to no steeper than 2:1. • Cover, or otherwise protect from erosion, stockpiles that will be in place for more than 20 days as well as any stockpiles that are susceptible to wind or water erosion, within 10 days of forming each stockpile. • Keep topsoil that is not contaminated by noxious weeds in stockpiles for later spreading on fill batters and other areas. Other material may also be stockpiled but kept separated from the topsoil stockpiles. • Implement measures to prevent the growth of weeds in topsoil stockpiles. • Construct a diversion bank up-slope of stockpiles to divert overland flow around the stockpiles. • Minimise loss of soil material from stockpiles by installing sediment fence or geotextile wrapped straw bale filters on the downslope side of the stockpile.	Prior to construction During construction	Construction Contractor	Best practice	ESCP Inspection records
SW14	Trenching will be carried out accordance with Volume 2A Installation of Services of the 'Blue Book'	Prior to construction During construction	Construction Contractor	EMM61-WAR	ESCP Inspection records

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
Tannin Management					
SW15	Prepare a procedure to manage the use and stockpiling of mulch on site and to reduce the risk of tannin leachate from mulch flowing into waterways, and include this within the ESCP. Prepare the procedure in accordance with TfNSW Environmental Direction 25: Management of Tannins from Vegetation Mulch.	Prior to construction During construction	Construction Contractor	Best practice	ESCP
Monitoring					
SW16	The Construction Contractor will monitor on-site weather conditions daily using the Bureau of Meteorology (BOM) website. Undertake wet weather inspection and maintenance after every > 25 mm rainfall event within 24 hrs.	Pre, during and post rainfall	Construction Contractor	Blue Book (Landcom, 2004)	Inspection records
SW17	Downstream surface water monitoring, specifically of Carlisles Gully Catchment, will be carried out for pH, turbidity and Total Suspended Solids (TSS) on a monthly basis at the identified locations (refer to Appendix K for more details).	During construction and operation for the life of the development	Construction Contractor	NSW CoC B19 EMM59-WAR	Monitoring records
Groundwater					
SW18	Due to the depth of groundwater, the depth of excavations are not expected to penetrate the underlying aquifer. However, should it become apparent that the groundwater will be intercepted, an assessment of potential groundwater impacts will be undertaken in accordance with the NSW Aquifer Interference Policy (NSW Government, 2012).	Detailed Design Prior to construction	Construction Contractor	EMM70-WAR	Hydrogeological Assessment
Refuelling, washdown and chemical storage					
SW19	Storage, handling and use of dangerous goods and hazardous substances must be in accordance with the *Work Health and Safety Act 2011* and the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005).	During construction	Construction Contractor	Best practice	Inspection records
SW20	All fuels, chemicals, and liquids must be stored on slopes less than 1:10 and at least 50 metres away from waterways (including existing stormwater drainage systems) and flood prone areas. Secure, bunded areas must be provided around storage areas for oils, fuels and other hazardous liquids.	During construction	Construction Contractor	EMM59-WAR	Inspection records

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
SW21	Safety Data Sheets (SDS) must be obtained for dangerous goods and hazardous substances stored onsite before their arrival.	During construction	Construction Contractor	Best practice	Inspection records Safety Data Sheets
SW22	All hazardous substances must be transported in accordance with relevant legislation and codes, including the Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998 and the 'Australian Code for the Transport of Dangerous Goods by Road and Rail' (National Transport Commission, 2008).	During construction	Construction Contractor	Best practice	Pollution Incident Response Management Plan (PIRMP)/EMS Transport register
SW23	Spill prevention and response will comply with: • Relevant legislation and Australian Standards • Environment Protection Authority (EPA) "Bunding and Spill Management Guidelines" contained within EPA Environmental Protection Manual for Authorised Officers".	During construction	Construction Contractor	Best practice	PIRMP Incident report
SW24	The Construction Contractor must not refuel or maintain plant and equipment, undertake plant/equipment washdown, mix cutting oil with bitumen, or carry out any other activity which may result in spillage of a chemical, fuel or lubricant at any location which drains directly to waters or environmentally sensitive areas, without the appropriate temporary bunding being provided. Refuelling operations must be attended.	During construction	Construction Contractor	Best practice	PIRMP Incident report
SW25	No concrete wash-out will occur within 50 m of drainage lines or waterways. Bunded concrete wash-out bunds lined with plastic sheeting will be provided and sign-posted for use by contractors and concrete agitator/pump drivers.	During construction	Construction Contractor	EMM59-WAR	PIRMP Incident report
SW26	All mobile concrete batching plants will be located in appropriately sized bunded areas to contain surface runoff. Water captured within the bunds will be utilised for concrete production or removed from site by a suitably licenced waste contractor.	During construction	Construction Contractor	EMM62-WAR	PIRMP Incident report
Spill Prevention and Response					
SW27	A spill response procedure will be prepared as part of the PIRMP, to minimise the impact of spills. The procedure will include details on the requirements for managing, cleaning up and reporting of spills.	During construction	Construction Contractor	Best practice	PIRMP

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
SW28	Spill kits will be located to allow for timely response to uncontained spills. Adequate quantities of suitable material to counteract spillage will be readily available. Site inductions will include a briefing on the use of spill kits.	During construction	Construction Contractor	EMM59-WAR	Inspection records
SW29	The Construction Contractor will prepare a procedure(s) for the following activities, as a minimum, to minimise the possibility of pollution of the site: • Refuelling or maintenance and cleaning of plant and equipment including concrete agitators, bitumen spray bars and asphalt pavers • On-site batching of concrete and asphalt • Mixing of bitumen with cutting oil and additives • Application of liquid membranes, including paint and thermoplastic, resin, emulsion, precoat agent and curing compound • Bulk fuel or chemical deliveries • Removal and disposal of excess chemicals and water used for washing down of equipment; • Pumping out of oil and grease collection pits • Decanting operations such as for fuel, chemicals and bitumen. The procedure/s will include the following, as a minimum: • Details of the management of the bunded areas including monitoring of the bunded areas, drainage requirements and measures to ensure that bund capacities are maintained • Details of the management associated with the removal and transportation of chemical drums from bunded areas • Daily pre-start checks of machinery, pumps and other equipment to prevent and/or minimise leaks • Installation of controls for the capture and filtering of all chemicals that may runoff in storm events, for example wax and hydrocarbon curing compounds, bitumen tack coat and saw cutting material.	During construction	Construction Contractor	EMM59-WAR	PIRMP Inspection records Incident reports

ID	Management Measure	Timing	Responsibility	Reference (CoC or EMM)	Evidence
Water Supply					
SW30	Water sourced from either surface water or groundwater sources to meet Project construction demands will be licenced and managed, as required, in accordance with the requirements of the *Water Management Act 2000*.	During construction	Construction Contractor	NSW CoC B18 EMM64-WAR	Licence application
SW31	Potable water demands will be supplied via water tanker and stored in on-site water tanks. Potable water storages will be routinely tested to ensure water quality meets the requirements of the Australian Drinking Water Guidelines (ADWG) (National Health and Medical Research Council, 2011) and an appropriate maintenance regime will be implemented to ensure water quality ADWG water quality standards are maintained.	During construction	Construction Contractor	NSW CoC B18 EMM63-WAR	Inspection records

5.3.3 Monitoring and inspection requirements

Table 5-3 details the soil and water monitoring and inspections that will be undertaken during construction by the Construction Contractor. Also see Appendix K (ERSED Control Plan).

Table 5-3: Summary of soil and water monitoring and inspection requirements

Inspection / Monitoring	Frequency	Responsibility
Inspections		
Daily site inspections	Daily	Construction Contractor Site Supervisor
Inspect all plant and equipment daily for leakages of fuel, oil or hydraulic fluid. Repair any leaks before using item of plant or equipment and maintain records of plant inspections	Daily	Construction Contractor
Rainfall Inspections All water quality control and sediment control structures (i.e., ERSED controls, stockpiles, disturbed areas, revegetated/stabilised areas and bunded area and sediment basins)	Undertake wet weather inspection and maintenance after every > 25 mm rainfall event within 24 hrs. During dry conditions within 24 hours of expected rainfall defined as more than a 50% chance of 10 mm of rainfall	Construction Contractor Site Supervisor Construction Contractor Environmental Advisor
Inspection of all erosion and sediment controls, stockpiles, disturbed areas etc. prior to a shutdown	Daily and Prior to and after a site shutdown (e.g., Christmas shutdown)	Construction Contractor Construction Contractor Environmental Advisor
Monitoring		
Review BOM forecast for heavy rainfall events and flood warnings	Daily	Construction Contractor Construction Contractor Environmental Advisor
Visual monitoring of local water quality (i.e., checking for plumes of turbidity and oil and grease)	Daily	Construction Contractor Construction Contractor Environmental Advisor
Monitoring of surface water quality	Monthly	Construction Contractor Construction Contractor Environmental Advisor

5.4 Air quality and dust management

The Project will generally contribute to positive air quality outcomes through reductions in greenhouse gas emissions in comparison to other electricity generating sources, including traditional coal-fired power stations.

Air emissions from the Project Area will be predominately associated with the proposed construction activities. Construction air emissions would include dust generated through ground disturbance, civil construction activities and plant/vehicle exhaust emissions. These emissions would be temporary, for the duration of the construction phase (i.e., 18 – 24 months).

Regardless, in accordance with NSW CoC b17, all reasonable steps will be undertaken to minimise the off-site dust, fume and blast emissions of the development. Additionally, surface disturbance (including vegetation clearance) of the site will be minimised where practical to minimise dust generation from exposed surfaces.

5.4.1 Construction impacts

Dust is the principal air quality impact likely to be associated with construction of the Project, and can potentially arise during the following activities:

- vegetation clearing
- upgrades of access tracks and roads
- stockpiles
- open and exposed areas
- excavation works
- mobile concrete batching plants
- rock crushing
- processing and handling of material
- construction activities and associated earthmoving and construction equipment
- transfer points
- loading and unloading of material
- haulage activities along unsealed roads
- blasting.

In addition to the inherent risks of specific construction activities creating the potential to generate dust, several other environmental factors also affect the likelihood of dust emissions. These include:

- Wind direction – determines whether dust and suspended particles are transported in the direction of the sensitive receptors
- Wind speed – governs the potential suspension and drift resistance of particles
- Soil type – more erodible soil types have an increased soil or dust erosion potential
- Soil moisture – increased soil moisture reduces soil or dust erosion potential
- Rainfall or dew – rainfall or heavy dew that wets the surface of the soil reduces the risk of dust generation
- Evaporation – dries out the surface of the soil and leads to increased risk of dust generation
- Exposed surfaces – during construction, non-vegetated surfaces will be exposed which is a key factor influencing dust emissions.

5.4.2 Mitigations measures

Management actions aiming to avoid and minimise impacts on air quality and are summarised in Table 5-4.

Table 5-4: Air quality management and mitigation measures

ID	Measure / Requirement	Timing	Responsibility	Reference (CoC or EMM)	Evidence
Monitoring and Inspections					
AQ1	Local meteorological forecasts will be reviewed daily to monitor for adverse weather events.	Construction	Environmental Advisor	EMM73-AIR	Daily records including weather forecast
AQ2	Weekly inspections/audits to ensure appropriate air quality controls are being implemented during construction activities	Construction	Site Supervisor Environmental Advisor	EMM73-AIR	Site inspection records
Dust management					
AQ3	Dust generation will be minimised during construction where possible. Where practicable, specific measures will include (but will not be limited to): • Water carts and water supply (e.g., watermains, rainwater tanks and sediment basins) made readily available • Exposed and disturbed areas including stockpiles, unsealed roads, and embankments will be covered or sealed with water, polymer or geofabric or seeded • Adjusting the intensity of activities based on measured and observed dust levels, weather forecasts and the proximity of and direction of the works in relation to the nearest identified sensitive receptors • Water-assisted dust sweepers will be utilised to remove any material tracking. Dry sweeping will be avoided • Haul roads to be maintained in good condition • Drop heights will be minimised.	Construction	Site Supervisor Environmental Advisor	NSW CoC B17 EMM73-AIR	Site inspection records
AQ4	The size of exposed areas and amount of clearing will be minimised as far as practical to minimise the generation of dust.	Construction	Site Supervisor Environmental Advisor	NSW CoC B17	Site inspection records

ID	Measure / Requirement	Timing	Responsibility	Reference (CoC or EMM)	Evidence
AQ5	Stockpile and sediment storage controls will be implemented, where possible, by: • Minimising the number of stockpiles and amount of material stockpiled where practicable • Stabilising stockpiles (e.g., seeding, polymer sprays), or the faces of stockpiles that are not being worked on, that will be in place for more than 10 days and prior to inclement weather (i.e., wind/rain) • Limiting stockpiling activities during conditions where winds are blowing strongly in the direction(s) from the stockpiling location to identified sensitive receptors • Shade cloth barriers attached to fences will be erected around potentially dusty activities such as trench excavations and material stockpiles where practicable.	Construction	Site Supervisor	NSW CoC B17 EMM73-AIR	Site inspection records
Vehicle management					
AQ6	Maximum speed limit of 40 km/h on all internal roads and work areas during construction.	Construction	Site Supervisor	NSW CoC B17 EMM73-AIR	Speed safety signs Site layout plans
AQ7	Vehicles entering or exiting the site carrying sediment or spoil material will have the entire load covered.	Construction	Site Supervisor	NSW CoC B17 EMM73-AIR	Compliance monitoring
Emissions					
AQ8	Vehicles, plant and equipment will be switched off when not in use.	Construction	Site Supervisor	NSW CoC B17 EMM73-AIR	Compliance monitoring
AQ9	Vehicles, plant and equipment will be operated in an efficient manner such as through queue management, restrictions on idling and the use of auxiliary equipment.	Construction	Site Supervisor	NSW CoC B17 EMM73-AIR	Site layout plans Compliance monitoring
AQ10	Any plant and equipment emitting visible smoke will be turned off until properly investigated.	Construction	Site Supervisor	NSW CoC B17 EMM73-AIR	Compliance monitoring

ID	Measure / Requirement	Timing	Responsibility	Reference (CoC or EMM)	Evidence
AQ11	Maintenance and tuning of all equipment engines will be undertaken in accordance with the manufacturer's specifications.	Construction	Project Manager	NSW CoC B17 EMM73-AIR	Maintenance records
Blasting					
AQ12	A detailed methodology will be prepared and a blast monitoring program implemented (if required)	Construction	Site Supervisor Environmental Advisor Blasing Contractor	NSW CoC B17 EMM73-AIR	Blast monitoring program Site inspection records

5.4.3 Monitoring and inspection requirements

Table 5-5 details the meteorological and air quality monitoring and inspections that will be undertaken during construction by the Construction Contractor.

Table 5-5: Summary of monitoring and inspection requirements

Monitoring details	Frequency	Record	Responsibility
Prevailing wind conditions and weather forecast	Daily	• Weather conditions and forecasts, including the timing of notable increases in wind speed and/or temperature, will be obtained from the Australian Bureau of Meteorology (BoM) operated weather stations such as Woolbrook • The likely meteorological conditions and implications for dust emissions and impacts will be discussed and recorded at the morning prestart meeting.	Site Supervisor
Visual onsite surveillance for dust emissions	Daily	• Site inspection records	Site Supervisor Environmental Advisor
Inspection of potential dust emissions and dust controls to ensure effective implementation	Daily	• Site Inspection records • Daily diary • Dust monitoring register	Site Supervisor Environmental Advisor
Investigation in response to complaints, or authorised agency request	As required	• Incident report • Complaints register	Site Supervisor Environmental Advisor
Project entry/exit integrity to minimise dust/mud tracking on public roads	Daily	• Site Inspection records • Daily diary	Site Supervisor Environmental Advisor
Plant/equipment inspections including maintenance and emissions	As required, prior to use	• Daily diary • Pre-start checks	Site Supervisor

5.5 Noise and Vibration

A Noise and Vibration Assessment (NVA) was prepared by Sonus Pty Ltd (Sonus, 2022) to assess the potential noise and vibration impacts associated with construction of the Project (Appendix 11 of the EIS).

The equipment and construction activities associated with the Project will vary throughout the construction phase. The predicted noise from construction activity is presented in the NVA as a typical worst case (highest noise level – weather conditions conducive for the propagation of noise when receivers are downwind) scenario for the various stages of construction. The assessment is based on construction activities occurring within standard and outside of standard construction hours.

All non-associated dwellings are separated by 2000 m or more from the closest WTG location and 2700 m or more from the closest proposed temporary concrete batching plants. (refer to Figure 2-1).

5.5.1 Noise Impacts

The NVA identifies the minimum separation distance required to achieve the “noise affected” management level of 45 dB(A). The results in NVA (Sonus, 2022) show that the WTG construction noise levels are predicted to be below the “noise affected” management level of 45 dB(A) at all non-associated dwellings.

Standard construction hours

- The predicted noise levels for access track construction indicated that noise levels of greater than 45 dB(A) would occur for some activities occurring in the vicinity of six non-associated residences (Dwelling ID 10, 26, 27, 28, 29 and 41). The predicted noise levels are significantly less than 75 dB(A) (the point where there may be strong community reaction to noise).
- As road construction is linear work, the exceedance will be temporary as construction continues along the length of the road or access track.

Outside standard construction hours

Some construction activities may need to be undertaken outside of “standard hours”.

- This may include of the operation of a batching plant and concrete pouring at WTG sites early in the morning (prior to 7 am). The NVA determined that outside of standard hours construction activities will satisfy the 35 dB(A) criterion.
- Any other construction proposed outside of standard hours would require assessment should such a need arise. A process for undertaking the assessment will be developed by the Construction Contractor.

5.5.2 Vibration impacts

The main sources of construction vibration will be the rock trenching equipment and roller operation during the road and hardstand construction. Typically, the distances required to achieve the relevant construction vibration criteria are in the order of 20 m. At a distance of 100 m, vibration from the proposed construction activities is unlikely to be detectable and no vibration effects are predicted at any non-associated dwellings during construction.

As all non-associated dwellings are well beyond 100 m from all construction locations no vibration impacts are predicted. Regardless, as required under NSW CoC B10, vibration impacts will comply with the vibration limits and criteria detailed in the following guidelines:

- *Assessing vibration: a technical guideline* (DEC, 2006) (for human exposure)
- BS 7385 Part 2-1993 *Evaluation and measurement for vibration in buildings Part 2*
- German Standard DIN 4150-3: *Vibrations in buildings – Part 3: Effects on Structures.*

5.5.3 Blasting impacts

The final blasting methodology will be designed by a suitably qualified blasting specialist during the detailed design and construction phase to ensure the Project criterion are achieved.

In the event that blasting is required, a blast monitoring program will be developed and implemented. Design for the blasting and assessment of potential impacts will be undertaken for each blast prior to implementation and the scale of the blast managed to meet criteria.

5.5.4 Construction Hours

Construction hours are detailed Section 2.4.

5.5.5 Blasting hours

As detailed in NSW CoC B11, blasting will only be carried out on site:

- Between 9 am and 5 pm Monday to Friday
- Between 9 am to 1 pm on Saturday.
- No blasting is allowed on Sundays or NSW public holidays.

Blasting criteria

Any blasting carried out on site will not exceed the criteria detailed in Table 5-6.

Table 5-6: Blasting criteria

Location	Airblast overpressure (dB(Lin Peak)	Ground vibration (mm/s)	Allowable exceedance
Any non-associated residence	120	10	0
	115	5	5% of the total number of blasts or events over a rolling period of 12 months

5.5.6 Traffic noise

Traffic generation associated with the construction of Project would predominantly be associated with movements of semi-trailers, low loaders, trucks, mobile cranes, water tankers, four-wheel-drive vehicles and passenger vehicles. Dwelling setback distances in the vicinity of the Project Area are understood to be greater than 40 m from the New England Highway. Based on peak volume of traffic, and assuming a 50/50 split of traffic approaching the Project Area from the north and south, a noise level of 50 dB(A) will be achieved. Subsequently, the additional vehicle movements would achieve the 60 dB(A) criterion and would not contribute to the criterion being exceeded when considered with the existing traffic volumes on the New England Highway.

5.5.7 Mitigations measures

Noise generated during construction will be managed in accordance with the requirements of the ICNG.

Further management actions which aim to avoid and minimise noise and vibration impacts are summarised in Table 5-7.

Table 5-7: Noise and vibration management and mitigation measures

ID	Measure / requirement	Timing	Responsibility	Reference	Evidence
Training					
NV1	All employees, contractors and subcontractors are to receive a Project induction prior to commencing work on site. The induction will include: • Existence and requirements of this EMS • Relevant legislation and guidelines • Standard construction hours and exemptions • The process for seeking approval for out-of-hours works, including consultation • Location of noise-sensitive areas • Complaints reporting and recording • How to implement noise and vibration management measures • Specific responsibilities to minimise impacts on the community and built environment from noise and vibration associated with the works.	Construction	Construction Contractor Environmental Advisor	EMM11-NV Section 3.3	Induction records
On-site management - noise					
NV2	The arrangement of plant and equipment will be considered to reduce noise impacts including: • Directing noise-emitting plant away from sensitive receivers • Maximise the offset distance between noisy plant and adjacent sensitive receivers • Minimising idling.	Pre-construction	Construction Contractor Site Supervisor	EMM07-NV EMM09-NV EMM11-NV	Site inspection records
NV3	Acoustic screens or mounding will be implemented for fixed crushing/screening plant and concrete batching plants wherever these noise sources are located within 2400 m of a non-associated dwelling, where noise from these equipment and activities is expected to reach close to or exceed 35 dB(A) at the dwelling, and do not have direct line of sight blocked by site topography unless otherwise agreed in writing with the relevant landowners and residents of potentially affected dwellings. These screens or mounds will be:	Pre-construction	Construction Contractor Site Supervisor	EMM08-NV EMM09-NV	Site inspection records Compliance monitoring Consultation records

ID	Measure / requirement	Timing	Responsibility	Reference	Evidence
	• located as close as practicable to the noise source • constructed from mounding using excavated soil from the site or a material with a minimum surface density • of approximately 10 kg/m2, such as 1.2mm thick sheet steel or 9mm thick compressed fibre cement sheeting, or • use proprietary barriers such as the FlexShield “Sonic Quilt” • constructed to a minimum height that substantially blocks direct line of sight between the noise source and any non-associated dwellings within 2400 m • constructed such that air gaps or openings at joints between sections of the acoustic screens are minimised. Unless otherwise agreed in writing with relevant landowners and residents of potentially affected dwellings.				
NV4	Pre-start inspections and regular maintenance of plant and equipment will be undertaken in accordance with manufacturers guidelines. Additionally, equipment will: • Have Original Equipment Manufacturer (OEM) mufflers (or better) installed where these are available • Be maintained and fitted with adequately maintained silencers which meet the OEM design specifications. If plant and equipment is determined to be noisier than other similar machines mufflers and/or silencers will be replaced or rectified as required.	Construction	Construction Contractor Site Supervisor	EMM11-NV	Compliance monitoring Site inspection records
NV5	All construction plant and equipment used on the site will be operated in a quiet and efficient manner such as throttling down or shutting down when not in use.	Construction	Construction Contractor Site Supervisor	EMM11-NV	Site inspection records
NV6	Works will be undertaken to reduce noise levels wherever possible, such as: • no excessive dropping of materials from height to reduce peak noise events • site works will be centralised within the site where possible and materials stored as far from dwellings as practicable	Construction	Construction Contractor Site Supervisor	EMM11-NV	Site inspection records

ID	Measure / requirement	Timing	Responsibility	Reference	Evidence
	• reducing use of portable radios, public address systems or other methods of site communication nearby to sensitive receptors • for particularly noisy activities (e.g., drilling), works will occur during the least sensitive periods of normal working hours and will aim to be completed in the shortest period of time, where practicable.				
NV7	Fixed construction noise sources such as crushing and screening plant, concrete batching plant, generators and compressors will be located at the maximum practicable distance to the nearest non-associated dwellings, and where practicable, and use existing topography (or raw or processed materials) to block line of sight between the fixed noise source and the non-associated dwelling.	Construction	Construction Contractor Site Supervisor	EMM07-NV	Site inspection records
Consultation					
NV8	Residents will be notified through community information newsletters (including via website) which will provide details of the construction plan, duration of the construction phases and contact details of relevant Project team members. Newsletters will also include a feedback mechanism for the community to submit questions to the construction team, and for the construction team to respond.	Construction	Neoen Project Manager Construction Contractor Project Manager Construction Contractor Site Supervisor	EMM12-NV	Correspondence
NV9	Regular updates on the construction activities will be provided to local authorities to assist in complaint management if necessary.	Construction	Neoen Project Manager Construction Contractor Project Manager Construction Contractor Site Supervisor	EMM12-NV	Correspondence
NV10	The local community affected by any proposed non-quiet construction activity outside of standard work hours occurring within 2000 m of a non-associated dwelling, or significant construction traffic periods or impacts on local roads, will be contacted to provide the location of the work, the day(s) and date(s) of the work, the hours involved and the contact details of the relevant Project team members.	Construction	Construction Contractor Project Manager Construction Contractor Site Supervisor	EMM13-NV	Correspondence

ID	Measure / requirement	Timing	Responsibility	Reference	Evidence
Construction vehicles					
NV11	All personnel will use nominated on-site car parking facilities	Construction	Construction Contractor Project Manager	Standard practice	Site layout plans
NV12	Heavy vehicles will use nominated haulage routes only	Construction	Construction Contractor Project Manager	Standard practice	Site layout plans
NV13	Vehicles operating to, from and within the Project Site shall do so in a manner which does not create unreasonable or unnecessary noise or vibration including: • Switching off engines during waiting periods • Avoiding compression braking unless safety requires such application • Avoiding excessive acceleration.	Construction	Construction Contractor Project Manager	EMM15-NV	Compliance monitoring
NV14	To assist in managing noise impacts from vehicle movements: • Construction traffic deliveries will be scheduled to be as evenly dispersed as practicable • Traffic movements will be restricted to day-time operating hours (as far as practicable, subject to the justifications for activity outside of this time).	Construction	Construction Contractor Project Manager	EMM15-NV	Compliance monitoring
Blasting					
NV15	The Applicant must ensure that any blasting carried out on site does not exceed the criteria in Section 5.5.5.	Construction	Construction Contractor Project Manager Construction Contractor Site Supervisor	NSW CoC B12	Compliance monitoring Blasting monitoring program
NV16	In the event that blasting is required: • a blasting methodology will be designed by a blasting specialist during the detailed design phase to design blasts to comply with the criterion. • a monitoring regime will be developed and implemented to monitor compliance with relevant blasting criteria.	Construction	Construction Contractor Project Manager Construction Contractor Site Supervisor	EMM14-NVv	Blasting methodology Blasting monitoring program

5.5.8 Monitoring and inspection requirements

Inspections of sensitive areas and activities with the potential to impact noise and vibration will occur for the duration of the construction of the Project. Table 5-8 details the noise and vibration monitoring and inspections that will be undertaken by the Construction Contractor during construction.

Table 5-8: Summary of noise and vibration monitoring and inspection requirements

Monitoring details	Frequency	Record	Responsibility
Monitoring will be carried out when a complaint/s is received in relation to noise or vibration and an appropriate response should be considered	As required	• Incident report • Complaints register	Neoen Project Manager Site Supervisor Environmental Advisor
Should blasting be required, a monitoring plan will be implemented in accordance with NV18, to meet the criteria outlined in Section 5.5.5.	As required	• Blasting monitoring program	Site Supervisor Environmental Advisor

6 INCIDENT AND NON-COMPLIANCE MANAGEMENT AND EMERGENCY RESPONSE

6.1 Incident Management

Incidents are occurrences that cause or threaten to cause material harm, where material harm is defined as:

- Harm that involves *actual or potential harm* to the health or safety of human beings or to the environment that is not trivial, or
- Harm that results in *actual or potential loss or property damage* of an amount, or amounts in aggregate, exceeding $10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment), or
- Have the potential to, or do, impact on one or more protected matter(s) other than as authorised by the Commonwealth Approval (EPBC Number: 2021/9048), or
- A pollution incident as detailed in Part 5.7 of the POEO Act.

6.1.1 Incident Response

All incidents, will be managed in accordance with Figure 6-1. The Construction Contractor will determine the need to notify the authorities based on the severity of the impact and the risk of offsite impacts.

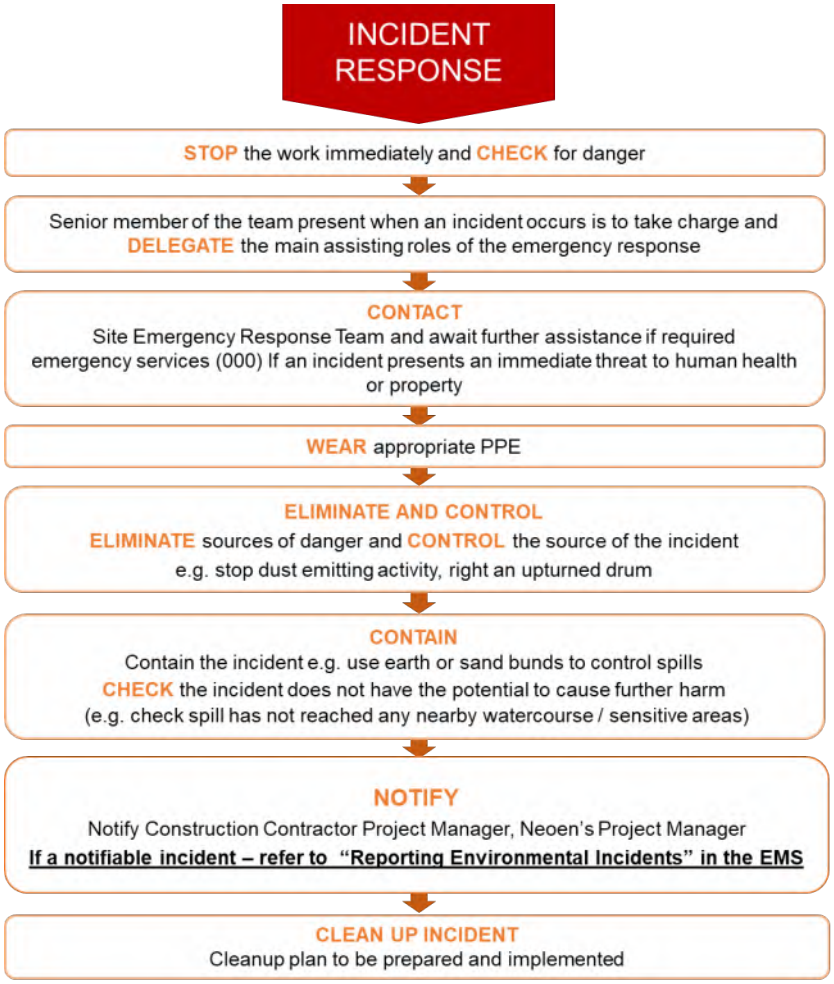


Figure 6-1: Overview of incident response

6.1.2 Reporting Environmental Incidents

All potential incidents will be advised verbally immediately to Neoen's Project Manager. The procedures for notifications to DPHI and EPA are provided below and summarised in Figure 6-2. A summary of notification requirements is provided in Table 6-2.

6.1.2.1 DPHI notification

As required under NSW CoC C10 and Appendix 8 of the Development Consent, the Planning Secretary must be notified via the Major Projects website immediately after Neoen becomes aware of an incident. The notification must:

- Identify the development, including the development application number and the name of the development
- Set out the location and nature of the incident.

Neoen (or the Construction Contractor as delegate) will provide the subsequent notification of the incident

Notification reports will be submitted in accordance with the requirements set out in Appendix 8 of the Development Consent. This process is also summarised below.

Notification Report

A written incident notification must be submitted to DPHI via the Major Projects website within seven days after Neoen becomes aware of an incident. The written notification must:

- Identify the development and application number
- Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
- Identify how the incident was detected
- Identify when the Proponent became aware of the incident
- Identify any actual or potential non-compliance with conditions of consent
- Describe what immediate steps were taken in relation to the incident
- Identify further action that will be taken in relation to the incident
- Identify a Project contact for further communication regarding the incident.

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, Neoen or the Construction Contractor must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements, and such further reports as may be requested.

The Incident Report must include:

- A summary of the incident
- Outcomes of an incident investigation, including identification of the cause of the incident
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
- Details of any communication with other stakeholders regarding the incident.

6.1.2.2 Agency notification under the POEO Act

The relevant authorities that must be notified for a material harm pollution incident are listed in Table 6-1.

All authorities listed (whether considered relevant or not) must be contacted for each Material Harm pollution incident to satisfy POEO Act requirements. Penalties apply to both individuals and corporations for failing to notify material harm pollution incidents:

- Maximum penalty for individuals - $500,000
- Maximum penalty for corporations - $2,000,000.

Table 6-1: Authorities to notify for Material Harm pollution incidents

Authority	Contact Number	Responsibility
Fire and Rescue NSW	000 (emergency) 1300 729 579	Construction Contractor
NSW EPA environment line	131 555	Construction Contractor
Ministry of Health (via the local Public Health Unit)	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website	Construction Contractor
SafeWork NSW	131 050	Construction Contractor
Tamworth Regional Council	(02) 6778 6300	Construction Contractor
Uralla Shire Council	(02) 6767 5555 or 1300 733 625	Construction Contractor
DPHI	Via the Major Projects Portal or (02) 9995 6038 / 0427 749 597	Neoen Project Manager

POEO Act Notification Report

Section 150 of the POEO Act provides the information that needs to be notified, being:

- The time, date, nature, duration and location of the incident
- The location of the place where pollution is occurring or is likely to occur and the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known
- The circumstances in which the incident occurred (including the cause of the incident, if known)
- The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known
- Other information prescribed by the regulations.

Only known information should be provided when notifying of a material harm pollution incident. If further information becomes known after the initial notification, that information must immediately be notified to all authorities in accordance with Section 150 of the POEO Act. The immediate verbal notification is to be followed by written notification to each relevant authority within seven days of the date on which the incident occurred.

Complying with these notification requirements does not remove the need to comply with any other legislative requirements for incident notification (e.g., requirements under the conditions of an EPL or the *Work Health and Safety Act 2011*).

6.1.3 Incident Investigation and Corrective Action

Investigations on any incidents will be conducted, and action plans established, to ensure that the incident does not occur again.

Environmental Investigation Report

An environmental investigation report will include:

- A summary of the incident
- Identification of the cause, extent and responsibility of the incident
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
- Identification of the personnel responsible for carrying out the corrective action
- Implementation or modification of controls necessary to avoid a repeat occurrence of the incident
- Recording of any changes in written procedures required.

Where there are lessons learnt from the investigation, or current procedures are identified as being ineffective, the EMS and relevant management plan will be revised by the Construction Contractor Environmental Advisor to include the improved procedures or requirement.

Corrective actions must be reported back to DPHI, EPA, Neoen and Construction Contractor Project Manager. In addition, upon the completion of the investigation, the findings and recommendations must be distributed to the relevant work groups for discussion at a toolbox meeting (refer to Section 3.3).

An overview of the incident identification and notification process is provided in Figure 6-2.

6.1.4 Recording Incidents

All incidents and non-compliances will be recorded and maintained within the Complaints and Incident Management Database. The database will also include details of any corrective actions, lessons learnt and close out of the incident or complaint.

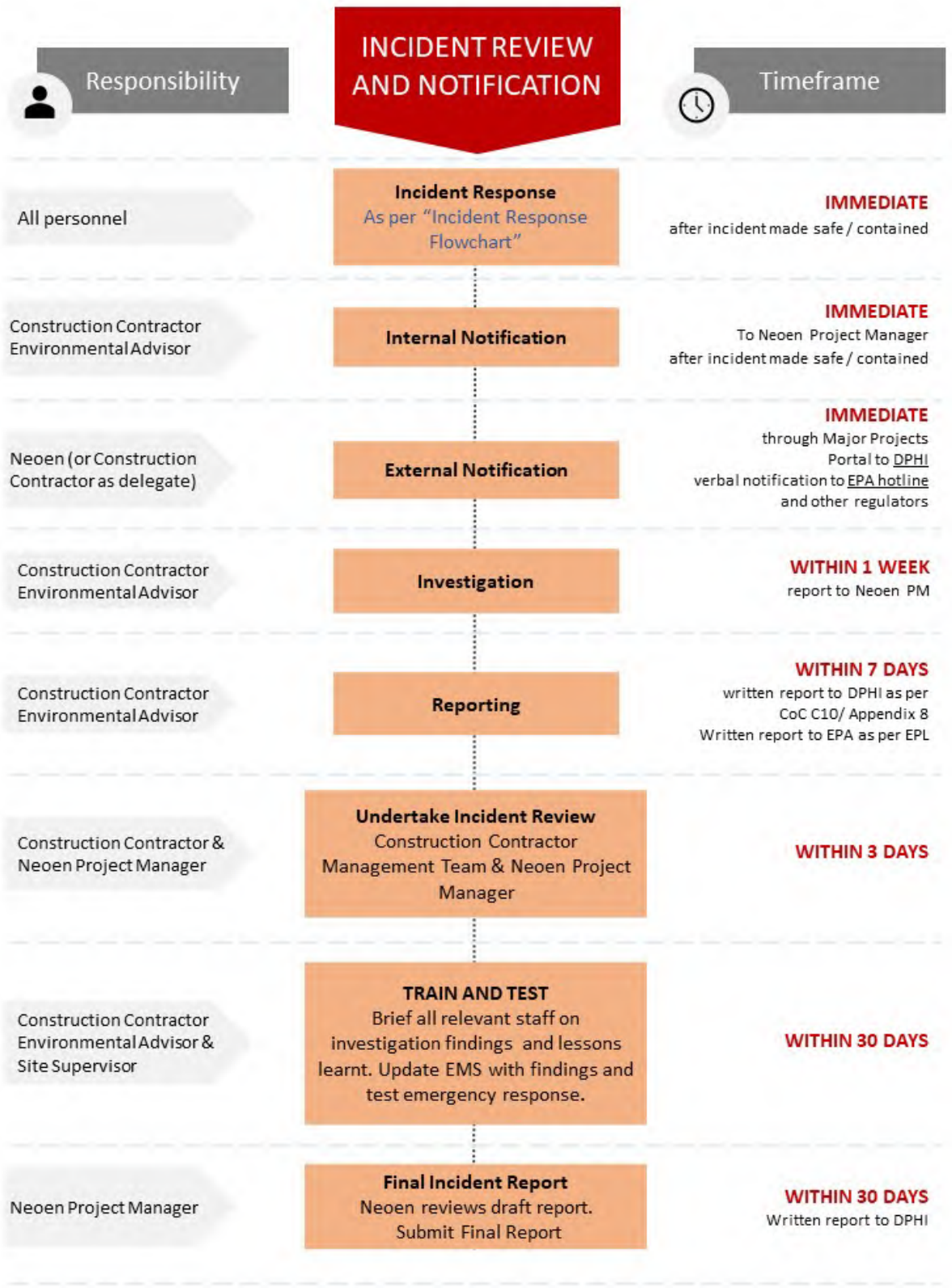


Figure 6-2: Overview of incident investigation and reporting

Table 6-2: Summary of requirements for incident notification and reporting

Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
Regulatory action (material harm under the POEO Act)						
Environmental spills	EPA environment line	Within 24 hours	Construction Contractor Neoen Project Manager	In accordance with the EPL	Within seven days	Construction Contractor
	Secretary of DPHI	As soon as possible after the Applicant becomes aware of an incident.	Neoen Project Manager (via the Major Projects Portal)	In accordance with NSW CoC C10 and Appendix 8: • Written notification report • Detailed incident report	In accordance with NSW CoC C10 and Appendix 8: • Within 7 days • Within 30 days	Construction Contractor Neoen Project Manager
Regulatory action (other than material harm under the POEO Act):						
Discovery of Aboriginal objects	Registered Aboriginal Parties (RAPs) Heritage NSW	As soon as practical	Construction Contractor Neoen Project Manager	In accordance with NSW CoC C10 and Appendix 8: • Written notification report • Detailed incident report	In accordance with NSW CoC C10 and Appendix 8: • Within 7 days • Within 30 days	Construction Contractor Neoen Project Manager
Discovery of all human remains	NSW Police Heritage NSW RAPs	Immediately	Construction Contractor Neoen Project Manager	As determined by Heritage NSW	As determined by Heritage NSW	Construction Contractor Neoen Project Manager
Contamination (unexpected finds)	EPA	Immediately	Construction Contractor Neoen Project Manager	In accordance with the requirements of the EPL	In accordance with the requirements of the EPL	Construction Contractor Neoen Project Manager
Fire on site as a result of Project activities	NSW Rural Fire Service Emergency Services	Immediately	Construction Contractor	In accordance with NSW CoC C10 and Appendix 8: • Written notification report • Detailed incident report	In accordance with NSW CoC C10 and Appendix 8: • Within 7 days • Within 30 days	Construction Contractor

Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
Any notifiable incident (as defined in the Development Consent)	Secretary of DPHI Minister for DCCEEW	Immediately	Neoen Project Manager	In accordance with NSW CoC C10 and Appendix 8: • Written notification report • Detailed incident report	In accordance with NSW CoC C10 and Appendix 8: • Within 7 days • Within 30 days	Construction Contractor Neoen Project Manager
Incidents	Neoen Project Manager	Immediately	Construction Contractor Construction Contractor Environmental Advisor	If required, will be undertaken in accordance with EMS requirements	If required, will be undertaken in accordance with EMS requirements	Construction Contractor Construction Contractor Environmental Advisor
Incident affecting protected matters	Secretary of DPHI	Immediately	Neoen Project Manager	In accordance with NSW CoC C10 and Appendix 8: • Written notification report • Detailed incident report	In accordance with NSW CoC C10 and Appendix 8: • Within 7 days • Within 30 days	Construction Contractor Neoen Project Manager

6.2 Non-Compliances and Corrective Actions

6.2.1 Non-compliances

A non-compliance is an occurrence, set of circumstances or development that is a *breach* of any EPBC CoA, NSW CoC, EMM, licence condition (where applicable), permit or any other statutory approval relevant to the activity and/or area where the activity occurs, and which triggers a specific statutory requirement to notify a regulatory authority. This will also include any material non-compliance against the EMS and other plans strategies and monitoring programs required by the NSW CoCs.

Potential non-compliances can be identified by anyone and will be reported to the Construction Contractor's Environmental Advisor as a potential non-compliance. Whether the DPHI needs to be notified will be determined in consultation with Neoen Project Manager.

The Construction Contractor's Environmental Advisor is responsible for maintaining compliance records as current at the point of use. The Construction Contractor will provide Neoen with a copy of all compliance records. Neoen is required to maintain accurate and complete compliance records.

Any non-compliance will be managed as an incident in accordance with the process described in Section 6.1 and Figure 6-2.

6.2.2 Non-compliance notification

6.2.2.1 DPHI Non-compliance Notification

The Planning Secretary must be notified via the Major Projects website within seven days after Neoen becomes aware of any non-compliance (NSW CoC C11). The notification must:

- Identify the development and the application number
- Set out the condition of consent that the development is non-compliant with and the way in which it does not comply
- The nature of the breach
- The reason for the non-compliance (if known)
- What actions have been, or will be, undertaken to address the non-compliance.

***NOTE**: NSW CoC C13 states that a non-compliance which has been notified as an incident does not need to also be notified as a non-compliance. Refer to Section 6.1 for more information.*

6.2.2.2 EPA Non-compliance Notification and Reporting

Under the EPL, an annual compliance statement detailing compliance with licence conditions over the previous reporting period is required. Annual returns are legally binding statements and can be lodged online via eConnect EPA. The annual compliance statement will include any non-compliances.

For non-compliances with the potential to result in environmental harm, the EPA may decide to issue a penalty notice or consider taking prosecution action. In order to drive environmental improvements, licensees may also be required to undertake a pollution reduction program. Where the non-compliance is minor, the EPA may choose to issue a formal warning.

6.2.3 Corrective Actions

Corrective actions raised in relation to incidents and near misses will be entered, tracked and closed out through the Complaints and Incident Management Database.

All non-compliances and corrective actions, irrespective of type, will be entered into the Corrective Action Register, tracked and closed out and must be reported to the Principal's Representative and Neoen.

6.3 Emergency Response

An Emergency Response Plan has been developed, see Appendix I. The emergency response plan will identify:

- Potential emergency situations
- Emergency protocols
- Training and preparedness (including testing of the plan)
- Emergency notification.

The Construction Contractor will nominate a Site Emergency Contact and an alternate contact that will be available 24-hours a day, seven days a week. Contact details for key project personnel to be contacted in the event of an incident or emergency are listed in Appendix I. Additionally, a Pollution Incident Response Management Plan (PIRMP) is required under the EPL for the Project. This is described in more detail in Section 6.3.1.

6.3.1 Pollution Incident Response Management Plan

Pollution incidents will also be managed in accordance with the PIRMP, to be prepared by the Construction Contractor as required by the EPL prior to the commencement of construction. The PIRMP will be reviewed by the Principal's Representative prior to construction commencing. The PIRMP will be prepared and tested in accordance with *Environmental guidelines: Preparation of pollution incident response management plans* (EPA, 2012).

The Construction Contractors' PIRMP will document the procedures to be followed in the event of an environmental emergency including:

- The names and contact details (including all-hours telephone numbers) for emergency response personnel
- Response personnel responsibilities
- Contact details for emergency services (ambulance, fire brigade, spill clean-up services)
- The location of on-site information on hazardous materials, including Safety Data Sheets and spill containment materials
- Steps to follow to minimise damage and control and environmental emergency
- Instructions and contact details for notifying relevant government agencies, local councils and, if necessary, nearby residents
- Include measures to avoid spillages of fuels, chemicals, and fluids onto any surfaces or into any adjacent waterways.

All necessary contact numbers will be identified in advance and stored for immediate access should a pollution incident need to be notified. These contact numbers will also be identified in the PIRMP prepared for the Project by the Construction Contractor in accordance with the EPL.

7 MONITORING AND REVIEW

7.1 Monitoring and Inspections

Regular monitoring will be undertaken to monitor the performance of the environmental aspects outlined in Section 5.1. Monitoring will be through a series of formal and informal inspections and monitoring of specific environmental aspects (e.g., noise, surface water quality) at regular intervals.

7.1.1 Inspections

Inspections are used to verify that the controls outlined in this EMS and management plans are in place and working effectively. Regular environmental inspections will be undertaken by the Construction Contractor Site Supervisor and Environmental Advisor, and Neoen's Project Manager. Table 7-1 provides a summary of the inspections required for the Project.

Table 7-1: Summary of inspections

Inspection Type	Frequency	Focus	Responsibility	Record
General				
Site environmental inspection	Weekly	Work next to or within sensitive areas and high-risk activities Erosion and sediment controls Dust emission	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Inspection checklist
Plant and equipment inspections	Prior to arriving on site	Maintenance schedules	Contractor Site Supervisor	Maintenance forms
Neoen's Project Manager	As required	Compliance with EPBC CoAs and NSW CoCs	Neoen's Project Manager	Inspection report
Third-party agency inspections (for example EPA or DPHI)	Occasionally/as required	General construction activities	Neoen's Project Manager Construction Contractor Environmental Advisor	Inspection report
Soil and water management				
Daily and weekly inspections	Daily and weekly	Maintaining compliance and effectiveness of controls	Construction Contractor Environmental Advisor	Inspection checklist
Rainfall (pre and post)	Detailed within Section 5.4.3	Erosion and sediment controls – checking effectiveness and general maintenance	Construction Contractor Environmental Advisor	Inspection checklist
Pre-shutdown and pre-start up inspections (for example Christmas and Easter)	Detailed within Section 5.4.3 Prior to any extended holiday periods	Erosion and sediment controls – checking effectiveness and general maintenance	Construction Contractor Environmental Advisor	Inspection checklist

Inspection Type	Frequency	Focus	Responsibility	Record
Biodiversity				
Site environmental inspection	Weekly	Work next to or within sensitive areas and high-risk activities Erosion and sediment controls Dust emission Topsoil, mulch and spoil stockpiles	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Inspection checklist
Exclusion zones and restricted areas	Weekly	Exclusion zones and fencing or other means to demarcate vegetation to be retained	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Inspection checklist
Weed management controls	As required	Stockpiles with weed material Hygiene inspections of vehicles, plant and equipment being transported to site Weed and pest incursions into the Development Corridor and sensitive areas	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Inspection checklist
Pre-clearing inspections	Detailed within BMP	Clearing activities	Construction Contractor Environmental Advisor Project Ecologist	Pre-clearance report
Post-clearing	Detailed within BMP	Clearing activities	Construction Contractor Environmental Advisor Project Ecologist	Post-clearance report
Compliance reports	Detailed within the BMP	Clearing activities	Construction Contractor Environmental Advisor Project Ecologist	Compliance report
Heritage				
Site environmental inspection	Weekly	Work next to or within cultural heritage sensitive areas	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Inspection checklist
Exclusion zones and restricted areas	Weekly	Exclusion zones and fencing or other means to protect cultural heritage sites	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Inspection checklist

Any non-conformances/non-compliances are recorded on the inspection form and the cause investigated by the Construction Contractor Site Supervisor. Corrective and/or preventative action will be recommended by the person undertaking the inspection and the effectiveness of the corrective and/or preventative action assessed at the next site inspection.

Inspection results shall be reported and addressed as part of ongoing Project management, including non-compliance and corrective action management.

7.1.2 Monitoring

Monitoring (sampling) is undertaken in accordance with the relevant management plans. Table 7-2 provides a summary of monitoring to be undertaken during construction.

Table 7-2: Summary of monitoring activities

Monitoring Type	Frequency	Focus	Responsibility	Record
Noise and vibration				
Attended noise and vibration monitoring	As required and detailed in Section 5.5	In response to a complaint	Construction Contractor Environmental Advisor Noise consultant	Monitoring report with analysis of results
Water				
Water quality monitoring	As per EPL (still to be issued) As detailed in the Section 5.3.3	During periods when rainfall results in any discharge from the site or when discharging from a point source	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Monthly Environmental Report
Carlisles Gully Catchment monitoring	Monthly (for the life of the development)	pH, turbidity and Total Suspended Solids (TSS)	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Monthly Environmental Report
Sediment basin monitoring	As required	To monitor downstream water quality	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Monthly Environmental Report
Waste				
Waste	As per the WMP	Waste volumes and types Spoil volumes and destinations	Construction Contractor Environmental Advisor Construction Contractor Site Supervisor	Waste tracking register
Bushfire				
Bushfire monitoring	As per the ERP	Monitoring of bushfires in the area (FiresNearMe app)	Construction Contractor Site Supervisor	Monthly Environmental Report
Biodiversity				
Biodiversity monitoring	As per the BMP	Program to monitor and report the effectiveness of the measures outlined in the BMP	Construction Contractor	Monitoring program

Monitoring Type	Frequency	Focus	Responsibility	Record
Traffic				
Traffic monitoring	As per the TTMP	Program to monitor and report the effectiveness of the measures outlined in the TTMP	Construction Contractor	Monitoring program

All monitoring is undertaken using standard monitoring techniques and calibrated equipment operated by trained personnel. Analysis of samples (if required) will be undertaken in accordance with the requirements of the EPL and the relevant management plan.

7.2 Auditing

7.2.1 Independent Environmental Audit

Independent external audits will be undertaken to assess the effectiveness of environmental controls and compliance with the NSW CoCs. These requirements are summarised below.

NSW CoCs C14-C18 detail the requirements for independent environmental auditing

- Independent Audits must be conducted and carried out at the frequency and in accordance with the *Independent Audit Post Approval Requirements* (DPIE, 2020) to the following frequency:
  - Within 3 months of commencing construction; and
  - Within 3 months of commencement of operations.
- Proposed independent auditors must be agreed to in writing by the Planning Secretary before the commencement of an Independent Audit.
- The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times upon giving at least four weeks' notice to the Applicant of the date upon which the audit must be commenced.
- As required by the Audit Guideline (DPIE, 2020*)*, Neoen, with assistance from the Construction Contractor, will:
  - review and respond to each Independent Audit Report
  - submit the response to the Planning Secretary
  - make each Independent Audit Report and response to it publicly available 60 days after submission to the Planning Secretary, or as otherwise agreed by the Planning Secretary.

The Independent Audit Reports and the Neoen response to audit findings must be submitted to the Planning Secretary within two months of undertaking the independent audit site as outlined in the Audit Guideline (DPIE, 2020).

7.3 Reporting

Compliance reporting is required to produce systematic, comprehensive and informative reports on the environmental performance during construction and in line with relevant legislative requirements. Reporting requirements are summarised in Table 7-3.

Table 7-3: Summary of reporting requirements

Report	Frequency	Responsibility	Reference
General			
Notification of commencement	Once off prior to construction and operation	Neoen	NSW CoC C7
Environmental progress report	Monthly	Construction Contractor Environmental Advisor	Internal
Compliance Reporting			
Independent Audit	As required	independent Auditor	NSW CoC C14
Incident notification and reporting	Following a reportable incident	Neoen Construction Contractor Environmental Advisor	NSW CoC C10
Non-compliance notification and reporting	Following the identification of a non-compliance	Neoen Construction Contractor Environmental Advisor	NSW CoC C11
Compliance Report	Annual	Neoen Construction Contractor Environmental Advisor	Internal
Management plan reporting requirements			
Dilapidation Survey (Existing condition)	Prior to construction	Construction Contractor	TTMP
Dilapidation Survey (Post construction)	One month following completion of construction	Construction Contractor	TTMP
Detailed Route Analysis	Prior to construction	Neoen Project Manager	TTMP
Unexpected finds (heritage)	As required by the unexpected finds procedure	Construction Contractor Environmental Advisor Heritage Consultant	HMP
Salvage excavation report	Within 12 months of completing the heritage related work described in the environmental assessment documents.	Project Archaeologist Construction Contractor Environmental Advisor	HMP
Unexpected Heritage Item Recording Form	Within 24 hours of encounter with an unexpected heritage item	Project Archaeologist Construction Contractor Environmental Advisor	HMP
Notification to Heritage NSW	Following encounter with an unexpected heritage item	Project Archaeologist Construction Contractor Environmental Advisor Neoen Project Manager	HMP
Registration of unexpected Aboriginal heritage finds in the AHIMS	Within a reasonable period of encounter with unexpected aboriginal heritage item	Project Archaeologist	HMP

Report	Frequency	Responsibility	Reference
Notification to NSW Police	Immediately after encounter with human remains	Project Archaeologist Construction Contractor Environmental Advisor Neoen Project Manager	HMP
Waste Management Register	Throughout construction and as required	Construction Contractor Environmental Advisor	WMP
Employee Listing Register	Daily	All site personnel	ERP
Post emergency incident report	Following the occurrence of an emergency incident	Chief Warden Environmental Advisor	ERP
Report on the presence of weeds and unsound trees together with written notice that limits of clearing and areas of weed infestation identified in the Ecologist report have been marked out	At least seven working days prior to the commencement of clearing	Contractor Site Environmental Representative Project Ecologist	BMP
Pre-clearing Survey Report	Prior to undertaking clearing	Contractor Site Environmental Representative Project Ecologist	BMP
Post-Clearing Report	Weekly, and a final report within 21 days from the completion of substantial clearing	Contractor Site Environmental Representative Project Ecologist	BMP
Compliance Reports	Monthly	Contractor Site Environmental Representative Project Ecologist	BMP
Unexpected Threatened Species Finds	As required	All staff	BMP
Koala Sighting Register	As required	All staff	BMP
Fauna Interaction Register	As required	Contractor Site Environmental Representative Project Ecologist	BMP
Pest and Weed Monitoring Report	Following baseline surveys 6 monthly (in time with weed spraying)	Contractor Site Environmental Representative Project Ecologist	BMP
Turbidity of Carlisles Gully Catchment and water quality	Monthly	Contractor Site Environmental Representative	ESCP

7.4 Review and Continuous Improvement

Continual improvement of this EMS will be completed as part of the records and reporting process described in the sections above. The continual improvement process will aim to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-compliances and incidents
- Develop and implement a plan of corrective action to address any non-compliances and incidents
- Verify the effectiveness of the corrective actions
- Document any changes in procedures resulting from process improvement.

7.4.1 Updates and amendments

This EMS is a live document and will be updated periodically if new technology emerges, new environmental legislation, and standards for environmental performance are adopted industry wide that justify an update. Any proposed updates will be provided to the Neoen Project Manager, DPHI and other stakeholders as relevant.

Key events that will trigger a requirement to review, and if necessary, revise this EMS include:

- Findings from incidents and non-compliances
- Findings from inspections and internal/external auditing processes
- Findings from additional investigations or surveys
- As requested by Neoen Project Manager and/or DPHI.

Changes to the Project may also occur such as through detailed design development or construction methodology. This may trigger the need to undertake a consistency assessment or modification to the Development Consent, and subsequently an update to the EMS and management plans.

The EMS will be reviewed as a minimum at the commencement of each phase and activity identified in Table 2-2 following a review of the risk register as described in Section 5.2

New environmental aspects and impacts that are identified, surveys, or detailed design development will be incorporated into the EMS and associated management plans as relevant. Changes may trigger a requirement to undertake a consistency assessment or modifications to the Project approval.

If boundary changes are required, this will be incorporated into this EMS, as well as the aspects specific management plan.

In addition to the above, and in accordance with NSW CoC C2, strategies, plans or programs required under this consent will also be revised to the satisfaction of the Planning Secretary within 1 month of the:

- Submission of an incident report under condition C10 of Schedule 2 (Refer to Section 6.1.2)
- Submission of an audit report under condition C14 of Schedule 2; (Refer to Section 7.2.1) or
- Any modification to the conditions of this consent.

APPENDIX A EMS Preparation Checklist

Requirement	Plan reference	Yes / No / N/A
Document preparation and endorsement		
Has the EMP been prepared in consultation with all relevant stakeholders as per the requirements of the conditions of consent? (Section 4.1)	Section 1.5 of this EMS Section 1.6 and Appendix A of each management plan	Yes
Have the views of the relevant stakeholders been taken into consideration?	Section 1.6 and Appendix A of each management plan	Yes
Have appropriate amendments been made to the EMP and does the EMP clearly identify the location of any changes? (Section 4.1)	Section 1.6 and Appendix A of each management plan	N/A
Has the EMP been internally approved by an authorised representative of the proponent or contractor? (Section 4.2)	Section 1.5 of this EMS Section 1.5 of the management plans	Yes
Version and content		
Does the EMP describe the proponent's Environmental Management System (EMS) (if any), and Identify how the EMP relates to other documents required by the conditions of consent? (Section 3.5.1)	Section 3.1 of this EMS Section 1.4 of the management plans	Yes Yes
Does the EMP include the required general content and version control information? (Section 3.1)	Revision table on page i provide version control Table 1-1 (NSW CoCs) Table 1-2 (EMMs) Appendix A (EMS Checklist) Appendix B (EPBC CoAs and NSW CoC)	Yes
Does the EMP have an introduction that describes the project, scope of works, site location and any staging or timing considerations? (Section 3.2)	Section 2.1 (Project overview) Figure 2-1 Section 2.2 (Construction activities)	Yes
Does the EMP reference the project description? (Section 3.3)	Section 2.1 (Project overview)	Yes
Does the EMP reference a Community and Stakeholder Engagement Plan (or similar) or include community and stakeholder engagement actions (if required)? (Section 3.4)	Section 3.1 Table 1-3	Yes
Have all other relevant approvals been identified? Has appropriate information been provided regarding how each approval is relevant? (Section 4)	Sections 1.1 Section 1.4 Table 1-1 (NSW CoCs) Table 1-2 (EMMs) Appendix A (EMS Checklist) Appendix B (NSW CoCs)	Yes
Has the environmental management structure and responsibilities been included? (Section 3.5.2)	Section 3.2	Yes

Requirement	Plan reference	Yes / No / N/A
Does the EMP include processes for training of project personnel and identify how training and awareness needs will be identified? (Section 3.5.4)	Section 3.4	Yes
Does the EMP clearly identify the relevant legal and compliance requirements that relate to the EMP? (Section 3.5.3)	Section 4.1 Appendix B	Yes
Does the EMP include all the conditions of consent to be addressed by the EMP and identify where in the EMP each requirement has been addressed? (Section 3.5.13)	Table 1-1 (NSW CoCs) Table 1-2 (EMMs) Appendix B (NSW CoCs)	Yes
Have all relevant guidelines, policies and standards been identified, including details of how they are relevant? (Section 3.5)	Sections 4.1 Appendix B (NSW CoCs) Section 3 of each management plan	Yes
Is the process that will be adopted to identify and analyse the environmental risks included? (Section 3.5.5)	Section 5.2	Yes
Have all the environmental management measures in the EIA been directly reproduced into the EMP? (Section 3.5.7)	Section 6 of each management plan	Yes
Have any additional environmental management measures been included in the EMP? (Section 3.5.7)	Section 6 of each management plan	Yes
Have environmental management measures been written in committed language? (Section 3.5.7)	Section 6 of each management plan	Yes
Have project environmental management measures, including hold points, been identified and included? (Section 3.5.6)	Section 6 of each management plan	Yes
Are relevant details of environmental monitoring that will be carried out included? (Section 3.5.8)	Section 7.1 Table 7-2 (monitoring) Section 7 of each relevant management plan	Yes
Have the components of any environmental monitoring programs been incorporated? (Section 3.5.8)	Section 7.1 Table 7-2 (monitoring) Section 7 of each relevant management plan	Yes
Are environmental inspections included? (Section 3.5.9)	Section 7.1 Table 7-1 (inspections) Section 7 of each relevant management plan	Yes
Does the EMP document all relevant compliance monitoring and reporting requirements for the project? (Section 3.5.12 and 3.5.13)	Section 7.3 (reporting) Table 7-3 (summary of reporting) Section 7 of each management plan	Yes
Does the EMP describe the types of plans or maps (such as environmental control maps) that will be used to assist with the management of environmental matters on site? (Section 3.5.10)	Section 3.1.5 Appendix C (sensitive area maps) Appendix D (EWMS template) Section 4 of each management plan	Yes

Requirement	Plan reference	Yes / No / N/A
Does the EMP list environmental management documents? (Section 3.5.11)	Section 3.1 Table 3-1	Yes
Is an auditing program referenced? (Section 3.5.13)	Section 7.2	Yes
Does the EMP include the incident notification and reporting protocols that comply with the relevant conditions of consent? (Section 3.5.15)	Section 6.1	Yes
Does the EMP identify the project role/position that is responsible for deciding whether an occurrence is an incident? (Section 3.5.15)	Section 6.1	Yes
Does the EMP describe a corrective and preventative action process that addresses the requirements? (Section 3.5.16)	Section 6.2	Yes
Does the EMP include details of a review and revision process that complies with the requirements? (Section 3.6)	Section 7.4	Yes

Department of Planning, Housing & Infrastructure

Our ref: SSD-10807896-PA-7

Alexis Good
Project Manager
Neoen Australia Pty Ltd
Level 6, 16 Marcus Clarke Street
Canberra ACT 2601

31/07/2024

Subject: Thunderbolt Wind Farm – Request for Staging of Management Plans

Dear Ms. Good,

I refer to your request dated 30 July 2024 seeking the Planning Secretary's approval to revise the staging in accordance with the Development Consent for the Thunderbolt Wind Farm (SSD-10807896).

The Department has reviewed your proposal to develop the project in three stages comprising:

- Stage 1: Construction of the Thunderbolt Wind Farm.
- Stage 2: Operation of the Thunderbolt Wind Farm.
- Stage 3. Decommissioning of the Thunderbolt Wind Farm at end of life.

This staging applies to the following strategies and plans:

- Biodiversity Management Plan (Condition B25).
- Heritage Management Plan (Condition B29).
- Traffic Management Plan (Condition B34).
- Emergency Plan (Condition B42).
- Environmental Management Strategy (Condition C1).

Neoen intends to further stage the Traffic Management Plan as follows:

- Stage 1a: Construction of the Thunderbolt Wind Farm Project access point off the New England Highway.
- Stage 1b: Commence construction of the wind farm and construction of the balance of the road upgrades detailed in Table 7-2 of Appendix 7 of the Development Consent.
- Stage 1c: Continue construction of the wind farm and the transport of over-size over-mass (OSOM) vehicles.

The Department notes that:

- Neoen has committed to supporting each of the above stages with relevant strategies, plans and programs.
- Transport for NSW has raised no objections to staging.
- Neoen has committed to meet obligations, including consultation with stakeholders, prior to each respective stage of the development.

Accordingly, in accordance with Schedule 2, Condition 3 of the Development Consent, as nominee of the Planning Secretary, I approved the staging strategy for Thunderbolt Wind Farm.

If you wish to discuss the matter further, please contact Katie Weekes on (02) 49273223 or via email at katie.weekes@dpie.nsw.gov.au.

Yours sincerely

Nicole Brewer
Director
Energy Assessments

As nominee of the Planning Secretary

APPENDIX B Legal and other Requirements

B1: Legislation Register

B2: Development Consent

B3: EMMs

B1: Legislation Register

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
Approvals						
Environmental Planning and Assessment Act 1979 (EP&A Act)	All	Approval for the Project was granted by the Independent Planning Commission (IPC) on 8 May 2024, (SSD-10807896), under Division 4.7 of the EP&A Act as State Significant Development (SSD).	Comply with the NSW CoC for the Project. Obtain the Minister's approval for any Project modifications that are not consistent with the planning approval.	S5.14 S5.25	Yes	EMS Section 1.1 Section 3.3 of each management plan
Environment Protection and Biodiversity Act 1999 (EPBC Act)	All Vegetation clearance Flora and fauna conservation	The EPBC Act requires the approval of the Minister for the Environment for actions that may have a significant impact on matters of national environmental significance. The EPBC Act also requires Commonwealth approval for certain actions on Commonwealth land. This Project was also deemed a controlled action under the EPBC Act (EPBC Number: 2021/9048) on 28 October 2021. It was assessed under the bilateral agreement between the NSW and Commonwealth Governments and approved on 8 May 2024.	Construction of the Project must comply with the terms of the Commonwealth Approval for the Project. Do not kill, injure or take a member of a listed threatened species without a permit.	All	Yes	EMS Section 1.1 Appendix E BMP Section 3.2
Water						
Water Management Act 2000 (WM Act)	Water access and use	Permits are normally only required for projects that use water for a particular purpose (e.g., irrigation), or water supply work, drainage work or a flood work or undertake works within 40 metres of a water course. Water supply for the Project would likely be sourced from commercial suppliers in the nearby region (via water trucks), farm dams or licensed groundwater bores located within the Project Area (subject to availability).	With the exception of controlled activity approvals, the WM Act only applies in relation to those water sources covered by operational water sharing plans. Under S4.41 of the EP&A Act, water management work and an activity approval under S89, 90 and S91 of the WM Act, are not required for SSD projects.	S89 S90	No	Section 5.3

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
Water Management Act 2000 Water Management (General) Regulation 2011	Waterfront land	There are a number of ephemeral streams traversing the Project Area. While the Project design has aimed to avoid works close to or within waterways, several waterway crossings will be required for site access, internal access roads and the electrical cabling layout.	Do not deposit material, excavate, or remove material within a watercourse bank, shore or bed, or on land 40 metres inland, or interfere with the likely flow of water to such a body, without a controlled activity approval. Under S4.41 of the EP&A Act, water management work and an activity approval under S89, 90 and S91 of the WM Act, are not required for SSD projects.	S91	No cl.39 of the Reg	Section 5.3 and Appendix K
Water Management Act 2000	Water access and use – aquifer interferences	Given the depths to groundwater in bores in the vicinity of the Project Area are in excess of 20 metres below ground level, interception of the regional groundwater table is not anticipated. As such, no depressurisation impacts on groundwater are expected as a consequence of the Project.	An aquifer interference approval/licence may be required under S91(3) if construction requires intersection of a groundwater source.	S91	Yes	Section 5.3 and Appendix K
Protection of the Environment Operations Act 1997 (POEO Act)	Water pollution	The EPA issues EPLs to the owners or operators of various industrial premises under the POEO Act. Licence conditions generally relate to pollution prevention and monitoring.	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of an EPL.	S120 S122	Yes	Section 5.3 and Appendix K 0
Noise						
Protection of the Environment Operations Act 1997	Plant maintenance and operation Materials management	The EPA issues EPLs to the owners or operators of various industrial premises under the POEO Act. Licence conditions generally relate to pollution prevention and monitoring.	Do not operate plant if it emits noise caused by poor maintenance or operation. Do not cause noise by failing to properly and efficiently deal with materials.	S139 S140	Yes	Section 5.5
Contaminated material						
Protection of the Environment Operations Act 1997	Land pollution	The EPA issues EPLs to the owners or operators of various industrial premises under the POEO Act. Licence conditions generally relate to pollution prevention and monitoring.	Do not cause or permit land pollution other than under authority of a licence or regulation. However, it is not a land pollution offence to place virgin excavated natural material or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the EPA	S142A – S142E	Yes	This EMS

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
			as an unlicensed landfill and which is operated in accordance with the regulations.			
Contaminated Land Management Act 1997 (CLM Act)	Reporting contamination	The principal object of the CLM Act is to establish a process for investigating and, where appropriate, remediating land that the EPA considers to be contaminated significantly enough to require regulation. The Act outlines investigative processes for land contamination should it occur on the premises.	Notify the EPA if; • Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water. • Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land. • Contamination meets other criteria that may be prescribed by the regulations.	S60	Yes	This EMS
Biodiversity						
Biodiversity Conservation Act 2016 (BC Act)	Fauna Habitat Biodiversity Flora	This Act aims to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. The BC Act supersedes Parts 7-9 of the *National Parks and Wildlife (NPW) Act 1974* and where Part 2 outlines requirements relating to the protection of flora and fauna.	Do not harm any animal that is; a threatened species, that is part of a threatened ecological community or is a protected animal, unless authorised under other legislation (e.g., planning approval). Do not damage habitat of a threatened species or ecological community unless authorised under other legislation (e.g., planning approval). Do not damage declared areas of outstanding biodiversity value unless authorised under other legislation (e.g., planning approval). Do not pick a plant that is; a threatened species, part of a threatened ecological community or is a protected plant, unless authorised under other legislation (e.g., planning approval).	S2.1 (fauna) S2.8 (fauna) S2.4 (habitat) S2.8 (habitat) S2.3 (Biodiversity) S2.8 (Biodiversity) S2.2 (flora) S2.8 (flora	Yes	Appendix E BMP

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
Biosecurity Act 2015	Weeds	The primary object of this Act is to provide a framework for the prevention, elimination and minimisation of biosecurity risks posed by biosecurity matter, dealing with biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter, carriers or potential carrier	Manage weeds on site in accordance with the relevant Regional Strategic Weed Management Plan and BMP	S22	Yes	Appendix E BMP
Biosecurity Regulation 2017	Pests and Diseases	The Regulation identifies the declared pests (Schedule 1) and weeds (Schedule 3)	Notify the presence of any pest or disease listed in Schedule 1 within one working day after suspecting or becoming aware of the pest or disease.	Regulation cl.7 Schedule 1 Schedule 3	Yes	Appendix E BMP
Fisheries Management Act 1994	Dredging or reclamation Fish passage	Permits under the *Fisheries Management Act 1994* are normally required for projects that: • Dredge or reclaim land (i.e., any excavation within or filling of water land) (Section 201) • Harm (cut, remove, damage, destroy, shade etc) marine vegetation (mangroves, seagrass and seaweeds) (Section 205) • Obstruct the free passage of fish (Section 219).	Provide the Minister for Primary Industries 28 days-notice of planned dredging or reclamation work.	S199	No	Appendix E BMP
			Do not block fish passage without a permit	S219	No	Appendix E BMP

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
Waste						
Protection of the Environment Operations Act 1997 Protection of the Environment Operations (Waste) Regulation 2005	Littering	An EPL will be required for the Project as it is defined as a scheduled activity (road construction) that would result in the extraction or process of more than 50,000 tonnes of material in a regulated area. Under Section 4.41 of the EP&A Act, an EPL cannot be refused if it is necessary for carrying out approved SSD and is to be substantially consistent with the EP&A Act approval.	Do not litter in a public place or an open private place.	Part 5.6A	Yes	Appendix J WMP
	Waste and transportation Waste and transportation		Do not undertake a scheduled waste activity unless in accordance with an EPL. A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties.	Part 3.2 Schedule 1	Yes	Appendix JWMP
			Only transport waste to a facility that can lawfully accept the waste.	S143	Yes	Appendix J WMP
			Do not dispose of waste in a manner that harms or is likely to harm the environment.	S115	Yes	Appendix J WMP
			Comply with general requirements for the transport of waste. For some wastes only licensed transporters can be used.	Regulation cl.49	Yes	Appendix J WMP
			Comply with record keeping requirements in relation to the transport of certain types of waste.	Regulation Part 3	Yes	Appendix J WMP
Heritage						
Heritage Act 1977	Excavation Unexpected finds for Aboriginal and non-Aboriginal heritage	Approval is normally required for projects that will or are likely to result in a historic heritage item being discovered, exposed, moved, damaged or destroyed. An Aboriginal cultural heritage assessment (ACHA) has been prepared for the Project in collaboration with the Registered Aboriginal Parties (RAPs) to assess the Aboriginal heritage values (cultural and archaeological) of the Project Area and surrounds as part of the	Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council.	S56-57	Yes	Appendix G HMP
			Do not disturb or excavate land on where a relic has been discovered or exposed.	S139	No	Appendix G HMP
			Notify the heritage Council on discovery of a relic	S146	Yes	Appendix G HMP

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
		EIS. The conceptual layout has been developed to maximise the use of existing disturbed areas and avoid and minimise impact to identified Aboriginal Archaeological constraints.				
National Parks and Wildlife Act 1974	Aboriginal places and objects	Part 6 of the Act relates to Aboriginal objects and places. A permit is normally required for projects that will or are likely to impact on items of Aboriginal heritage.	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	S86 S90	No	Appendix G HMP
			Notify the National Parks and Wildlife Service (NWPS) within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	S89A	Yes	Appendix G HMP
Roads						
Roads Act 1993	Work on or over roads	The Act is the overarching legislation regarding the roads in NSW and defines the rights of the public to access public roads and owners of land adjacent a public road, establishes the procedures of opening and closing a road and conferring the function (including carrying out road works) to TfNSW.	Consent is required if undertaking any of the following activities during the construction: • Erect a structure or carry out work in, on or over a public road • Excavate or disturb the surface of a public road • Remove or interfere with a structure, work or tree on a public road • Pump water into a public road from any land adjoining the road • Connect a road (whether public or private) to a classified road	S138	Yes	Appendix H TTMP

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
General						
Protection of the Environment Operations (POEO) Act 1997	Water, air and noise pollution Excavation	An EPL will be required for the Project as it is defined as a scheduled activity (road construction) that would result in the extraction or process of more than 50,000 tonnes of material in a regulated area. Under Section 5.24 of the EP&A Act, an EPL cannot be refused if it is necessary for carrying out approved SSI and is to be substantially consistent with the EP&A Act approval.	Do not undertake a scheduled waste activity unless in accordance with an EPL. Do not cause or permit land pollution other than under authority of a licence or regulation. Minimise noise and dust emissions	S115-117 (general harm) S148 (notify)	Yes	Section 5.3 Section 4.1 Section 5.5 Appendix J WMP
	Control equipment		Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices)	S167	Yes	Section 5.3 and Appendix K
	Notification of pollution incidents		Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	S148	Yes	This EMS Section 6
	Site licensing		Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity, unless the premises are licensed by the EPA. Do not undertake a scheduled waste activity unless in accordance with an EPL.	S47 S48	Yes	Section 4.1
Environmentally Hazardous Chemicals Act 1985	Hazards and risks	This Act is the primary legislation for specifically regulating environmentally hazardous chemicals throughout their life cycle. The Act sets out requirements for chemical control orders (CCOs), technology assessments, and licencing	Obtain a licence to undertake prescribed activities involving environmentally hazardous chemicals or declared chemical wastes.	S28	Yes	Section 4.1
Rural Fires Act 1997	Bushfire risk Hot works	The Act provides for the prevention, mitigation and suppression of bush and other fires in local government area. The site of the Project is partially mapped as bushfire prone, however, the Project is not a Special Fire Purpose development.	Exemptions can be sought to allow hot works to be undertaken on Total Fire Ban days.	Division 6 S99	Yes	Appendix I ERP

Act	Activity / aspect	Description	Requirement	Act / Regulation Reference	Division 4.7 applicability	Document Reference
National Greenhouse and Energy Reporting Act, 2007 (NGER Act) and Regulations 2008 (commonwealth)	Greenhouse gas emissions	The NGER Act establishes the legislative framework for the NGER Scheme which is a national framework for reporting greenhouse gas emissions, greenhouse gas projects and energy consumption and production by corporations in Australia. All registered controlling corporations are required to submit an NGER report each year until the corporation is deregistered. This obligation applies even if the corporation's group falls below all reporting thresholds.	Accounting and reporting of greenhouse gases produced and energy consumed during construction. Applicability dependent on thresholds.	-	Yes	Section 4.1
Pesticides Act 1999	Hazards and risks	The Act aims to promote the protection of human health, the environment, property and trade in relation to the use of pesticides, having regard to the principles of ecologically sustainable development within the meaning of the *Protection of the Environment Administration Act 1991*.	Use pesticides in an environmentally sensitive manner. Do not use an unregistered pesticide without a permit. Read the label or permit for the pesticide. Use registered pesticides in accordance with instructions on the label. Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act. Compliance with pesticide codes of practice is required.	S12 S13 S14 S15 S17	Yes	Appendix E BMP

B2: Development Consent

ID	Condition	Timing	Document Reference
PART A: ADMINISTRATIVE			
Obligation to Minimise Harm to the Environment			
A1	In meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction, commissioning, operation, upgrading, rehabilitation or decommissioning of the development.	Construction and Operation	Section 1.2 of this EMS
Terms of Consent			
A2	The development may only be carried out: (a) in compliance with the conditions of this consent; (b) in accordance with all written directions of the Planning Secretary; (c) generally in accordance with the EIS; and (d) generally in accordance with the Development Layout in Appendix 1.	Construction and Operation	Section 1.2 of this EMS
A3	The Applicant must comply with any requirement/s of the Planning Secretary arising from the Department's assessment of: (a) any strategies, plans or correspondence that are submitted in accordance with this consent; (b) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and (c) the implementation of any actions or measures contained in any such document referred to in condition A3(a) above.	Construction and Operation	Section 1.2 of this EMS
A4	The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition A2(c) or A2(d). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c) or A2(d), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.	Construction and Operation	Section 1.3 of this EMS
Limits on Consent			
Winds Turbines			
A5	A maximum of 32 wind turbines may be constructed and operated on the site.	Construction and Operation	Section 2 of this EMS
Winds Turbine Height			
A6	The maximum permitted height of any wind turbine (measured from the above ground level to the blade tip height) is 260 metres.	Construction and Operation	Section 2 of this EMS

ID	Condition	Timing	Document Reference
Micro-siting restrictions			
A7	Wind turbines and ancillary infrastructure may be micro-sited without further approval providing: (a) the surface disturbance remains within the development corridor (with the exception of wind monitoring masts) shown on the figure in Appendix 1; (b) no wind turbine is moved more than 100 metres from the relevant GPS coordinates shown in Appendix 2; (c) the revised location of the blade tip of a wind turbine is at least 50 metres away from the canopy of native vegetation; or where the proposed location of the blade tip of a wind turbine is already within 50 metres of the canopy of native vegetation, the revised location is not any closer to the native vegetation; (d) the revised location of a wind turbine will not increase the turbine's biodiversity risk rating, as assigned in the finalised Biodiversity Development Assessment Report (BDAR) dated 1 November 2023; (e) the revised location of the wind turbine and/or ancillary infrastructure would not result in any non-compliance with the conditions of this consent; and (f) the wind monitoring masts are located within the development corridor where possible and their development would not result in any non-compliance with the conditions of this consent.	Construction	EWMS
Upgrading of Wind Turbines and Ancillary Infrastructure			
A8	The Applicant may replace or upgrade the wind turbines and ancillary infrastructure on site provided these upgrades remain within the approved development disturbance area. Prior to carrying out any such upgrades, the Applicant must provide revised layout plans and project details of the development to the Planning Secretary incorporating the proposed upgrades.	Operation	Not triggered
Structural Adequacy			
A9	The Applicant must ensure that: (a) the wind turbines are constructed in accordance with the relevant standards, including the structural design requirements of IEC 61400-1 Wind Turbines – Part 1: Design Requirements (or equivalent); and (b) all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the BCA. *Notes:* • *Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.* • *EP&A Development Certification and Fire Safety Regulation 2021 sets out the requirements for the certification of the development.*	Construction	Not triggered, would be required prior to delivery of turbines once turbine supplier is confirmed
Demolition			
A10	The Applicant must ensure that all demolition work on site is carried out in accordance with *AS 2601-2001: The Demolition of Structures* (Standards Australia, 2011), or its latest version.	Decommissioning	Not triggered

ID	Condition	Timing	Document Reference
Protection of Public Infrastructure			
A11	Unless the Applicant and the applicable authority agree otherwise, the Applicant must: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. *Note: This condition does not apply to the upgrade and maintenance of the road network, which is expressly provided for in the conditions of this consent.*	Construction	Not triggered
Operation of Plant and Equipment			
A12	All plant and equipment used on site, or in connection with the development, must be: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Construction	Sections 5.4 and 5.5 of this EMS
Subdivision			
A13	The Applicant may subdivide land comprising the site for the purposes of carrying out the development as generally identified in Appendix 4 and in accordance with the requirements of the EP&A Act, EP&A Regulation and the *Conveyancing Act 1919* (NSW). *Notes:* • *Under Part 6 of the EP&A Act, the Applicant is required to obtain a subdivision certificate for a plan of subdivision.* • *Division 6.4 of Part 6 of the EP&A Act sets out the application requirements for subdivision certificates.*	Pre-construction	Not triggered
Applicability of Guidelines			
A14	References in the conditions of this consent to any guideline, protocol Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.	Construction and Operation	Section 4.1.3 of this EMS
A15	However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.	Construction and Operation	Section 7.4 of this EMS
Compliance			
A16	The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.	Construction and Operation	Section 3.3 of this EMS
Evidence of Consultation			
A17	Where conditions of this consent require consultation with an identified party, the Applicant must: (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and	Construction and Operation	Section 1.5 of this EMS

ID	Condition	Timing	Document Reference
	(b) provide details of the consultation undertaken including: (i) the outcome of that consultation, matters resolved and unresolved; and (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.		Section 1.4 and Appendix A of each management plan
Community Consultative Committee			
A18	The Applicant must operate a Community Consultative Committee (CCC) for the development in accordance with the Department's Community Consultative Committee Guideline: State Significant Projects (2023), or its latest version. The Applicant must consult the CCC in relation to opportunities for local conservation groups to participate in revegetation activities.	Construction	Section 3.4.3 of this EMS
Community Enhancement			
A19	Prior to commencing construction, or other timeframe agreed by the Planning Secretary, the Applicant must enter into a VPA with Uralla Shire Council in accordance with: (a) Division 7.1 of Part 7 of the EP&A Act; (b) the terms of the Applicant's offer to Uralla Shire Council dated 6 March 2024 summarised in Appendix 3.	Prior to construction commencing	Not relevant to the EMS
A20	Within 6 months of the date of commencement of this development, or other timeframe agreed by the Planning Secretary, the Applicant must enter into a Community Benefit Fund or Voluntary Planning Agreement (VPA) with Tamworth Regional Council in accordance with: (a) Division 7.1 of Part 7 of the EP&A Act; and (b) the terms of the Applicant's offer in Appendix 3.	Within 6 months of the date of commencement of this development	
A21	If the Applicant and Tamworth Regional Council do not enter into a VPA or other agreement within the timeframe specified under condition A20, then within a further 3 months, the Applicant must make a Section 7.12 of the EP&A Act contribution to Tamworth Regional Council for a total of $2,242,200. The amount is to be adjusted at the time of actual payment in accordance with the provisions of the Tamworth Regional Council Section 94 (Indirect) Development Contributions Plan 2013 and directed to infrastructure, services and community projects in towns, villages and rural areas within the Tamworth LGA.	Within a further 3 months from NSW CoC A19	Not relevant to the EMS
PART B SPECIFIC ENVIRONMENTAL CONDITIONS			
Visual			
Visual Impact Mitigation			
B1	For a period of 5 years from the commencement of construction, the owner of any non-associated residence within 5.1 km of any wind turbine identified in the Final Layout Plan may ask the Applicant to implement visual impact mitigation measures on their land to minimise the visual impacts of the development on their residence (including its curtilage).	Within 5 years of the commencement of construction	Design Report Landscaping plan

ID	Condition	Timing	Document Reference
B1	Upon receiving such a written request from the owner of these residences, the Applicant must implement appropriate mitigation measures (such as landscaping and vegetation screening) in consultation with the owner. These mitigation measures must: (a) be reasonable and feasible; (b) be aimed at reducing the visibility of the wind turbines from the residence and its curtilage, and commensurate with the level of visual impact on the residence; (c) consider bushfire risk (including the provisions of Planning for Bushfire Protection 2019); (d) consider vegetation that may have been removed by the Applicant for road upgrades or other works within the site; and (e) be implemented within 12 months of receiving the written request, unless the Planning Secretary agrees otherwise. If the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution. *Notes:* • *To avoid any doubt, mitigation measures are not required to be implemented to reduce the visibility of wind turbines from any other locations on the property other than the residence and its curtilage.* • *• The identification of appropriate visual impact mitigation measures will be more effective following the construction of the wind turbines. While owners may ask for the implementation of visual impact measures shortly after the commencement of construction, it is recommended owners consider whether there is benefit in delaying such a request until the relevant wind turbines are visible from their residence or its curtilage.*	Implemented within 12 months of receiving the written request, unless the Planning Secretary agrees otherwise	Design Report Landscaping plan
Visual Appearance			
B2	The Applicant must: (a) take all reasonable steps to minimise the off-site visual impacts of the development; (b) ensure the wind turbines are: (i) painted off white/grey, unless otherwise agreed by the Planning Secretary; and (ii) finished with a surface treatment that minimises the potential for glare and reflection; (c) ensure the visual appearance of all ancillary infrastructure (including paint colours, specifications and screening) blends in as far as possible with the surrounding landscape; and (d) not mount any advertising signs or logos on wind turbines or ancillary infrastructure (except where required for safety or emergency purposes).	Design	Not triggered
Lighting			
B3	The Applicant must: (a) consult with CASA regarding night time obstacle lighting requirements and, if required, ensure obstacle lights are energised during hours of darkness in accordance with CASA's recommendations; (b) minimise the off-site lighting impacts of the development;	Design and Operation	Not triggered

ID	Condition	Timing	Document Reference
	(c) ensure that any aviation hazard lighting complies with CASA's recommendations; (d) minimise the visual impacts of any aviation lights by implementing measures including as appropriate in the circumstances: (i) partial shielding of lights; (ii) operating the lights only at night or during times of reduced visibility; and (iii) turning the lights on and off simultaneously; and (e) ensure that all external lighting associated with the development (apart from any aviation hazard lighting): (i) is installed as low intensity lighting (except where required for safety or emergency purposes); (ii) does not shine above the horizontal; (iii) uses best management practices for bat deterrence; and (iv) complies with Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version. If there is a dispute about the need for aviation hazard lighting under condition B3(c), including which wind turbines are to be lit, then either party may refer the matter to the Planning Secretary for resolution.		
Shadow Flicker			
B4	The Applicant must ensure that shadow flicker associated with wind turbines does not exceed 30 hours per annum at any non-associated residence.	Design and Operation	Not triggered
Noise and Vibration			
Construction Hours			
B5	Road upgrades, construction, demolition, upgrading or decommissioning activities (excluding blasting) may only be undertaken between: (a) 7 am to 6 pm Monday to Friday; (b) 8 am to 1 pm Saturdays; and (c) at no time on Sundays and NSW public holidays; unless the Planning Secretary agrees otherwise.	Construction	Section 2.4 of this EMS
Exceptions to Construction Hours			
B6	The following activities may be carried outside the hours specified in condition B5 above: (a) activities that are inaudible at non-associated residences; (b) the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons; or (c) emergency work to avoid the loss of life, property or prevent material harm to the environment.	Construction	Section 2.4 of this EMS

ID	Condition	Timing	Document Reference
Variation of Construction Hours			
B7	The hours of construction activities specified in condition B5 of this approval may be varied with the prior written approval of the Planning Secretary. Any request to alter the hours of construction must be: (a) considered on a case-by-case or activity-specific basis; (b) accompanied by details of the nature and justification for activities to be conducted during the varied construction hours; (c) accompanied by written evidence that appropriate consultation with potentially affected sensitive receivers and notification of Councils (and other relevant agencies) has been or will be undertaken; (d) accompanied by evidence that all feasible and reasonable noise mitigation measures have been put in place; and (e) accompanied by a noise impact assessment consistent with the requirements of the Interim Construction Noise Guideline (DECC, 2009), or its latest version.	Construction	Section 2.4 of this EMS
Construction and Decommissioning			
B8	The Applicant must take all reasonable steps to minimise the construction or decommissioning noise of the development, including any associated traffic noise.	Construction and Decommissioning	Section 5.5 Table 5-7 of this EMS
B9	The Applicant must ensure that the noise generated by any construction or decommissioning activities is managed in accordance with the requirements outlined in the Interim Construction Noise Guideline (DECC, 2009) (or its latest version).	Construction and Decommissioning	Section 5.5 of this EMS
B10	The Applicant must comply with the following vibration limits: (a) vibration criteria established using the Assessing vibration: a technical guideline (DEC, 2006) (for human exposure); (b) BS 7385 Part 2-1993 “Evaluation and measurement for vibration in buildings Part 2” as they are “applicable to Australian conditions”; and (c) vibration limits set out in the German Standard DIN 4150-3: Vibrations in buildings – Part 3: Effects on Structures.	Construction and Decommissioning	Section 5.5.2 of this EMS
Blasting			
B11	Blasting may only be carried out on site between 9 am and 5 pm Monday to Friday and between 9 am to 1 pm on Saturday. No blasting is allowed on Sundays or NSW public holidays.	Construction and Decommissioning	Section 5.5.5 of this EMS
B12	The Applicant must ensure that any blasting carried out on site does not exceed the criteria in Table 1. **Table 1** Location: Any non-associated residence Airblast overpressure (dB(Lin Peak): 120 Ground vibration (mm/s): 10 Allowable exceedance: 0% Airblast overpressure (dB(Lin Peak): 115 Ground vibration (mm/s): 5 Allowable exceedance: 5% of total number of blasts or events over a rolling period of 12 months	Construction and Decommissioning	Section 5.5.5 of this EMS

ID	Condition	Timing	Document Reference
Operational Noise Criteria – Wind Turbines			
B13	The Applicant must ensure that the noise generated by the operation of wind turbines does not exceed the higher of 35 dB(A) or the existing background noise level (LA90 (10-minute)) plus 5 dB(A) for each integer wind speed, measured at hub height, from cut-in to rated wind turbine generator power, at any non-associated residence. Noise generated by the operation of the wind turbines is to be measured in accordance with the requirements of the Department's *Wind Energy: Noise Assessment Bulletin* (2016) (or its latest version). The noise generated by the operation of the wind turbines must also be adjusted for tonality and low frequency noise in accordance with the Department's Wind Energy: Noise Assessment Bulletin (2016) (or its latest version). However, these criteria do not apply if the Applicant has an agreement with the relevant owner/s of these residences to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.	Operation	Not triggered
Operational Noise Criteria – Ancillary Infrastructure			
B14	The noise generated by the operation of ancillary infrastructure must not exceed 35 dB(A) LAeq(15 minute) at any non-associated residence. Noise generated by the operation of ancillary infrastructure is to be measured in accordance with the relevant requirements of the *NSW Noise Policy for Industry* (2017) (or its equivalent).	Operation	Not triggered
Operational Noise Monitoring			
B15	Within 6 months of the commencement of operations (or the commencement of operation of a stage, if the development is to be staged), the Applicant must: (a) undertake noise monitoring to determine whether the development is complying with the relevant conditions of this consent; and (b) submit a copy of the monitoring results to the Department and the EPA.	Operation	Not triggered
B16	The Applicant must undertake further noise monitoring of the development if required by the Planning Secretary.	Operation	Not triggered
Air			
B17	The Applicant must take all reasonable steps to: (a) minimise the off-site dust, fume and blast emissions of the development; and (b) minimise the surface disturbance of the site.	Construction	Section 5.4 of this EMS Table 5-4 MMAQ4

ID	Condition	Timing	Document Reference
Soil and Water			
Water Supply			
B18	The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply. *Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licenses before commencing any works which intercept or extract groundwater or surface water (unless an exemption applies).*	Construction and Operation	Section 5.3 of this EMS Table 5-2 SW30
Water Pollution			
B19	Unless an EPL authorises otherwise, the Applicant must comply with Section 120 of the POEO Act. *Note: Section 120 of the POEO Act makes it an offence to pollute any waters.*	Construction and Operation	Section 5.3 of this EMS
Operating Conditions			
B20	The Applicant must: (a) minimise erosion and control sediment generation; (b) ensure the wind turbine pads, ancillary infrastructure, access roads and any other land disturbances have appropriate drainage and erosion and sediment controls designed, installed and maintained in accordance with *Best Practice Erosion and Sediment Control* (IECA, 2008) and *Managing Urban Stormwater – Soils and Construction Volume 2C Unsealed Roads* (DECC, 2008), or their latest versions; (c) ensure all waterway crossings are constructed in accordance with the *Water Guidelines for Controlled Activities on Waterfront Land* (DPE, 2022), unless DPE Water agrees otherwise; (d) ensure the concrete batching plants and substation are suitably bunded; (e) minimise any spills of hazardous materials or hydrocarbons, and clean up any spills as soon as possible after they occur; and (f) undertake water turbidity monitoring of Carlisles Gully Catchment for the life of the development to the extent necessary for monitoring any material negative impact of the development on local waterways and make the results available on its website consistent with condition C20.	Construction and Operation	Section 5.3 of this EMS Section 6.3.2 of the ESCP (turbidity monitoring)
Biodiversity			
Vegetation Clearance			
B21	The Applicant must not clear any native vegetation or fauna habitat located outside the development corridor.	Construction	Appendix E BMP
Restrictions on Clearing and Habitat			
B22	Unless the Planning Secretary agrees otherwise, the Applicant must: (a) ensure that the vegetation and habitat clearing limits specified in Tables 1 and 2 of Appendix 5 are not exceeded; and	Construction	Appendix E BMP

ID	Condition	Timing	Document Reference
	(b) minimise: (i) the clearing of native vegetation and key habitat; (ii) the impacts of the development on hollow-bearing trees; and (iii) the impacts of the development on threatened bird and bat populations.		
Biodiversity Offsets			
B23	Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must retire biodiversity credits of a number and class specified in Table 1 and 2 of Appendix 5, unless the Planning Secretary agrees otherwise. The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Scheme and can be achieved by: (a) acquiring or retiring 'biodiversity credits' within the meaning of the Biodiversity Conservation Act 2016; (b) making payments into an offset fund that has been developed by the NSW Government; or (c) funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme.	Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring	Letter notification
B24	Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must provide evidence to the Planning Secretary that biodiversity credits have been retired.	Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring	Letter notification
Biodiversity Management Plan			
B25	Prior to carrying out any development that could impact biodiversity values, unless the Planning Secretary agrees otherwise, the Applicant must prepare a Biodiversity Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: (a) be prepared by a suitably qualified and experienced biodiversity expert/s in consultation with BCS and DCCEEW; (b) be prepared in accordance with the Biodiversity Development Assessment Report (dated 1 November 2023); (c) include a description of the measures that would be implemented to: (i) ensure the development does not adversely affect the native vegetation and habitat outside the disturbance footprint and ensure the restrictions on clearing in condition B22 are met; (ii) minimise the clearing of native vegetation and habitat within the disturbance footprint; (iii) minimise the impacts of the development on threatened flora and fauna species within the disturbance area and its surrounds, including the: • Austral Toadflax • Bell's Turtle • Koala • Spotted-tailed Quoll	Pre-construction	Appendix E BMP

ID	Condition	Timing	Document Reference
	• White-throated Needletail (iv) rehabilitating and revegetating temporary disturbance areas; (v) protecting native vegetation and key fauna habitat outside the approved disturbance area; (vi) maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse (such as fauna habitat enhancement) during the rehabilitation and revegetation of the site; (vii) collecting and propagating seed (where relevant); (viii) controlling weeds and feral pests with consideration to actions identified in relevant Threat Abatement Plans; (ix) controlling erosion; and (x) bushfire management; (d) include a detailed program to monitor and report on the effectiveness of these measures; (e) include details of who would be responsible for monitoring, reviewing and implementing the plan. Following the Planning Secretary's approval, the Applicant must implement the Biodiversity Management Plan.		
Bird and Bat Adaptive Management Plan			
B26	**Prior to the commissioning of any wind turbines**, the Applicant must prepare a Bird and Bat Adaptive Management Plan for the development in consultation with BCS and DCCEEW and to the satisfaction of the Planning Secretary. This plan must be prepared in accordance with the Biodiversity Development Assessment Report (dated November 2023) and include: (a) at least 12 months' worth of baseline data on threatened and 'at risk' bird and bat species and populations in the locality that could be affected by the development; (b) a detailed description of measures that would be implemented on site for minimising bird and bat strike during operation of the development, including: (i) a wind turbine curtailment strategy (if required); (ii) minimising the availability of raptor perches on wind turbines; (iii) prompt carcass removal; (iv) controlling pests; and (v) using best practice methods for bat deterrence, including managing potential lighting impacts; (c) specific thresholds for unacceptable adverse impacts to 'at risk' bird and bat species for turbines T23, T24 and T25; (d) an adaptive management program that would be implemented if the development is having an adverse impact on a particular threatened or 'at risk' bird and/or bat species or populations, including: (i) trigger action response plan to minimise potential impacts of the project; (ii) the implementation of measures to: • reduce the mortality of those species or populations; or • enhance and propagate those species or populations in the locality, where feasible; and (e) a detailed program to monitor and report on:	Prior to the commissioning of any wind turbines,	Appendix F BBAMP

ID	Condition	Timing	Document Reference
	(i) the effectiveness of these measures; and (ii) any bird and bat strikes on site; and (f) provision for a copy of all raw data collected as part of the monitoring program to be submitted to BCS and the Planning Secretary. Following the Planning Secretary's approval, the Applicant must implement the Bird and Bat Adaptive Management Plan.		
Research Program			
B27	The Applicant must prepare and implement a Research Program and allocate $100,000 to this program, prepared in consultation with BCS, and be submitted to the Planning Secretary for approval prior to commencement of operation, which must provide further scientific understanding of the indirect impacts of wind energy projects to avifauna species.	Pre-operation	Not triggered
Heritage			
Protection of Heritage Items			
B28	The Applicant must: (a) ensure the development does not cause any direct or indirect impacts to Aboriginal heritage items identified in Table 1 of Appendix 6, and any items located outside the disturbance area; (b) implement all reasonable and feasible measures to avoid and minimise harm to Aboriginal heritage items identified in Table 2 of Appendix 6; and (c) salvage and relocate items that would be impacted to a suitable alternative location, in accordance with the Heritage Management Plan described in condition B29. *Note: The location of the Aboriginal heritage items referred to in this condition are shown in the figure in Appendix 6.*	Construction	Appendix G HMP
Heritage Management Plan			
B29	Prior to carrying out any works associated with the development that could directly or indirectly impact the heritage items identified in condition B28, the Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: (a) be prepared by a suitably qualified and experienced person whose appointment has been endorsed by the Planning Secretary; (b) be prepared in consultation with Aboriginal stakeholders and reviewed by Heritage NSW; (c) provide an updated list of Aboriginal heritage items identified in condition B29 that would be protected and remain in-situ throughout construction and items that would be salvaged and relocated to suitable alternative locations; (d) include a justification where impacts to Aboriginal heritage items identified in condition B28(b) cannot be avoided; (e) include a description of the measures that would be implemented for: (i) protecting heritage items in accordance with condition B28; (ii) minimising and managing the impacts of the development on Aboriginal heritage items identified in condition B28(b) which cannot be avoided, including;	Prior to carrying out any works associated with the development that could directly or indirectly impact the heritage items identified in condition B28	Appendix G HMP

ID	Condition	Timing	Document Reference
	• salvaging and relocating items to suitable alternative locations; and • a strategy for the long-term management of any Aboriginal and historic heritage items or material collected during the test excavation and salvage works; (iii) a contingency plan and reporting procedure if: • heritage items outside the approved disturbance area are damaged; • previously unidentified heritage items are found; or • skeletal material is discovered; (iv) ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that records are kept of these inductions; and (v) ongoing consultation with Aboriginal stakeholders and Heritage NSW during the implementation of the plan; and (f) Include a program to monitor and report on the effectiveness of these measures and any heritage impacts of the project. Following the Planning Secretary's approval, the Applicant must implement the Heritage Management Plan.		
Transport			
Heavy Vehicles Requiring Escort and Heavy Vehicles Routes			
B30	The Applicant must ensure that all vehicles associated with the development access to and from the site is via Selwyn Street, George Street, Industrial Drive, Maitland Road, New England Highway, John Renshaw Drive, Hunter Expressway, New England Highway, Golden Highway, Thomas Mitchell Drive, Denman Road and: (a) for vehicles transporting turbine blades and loads up to 5.2 m in height: New England Highway, Scott Road, Murray Street, Marius Street, New England Highway; (b) for vehicles with loads exceeding 5.2 m in height: Bengalla Road, Wybong Road, Kayuga Road, Ivermein Street, Stair Street, Dartbrook Mine Access Road, New England Highway, Scott Road, Murray Street, Marius Street, New England Highway; as identified in Appendix 7 unless otherwise agreed by the Planning Secretary and in consultation with the local roads authority.*Note: The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over- dimensional vehicles on the road network.*	Construction	Appendix H TTMP
Road Upgrades			
B31	Unless the Planning Secretary agrees otherwise, the road upgrades identified in: (a) Table 7-1 of Appendix 7 must be implemented in accordance with the relevant timing requirements. (b) Table 7-2 of Appendix 7 must be implemented by the Applicant in accordance with the relevant timing requirements, to the satisfaction of the relevant roads authority and TfNSW. If there is a dispute about the road upgrades to be implemented, or the implementation of these upgrades, then either party may refer the matter to the Planning Secretary for resolution. This consent does not approve the Applicant to undertake upgrades identified in B31(a).	Construction	Appendix H TTMP

ID	Condition	Timing	Document Reference
Road Maintenance			
B32	The Applicant must, in consultation with the relevant Council: (a) undertake an independent dilapidation survey to assess the existing condition of Selwyn Street, George Street, Thomas Mitchell Drive, Bengalla Road, Wybong Road, Kayuga Road, Ivermein Street, Stair Street, Dartbrook Mine Access Road as described in condition B30, prior to construction, upgrading or decommissioning works; and (b) undertake an independent dilapidation survey one month following completion of construction, upgrading or decommissioning works, to assess the condition of Selwyn Street, George Street, Thomas Mitchell Drive, Bengalla Road, Wybong Road, Kayuga Road, Ivermein Street, Stair Street, Dartbrook Mine Access Road, and describe the necessary repairs to return the route to a condition that is equivalent to, or better than, the existing condition identified in B32(a); and (c) repair and/or make good any development-related damage: (i) identified during the carrying out of the relevant construction and/or decommissioning works if it could endanger road safety, as soon as possible after the damage is identified but within 7 days at the latest; and (ii) identified during any dilapidation survey carried in accordance with condition B32(b) within 2 months of the completion of the survey, unless the relevant road authority agrees otherwise; (d) in consultation with the relevant roads authority, to the satisfaction of the Planning Secretary. If there is a dispute between the Applicant and the relevant Council about the repair of the above listed roads, then either party may refer the matter to the Planning Secretary for resolution. If, under condition B30, the Planning Secretary agrees to an alternative route being used during construction and/or decommissioning and the Planning Secretary is satisfied that the alternative route is not a short-term temporary alternative, the requirements of B32 (a)-(c) are to be carried out on local roads in respect of the agreed alternative route.	Pre-construction, Construction and Decommissioning	Appendix H TTMP
Operating Conditions			
B33	The Applicant must ensure: (a) any new internal roads are constructed as all-weather roads; (b) any existing internal roads are maintained as all-weather roads; (c) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site; (d) the capacity of the existing roadside drainage network is not reduced; (e) any unformed Crown road reserves affected by the development are maintained for future use, unless otherwise agreed with DPE Crown Lands (f) any road upgrades that may affect watercourse crossings comply with the Policy and Guidelines for Fish Habitat Conservation and Management (2013), unless otherwise agreed with DPI Fisheries; (g) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and (h) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.	Operation	Not triggered

ID	Condition	Timing	Document Reference
	Note: Clause B33(a)and (b) do not apply to the construction of access tracks or routes associated with temporary water pipelines.		
Traffic Management Plan			
B34	Prior to commencing road upgrades identified in condition B30, the Applicant must prepare a Traffic Management Plan for the development in consultation with TfNSW and Councils, and to the satisfaction of the Planning Secretary. This plan must include: (a) details of the transport route to be used for all development-related traffic; (b) details of the road upgrade works required by condition B32 of Schedule 2 of this consent; (c) details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning works, including: (i) details of the dilapidation surveys required by condition B33; (ii) meeting the operating conditions required by condition B34; (iii) temporary traffic controls, including detours and signage; (iv) notifying the local community about development-related traffic impacts; (v) procedures for receiving and addressing complaints from the community about development-related traffic; (vi) minimising potential cumulative traffic impacts with other State significant development projects in the area; (vii) minimising potential conflict with rail services, stock movements and school buses, in consultation with local schools, including preventing queuing on the public road network; (viii) implementing measures to minimise development-related traffic on the public road network outside of standard construction hours; (ix) minimising dirt/debris tracked onto the public road network from development-related traffic; (x) details of the employee shuttle bus service, including pick-up and drop-off points and associated parking arrangements for construction workers, and measures to encourage employee use of this service; (xi) measures for managing car-pooling or ride sharing by employees; (xii) scheduling of haulage vehicle movements to minimise convoy lengths or platoons, and to minimise conflict with light vehicles; (xiii) responding to local climate conditions that may affect road safety such as fog, dust, wet weather, snow, ice and flooding; (xiv) ensuring loaded vehicles entering or leaving the site have their loads covered or contained; (xv) responding to any emergency repair or maintenance requirements; (xvi) a traffic management system for managing heavy vehicles requiring escort; and (d) a drivers code of conduct that addresses: (i) driver fatigue;	Pre-construction	Appendix H TTMP

ID	Condition	Timing	Document Reference
	(ii) procedures to ensure that drivers to and from the development adhere to the designated vehicle routes and speed limits; (iii) procedures to ensure that drivers implement safe driving practices; and (e) a detailed program to monitor and report on the effectiveness of these measures and the code of conduct. Following the Planning Secretary's approval, the Applicant must implement the Traffic Management Plan.		
Aviation			
Mitigation of Aviation-Related Impacts			
B35	The Applicant must carry out the development in accordance with the National Airports Safeguarding Framework Guideline D: Managing the Risk to Aviation Safety of Wind Turbine Installations (Wind Farms)/Wind Monitoring Towers; or its latest version, unless the Planning Secretary agrees otherwise.	Design and Operation	Not triggered
Notification of Aviation Authorities			
B36	Prior to the construction of a wind turbine or wind monitoring mast, the Applicant must provide the following information to CASA, Airservices Australia, and the RAAF (together the authorities): (a) co-ordinates in latitude and longitude of each wind turbine and mast; (b) the final height of each wind turbine and mast in Australian Height Datum; (c) ground level at the base of each wind turbine and mast in Australian Height Datum; (d) confirmation of compliance with any OLS; and (e) details of any proposed aviation hazard lighting.	Prior to the construction of a wind turbine or wind monitoring mast,	Letter notification
B37	Within 30 days of the practical completion of any wind turbine or mast, the Applicant must: (a) provide confirmation to the authorities that the information that was previously provided remains accurate; or (b) update the information previously provided.	Within 30 days of the practical completion of any wind turbine or mast	Not triggered
Radiocommunications			
B38	If the development results in the disruption to any radio communications services (including point-to-point microwave links) in the area, then the Applicant must make good any disruption to these services as soon as possible following the disruption, but no later than 1 month following the disruption of the service unless the relevant service provider or user or Planning Secretary agrees otherwise. If there is a dispute about the mitigation measures to be implemented or the implementation of these mitigation measures, then either party may refer the matter to the Planning Secretary for resolution.	No later than 1 month following the disruption of the service unless the relevant service provider or user or Planning Secretary agrees otherwise	Not triggered

ID	Condition	Timing	Document Reference
Hazard			
Storage and Handling of Dangerous Goods			
B39	The Applicant must store and handle all chemicals, fuels and oils used on-site in accordance with: (a) the requirements of all relevant Australian Standards; and (b) the NSW EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids.* In the event of an inconsistency between the requirements (a) and (b) above, the most stringent requirement must prevail to the extent of the inconsistency.	Construction and Operation	This EMS
Electric and Magnetic Fields			
B40	The Applicant must ensure that the design, construction and operation of the development is managed to comply with the applicable electric and magnetic fields (EMF) limits in the *International Commission on NonIonizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz)* (ICNIRP, 2010).	Design, construction and operation	Design specifications Appendix I ERP
Operating Conditions			
B41	The Applicant must: (a) minimise the fire risks of the development, including managing vegetation fuel loads on-site; (b) ensure that the development: (i) complies with the relevant asset protection requirements in the RFS's Planning for Bushfire protection 2019 (or equivalent) and Standards for Asset Protection Zones; (ii) is suitably equipped to respond to any fires on site including provision of a 20,000 litre water supply tank fitted with a 65 mm Storz fitting and a FRNSW compatible suction connection located adjacent to an internal access road; (c) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site; and (d) notify the relevant local emergency management committee following construction of the development, and prior to commencing operations.	Operation	Not triggered
Emergency Plan			
B42	Prior to commencing construction, the Applicant must develop a comprehensive Emergency Plan and detailed emergency procedures for the development, in consultation with RFS and provide a copy of the plan to the local Fire Control Centre. The Applicant must keep two copies of the plan on-site in a prominent position adjacent to the site entry point at all times. The plan must: (a) be consistent with RFS's Planning for Bushfire Protection 2019 (or equivalent); (b) include procedures for the storage and maintenance of any flammable materials; (c) include bushfire emergency management planning, including: (i) details of the location, management and maintenance of the Asset Protection Zone and on-site water supply tanks;	Pre-construction	Appendix I EMP

ID	Condition	Timing	Document Reference
	(ii) a list of works that should not be carried out during a total fire ban; (iii) details of the access provisions for emergency vehicles and contact details for both a primary and alternative site contact who may be reached 24/7 in the event of an emergency; (iv) details of how RFS would be notified, and procedures that would be implemented, in the event that: • there is a fire on-site or in the vicinity of the site; • there are any activities on site that would have the potential to ignite surrounding vegetation; or • there are any proposed activities to be carried out during a bushfire danger period; and (v) include an Emergency Services Information Package in accordance with Emergency Services information and tactical fire plan (FRNSW, 2019) to the satisfaction of FRNSW and RFS; and (vi) operational procedures in the event of bushfires, such as shutting down turbines and the positioning of turbine blades to minimise interference with aerial firefighting operations.		
Waste			
B43	The Applicant must: (a) minimise the waste generated by the development; (b) classify all waste generated on site in accordance with the EPA's Waste Classification Guidelines 2014 (or its latest version); (c) store and handle all waste generated on site in accordance with its classification; (d) not receive or dispose of any waste on site; and (e) remove all waste from the site as soon as practicable, and ensure it is reused, recycled or sent to an appropriately licensed waste facility for disposal, in consultation with the relevant council.	Construction and Operation	Appendix J WMP
Accommodation and Employment Strategy			
B44	Prior to commencing construction, the Applicant must prepare an Accommodation and Employment Strategy for the development in consultation with Tamworth Regional Council and Uralla Shire Council and to the satisfaction of the Planning Secretary. This strategy must: (a) be informed by consultation with local accommodation and employment service providers; (b) propose measures to ensure there is sufficient accommodation for the workforce associated with the development (including but not limited to consideration of potential conflicts with key tourism, cultural and entertainment-related events in the LGA), as far as practicable; (c) consider the cumulative impacts associated with other State significant development projects in the area; (d) investigate options for prioritising the employment of local workers for the construction and operation of the development, where feasible; and (e) include a program to monitor and review the effectiveness of the strategy over the life of the development, including regular monitoring and review during construction. Following the Planning Secretary's approval, the Applicant must implement the Accommodation and Employment Strategy.	Pre-construction	Accommodation and Employment Strategy

ID	Condition	Timing	Document Reference
Decommissioning and Rehabilitation			
Rehabilitation Objectives – Decommissioning			
B45	Within 18 months of the cessation of operations, unless the Planning Secretary agrees otherwise, the Applicant must rehabilitate the site to the satisfaction of the Planning Secretary. This rehabilitation must comply with the objectives in Table 2. **Feature** / **Objective** Development site (as a whole): • Safe, stable and non-polluting • Minimise the visual impact of any above ground ancillary infrastructure agreed to be retained for an alternative use as far as is reasonable and feasible Revegetation: • Restore native vegetation generally as identified in the EIS Above ground wind turbine infrastructure (excluding wind turbine pads): • To be decommissioned and removed, unless the Planning Secretary agrees otherwise Wind turbine pads: • To be covered with soil and/or rock and revegetated Above ground ancillary infrastructure: • To be decommissioned and removed, unless an agreed alternative use is identified to the satisfaction of the Planning Secretary Internal access roads: • To be decommissioned and removed, unless an agreed alternative use is identified to the satisfaction of the Planning Secretary Underground cabling: • To be decommissioned and removed, unless the Planning Secretary agrees otherwise Land use: • Restore or maintain land capability to pre-existing use Community: • Ensure public safety at all times	Decommissioning	Not Triggered
Progressive Rehabilitation			
B46	The Applicant must: (a) rehabilitate all areas of the site not proposed for future disturbance progressively, that is, as soon as reasonably practicable following construction or decommissioning; (b) minimise the total area exposed at any time; and (c) where it is not possible to carry out measures for permanent rehabilitation, employ interim rehabilitation strategies to minimise dust generation, soil erosion and weed incursion until such time that it is.	Construction and Decommissioning	This EMS Appendix E BMP
Dismantling of Wind Turbines			
B47	Any individual wind turbines which cease operating for more than 12 consecutive months must be dismantled within 18 months after that 12 month period, unless the Planning Secretary agrees otherwise.	Decommissioning	Not Triggered

ID	Condition	Timing	Document Reference
PART C ENVIORNMENTAL MANAGEMENT, REPORTING AND AUDITING			
Environmental Management			
Environmental Management Strategy			
C1	Prior to carrying out any development, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must: (a) provide the strategic framework for environmental management of the development; (b) identify the statutory approvals that apply to the development; (c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (d) set out the procedures that would be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development; (ii) receive, handle, respond to, and record complaints; (iii) resolve any disputes that may arise; (iv) respond to any non-compliance; (v) respond to emergencies; and (e) include: (i) references to any strategies, plans and programs approved under the conditions of this consent; and (ii) a clear plan depicting all the monitoring to be carried out in relation to the development, including a table summarising all the monitoring and reporting obligations under the conditions of this consent. Following the Planning Secretary's approval, the Applicant must implement the Environmental Management Strategy.	Pre-construction	This EMS
Revision of Strategies, Plans and Programs			
C2	The Applicant must: (a) update the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site; and (b) review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary within 1 month of the: (i) submission of an incident report under condition C10 of Schedule 2; (ii) submission of an audit report under condition C14 of Schedule 2; or (iii) any modification to the conditions of this consent.	Construction	Section 7.4.1 (updates and amendments) Section 6 (incidents) Section7.2 (auditing)

ID	Condition	Timing	Document Reference
Staging, Combining and Updating Strategies, Plans or Programs			
C3	With the approval of the Planning Secretary, the Applicant may: (a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program); (b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and (c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).	Prior to commencement of construction, operation and decommissioning.	Section 1.3 It is proposed to stage the delivery and approval of the EMS and all management plans. Stage 1: Construction Stage 2: Operation Stage 3: Decommissioning
C4	If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.	Prior to commencement of construction, operation and decommissioning.	Section 1.3 It is proposed to stage the delivery and approval of the EMS and all management plans.
C5	If approved by the Planning Secretary, updated strategies, plans or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan or program.	Prior to commencement of construction, operation and decommissioning.	Section 1.3 It is proposed to stage the delivery and approval of the EMS and all management plans.
C6	If the Planning Secretary agrees, a strategy, plan or program may be staged without addressing particular requirements of the relevant condition of this consent if those requirements are not applicable to the particular stage.	Prior to commencement of construction, operation and decommissioning.	Section 1.3 It is proposed to stage the delivery and approval of the EMS and all management plans.
Notifications			
Notification of the Department			
C7	Prior to commencing the construction, operations, upgrading or decommissioning of the development or the cessation of operations, the Applicant must notify the Department in writing via the Major Projects website portal of the date of commencement, or cessation, of the relevant phase. If any of these phases of the development are to be staged, then the Applicant must notify the Department in writing prior to commencing the relevant stage, and clearly identify the development that would be carried out during the relevant stage.	Construction, Operation and Decommissioning	Section 1.6 of this EMS

ID	Condition	Timing	Document Reference
Final Layout Plans			
C8	Prior to commencing construction, the Applicant must submit detailed plans of the final layout of the development to the Department via the Major Projects website portal including: (a) details on siting of wind turbines, including micro-siting of any wind turbines and/or ancillary infrastructure (including wind monitoring masts); (b) the GPS coordinates of the wind turbines; and (c) showing comparison to the approved layout. The Applicant must ensure that the development is constructed in accordance with the Final Layout Plans.	Pre-construction	Final Layout Plans
Work as Executed Plans			
C9	Prior to commencing operations or following the upgrades of any wind turbines or ancillary infrastructure, the Applicant must submit work as executed plans of the development and showing comparison to the final layout plans to the Planning Secretary, via the Major Projects website porta	Pre-operation	Not triggered
Incident Notification			
C10	The Department must be notified in writing via the Major Projects website portal immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 8.	Immediately after becoming aware of the incident	Section 6 of this EMS
Non-Compliance Notification			
C11	The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	Within seven days of becoming aware of any non-compliance	Section 6 of this EMS
C12	A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Construction and Operation	Section 6 of this EMS
C13	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Construction and Operation	Section 6 of this EMS
Independent Environmental Audit			
C14	Independent Audits of the development must be conducted and carried out at the frequency and in accordance with the *Independent Audit Post Approval Requirements* (2020) to the following frequency: (a) within 3 months of commencing construction; and (b) within 3 months of commencement of operations.	Construction and Operation	Section 7.2 of this EMS
C15	Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the commencement of an Independent Audit.	Construction and Operation	Section 7.2 of this EMS

ID	Condition	Timing	Document Reference
C16	The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified in condition C14 of Schedule 2 upon giving at least 4 weeks' notice to the Applicant of the date upon which the audit must be commenced.	Construction and Operation	Section 7.2 of this EMS
C17	In accordance with the requirements in the Independent Audit Post Approval Requirements (2020), the Applicant must: (a) review and respond to each Independent Audit Report prepared under the conditions of this consent; (b) submit the response to the Planning Secretary; and (c) make each Independent Audit Report, and response to it, publicly available within 60 days of submission to the Planning Secretary, unless otherwise agreed by the Planning Secretary.	Construction and Operation	Section 7.2 of this EMS
C18	Independent Audit Reports and the Applicant's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection as outlined in the Independent Audit Post Approval Requirements (2020) unless otherwise agreed by the Planning Secretary.	Construction and Operation	Section 7.2 of this EMS
C19	Notwithstanding the requirements of the Independent Audit Post Approval Requirements (2020), the Planning Secretary may approve a request for ongoing independent operational audits to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that independent operational audits have demonstrated operational compliance.	Construction and Operation	Section 7.2 of this EMS
Access to Information			
C20	The Applicant must: (a) make the following information publicly available on its website as relevant to the stage of the development: (i) the EIS; (ii) the final layout plans of the development; (iii) current statutory approvals for the development; (iv) approved strategies, plans or programs required under the conditions of this consent (other than the Emergency Plan); (v) the proposed staging plans for the development if the construction, operation and/or decommissioning of the development is to be staged; (vi) a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; (vii) how complaints about the development can be made; (viii) any independent environmental audit, and the Applicant's response to the recommendations in any audit; and (ix) any other matter required by the Planning Secretary; (x) a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent, including annual BBAMP reports; and (b) keep this information up to date.	Construction and Operation	Section 3.4.2 of this EMS

B3: EMMs

No.	Requirements	Timing	Responsibility	Document reference
General				
EMM01-GEN	Neoen will prepare and implement a **Construction Environmental Management Plan** (CEMP) for the Project, incorporating all relevant management and mitigation measures outlined in the EIS.	Pre-construction	Neoen	This EMS
EMM02-GEN	Neoen will prepare and implement an Operation Environmental Management Plan (OEMP) for the Project, incorporating all relevant management and mitigation measures outlined in the EIS.	Pre-operation	Neoen	OEMP
EMM03-GEN	Construction works (excluding quiet works such as office-based work activities) will be primarily completed between standard construction hours in accordance with the Interim Construction Noise Guideline (DECC 2009), unless otherwise agreed in writing by the relevant authorities, which are as follows: • 7:00 am to 6:00 pm – Monday to Friday • 8:00 am to 1:00 pm – Saturdays • Sunday and Public Holidays – no work to be completed Construction works, other than quiet non-noise generating works (such as office work), including heavy vehicle movements into and out of the site, will generally be restricted to standard construction hours. Works carried out outside of the hours will be limited to: • Works that do not cause noise emissions above 35 dB(A) at any nearby non associated dwellings • The delivery of materials as requested by Police or other authorities for safety reasons • Emergency work to avoid the loss of lives, property, and/or to prevent environmental harm, or works where Neoen demonstrates and justifies a need to operate outside the recommended standard hours • Erection of turbines depending on availability of acceptable wind conditions • Works on the intersection with the highway to minimise impact on traffic • Pouring of concrete for turbine foundations where the length of time for the pour is longer than the standard construction hours. Concrete may also be poured for turbine foundations at night where climate conditions for correct curing of the concrete cannot be achieved during the day • Movement of some over mass vehicles to reduce disruption to traffic. Prior to undertaking such works (outside of standard construction hours) Neoen will undertake a notification and consultation process with any landowners potentially affected by noise-relate impacts. The approach to notification and consultation will be outlined in the Construction Environmental Management Plan (CEMP).	Construction	Construction contractor	Section 2.4 Section 5.5.4 of this EMS

<table>
<tr><th>No.</th><th>Requirements</th><th>Timing</th><th>Responsibility</th><th>Document reference</th></tr>
<tr><td colspan="5">Visual</td></tr>
<tr><td>EMM04-VIS</td><td>Neoen will provide screen and/or supplementary planting, at the request of the landowners identified in Table 1.
Table 1 Mitigation and Visual Impact Rating
<table>
<tr><th>Dwelling ID</th><th>Visual Impact Rating (no mitigation)</th><th>Proposed Mitigation</th><th>Visual Impact Rating (mitigation implemented)</th></tr>
<tr><td colspan="4">Black Line of Visual Magnitude</td></tr>
<tr><td>12</td><td>Moderate</td><td>Screen planting to the north west of the dwelling</td><td>Negligible-Low</td></tr>
<tr><td>18</td><td>Moderate</td><td>Scattered screen planting to the south west of the dwelling</td><td>Negligible</td></tr>
<tr><td>19</td><td>Moderate</td><td>Screen planting to the north west of the dwelling</td><td>Negligible-Low</td></tr>
<tr><td>221</td><td>Moderate</td><td>Screen planting to the south west of the dwelling</td><td>Negligible</td></tr>
<tr><td>226</td><td>Moderate</td><td>Scattered screen planting to the south west of the dwelling</td><td>Negligible</td></tr>
<tr><td>309</td><td>Moderate</td><td>Screen planning to the south east of the dwelling</td><td>Negligible-Low</td></tr>
<tr><td>20</td><td>Moderate</td><td>Screen planting to the north west of the dwelling</td><td>Negligible-Low</td></tr>
<tr><td>313</td><td>High</td><td>Screen planting to the north of the dwelling</td><td>Low</td></tr>
</table>
Night lighting of ancillary infrastructure will be limited to low-level lighting for some construction works, security, night-time maintenance and emergency purposes. During construction, appropriate mitigation will be applied to lighting (including directional lighting and light shields) to reduce any associated impact.</td><td>Offers made during construction with agreed works to be completed prior to operation, subject to an agreement being reached with the landowner.
Should the landowner not take up the initial offer of works, Neoen will maintain the offer of mitigation throughout the operational phase.</td><td>Neoen
Construction contractor</td><td>Design Report</td></tr>
<tr><td>EMM05-VIS</td><td>Night lighting of ancillary infrastructure will be limited to low-level lighting for some construction works, security, night-time maintenance and emergency purposes. During construction, appropriate mitigation will be applied to lighting (including directional lighting and light shields) to reduce any associated impact.</td><td>Construction and
Operation</td><td>Design team
Construction contractor</td><td>Design specifications</td></tr>
<tr><td>EMM06-VIS</td><td>Each WTG will:
• Be uniform in the colour, design, height, and rotor diameter
• Be finished in matt-white and non-reflective material to reduce visibility
• not have any unnecessary signage or lighting.</td><td>Construction</td><td>Design team
Construction contractor</td><td>Design specifications</td></tr>
</table>

No.	Requirements	Timing	Responsibility	Document reference
Noise and Vibration				
EMM07-NV	Fixed construction noise sources such as crushing and screening plant, concrete batching plant, generators and compressors will be located at the maximum practicable distance to the nearest non-associated dwellings, and where practicable, use existing topography (or raw or processed materials) to block line of sight between the fixed noise source and the non-associated dwelling.	Construction	Construction Contractor	Section 5.5 of this EMS
EMM08-NV	Unless otherwise agreed in writing with relevant landowners and residents of potentially affected dwellings, Neoen will provide acoustic screens or mounding for fixed crushing/screening plant and concrete batching plants wherever these noise sources are located within 2400 m of a non-associated dwelling, where noise from these equipment and activities is expected to reach close to or exceed 35 dB(A) at the dwelling, and do not have direct line of sight blocked by site topography. These screens or mounds will be: • Located as close as practicable to the noise source • Constructed from mounding using excavated soil from the site or a material with a minimum surface density of approximately 10 kg/m2, such as 1.2mm thick sheet steel or 9mm thick compressed fibre cement sheeting, or use proprietary barriers such as the FlexShield “Sonic Quilt” • Constructed to a minimum height that substantially blocks direct line of sight between the noise source and any non-associated dwellings within 2400 m • Constructed such that air gaps or openings at joints between sections of the acoustic screens are minimised.	Construction	Neoen Construction Contractor	Section 5.5 of this EMS
EMM09-NV	Unless otherwise agreed in writing with relevant landowners and residents of potentially affected dwellings, Neoen will provide acoustic enclosures for site compressors and generators located within 2400 m of a non-associated dwelling, where noise from these is expected to reach close to or exceed 35 dB(A) at the dwelling.	Construction	Neoen Construction Contractor	Section 5.5 of this EMS
EMM10-NV	Neoen will investigate and implement alternative construction processes where feasible and reasonable to reduce noise (e.g. hydraulic or chemical splitters as an alternative to impact rock breaking and the use of broadband reversing alarms in lieu of the high-pitched alarms).	Construction	Construction Contractor	Section 5.5 of this EMS
EMM11-NV	The CEMP will include the following noise management measures: • Site works will be centralised within the site where possible and materials stored as far from dwellings as practicable • Works will be undertaken to reduce noise levels wherever possible (no excessive dropping of materials from height to reduce peak noise events) • Plant known to emit noise strongly in one direction, such as the exhaust outlet of generator set, shall be orientated so that the noise is directed away from noise sensitive areas if practicable • Machines that are used intermittently shall be shut down in the intervening periods between works or throttled down to a minimum • Worksite induction training will cover noise reduction requirements for all construction staff	Construction	Construction Contractor	Section 5.5 of this EMS

No.	Requirements	Timing	Responsibility	Document reference
	• All equipment will have Original Equipment Manufacturer (OEM) mufflers (or better) installed where these are available • Equipment will be maintained and fitted with adequately maintained silencers which meet the OEM design specifications. Inspection monitoring will be undertaken. If plant and equipment is determined to be noisier than other similar machines it will be replaced or rectified as required.			
EMM12-NV	Neoen will implement the following noise related requirements as part of the community engagement process: • Community information newsletters (including via website) providing details of the construction plan, duration of the construction phases and contact details of relevant project team members (Project Manager and/or site Environmental Representative) • A feedback mechanism for the community to submit questions to the construction team, and for the construction team to respond • Regular updates on the construction activities to local authorities to assist in complaint management if necessary.	Construction and Operation	Neoen Construction Contractor	Section 5.5 of this EMS
EMM13-NV	Prior to any non-quiet construction activity outside of standard work hours occurring within 2000 m of a non-associated dwelling, or significant construction traffic periods or impacts on local roads, Neoen will contact (within a reasonable timeframe before the proposed works) the local community potentially affected by the proposed works to provide the location of the work, the day(s) and date(s) of the work, the hours involved and the contact details of the Project Manager and / or site Environmental/Community Representative.	Construction	Neoen Construction Contractor	Section 5.5 of this EMS
EMM14-NV	In the event that blasting is required: • A blasting methodology will be designed by a blasting specialist, during the detailed design phase to design blasts to comply with the criterion. • A monitoring regime will be developed and implemented as part of the CEMP to monitor compliance with relevant blasting criteria.	Construction	Construction Contractor	Section 5.5 of this EMS
EMM15-NV	To reduce potential noise impacts associated with construction traffic movements, Neoen will: • Communicate with the affected community in accordance with the commitments outlined above • Manage traffic movements to avoid excessive acceleration of trucks and the use of truck engine brakes in close proximity to non-associated dwellings, particularly through towns and in the vicinity of the intersection providing access to the Project Area • Provide information regarding the transport route to all construction staff and the need to minimise impacts through driver operation (e.g. restricting use of engine brakes) at certain locations • Schedule construction traffic deliveries such that they are as evenly dispersed as practicable • Restrict traffic movements to the day-time operating hours (as far as practicable), subject to the justifications for activity outside of this time as detailed above	Construction	Construction Contractor	Section 5.5 of this EMS

No.	Requirements	Timing	Responsibility	Document reference
Biodiversity				
EMM16-BIO	Salvage of biodiversity features, including habitat resources (e.g., hollow logs, tree hollows, fallen timber and rocks/boulders) and replacement of them in suitable locations in the landscape to augment existing habitat.	Construction	Neoen Construction contractor	Appendix E BMP
EMM17-BIO	A pre-clearing procedure will be implemented to minimise the potential for impacts on native fauna species (focusing on threatened species) as a result of the clearing of hollow-bearing trees. The pre-clearing procedure is designed to minimise impacts to hollow-dependent and ground-dwelling fauna.	Construction	Construction contractor	Appendix E BMP
EMM18-BIO	Pre-clearance surveys and tree-felling supervision recommendations will be implemented to minimise the potential for impacts on native fauna species (including threatened species) as a result of the clearing of hollow-bearing trees. • Pre-clearance surveys and Tree felling will be undertaken in accordance with the mitigation and management measures outlined in Section 4.3 of the Thunderbolt Energy Hub Stage 1 - BDAR	Construction	Construction contractor	Appendix E BMP
EMM19-BIO	Implement hygiene protocol in accordance with the *NSW Threatened Species Management Information Circular No.6* (April 2008)) and saving Our Species Guidelines for threatened frog species	Construction and Operation	Neoen Construction contractor	Appendix E BMP
EMM20-BIO	Flocculants or other chemicals proposed to be used on site are required to be known and verified as being safe in sensitive environments and particularly in relation to amphibians.	Construction and Operation	Neoen Construction contractor	Appendix E BMP
EMM21-BIO	Implementation of a Koala sighting register	Construction and Operation	Neoen Construction contractor	Appendix E BMP
EMM22-BIO	Weed management controls will include: • Machinery and equipment will be cleaned thoroughly prior to entering the Subject Land. Cleaning must include the removal of all mud and plant matter, followed by washing with high pressure water. • Mulch containing weeds will be placed in piles separate from clean mulch, removed from site, and disposed of in accordance with weed management guidelines as soon as practicable.	Construction and Operation	Neoen Construction contractor	Appendix E BMP
EMM23-BIO	Access control is an important feature in protecting and demarcating areas outside the disturbance area from vehicle access, human access, and accidental disturbance. Measures include: • Appropriate fencing and signposting of areas to prevent the uncontrolled entry of people, accidental disturbance and to minimise vehicular and human traffic • Clear and visible signage is to be appropriately located to inform the workforce and others of the restricted access or otherwise of areas outside the Subject Land and • locking of gates to prevent unwanted vehicle, person access and disturbance.	Construction and Operation	Neoen Construction contractor	Appendix E BMP

No.	Requirements	Timing	Responsibility	Document reference
EMM24-BIO	General fencing will be non-inhibiting fauna fencing (excludes security fencing).	Construction and Operation	Neoen Construction contractor	Appendix E BMP
EMM25-BIO	During construction, temporary fencing will be used to demarcate vegetation where required to avoid accidental damage to areas outside of the disturbance area.	Construction	Construction contractor	Appendix E BMP
EMM26-BIO	The following mitigation actions will be implemented for the Project to develop a greater understanding and awareness of biodiversity issues in non-ecological trained personnel: • Inductions for the workforce will be undertaken to make them aware of the key ecological issues present in the Subject Land and so that they know their role and responsibilities in the protection and/or minimisation of impacts to all native biodiversity • Inductions will identify the location of sensitive flora and fauna and the policies being implemented to protect the biodiversity • Specific Koala material will be prepared and provided to all personnel visiting or working on the Project. The material will focus on educating about any Koala high use areas or specific movement corridors are identified through the koala sighting register, suitable habitat for the species, tips on how to identify during work, photographic examples of scratch marks and scats.	Construction and Operation	Neoen Construction contractor	Appendix E BMP
EMM27-BIO	Neoen will prepare and implement a Bird and Bat Adaptive Management Plan (BBAMP) to measure any impacts on aerial fauna by the Project. The plan will develop trigger levels and mitigation measures designed to manage such impacts through Project operation, in consultation with BCD. The BBAMP will provide guidance to develop a framework for monitoring such impacts. This will include baseline monitoring and ongoing monitoring.	Operation (plan to be prepared prior to the commencement of operation)	Neoen	Appendix F BBAMP

No.	Requirements	Timing	Responsibility	Document reference
EMM28-BIO	Neoen will develop a biodiversity offset strategy during the assessment process in consultation with BCD, DPE and DCCEEW; and based on the credits required to be retired to offset the impacts of the Project as outlined in Table 2 and the offset options available under the BC Act and BC Regulation including: • Land based offsets through the establishment of new Stewardship Sites (and subsequent retirement of credits) or by retiring credits from existing Stewardship Sites. Neoen would retire the required number and class of credits determined in accordance with the BDAR and the offset rules in the BC Regulation. • Securing (purchasing) credits through the open credit market, and/or • Paying into to the Biodiversity Conservation Fund (BCF) **Table 2 Credits Required to Offset the Project** PCT/Species-credit | Credits Required **Ecosystem Credits** PCT 501: Bendemeer White Gum - Silvertop Stringybark - Rough-barked Apple +/- Moonbi Apple Box grassy open forest of the southern New England Tableland Bioregion | 3,047 PCT 510: Blakely's Red Gum - Yellow Box grassy woodland of the New England Tableland Bioregion | 410 PCT 542: Stringybark - Rough-barked Apple - cypress pine shrubby open forest of the eastern Nandewar Bioregion and western New England Tableland Bioregion | 145 PCT 559: Youmans Stringybark - Mountain Gum open forest of the western New England Tableland Bioregion | 727 PCT 582: Sedgeland fens wetland of impeded drainage of the Nandewar Bioregion and New England Tableland Bioregion | 113 **Species Credits** *Thesium australe* | 26 Koala (*Phascolarctos cinereus*) | 3,323 *Note: credit requirements subject to micro siting, final credit requirement to be confirmed during the detailed design phase*	Prior to clearing of native vegetation requiring offsets (or timing as otherwise agreed with the Secretary of DPE)	Neoen	Biodiversity Offset Strategy
EMM29-BIO	Should the detailed design of the Project (following micro siting) result in changes to the credit calculation applicable to the Project, prior to construction Neoen will recalculate the biodiversity offset credit liabilities in consultation with BCS and confirm with DPE.	Pre-construction	Neoen Design Team	Consultation records Design Report

No.	Requirements	Timing	Responsibility	Document reference
Traffic				
EMM30-TR	Neoen will construct an intersection with basic left and short channelised right treatments (as per Austroads standards) providing for direct access from the New England Highway. The design will be subject to further detailed design including further consultation with and approval from Transport for NSW (TfNSW) as part of Project implementation.	Construction	Neoen Construction contractor	Design Report Appendix H TTMP
EMM31-TR	Neoen will undertake an additional detailed route analysis during the detailed design phase once the turbine component and transport vehicle configurations are confirmed, to confirm the level of works and approvals required along the identified transport route to accommodate the swept paths of the OSOM vehicles this will include consultation with the relevant roads authorities for the proposed works areas. Neoen will undertake any works identified through this process prior to the use of the relevant roads in consultation with the relevant roads Authority.	Pre-construction	Neoen Construction contractor	Design Report
EMM32-TR	Subject to the approval of TfNSW, Neoen will install advisory 'truck turning' signage on the approaches to the Project Area Intersection with the New England Highway, to highlight to motorists the potential for turning heavy vehicles to/from the side road.	Construction	Neoen Construction contractor	Appendix H TTMP
EMM33-TR	Neoen will prepare and implement a Transport Management Plan (TMP) outlining proposed traffic and transport management measures and processes for all phases of the Project. The management measures will be designed to minimise the impact of Project traffic (including OSOM turbine component transport vehicles) on the external road network.	Pre-construction	Neoen Construction contractor	Appendix H TTMP
EMM34-TR	Neoen will undertake further consultation with the City of Newcastle (CoN) and Muswellbrook Shire Council (MSC) regarding an infrastructure or maintenance agreement to cover any required mitigation works to manage the expected pavement impacts of the Project on the lower order, local government-controlled road links of Selwyn Street and George Street (CoN – both routes) and Bengalla Road, Wybong Road, Kayuga Road, Ivermein Street, Stair Street and Dartbrook Mine Access Road (MSC – Route 2 only). This would also include pre and post dilapidation inspections to be undertaken on the sections of the local government roads used by Project traffic, with these inspections to be completed by representatives of the Neoen and the relevant Council.	Pre-construction	Neoen	Consultation records
Aboriginal Archaeology[5]				
EMM35-AH	Ensure that all employees and contractors are aware that it is an offence under Section 86 of the NPW Act to harm or desecrate an Aboriginal object unless that harm has been subject to approval as part of the necessary approvals process.	Construction and Operation	Construction contractor	Appendix G HMP
EMM36-AH	An Aboriginal cultural heritage management plan (ACHMP) for the Project will be developed in consultation with the registered Aboriginal parties, including:	Construction and Operation	Neoen	Appendix G HMP

[5] In response to updates to the ACHA (Umwelt, November 2023) and the Archaeological Report (Lantern, November 2023), some of the EMMs from the RtS have since been updated to reflect the changes to the AHIMS sites. These changes are shown as either strikethrough (for text that has been removed), or bold and underlined text (for added text)

No.	Requirements	Timing	Responsibility	Document reference
	• Protecting the Aboriginal archaeological sites and areas of archaeological potential identified in Table 3 including establishing appropriate fencing/site demarcation prior to the commencement of construction and ensuring ongoing protection during construction and operation. • Impacts to sites and areas of archaeological potential identified in Table 3 (shown below) that cannot be practically avoided. This will include the provision of methodologies for the completion of the recommended mitigation activities, as referenced in Table 3. This may include surface collection, salvage excavation and/or community collection prior to or during the course of construction activities. • Protocols to be followed in the instance that additional ground disturbance works are required outside the Development Corridor. This will include requirements for further survey and assessment of any such works. • The management of any new Aboriginal archaeological sites that may be identified during these inspections or over the course of construction or operational activities. • The management of Aboriginal skeletal remains should any be identified within the construction or operational activities for the Project. • Monitoring and reporting on the effectiveness of these measures and to compile a report on the outcomes of any approved mitigation works. • Ensuring that all staff and contractors working on the Project receive Aboriginal cultural heritage awareness training and are informed of their obligations to comply with the requirements of the Aboriginal cultural heritage management plan. **Table 3 Recommendations by site/area of archaeological potential** **Sites** / **Proposed Management Strategy** / **Requirements** TWF AS1 **(AHMIS #206-0089)**, TWF AS2 **(AHMIS #206-0088)**, TWF AS3 **(AHMIS #206-0087)**, **TWF R2** Possible Scarred Trees 1-4 Potential Stone Arrangements 1 and 5 / Outside Development Corridor therefore no impacts ~~required~~ **anticipated** (avoidance) / Establish appropriate fencing/site demarcation prior to the commencement of construction and ensure ongoing protection during construction and operation TWF IA1^ **(AHMIS #206-0090)** TWF IA2 **(AHMIS #206-0091)** TWF IA3 **(AHMIS #206-0092)** TWF IA4 **(AHMIS #206-0093)** / Minimise impacts (micro-siting/final design demonstrates that impacts to sites can be fully or partially avoided) / Establish appropriate fencing/site demarcation of the site/area (or portion thereof that is not being impacted) prior to the commencement of construction and ensure ongoing protection during construction and operation **TWF R1** **Potential Stone Arrangements 2, 3 and 4** / **Minimise impacts (micro-siting / final design demonstrates that impacts to sites cannot be fully or partially avoided)** / **Surface collection of identified surface artefacts.** **In relation to Potential Stone Arrangements 2-4, further consultation with Aboriginal parties regarding appropriate mitigation measures for these potential sites (if required) can be undertaken as a**	ACHMP to be prepared prior to the commencement of construction		

No.	Requirements			Timing	Responsibility	Document reference
			component of the development of an Aboriginal cultural heritage management plan for the Project.			
	Spring Creek 1 **(AHIMS#20-6-0083)** **Pine Creek 1 (AHIMS# 20-6-0086)** **Pine Creek 2 (AHIMS# 20-6-0085)** Pine Creek-3 **(AHMIS# 20-6-0084)** ~~Potential Stone Arrangements 2, 3 and 4~~	Minimise impacts (micro-siting/final design demonstrates that impacts to sites cannot be fully or partially avoided)	**Establish appropriate fencing/site demarcation of the area (or portion thereof that is not being impacted) prior to the commencement of construction and ensure ongoing protection during construction and operation.** ~~Spring Creek 1 and Pine Creek 3 have spatially discrete archaeological deposits and buried artefacts, and the following mitigation measures are proposed for these areas:~~ • ~~no-go zones (as identified in Figure 15 and Figure 16 in Appendix 5 of the RTS) are fenced off by a 10 m buffer prior to start of construction activities~~ • ~~no ground disturbing impacts are to occur within these no-go zones~~ • ~~if impacts within the no-go zones cannot be avoided an additional program of salvage excavation is to be undertaken prior to construction.~~ ~~In relation to Potential Stone Arrangements 2-4, further consultation with Aboriginal parties regarding appropriate mitigation measures for these potential sites (if required) can be undertaken as a component of the development of an Aboriginal cultural heritage management plan for the Project.~~			
		Minimise impacts (micro-siting/final design demonstrates that impacts to sites cannot be fully or partially avoided)	**Undertake test excavation within the area of PAD prior to submission of Response to Submissions Report.** **Outcomes of test excavation will inform additional management requirements which may include:** • **No further works required** • **Additional salvage works requried.**			
	~~^Surface collection only to be undertaken at TWF IA1-3~~					

No.	Requirements	Timing	Responsibility	Document reference
Historic Heritage				
EMM37-HH	An unexpected heritage finds protocol will be established and included in the CEMP and OEMP.	Construction and Operation	Neoen	Appendix G HMP
EMM38-HH	All Project team members and construction contractors will be required to undertake a heritage-specific induction to support the use of the heritage finds protocol.	Construction and Operation	Neoen Construction contractor	Appendix G HMP
EMM39-HH	During construction, in the unlikely event that unexpected historical archaeological material is discovered, all work in the area will cease and a suitably qualified archaeologist consulted to determine an appropriate course of action. Depending on the extent and significance of the archaeological remains encountered, consultation with Heritage NSW may also be required prior to the commencement of works.	Construction	Construction contractor	Appendix G HMP
Aviation				
EMM40-AV	Overhead transmission lines and/or supporting poles associated with the Project that are located where they could adversely affect aerial application operations will be identified in consultation with local aerial agriculture operators and marked in accordance with Part 139 Manual of Standards (MOS) Chapter 8 Division 10 section 8.110 (7) and 8.110 (8) where applicable.	Detailed Design (any required markings to be completed during construction)	Neoen Construction contractor	Design Report
EMM41-AV	To facilitate the flight planning of aerial application operators, the location and height of 'as constructed' WTGs and the WMT will be provided to landowners so that, when asked for hazard information on their property, the landowner may provide the aerial application pilot with all relevant information.	Construction and Operation	Neoen	Consultation records
EMM42-AV	Neoen will complete a Vertical Obstacle Notification Form for tall structures to provide 'As constructed' details of WTG and WMT coordinates, and elevations to Airservices Australia once the development reaches maximum height.	Construction and Operation	Neoen	Vertical Obstacle Notification Form
EMM43-AV	Neoen will engage with local aerial agricultural operators and aerial firefighting operators in developing procedures for such aircraft operations in the vicinity of the Project.	Construction and Operation	Neoen	Consultation records
EMM44-AV	Details of the final wind farm layout will be provided to local and regional aircraft operators prior to construction in order for them to consider the wind farm for their operations.	Construction and Operation	Neoen	Consultation records
EMM45-AV	The rotor blades, nacelles and towers of the WTGs will be painted in white or a near-white colour to provide sufficient contrast with the surrounding environment for aviation safety purposes.	Construction and Operation	Construction contractor	Design Report

No.	Requirements	Timing	Responsibility	Document reference
EMM46-AV	During the detailed design process, any required marking of the temporary and permanent meteorological monitoring masts will be confirmed, according to the requirements set out in Manual of Standards (MOS) Part 139 Chapter 8 Division 10 (as modified by the guidance in NASF Guideline D).	Detailed Design (prior to the commencement of construction of meteorological masts)	Construction contractor	Design Report
EMM47-AV	Should lighting be required, Neoen will develop the required mitigation measures during the detailed design phase in consultation with DPE and CASA.	Detailed design	Neoen	Design Report
Telecommunications				
EMM48-TEL	Should material impact to AM/FM Signals, Satellite Television/internet, wireless internet, mobile phones, fixed point-to-point and point-to-multipoint links, emergency services (point-to-point links) occur in the vicinity of the Project Area as a result of the Project, Neoen will apply appropriate mitigation in consultation with the relevant operator and landowner.	Operation	Neoen	Not triggered by construction
EMM49-TEL	In relation to television broadcasting, Neoen will undertake pre-construction measurements of signal strength at selected dwellings within 3 km of the Project Area to enable any interference after construction to be investigated. If there are material impacts, Neoen will apply appropriate mitigation in consultation with the relevant operator or landowner once the Project is operational	Pre-construction	Neoen Construction contractor	Design Report
Bushfire				
EMM50-BUS	A Bushfire Emergency Management Plan will be developed for the Project in accordance with PBP 2019 and in consultation with the RFS (including any requirements in relation to aerial firefighting). The plan will identify all relevant bushfire risks and mitigation measures associated with the construction and operation of the Project, including: • Detailed measures to prevent or mitigate fires igniting, outlining: – APZ locations and management requirements – Access locations, passing bays and any alternate emergency access – Management requirements in relation to aerial firefighting – Water supply and location and any other bush fire suppression systems (including any drenching systems, static water supply, natural water sources) – Work that should not be carried out during total fire bans – Availability of fire-suppression equipment – Storage and maintenance of fuels and other flammable materials • Notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a bush-fire fire danger period to ensure weather conditions are appropriate • An appropriate Emergency Evacuation Plan (including bush fire emergency management).	The Bushfire Emergency Management Plan will be prepared prior to the commencement of construction. Implementation during construction and operation	Neoen Construction contractor	Appendix I ERP

No.	Requirements	Timing	Responsibility	Document reference
Blade Throw				
EMM51-BLT	Unless otherwise agreed with the owner of host dwelling (ID 302), as part of the detailed design phase a site-specific blade throw modelling assessment will be undertaken (once the WTG model is confirmed and any necessary controls identified in the assessment will be implemented).	Detailed Design (prior to the commencement of construction)	Design Team	Design Report
Hazards				
EMM52-HAZ	Neoen will ensure that all suppliers and contractors handling ANE and Class 1.1 materials possess the required SafeWork NSW licences.	Construction	Construction contractor	Appendix I ERP Design Report
EMM53-HAZ	Neoen will also ensure that that all suppliers and contractors supplying, transporting and handling ANE and Class 1.1 materials have systems in place to ensure that safety and security risks are managed in accordance with the NSW Explosives Act and the NSW Explosives Regulation which includes the requirement to comply with Code of Practice, Mobile Processing Units (Australian Explosives Industry Safety Group Inc., 2018).	Construction	Construction contractor	Appendix I ERP Design Report
EMM54-HAZ	Diesel fuel (a class C1 combustible liquid) will be stored within the Project Area in a self-bunded bulk tank.	Construction and Operation	Construction contractor	Section 5.3 of this EMS Appendix I ERP
EMM55-HAZ	Storage of diesel fuel, and any flammable and combustible liquids (fuels and oils), will be undertaken in accordance with AS1940:2017 The storage and handling of flammable and combustible liquids and flammable liquids will be stored separately from combustible liquids.	Construction and Operation	Construction contractor	Section 5.3 of this EMS Appendix I ERP
Water Resources				
EMM56-WAR	The CEMP will include relevant erosion and sediment control measures, developed in accordance with Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) and Volume 2 (DECC, 2008) (the 'Blue Book').	Construction	Neoen Construction contractor	Section 5.3 of this EMS
EMM57-WAR	The OEMP and the Decommissioning and Rehabilitation Plan (to be developed 2 years prior to closure) will also include relevant surface water and erosion sediment control management measures.	Operation	Neoen	Decommissioning and Rehabilitation Plan
EMM58-WAR	The erosion and sediment control measures will be prepared by a suitably qualified soil and water specialist, e.g., a Certified Professional in Erosion and Sediment Control.	Construction and Operation	Construction contractor	ESCPs (Appendix K)
EMM59-WAR	The CEMP will likely include the following ESC measures: • Undertake targeted soil testing (in particular, to identify any dispersive soils) to determine topsoil and subsoil properties in high-risk areas to be disturbed (e.g. steep slopes, in close proximity to streams). • Diversion of clean water around disturbed areas. • Staging of works to minimise the extent of ground disturbance at any one time and progressive rehabilitation • Stockpiles managed in accordance with 'Blue Book' standard drawing SD 4-1 Stockpiles • Constructed batters with maximum slopes consistent with Figure 4.7 of Volume 1 of the 'Blue Book'	Construction	Neoen Construction contractor	Section 5.3 of this EMS ESCPs (Appendix K)

No.	Requirements	Timing	Responsibility	Document reference
	• Access tracks that are constructed and maintained consistent with Volume 2C Unsealed Roads of the 'Blue Book' • Fuels, chemicals and liquids are stored in impervious bunded areas, a minimum of 50 m away from: – Rivers, creeks or any areas of concentrated water flow – Flooded or poorly drained areas – Slopes above 10% – Chemical spill kits will be available and personnel will be trained in spill response – All vehicles and mobile plant will be appropriately maintained and subject to daily pre-start checks for fluid leakage. • Bunded concrete wash-out bunds lined with plastic sheeting will be provided and sign posted so they are clearly identified by contractors and concrete agitator/pump drivers. No concrete wash-out will occur within 50 m of drainage lines or waterways. • Inspection and maintenance of installed erosion and sediment controls • Monthly downstream water quality monitoring (pH, turbidity and TSS). An appropriate downstream water quality monitoring location(s) will be identified during preparation of the CEMP.			
EMM60-WAR	Soil amelioration and rehabilitation: • Minimum 200 mm of topsoil to cover any dispersive subsoils (outside of rocky areas) • Ameliorate dispersive subsoils with gypsum around hard surfaces (e.g. turbine foundations) where concentrated flows have the potential to erode non-dispersive topsoil • Use of biodegradable rolled erosion control products (e.g. jute mesh or mat) to provide stability during revegetation of disturbed areas • Use appropriate species suited to the low fertility soils	Construction	Construction contractor	Section 5.3 of this EMS ESCP
EMM61-WAR	Undertake trenching in accordance with Volume 2A Installation of Services of the 'Blue Book'	Construction	Construction contractor	Section 5.3 of this EMS ESCP
EMM62-WAR	All mobile concrete batching plants will be located in appropriately sized bunded areas to contain surface runoff that has the potential to have elevated pH and concentrations of fine sediment. Water captured within the bunds will be utilised for concrete production or removed from site by a suitably licenced waste contractor.	Construction	Construction contractor	Section 5.3 of this EMS
EMM63-WAR	Potable water demands for both the construction and operational phases of the Project will be supplied via water tanker and stored in on-site water tanks. Potable water storages will be routinely tested to ensure water quality meets the requirements of the Australian Drinking Water Guidelines (ADWG) (National Health and Medical Research Council, 2011) and an appropriate maintenance regime will be implemented to ensure water quality ADWG water quality standards are maintained.	Construction and Operation	Neoen Construction contractor	Section 5.3 of this EMS
EMM64-WAR	Any other water sourced from either surface water or groundwater sources to meet Project construction demands will be licenced and managed, as required, in accordance with the requirements of the *Water Management Act 2000*.	Pre-construction	Neoen	Section 5.3 of this EMS

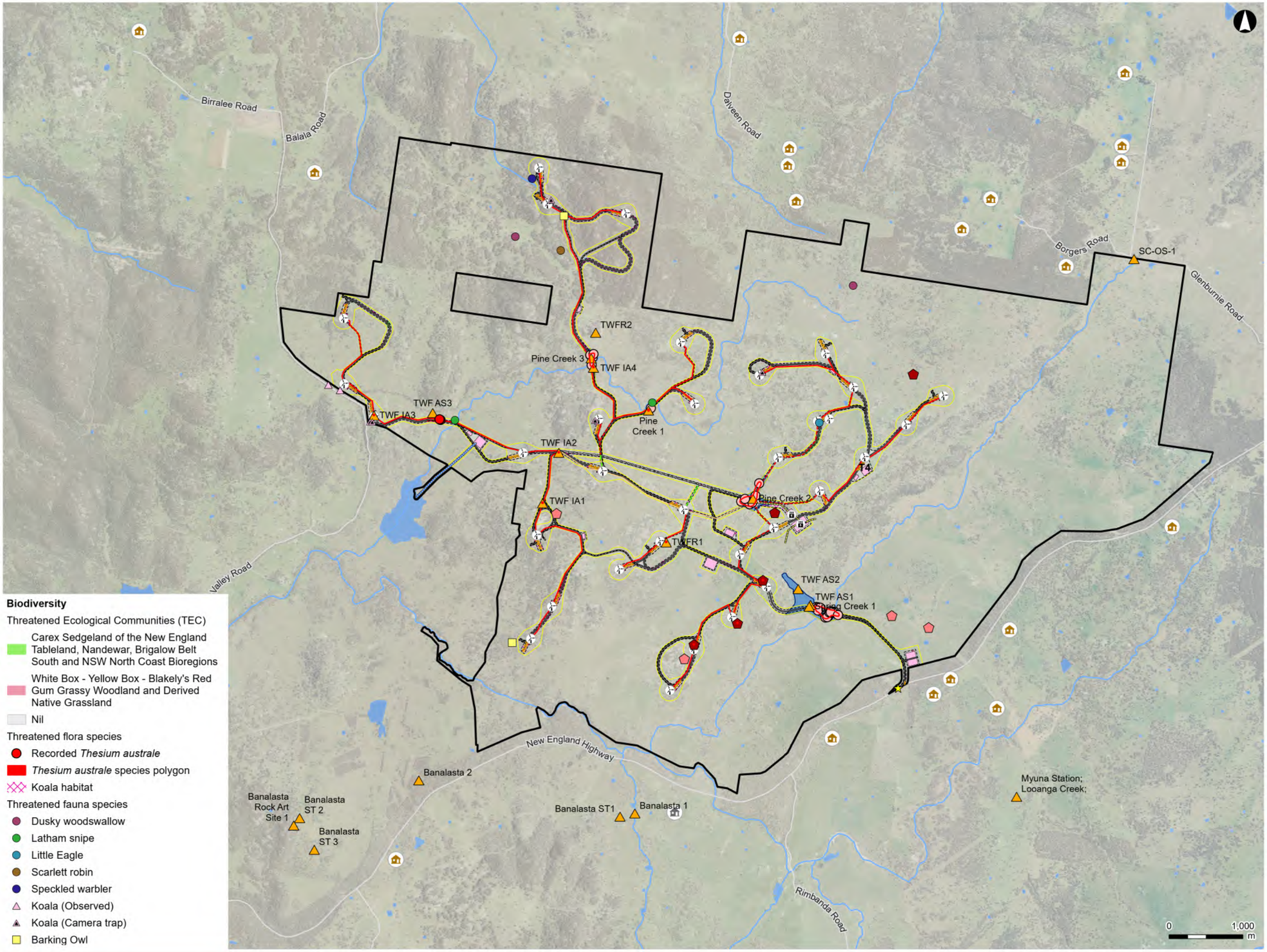
No.	Requirements	Timing	Responsibility	Document reference
EMM65-WAR	Wastewater generated by amenities during the Project construction phase will be collected in a tank(s) and periodically removed by a suitably licenced waste contractor. During the operational phase of the Project, the volume of amenities wastewater will be significantly lower than that generated in the construction phase and will be managed by either collection in a tank(s) and periodic removal by a suitably licenced waste contractor or in an on-site wastewater management system.	Construction and Operation	Construction contractor	Section 5.3 of this EMS
EMM66-WAR	Project waterway crossings will be designed to minimise impacts on stream stability and fish passage and will be designed with reference to: • *Guidelines for Controlled Activities on Waterfront Land* (Department of Planning, Industry and Environment (DPIE) Water, 2018) • *Why Do Fish Cross the Road? Fish Passage Requirements for Waterway Crossings* (NSW Department of Primary Industries (DPI) Fisheries, 2003) • *Fisheries NSW Policy and guidelines for fish habitat conservation and management* (NSW DPI, 2013).	Detailed Design (prior to construction of waterway crossings)	Neoen Construction contractor	Section 5.3 of this EMS ESCP
EMM67-WAR	For works on waterfront land (within 40 m of top of bank) the following measures will be incorporated into the design of the works and controls included in the Soil and Water Management Plan: • A site specific erosion and sediment control plan will be prepared for all works on waterfront land • Where possible infrastructure will be maintained outside of the vegetated riparian zone • Utilise stream crossings for co-location of services to avoid the need to trench through stream beds wherever practicable • Rehabilitate disturbed areas and provide scour protection to bed and banks as required to mitigate any areas with increased potential for erosion due to changes in flow regimes associated with Project infrastructure • Where practicable, undertake works on waterfront land from April to mid-October when fish passage is unlikely to occur.	Construction	Construction contractor	Section 5.3 of this EMS ESCP
EMM68-WAR	During detailed design consultation will be undertaken with DPI Fisheries to determine if any of the proposed waterway crossings require consideration of fish passage. For any crossings that do require consideration of fish passage, the relevant DPI Fisheries guidelines will be considered during the detailed design process.	Detailed Design (prior to construction of waterway crossings)	Neoen	Design Report
EMM69-WAR	Development of the Emergency Response Plan to be included in the CEMP and OEMP will include consultation with NSW State Emergency Services (NSW SES) and local Councils covering the management and response to flooding.	Construction and Operation	Neoen Construction contractor	Appendix I ERP
EMM70-WAR	In the unlikely event that the detailed design determines that the depth required for drilling for rock anchor foundations is greater than currently planned and that it could result in interception of the groundwater table, an assessment of potential groundwater impacts will be undertaken in accordance with the NSW Aquifer Interference Policy (NSW Government, 2012).	Construction	Construction contractor	Section 5.3 of this EMS ESCP

No.	Requirements	Timing	Responsibility	Document reference
Waste				
EMM71-WAS	Neoen will prepare a Waste Management Plan which will include a detailed breakdown of waste types and quantities in accordance with relevant legislation and guidelines. The Waste Management Plan will outline the measures and strategies to be implemented on site to manage, reuse, recycle and safely dispose of waste including: • Separation and storage of recyclable and non-recyclable materials • Reuse and collection/transportation of waste • Procedures for tracking waste storage and disposal On-site waste management will include the appropriate separation and storage of waste streams to enable recycling and reuse wherever possible to reduce associated environmental impacts and impact to the capacity of local waste management facilities.	The Waste Management Plan will be prepared prior to the commencement of construction. Implementation during construction and operation	Neoen Construction contractor	Appendix J WMP
Decommissioning and Closure				
EMM72-DEC	Should decommissioning be required, Neoen will prepare a Decommissioning and Rehabilitation Plan for the Project, 2 years prior to closure. The plan will include rehabilitation of the site and a detailed review of the associated waste streams and recycling/disposal options available at the time. Preparation of the Decommissioning and Rehabilitation Plan will be subject to consultation with key stakeholders including relevant the host landholders, community, Local and State Government.	2 years prior to decommissioning	Neoen	Decommissioning and Rehabilitation Plan
Air Quality				
EMM73-AIR	The CEMP will include relevant management measures to limit off-site dust impacts. Specific measures will include: • Application of water and/or dust suppressants using a water cart (as required) to minimise dust emissions from areas exposed by construction • Locate, shape and seed longer-term topsoil stockpiles in a strategic manner to minimise dust erosion from exposed surfaces • Implement and enforce speed limits for construction vehicles and equipment on unsealed access tracks and hardstand areas • Limit construction activities during unfavourable (windy) weather conditions • Dust controls (such as water sprays or dust capture systems) for the construction phase concrete batching plants • Undertake blasting activities in accordance with a detailed methodology prepared by a suitably qualified person and implement a blast monitoring program • Regular inspections/audits to ensure appropriate air quality controls are being implemented during construction activities	Construction	Neoen Construction contractor	Section 5.4 of this EMS

No.	Requirements	Timing	Responsibility	Document reference
EMM74-AIR	The OEMP, will include on-site management measures to limit off-site air quality emissions. Specific measures will include: • Implement and enforce speed limits for operations vehicles and equipment on unsealed access tracks and hardstand areas • Minimise dust emissions from exposed areas through the application of water and/or dust suppressants using a water cart (as required) • Limit operational maintenance activities during unfavourable (windy) weather conditions • Regular inspections/audits to ensure appropriate air quality controls are being implemented during operations and maintenance activities.	Operation	Neoen	Not triggered
Social Impact				
EMM75-SOC	Community Relations Plan (CRP) - Neoen will continue to update and implement the CRP. This will continue to be led by an internal resource, and identify mechanisms and methods to be utilised to engage with key stakeholders, periodic action plans, targets, responsibilities for implementation, as well as a monitoring and evaluation framework throughout the life of the Project.	Construction Operation Decommissioning	Neoen	Community Relations Plan
EMM76-SOC	Neoen will develop and implement a Benefit Sharing Program which includes: • Neighbour Benefit Sharing Program which includes direct payments being offered to neighbours who own a residential dwelling within 3.5 km of a proposed wind turbine. Payments will be made on a sliding-scale based on the distance of their dwelling to wind turbines, and the number of turbines nearby. The payments will be annual and will commence at the beginning of the operations phase of the project, which is typically 25-30 years. The final amount received by neighbours will depend on the constructed wind turbine layout, to be determined in the construction phase when final distances from dwellings to turbines will be confirmed. The annual payments will begin once the Project commences operations. • Community Benefit Sharing Program - Neoen will implement a Community Benefits Sharing Program (CBSP) with the aim of providing significant and meaningful benefits to the communities surrounding the Project Area. • The Community Benefit Fund will commence once the Project is operational and will provide $100,000 annually. Local projects and initiatives to be funded will be based on community feedback. This may include local projects such as sports, clubs, tourism, heritage, arts and culture via a yearly competitive grants process.	Operation. The Program will be implemented in the first year of operations and will be ongoing.	Neoen	Benefit Sharing Program
EMM77-SOC	Neoen will develop and implement a local participation plan prior to the construction phase of the Project. The LPP will include local participation planning, including employment and procurement and will focus on understanding existing capabilities within the social locality and the potential for the Project to contribute to building capacity in new areas. The LPP will contain initiatives to proactively facilitate enhancement of local employment and procurement to meet the Project's construction and operational needs, and will include the following: • Options for prioritising the employment of local workers • Supplier and servicing opportunities for local businesses	Pre-construction	Neoen	Accommodation and Employment Strategy

No.	Requirements	Timing	Responsibility	Document reference
	• Up-skilling, re-skilling and training opportunities for local people • Jobs, supplier, and servicing opportunities that target partnerships with local and active social enterprises • Actionable targets with associated responsibilities, including mechanisms to involve local stakeholders in its development and implementation • Information provision relating to the Project's construction requirements in the pre-construction phase (post development approval) • Mechanisms for local businesses, job seekers and services to register their capabilities and interest in working with the Project • Investigate options for prioritising the employment of local workers.			
Economic Impact				
EMM78-ECO	Prior to commencing construction and responding to actual regional demands at that time, Neoen will prepare an Accommodation, Procurement and Employment Strategy (as part of the development of the Neoen LPP) for the Project in consultation with relevant stakeholders. This would include: • An updated review of accommodation availability to ensure there is sufficient accommodation for the workforce associated with the construction phase of the Project and identification of any required management measures and • Measures to addresses any specific cumulative impacts arising associated with identified concurrent SSD projects under construction.	Pre-construction	Neoen	Accommodation and Employment Strategy

APPENDIX C Sensitive Area Plans



Legend

Project

- Development corridor
- Project area
- Subject land
- Infrastructure
- Proposed water pipeline
- High voltage TXL route
- Option 1 underground trench to overhead line
- Option 1 MV overhead line route
- Option 2 full MV underground reticulation
- Underground 33kV cable
- Underground 33kV trench
- Conceptual access track
- Conceptual access track (civil)
- Hardstand area
- Conceptual turbine layout
- High voltage plant
- Site access point
- Non-Associated Landholder - Dwelling
- Non-Associated Landholder - Vacant Dwelling
- Watercourse
- Waterbody

Heritage

- No-go zone
- PAD
- AHIMS site
- Artefact

Non-excavated archaeological site

- Possible scarred tree
- Potential stone arrangement

Biodiversity

Threatened Ecological Communities (TEC)

- Carex Sedgeland of the New England Tableland, Nandewar, Brigalow Belt South and NSW North Coast Bioregions
- White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Nil

Threatened flora species

- Recorded *Thesium australe*
- *Thesium australe* species polygon
- Koala habitat

Threatened fauna species

- Dusky woodswallow
- Latham snipe
- Little Eagle
- Scarlett robin
- Speckled warbler
- Koala (Observed)
- Koala (Camera trap)
- Barking Owl

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Coordinate System: GDA2020 MGA Zone 56
Date issued: May 27, 2024
Imagery: © Department of Customer Service 2020

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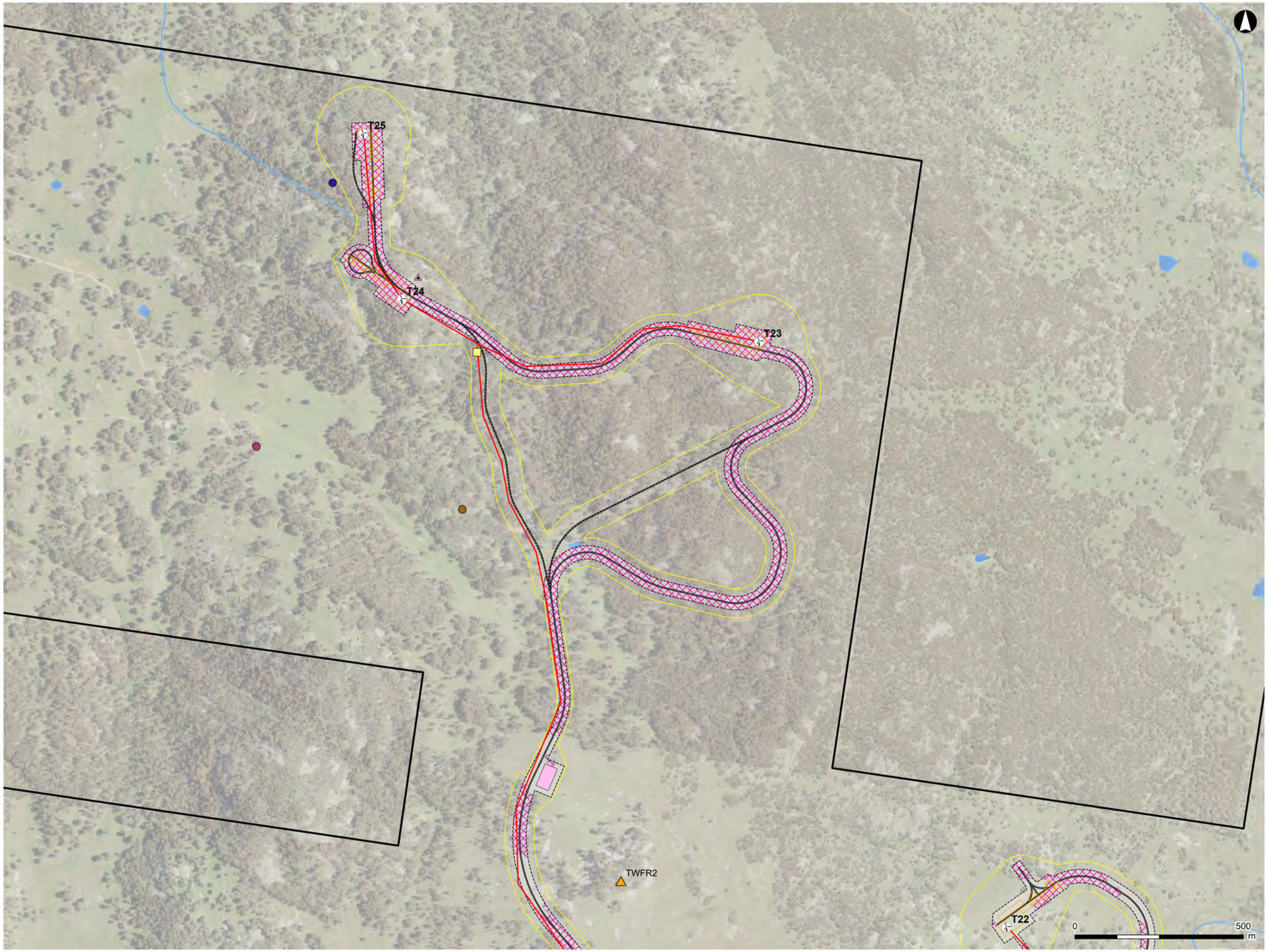

Project

- Development corridor
- Project area
- Subject land
- Infrastructure
- Underground 33kV cable
- Conceptual access track
- Conceptual access track (civil)
- Hardstand area
- Conceptual turbine layout
- Watercourse
- Waterbody

Heritage

- No-go zone
- AHIMS site

Biodiversity

Threatened Ecological Communities (TEC)

- Nil
- Koala habitat

Threatened fauna species

- Dusky woodswallow
- Scarlett robin
- Speckled warbler
- Koala (Camera trap)
- Barking Owl

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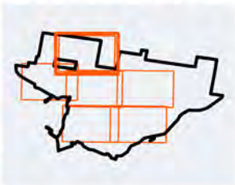

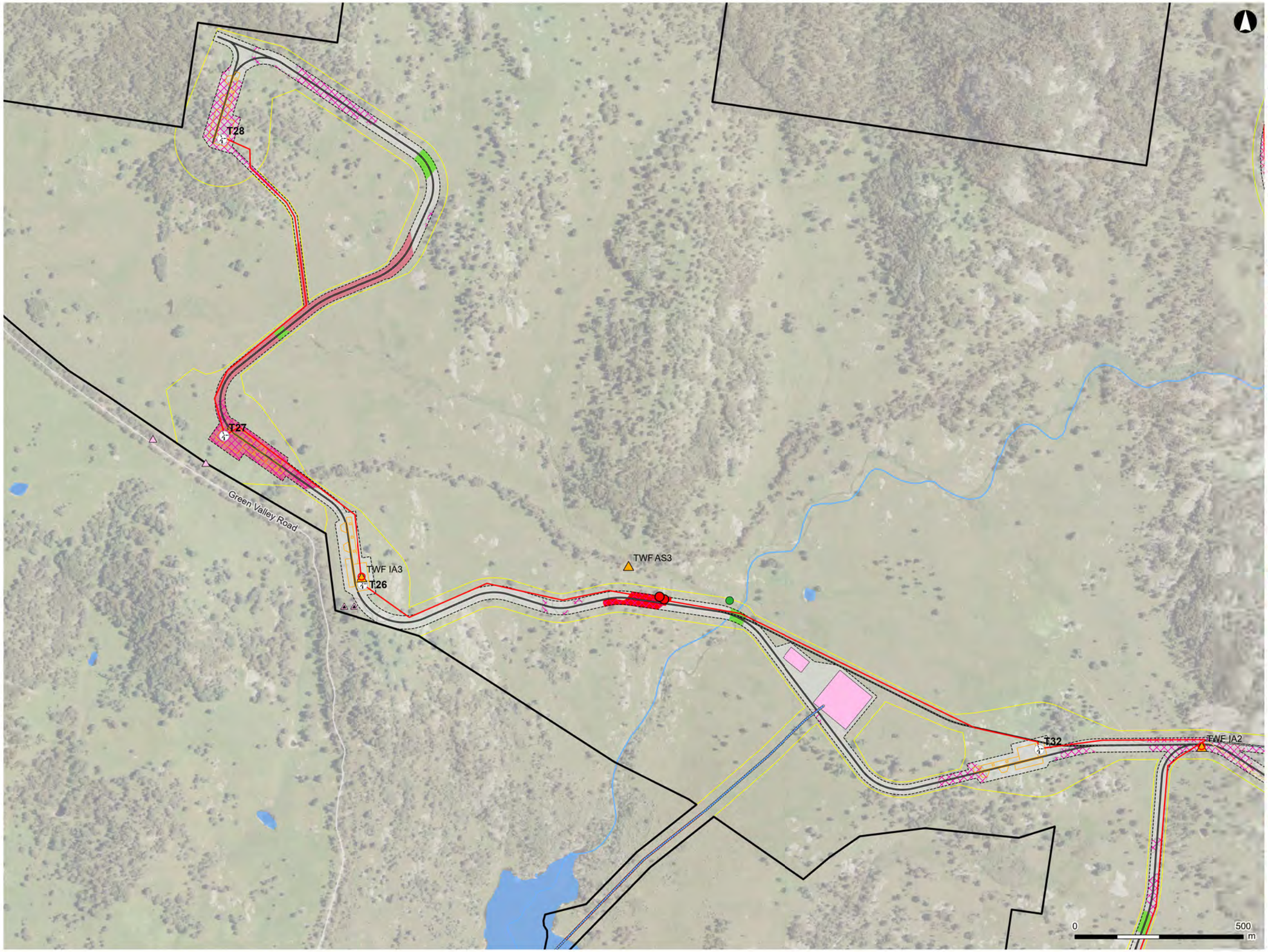

Project

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- Option 1 MV overhead line route
- Option 2 full MV underground reticulation
- Underground 33kV cable
- Conceptual access track
- Conceptual access track (civil)
- Hardstand area
- Conceptual turbine layout
- Watercourse
- Waterbody

Heritage

- No-go zone
- AHIMS site

Biodiversity

Threatened Ecological Communities (TEC)

- Carex Sedgeland of the New England Tableland, Nandewar, Brigalow Belt South and NSW North Coast Bioregions
- White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Nil

Threatened flora species

- Recorded *Thesium australe*
- *Thesium australe* species polygon
- Koala habitat

Threatened fauna species

- Latham snipe
- Koala (Observed)
- Koala (Camera trap)

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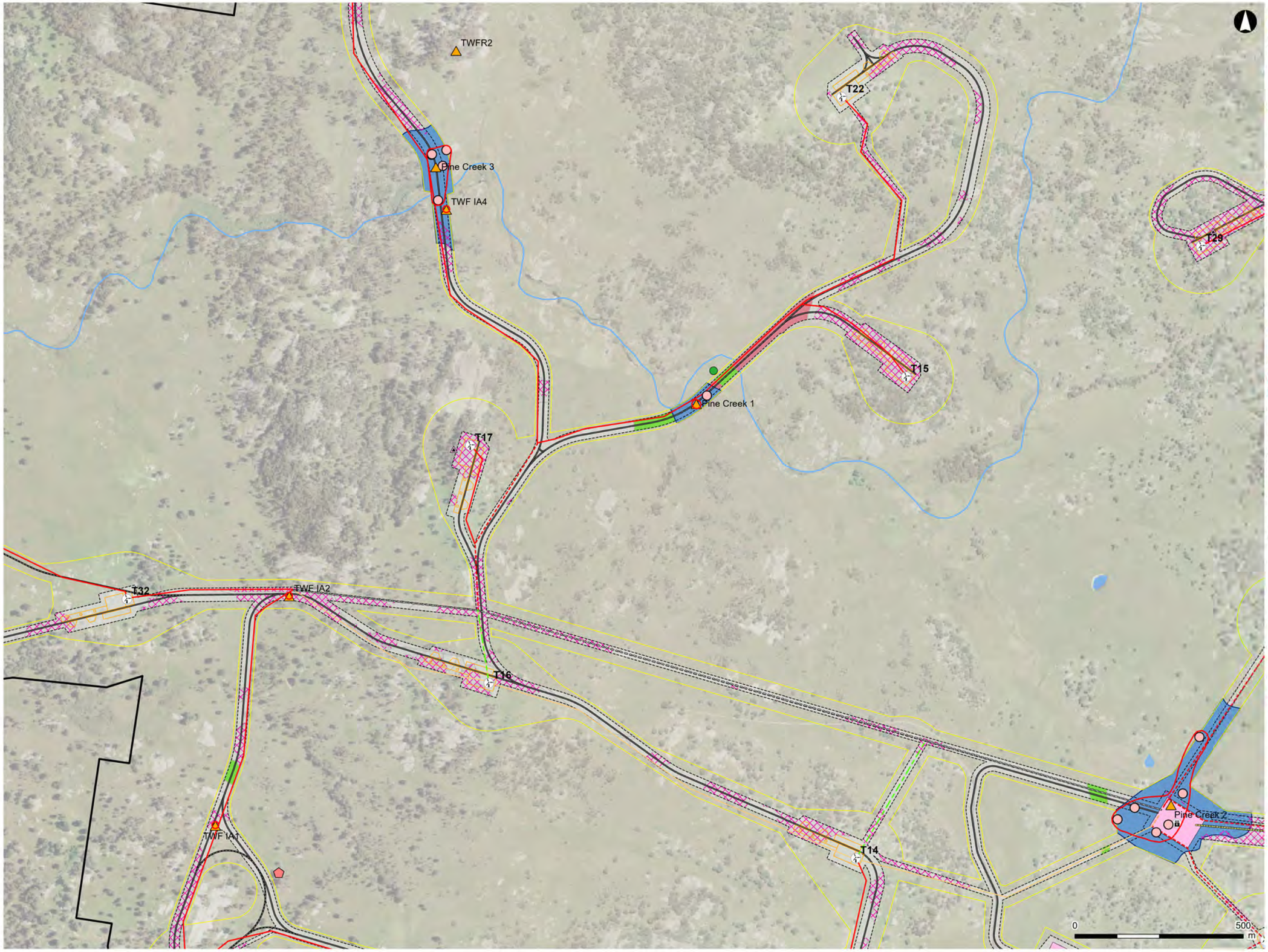

Project

- Development corridor
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- Subject land
- Infrastructure
- High voltage TXL route
- Option 1 underground trench to overhead line
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- Conceptual access track (civil)
- Hardstand area
- Conceptual turbine layout
- High voltage plant
- Watercourse
- Waterbody

Heritage

- No-go zone
- PAD
- AHIMS site
- Artefact

Non-excavated archaeological site

- Possible scarred tree
- Potential stone arrangement

Biodiversity

Threatened Ecological Communities (TEC)

- Carex Sedgeland of the New England Tableland, Nandewar, Brigalow Belt South and NSW North Coast Bioregions
- White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Nil
- Koala habitat

Threatened fauna species

- Latham snipe
- Koala (Camera trap)

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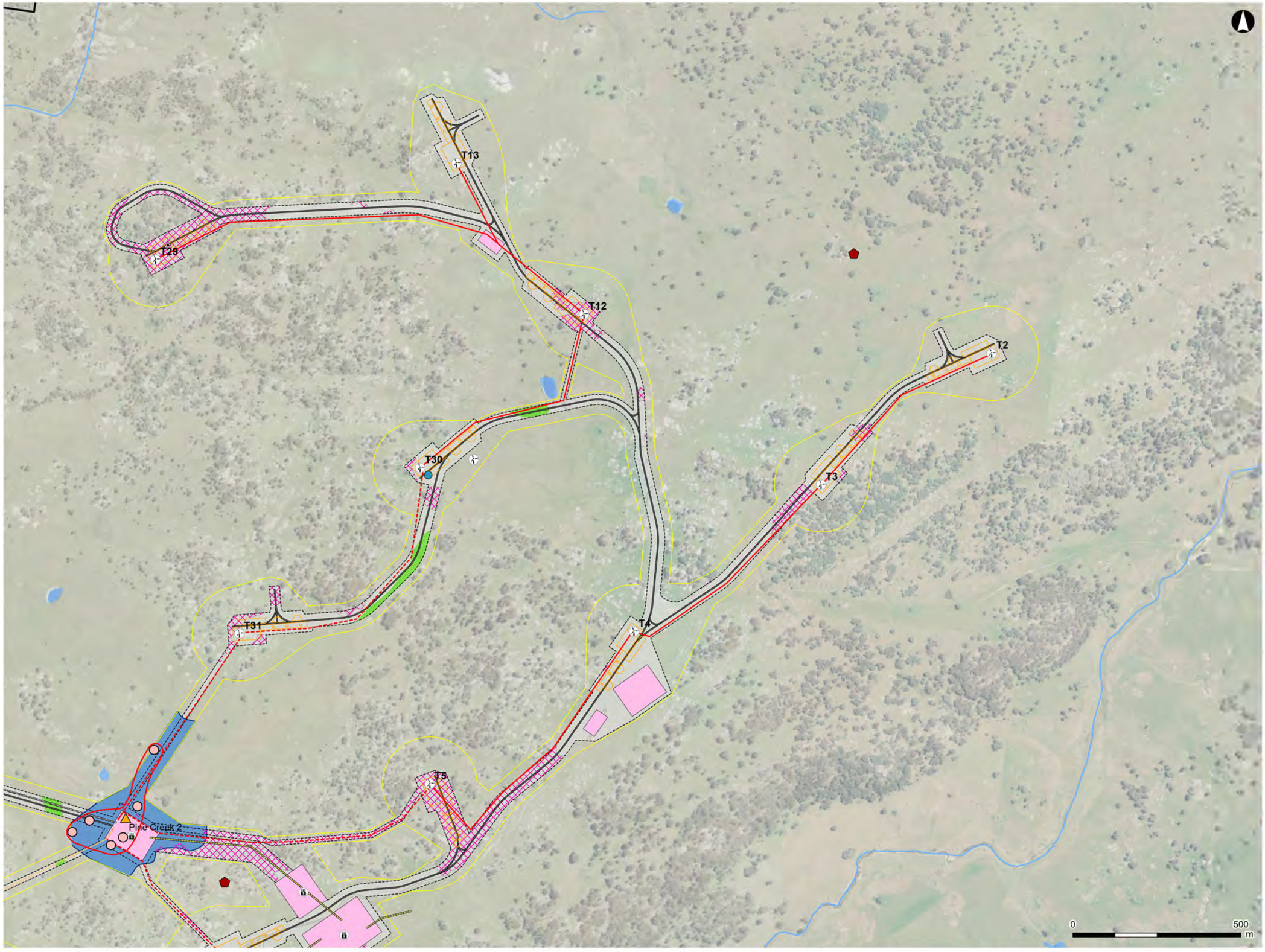

Project

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- Hardstand area
- Conceptual turbine layout
- High voltage plant
- Watercourse
- Waterbody

Heritage

- No-go zone
- PAD
- AHIMS site
- Artefact

Non-excavated archaeological site

- Potential stone arrangement

Biodiversity

Threatened Ecological Communities (TEC)

- Carex Sedgeland of the New England Tableland, Nandewar, Brigalow Belt South and NSW North Coast Bioregions
- Nil

- Koala habitat

Threatened fauna species

- Little Eagle
- Koala (Camera trap)

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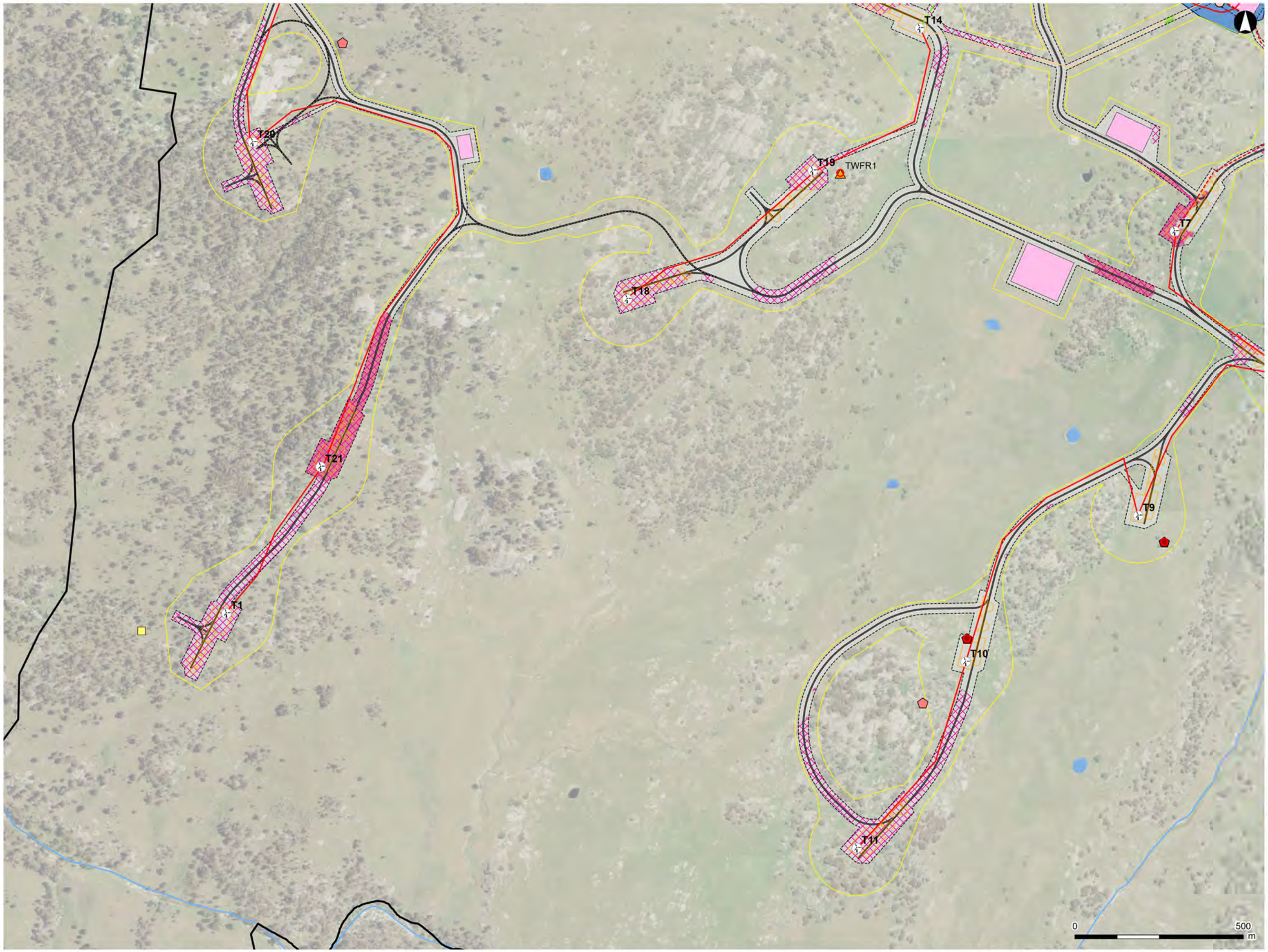

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- Possible scarred tree
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Biodiversity

Threatened Ecological Communities (TEC)

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- Nil
- Koala habitat
- Barking Owl

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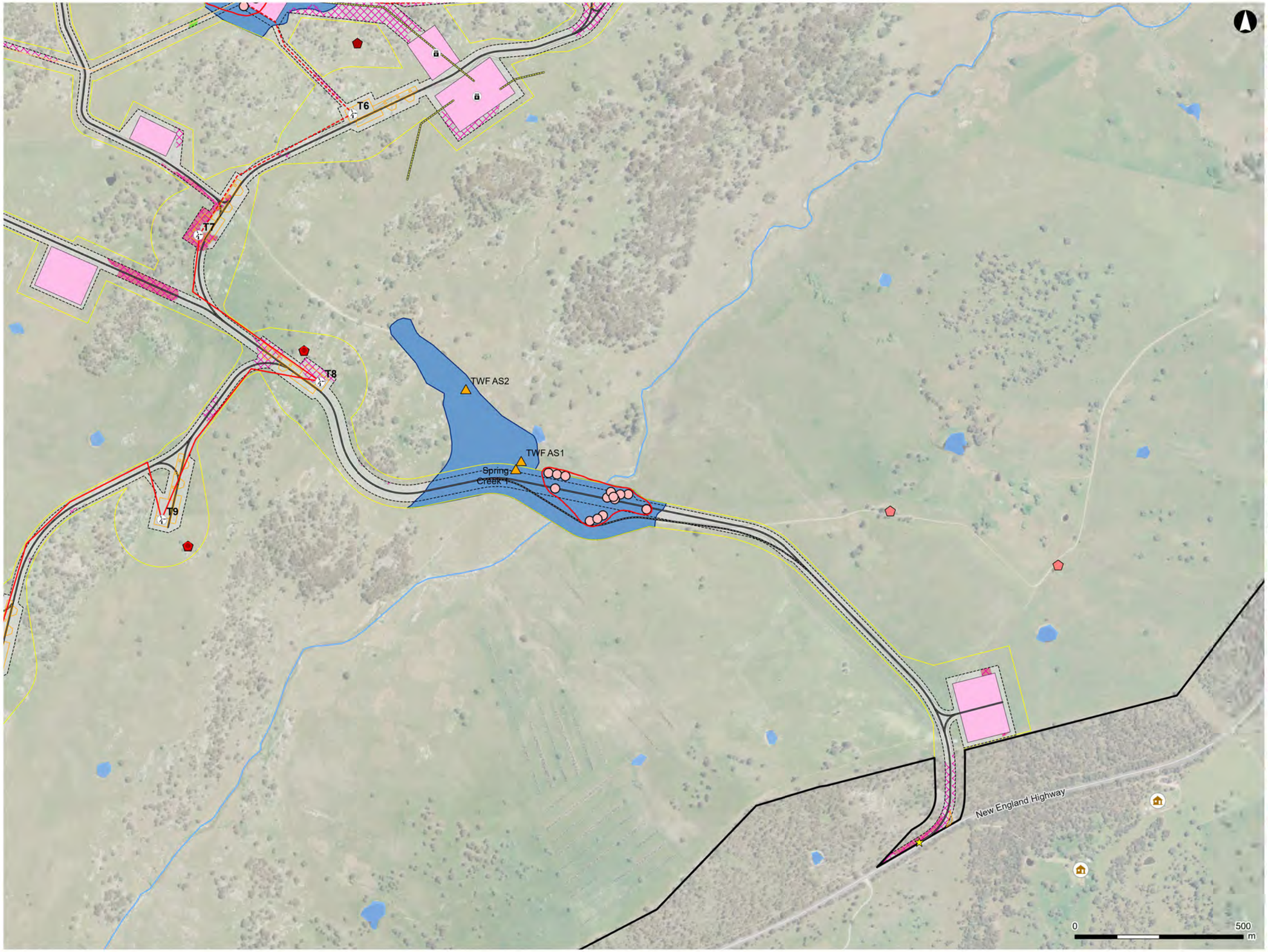

Project

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- High voltage plant
- Site access point
- Non-Associated Landholder - Dwelling
- Watercourse
- Waterbody

Heritage

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Biodiversity

Threatened Ecological Communities (TEC)

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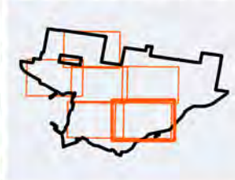

APPENDIX D Environmental Work Method Statement

Project Thunderbolt Wind Farm *Contractor doing the work*	ENVIRONMENTAL WORK METHOD STATEMENT	EWMS	#
	ACTIVITY NAME *(e.g., vegetation clearing, excavation)*	REV.	
		DATE	

ACTIVITY DETAILS	
Description of the activity	Include a summary of the activity, scope and how it fits into the broader construction program
EWMS objectives	The objectives for this specific EWMS are: •
Key environmental elements	The key environmental elements that could be affected by construction impacts and need to be protected are: • E.g., Endangered / threatened flora • E.g., Heritage Known environmentally sensitive areas are detailed in the map at Attachment A.
Location of the activity	A map showing the key features of the activity, and the environmentally sensitive areas, is included at…….e.g., attachment name.
Construction method	
Timing of works and expected duration	
Hours of Operation of Activity	• Monday to Friday • Saturday • Sunday • Public holidays Other timing restrictions: e.g., noise respite periods
Approvals / permits / licences required	The key environmental approvals/licences/permits required include: • E.g., dial before you dig • E.g., ROL

CONSULTATION / COMMUNICATION REQUIRED

The stakeholder consultation that will be undertaken before, during or after this activity is as follows:

Consultation / communication activity	Stakeholder	Timing	Responsibility
E.g. Notification of start of works	*Local residents and businesses*	*>5 days prior to commencing works*	*Communications manager*

INCIDENT RESPONSE

Environmental incidents will be managed in accordance with the incident procedure detailed in the document e.g., EMS

The key step on-site is immediate notification of environmental incidents to:

- provide name and contact details

RELEVANT DOCUMENTS

The key documents that relate to this activity are:

- E.g., EMS
- BBAMP
- DBYD

TRAINING

All personnel undertaking this activity will be trained in this EWMS.

The EWMS sign-on sheet will be completed by all personnel who have undertaken training and will be filed for record-keeping. Relevant staff will also have the following training in order to effectively implement this EWMS:

Training	Relevant Personnel
E.g., Erosion and Sediment Control	E.g., Leading hands, foreman

RISK ASSESSMENT AND ENVIRONMENTAL CONTROLS

1. Conduct a risk analysis using consequence and likelihood tables and review the aspects and impacts table for any potential risks in the area
2. Identify the sequential tasks
3. Identify the corresponding hazards for each task
4. Determine the initial environmental risk for each activity
5. Clearly describe the site-specific environmental controls that will be implemented to manage each hazard i.e., Eliminate ---- Substitute ----- Engineering controls --- Administrative controls
6. Determine the residual risk level that will remain after implementation of the environmental controls.

Risk Assessment and Environmental Controls							
	Sequence of tasks	**Plant / equipment**	**Hazard**	**Initial risk**	**Site-specific Environmental Controls**	**Residual risk**	**Responsibility for managing environmental risks**
1	*E.g.- Install orange flagging (bunting) with star pickets to delineate construction boundary*	*Hand tools only*	*Flagging installed in wrong area, resulting in clearing outside construction boundary*	*VH*	*Survey used to confirm construction boundary*	*L*	*Environment Mgr, Survey*
2							
3							
4							
5							
6							

Training in this EWMS delivered by:				
Name	**Position**	**Company**	**Signature**	**Date**

EWMS Sign-on: Personnel signing on to this EWMS confirm they understand the content of the EWMS and will implement the environmental controls contained within				
Name	**Position**	**Company**	**Signature**	**Date**

ATTACHMENTS

Attachments to this EWMS are:

A. Map of activity, including known environmentally sensitive areas
B. Diagram of environmental controls
C. Any other considered appropriate e.g., photos, construction drawings etc

APPENDIX E Biodiversity Management Plan

APPENDIX F Bird and Bat Adaptive Management Plan

APPENDIX G Heritage Management Plan

APPENDIX H Traffic and Transport Management Plan

APPENDIX I Emergency Response Plan

APPENDIX J Waste Management Plan

APPENDIX K Erosion and Sediment Control Plan