

# ENVIRONMENTAL MANAGEMENT STRATEGY

## Maragle Substation and 330kV Transmission Line Connections

### DECLARATION OF ACCURACY

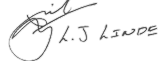
In relation to S3.1 of the commonwealth document '*Environmental Management Plan Guidelines, Commonwealth of Australia, 2014*' please find the following signed declaration for the Environmental Management Strategy (Stage 1 reference 3200-0645-PLN-038-EMS\_0.08 and Stage 2 reference HLW-HLJV-PRW-ENM-PLN-000019\_rev 0.08) in relation to approval EPBC 2018/8363.

Declaration of Accuracy,

In making this declaration, I am aware that section 491 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

#### Stage 1

Signed:



Full name (please print):

Louis Linde

Position:

Project Manager

Organisation:

UGL Engineering Pty Ltd

Date:

10 December 2024

Signed:



Full name (please print):

Oliver King

Position:

Project Director

Organisation:

Transgrid

Date:

12 Dec 2024

#### Stage 2



Tim Burns

Project Director

UGL/CPB Joint Venture

05 Nov 2024



Jeremy Roberts

Project Director

Transgrid

05 Nov 2024

# Environmental Management Strategy

Snowy 2.0 Transmission Connection Project

Stage 1 Document Number: 3200-0645-PLN-038-EMS


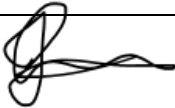
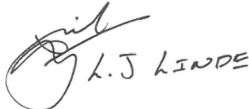

Stage 2 Document Number: HLW-HLJV-PRW-ENM-PLN-000019

**TransGrid**  
Date 05/08/2024

Snowy 2.0 TCP  
Construction Environmental Management Strategy

## Document Control

## Approvals

<b>Title</b>	Snowy 2.0 Transmission Connection Project – Environmental Management Strategy
<b>Approved on behalf of Transgrid (Snowy 2.0 TLP) by</b>	Andrew Buttigieg
<b>Signed</b>	
<b>Dated</b>	22/11/2024
<b>Approved on behalf of Transgrid HumeLink by</b>	Jeremy Roberts
<b>Signed</b>	
<b>Dated</b>	<b>01 Nov 2024</b>
<b>Approved on behalf of UGL by</b>	Louis Linde
<b>Signed</b>	
<b>Dated</b>	20/11/24
<b>Approved on behalf of HLWJV by</b>	Tim Burns
<b>Signed</b>	
<b>Dated</b>	28 Oct 2024

## Snowy 2.0 TCP Construction Environmental Management Strategy

### Version Control

Revision	Date	Description	Author	Reviewer	Approver
0.01	04/10/2022	Initial issue for review	Jane Love	Kim Lembke	Trevor Noble
0.02	10/11/2022	Required plan review	Jane Love	Kim Lembke	Trevor Noble
0.03	20/02/2023	Addressing DPE comments	Whitney Heiniger	Kim Lembke	Trevor Noble
0.04	2/03/2023	Addressing Transgrid comments	Whitney Heiniger	Kim Lembke	Trevor Noble
0.05	31/05/2023	Addressing DPE comments	Whitney Heiniger	Kim Lembke	Trevor Noble
0.06	28/07/2023	Addressing DPE comments	Whitney Heiniger	Kim Lembke	Trevor Noble
0.07	01/08/2024	Addressing Independent Environmental Audit comments	Camille Palmer	Brendan Toohey	Tim McCarthy
0.08	5/08/2024	Update to include Stage 2	Nicholas Mok	Ian Irwin / Brendan Toohey	Louis Linde / Tim Burns

### Distribution of controlled copies

This Environmental Management Strategy is available to all personnel and sub-contractors via the Project document control management system. An electronic copy can be found on the Snowy 2.0 TCP website.

The document is uncontrolled when printed. One controlled hard copy of the CEMP and supporting documentation will be maintained by the Quality Manager at the Project office (and relevant documentation is available on the Snowy 2.0 TCP website [Snowy 2.0 Transmission Connection | Transgrid](#)).

Copy number	Issued to	Version



# Snowy 2.0 TCP

## Construction Environmental Management Strategy

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## Snowy 2.0 TCP Construction Environmental Management Strategy

### Definitions

Term	Definition
Compliance audit	Verification of how implementation is proceeding with respect to a Construction Environmental Management Plan (CEMP) (which incorporates the relevant approval conditions).
Contractor or Principal Contractor	<p>Stage 1 of the scope of works for design and construction the Contractor or Principal Contractor is UGL Pty Ltd</p> <p>Stage 2 of the scope of works for design and construction the Contractor or Principal Contractor is UGL/CPB Joint Venture (HLWJV).</p> <p>Any reference to the 'Contractor' relates to the activities of both appointed Contractors (UGL and UGL/CPB Joint Venture), but only as is relevant to the appointed stage of works.</p>
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly, or partially resulting from an organisation's environmental aspects.
Environmental incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
Environmental Representative	A suitably qualified and experienced person independent of Snowy 2.0 Transmission Line Project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.

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Term	Definition
Snowy 2.0 Transmission Line Approvals	Snowy 2.0 Transmission Line approvals include: Snowy 2.0 Transmission Line Infrastructure Approval NSW SSI 9717 Snowy 2.0 Transmission Line EPBC Approval Cth EPBC 2018/8363
Non-compliance	Failure to comply with the requirements of the HumeLink Approvals or any applicable licence, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of HLW system documentation including this CEMP or supporting documentation.
Planning Approval Documentation	The NSW planning approval documents, as they relate to the Snowy 2.0 Transmission Line and as listed in CoA A2 of the NSW Infrastructure Approval for HumeLink (SSI9717)
Principal, the	Transgrid
Synergy	UGL-CMS incident management software program to manage, report, record and take action on emergency and incidents.



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## Abbreviations

Term	Definition
<b>BCS</b>	Biodiversity, Conservation and Science Directorate
<b>BMP</b>	Biodiversity Management Plan
<b>CEMP</b>	Construction Environmental Management Plan
<b>COA</b>	Conditions of Approval
<b>CLMP</b>	Contaminated Land Management Plan
<b>CSSI</b>	Critical State Significant Infrastructure
<b>DCCEEW-Cth</b>	Commonwealth Department of Climate Change, Energy, the Environment and Water
<b>DCCEEW-NSW</b>	NSW Department of Climate Change, Energy, the Environment and Water
<b>DPE</b>	Department of Planning and Environment
<b>DPHI</b>	Department of Planning, Housing and Infrastructure (Formerly DPE)
<b>DPI</b>	Department of Primary Industries
<b>EP&amp;A Act</b>	Environmental Planning and Assessment Act 1979
<b>EPA</b>	Environment Protection Authority
<b>EPBC</b>	Environment Protection and Biodiversity Conservation Act 1999
<b>EP</b>	Emergency Plan
<b>EMP</b>	Environmental Management Plan(s)
<b>EMS</b>	Environmental Management System (or Strategy)
<b>FCNSW</b>	Forestry Corporation NSW
<b>FRNSW</b>	Fire and Rescue NSW
<b>HMP</b>	Heritage Management Plan
<b>HSSE</b>	Health, Safety, Security and Environment

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Term	Definition
<b>KM</b>	Kilometres
<b>KNP</b>	Kosciuszko National Park
<b>KV</b>	Kilovolts
<b>MW</b>	Megawatt
<b>MWH</b>	Megawatt hours
<b>NEM</b>	National Electricity Market
<b>NPWS</b>	National Parks and Wildlife Service
<b>NRAR</b>	Natural Resources Access Regulator
<b>NSW</b>	New South Wales
<b>NVMP</b>	Noise and Vibration Management Plan
<b>PC</b>	Contractor or Principal Contractor as defined in the 'Definitions' Table above
<b>RFS</b>	Rural Fire Service
<b>RMP</b>	Rehabilitation Management Plan
<b>UGL-EMS</b>	UGL's Environmental Management System
<b>SEP</b>	Site Environmental Plan
<b>SHL</b>	Snowy Hydro Limited
<b>SMP</b>	Spoil Management Plan
<b>SWMP</b>	Soil and Water Management Plan
<b>TARP</b>	Trigger Action Response Plan
<b>TTMP</b>	Traffic and Transport Management Plan
<b>WHS</b>	Work Health and Safety

## Snowy 2.0 TCP Construction Environmental Management Strategy

# 1 Introduction

## 1.1 Background

In 2020, Snowy Hydro Limited (SHL) obtained approval (application number SSI 9208 and EPBC 2018/8322) to expand the existing Snowy Mountains Hydro-electric Scheme (Snowy Scheme), by linking the existing Tantangara and Talbingo reservoirs through a series of underground tunnels and constructing a new underground hydro-electric power station (referred to as 'Snowy 2.0'). Snowy 2.0 is expected to increase the generation capacity of the Snowy Scheme by almost 50%, by providing an additional 2,000 megawatts (MW). At full capacity Snowy 2.0 will provide approximately 350,000 megawatt hours (MWh) (175 hours) of large-scale energy storage to the National Electricity Market (NEM). This will be enough to ensure the stability and reliability of the NEM, even during prolonged periods of adverse weather conditions.

To connect Snowy 2.0 to the NEM, a new transmission connection is required. NSW Electricity Networks Operations Pty Ltd as a trustee for NSW Electricity Operations Trust (known as Transgrid and the Proponent) have approval to construct a substation and overhead transmission lines ('the Project') to facilitate the connection of Snowy 2.0 to the existing electrical transmission network, approximately 27 kilometres (km) east of Tumbarumba.

The Project was declared Critical State Significant Infrastructure (CSSI) under the *State Environmental Planning Policy (State and Regional Development) 2011* as part of the CSSI declaration for the Snowy 2.0 and Transmission Project in clause 9 of Schedule 5. An Environmental Impact Statement (EIS) was prepared by Transgrid under Part 5, Division 5.2 of the *NSW Environmental Planning and Assessment Act 1979* to assess the environmental impacts of the proposed Project.

In response to submissions made during exhibition of the EIS, a Submissions Report and Amendment Report was prepared by Transgrid (2021a, 2021b). The submissions resulted in changes to the Project design, additional assessments and updates to safeguards and management measures outlined in the EIS.

Transgrid advised development approval on the Project (SSI 9717) on 14<sup>th</sup> September 2022 as received from the Minister of Planning.

The Project has also been subject to approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Approval was granted by the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW-Cth) on 21<sup>st</sup> October 2022 (EPBC 2018/8363).

An Environment Protection Licence (EPL) for the Project premises was issued to Transgrid by the NSW Environment Protection Authority (EPA) on 23<sup>rd</sup> December 2022 under the *Protection of the Environment Operations Act 1997* (POEO Act). This EPL requirement was triggered under Schedule 1 of the Protection of the Environment Operations (General) Regulation 2022 due to extractive activities required during construction.

A Staging Approval Request was submitted and approved by the Planning Secretary on 18 November 2022 in accordance with COA C3 of SSI-9717 for the delivery of relevant plans and strategies for the Project in two stages:

## Snowy 2.0 TCP Construction Environmental Management Strategy

- Stage 1 – All activities associated with the construction and operation of infrastructure related to the 330kV grid connection; and
- Stage 2 – All activities associated with the construction and operation of infrastructure related to the 500kV component of the substation.

Transgrid (the Proponent) has engaged UGL Projects Division (UGL) as the Principal Contractor (PC) to construct Stage 1 of the works and UGL / CPB Contractors Joint Venture (HLWJV) as the PC to construct Stage 2 of the Works.

### 1.2 Purpose

This Environmental Management Strategy (EMS) presents the framework for environmental management for construction works carried out by the PCs, as they relate to the relevant Stages for the works approved under SSI 9717. It provides a link between the planning approval phase, detailed design and the construction environmental management documentation. This EMS sets out Transgrid's expectations for the PC's environmental management for the Project. The PCs are required to implement and adhere to the requirements of this EMS.

This EMS has been developed to address the conditions of approval (CoA) for the Project, specifically:

- Provides a strategic framework for environmental management of the Project;
- Identifies the statutory approvals that apply to the Project (Section 6, Appendix A);
- Describes the role, responsibilities, authorities, and accountabilities of all key personnel involved in the environmental management of the Project (Section 3.10);
- Sets out procedures to be implemented:
  - To keep the local community and relevant agencies informed about the operation and environmental performance of the Project (Section 4);
  - Receive, handle respond to and record complaints (Section 4.2);
  - Resolve any disputes that may arise (Section 4.2);
  - Respond to any non-compliances (Section 3.9); and
  - Respond to emergencies (Section 3.7)
- Includes:
  - References to any strategies, plans and programs approved under the COA (Section 6); and
  - A clear plan outlining all the monitoring to be carried out in relation to the Project including reporting obligations (Section 3.8).

The implementation of this EMS will ensure all reasonable and feasible measures are employed during works to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction of the development. This EMS represents an overarching document for the Project, with specific environmental management requirements and compliance assurance addressed in the CEMP and relevant subplans.



## Snowy 2.0 TCP Construction Environmental Management Strategy

### 1.3 Status

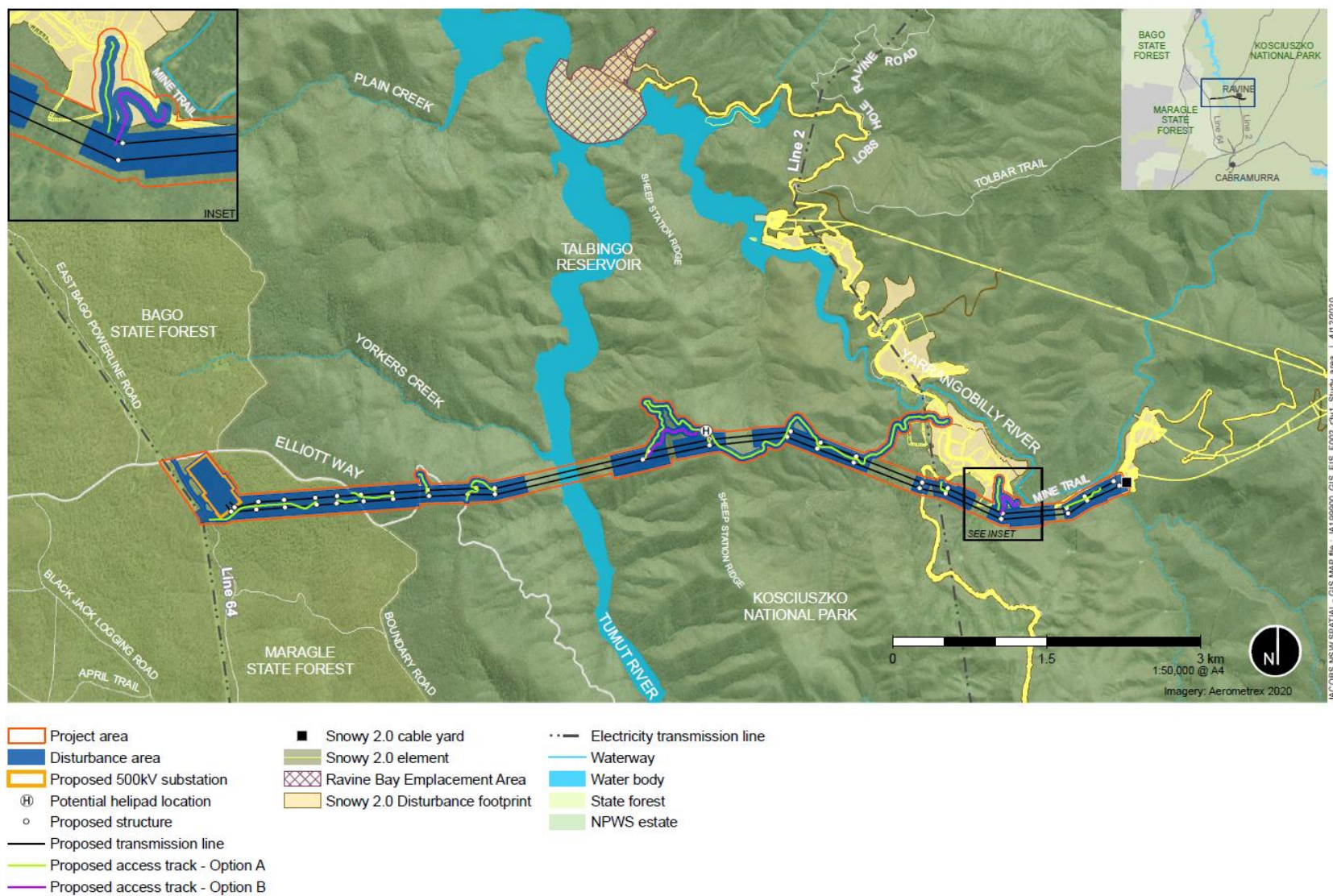
Refer to the revision table on the title page of this EMS, which is updated as required. All versions of the EMS will form part of the contract requirements for the PC. The EMS will continue to be updated by Transgrid and form part of the contract requirements of the Project.

### 1.4 The Project

The Project is located within both Kosciuszko National Park (KNP) and Bago State Forest, approximately 47 kilometres (km) east of the township of Tumbarumba, NSW. An indication of Project location is included in Figure 1-1.

The key elements of the Project include:

- A new 500 kilovolt (kV) substation and 330 kV Switching Yard (Maragle Substation) located within Bago State Forest and adjacent to Transgrid's existing Transmission Line 64 (Line 64);
- Two 330 kV double-circuit overhead transmission lines, approximately nine kilometres long, linking the Snowy 2.0 cable yard in KNP to the new substation;
- A short overhead transmission line connection between the substation and Line 64;
- Construction of new access tracks and upgrade of existing access tracks where required to facilitate the construction of the transmission lines and substation and service ongoing maintenance activities; and
- Establishment of temporary sites and infrastructure needed during construction including crane pads, site compounds, equipment laydown areas, and tensioning and pulling sites for the stringing of overhead conductors and earthwires.



**Figure 1-1 Project location and footprint (Jacobs, 2021)**

**Title:** Projects Environmental Management Strategy

**ID:** UGLMS-4-1534 Version: 0.06 **Date Published:** 28/07/2023

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## 2 Legislative and other requirements

This EMS has been developed in accordance with the:

- Key legislative requirements;
- Project Approval documentation;
- Transgrid's Environmental Policy;
- UGL's Environmental Management System;
- Standards and guidelines;
- Detailed design;
- Transgrid's policies and procedures.

All activities undertaken in the delivery of the Project must comply with the conditions of Project approvals and the provisions of the legislation. The EMS will be updated to reflect Project COA, and other permits, approvals and licences when available and required.

### 2.1 Project approval process

On 7 March 2018 the NSW Minister for Planning declared Snowy 2.0 to be Critical State Significant Infrastructure (CSSI reference 18-9208) under the provisions of the EP&A Act on the basis that it is critical to the state for environmental, economic and social reasons. This declaration came into effect on 9 March 2018 and is included in clause 9 of Schedule 5 of the State Environmental Planning Policy (State and Regional Development) 2011.

As Snowy 2.0 and Transmission Project is declared CSSI, applications for the different stages of the Project are required to be submitted under Part 5, Division 5.2 of the EP&A Act. The NSW Minister for Planning is the consent authority for applications for CSSI. Each application is subject to the provisions and requirements of a rigorous and robust planning process under the EP&A Act. The Project Approval Documentation includes the Environmental Impact Statement – Snowy 2.0 Transmission Connection Project (Jacobs, 2021), associated technical assessments, submissions report and amendment report.

A referral under the EPBC Act (2018 / 8363) was made to the former Commonwealth Department of Environment and Energy (DEE) (now DCCEEW) on 28 February 2019 to consider whether the project would be considered to be a controlled action. On 5 April 2019, the former DEE determined the project to be a 'controlled' action on the basis of potential impacts to the following under the EPBC Act:

- Listed threatened species and communities;
- Listed migratory species; and
- The heritage values of a National Heritage.

The NSW Government confirmed the action would be assessed under the "Bilateral agreement made under section 45 of the EPBC Act relating to environmental assessment between Commonwealth of Australia and the State of New South Wales" (Bilateral Agreement) (2015). Project approval was granted by the DCCEEW on 21<sup>st</sup> October 2022.

## Snowy 2.0 TCP Construction Environmental Management Strategy

An EPL for the Project premises was issued to Transgrid by the NSW EPA on 23<sup>rd</sup> December 2022 under the POEO Act. This EPL requirement was triggered under Schedule 1 of the Protection of the Environment Operations (General) Regulation 2022 due to extractive activities required during construction.

The term Project conditions of approval (COA) refers to the infrastructure approval issued by the Minister of Planning (NSW) and released publicly on the 14<sup>th</sup> September 2022, EPBC approval issued by DCCEEW on 21<sup>st</sup> October 2022 and EPL conditions issued by NSW EPA on 23<sup>rd</sup> December 2022.

The requirements of the approval documentation and Project COA are required to be complied with by Transgrid. Responsibility for implementing mitigation measures and COA are allocated between Transgrid and the PC. The responsibility for each COA being met is outlined in Appendix A of this EMS, as well as where each condition can be found in relevant subplans.

It is noted that, in accordance with Infrastructure Approval SSI 9717, NSW State approval for this Project will lapse in the event that construction works are not commenced within 5 years of the approval date.

## 2.2 Key legislative requirements

Legislation applicable to the Project is outlined in the management section for each environmental aspect management plan. A legal register is also provided Appendix C of the Project's Construction Environmental Management Plan (CEMP). The legal register identifies some of the key legislative requirements and how they will apply to the construction of the Project including responsibilities. Transgrid and the PC will regularly review their legislative requirements. This EMS will be updated to reflect changes to legislation and/ or responsibility as required.

## 2.3 EPBC Approval

In accordance with the EPBC approval, unless otherwise agreed to in writing by the DCCEEW Minister, the EMS and Biodiversity Management Plan (BMP) must be published on the website within 15 business days of the date the plan is approved by the NSW Planning Secretary. The published plans (EMS and BMP) are required to be on the website until the expiry date of the approval.

Transgrid and the PC are required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public. If sensitive ecological data is excluded or redacted from a plan, Transgrid must notify the department in writing what exclusions and redactions have been made in the version published on the website.

## 2.4 Documentation approval

### 2.4.1 EPBC document approval

This EMS and the Biodiversity Management Plan required by conditions B21 and C1 of the State Infrastructure Approval are to be submitted to DCCEEW for Minister's approval before they are approved by the NSW Planning Secretary.

The plans must be submitted electronically to the department.

### 2.4.2 NSW DPE (now DPHI) document approval



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This EMS and relevant managements plans as per the Project COA were submitted to the Department of Planning and Environment (now referred to as Department of Planning, Housing and Infrastructure (DPHI)) for confirmation that the document has been prepared to the satisfaction of the Secretary. In accordance with the Project COA, the following plans are required to be provided to the Planning Secretary for approval includes:

- Environmental Management Strategy (COA - C1)
- Spoil Management Plan (COA – B8)
- Water Management Plan (COA – B16)
- Biodiversity Offset Package (COA – B18)
- Biodiversity Management Plan (COA – B21)
- Heritage Management Plan(s) (COA – B24)
- Transport Strategy (COA – B27)
- Traffic and Transport Management Plan (COA – B32)
- Visual Impact Management Plan (COA – B36)
- Emergency Plan (COA – B42)
- Rehabilitation Management Plan (COA – B48)

Following approval/acceptance of the documents, Transgrid and the PC will be responsible for the implementation of this EMS.

### 2.5 Environmental Governance and Possession of site

Transgrid (as the Proponent) have specific environmental outcomes that need to be met, and likewise for the PC where environmental outcomes are fundamental to ensuring compliance and future works.

Both organisations have environmental governance and Environmental Policies in place. The PC's Environmental Policy Statement is provided in the Construction Environmental Management Plan, whilst Transgrid's is provided in Appendix B.

The PC's CEMP also provides detail on their Environmental Management Framework, Organisational Commitment and the Environmental Management System which supports the CEMP subplans and provides functionality to achieve tangible outcomes.

Transgrid also provide their environmental framework for reference as Appendix C.

The PC anticipate taking possession of site during 2023 for Stage 1 and during 2024 for Stage 2. Possession of site is a milestone scheduled for the PCs to undertake construction works that are no longer subject to limitations of pre-construction minor works defined by the COA.

Possession of site gives the PC certain rights under the engagement contract with Transgrid and starts the construction schedule for meeting key dates and approval outcomes.

### 2.6 Standards and guidelines

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Standards, policies and guidelines relevant to the Project are detailed within the respective environmental management plans and have been taken into consideration in the preparation of this EMS.

## 3 Environmental Management Requirements

### 3.1 Construction Environmental Management Plan

The PC is required to prepare and implement a CEMP as outlined in the contract with Transgrid. The CEMP shall include a main document, issue specific sub-plans, activity specific procedures and site based environmental plans. Section 4.5 of the CEMP shall illustrate the relationship between other plans required by the contract. A document map outlining the relationship between has been provided in Appendix D.

The CEMP outlines and describes how the PC will comply with the Project COA, state and federal legislation, the Project EIS and Amendment Report and all associated licences, permits and approvals. Additionally, it will outline how the PC will minimise environmental risks and achieve environmental outcomes associated with the Project by providing a structured approach to ensure appropriate mitigation measures and controls are implemented.

The CEMP will:

- Cover the requirements of the relevant Project approval documentation and COA;
- Address the conditions of all other permits, approvals and licences;
- Meet the environmental provisions of the contract documentation;
- Be compliant with this Environmental Management Strategy;
- Be consistent with UGL's Environmental Management System (UGL-EMS) and AS/NZS ISO 14001:2015 (noting both the PCs will be adhering to the UGL-EMS);
- Be supported by a process for identifying and responding to changing legislative or other requirements;
- Include processes for assessing construction methodology changes for consistency against the Project COA and other permits, approvals and licences;
- Include processes for tracking and reporting performance against contract compliance targets;
- Include a procedure for the identification and management of Project specific environmental risks and appropriate control measures; and
- Be consistent with Transgrid's and UGL's Environmental Policy.

As a minimum the CEMP will:

- Describe the Project in detail, including activities to be undertaken;
- State obligations, objectives and targets for issues that are important to the environmental performance of the Project;
- Project approvals, licences and permits that relate to Principal Contractor activities;
- Describe the strategic framework for environmental management of the Project;
- Describe the environmental management related roles and responsibilities of personnel;

## Snowy 2.0 TCP Construction Environmental Management Strategy

- Outline training and induction requirements for employees, contractors and sub-contractors, in relation to environmental and compliance obligations with applicable policies, approvals, licences, permits, consultation agreements and legislation;
- Describe the procedures that will be implemented for complaints notification and management;
- Include protocols for managing and reporting incidents and non-compliances with applicable policies, approvals, licences, permits, consultation agreements and legislation;
- Outline a monitoring regime and inspection program to check the adequacy of controls as they are implemented during construction;
- Outline procedures for emergency and incident management; and
- Outline procedures for the control of environmental records.

The CEMP and subplan documents will be prepared to identify requirements and processes applicable to specific impacts or aspects of the activities of the Project. The subplans that are to be read and implemented in conjunction with the CEMP include:

- Environmental Management Strategy (this plan)
- Soil & Water Management Plan
- Spoil Management Plan
- Biodiversity Management Plan
- Heritage Management Plans
- Noise & Vibration Management Plan
- Contaminated Land Management Plan
- Traffic and Transport Management Plan
- Emergency Plan; and
- Rehabilitation Management Plan.

### 3.2 Site Environmental Plans

Development of Site Environmental Plans is indicated in the CEMP. The site plans will be a continuous representation of the site and will align with the design and layout developed for the construction of the Project. The initial site environmental plans will be developed prior to construction using the template provided in the CEMP and maintained for currency throughout the project works. The environmental site plans will include (but not limited to):

- Design drawings or plans;
- Site significant or sensitive areas;
- Work areas, boundaries and no-go areas; and
- Environmental control measures and environmentally sensitive receivers.



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### 3.3 Additional Environmental Assessments

Where the requirement for an additional environmental assessment is identified, it will be undertaken prior to undertaking any physical works that is subject to the assessment and within the required timeframes. If any works are required outside the approved EIS footprint, or there is a lack of information or information is missing regarding an aspect, additional environmental assessments may be required. Environmental assessments will be carried out in accordance with the relevant legislation and in consultation with relevant agencies, if applicable. No works will be undertaken outside of the approved EIS footprint without approval.

### 3.4 Dilapidation Reports

As per Project COA, Transgrid must undertake an independent dilapidation survey to assess:

- The existing condition of all local roads on the transport route (including local road crossings) prior to construction, upgrading or decommissioning works;
- Condition of all local roads on the transport route (including local road crossings) within 1 month of the completion of construction, upgrading or decommissioning works, or within a timeframe agreed to by the relevant roads authority/manager; and
- On an annual basis during construction, or within a timeframe agreed to by the relevant roads authority/manager.

Pre and post construction dilapidation reports will be provided to DPE for their information. Transgrid is also obligated to rehabilitate and/or make good any development related damage to the satisfaction of the relevant roads authority/manager such as that identified:

- During construction and/or decommissioning works within 7 days at the latest, unless agreed otherwise by the relevant road authority/manager; and
- In project dilapidation surveys, within 2 months of the completion of the survey to the satisfaction of the relevant roads authority/manager.

### 3.5 Environmental Project Hold Points

The PC will meet the requirements of relevant Hold Points, Permits or Approvals prior to and during project activities. Works must not proceed until Hold Points, Permits or Approvals have been released. Section 4.9 of the CEMP details aspects relevant to Hold Points, Permits and Approvals. It is expected that non-conformance will be issued if activities proceed without signoffs or approval.

### 3.6 Training, Awareness and Competence

The PC will be responsible for determining the training needs of their personnel.

Training will be undertaken in the following forms:

- Project induction;
- Toolbox talks and environmental awareness;
- Daily pre-start meetings; and
- Targeted environmental training.

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Records of induction and training will be kept including the training carried out, dates, participant names and trainer details. Inductees will be required to sign-off that they have been informed of the environmental issues and that they understand their responsibilities.

Further details on training, awareness and competence are provided in Section 6 of the CEMP.

### 3.7 Emergency and Incident Management

Transgrid and the PC recognise and appreciate the critical requirement for emergency and incident management for the Project, particularly following the events of the Dunns Road fire in 2019-20 and environmental sensitivities surrounding the Project site.

A Project Emergency Plan (EP) has been developed by a suitably qualified and experienced person endorsed by NPWS and FCNSW in accordance with COA B42, and will be implemented in accordance with the Project COA, relevant legislation and guidelines. The EP will be provided to the following agencies for review and sign off:

- National Parks and Wildlife Service (NPWS);
- Forestry Corporation NSW (FCNSW);
- Rural Fire Service (RFS);
- Fire Rescue NSW (FRNSW).

The EP includes:

- Emergency preparedness;
- Response actions depending on the type of emergencies including bushfires, floods, landslips as well as measures to minimise the risks of these emergencies;
- Fire risk management in accordance with COA B41;
- Evacuation protocols for the site; and
- Details how live transmission infrastructures would be safely isolated in an emergency.

All environmental incidents shall be managed in accordance with the EP.

Management measures to respond to incidents are detailed in Table 3-1. These measures are available onsite to project personnel within the Site Environmental Plan (SEP).

Table 3-1 Management measures for responding to environmental incidents

PROJECT/SITE ENVIRONMENTAL INCIDENTS AND EMERGENCY RESPONSE	
Management Measures	Responsibility
<b>In the event an environmental incident occurs in relation to the Project Works:</b>	
Spill Response – Stop Work Immediately and notify UGL Supervisor & Environmental team. Control, Contain and Clean Up in accordance with Spoil Management Plan – SWMP Appendix B Spill Response Procedure	All Site Workers

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PROJECT/SITE ENVIRONMENTAL INCIDENTS AND EMERGENCY RESPONSE	
Management Measures	Responsibility
Discharge Off Site – Immediately notify UGL Supervisor & Environmental team. UGL required to notify Transgrid (Client)	PC CM & SEA
Bushfire Response: <ul style="list-style-type: none"> <li>Project Area West: Muster at the closest Tower structure, and evacuate to Emergency Assembly Area. Follow any directions provided at assembly area, including evacuation routes as advised by emergency services and/or the Emergency Evacuation Coordinator of their delegate</li> <li>Project Area East: Muster at closest Tower structure, and evacuate to Emergency Assembly Area. If further evacuation is required, the Project Team will interface with FGJV and plan suitable evacuation measures. Follow any directions provided at assembly area</li> </ul>	Chief Warden
Flood Response: <ul style="list-style-type: none"> <li>UGL EM &amp; SEA to monitor issued flood watch and flood warning bulletins</li> <li>If advised by the SES or emergency services the PM, Chief Warden or delegate may decide to evacuate site. Prior to flood event or storm reaching the site:               <ul style="list-style-type: none"> <li>Inspect ESC, waste receptacles, stockpiles and chemical storage and undertake maintenance or relocate facilities outside potential flood areas;</li> <li>Isolate plant and relocate/stow/tie-down loose materials</li> <li>Secure work area and move to higher ground</li> </ul> </li> <li>Evacuate to Emergency Assembly Point, and follow any directions provided at assembly area.</li> </ul>	PC EM & SEA; PC PM; PC CM; PC Supervisor; & Chief Warden

### 3.8 Environmental Monitoring, Inspections and Auditing

Environmental monitoring will be undertaken as required and in accordance with any standards, as specified by the Project COA or other permits, approvals and licences. The monitoring requirements for required aspects are included in the relevant environmental management subplans. A summary of these requirements is provided as an environmental monitoring program for the Project in Table 3-2 and within Appendix G of the CEMP.

Table 3-2 Environmental monitoring program

Aspect	Monitoring Parameter	Frequency	Reporting
Training	Number of personnel trained, inducted, and demonstrated understanding of environmental requirements and incident reports.	Monthly	Project Monthly Report
General Site Environment	Environmental site inspection	Weekly	Site inspection checklist

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Aspect	Monitoring Parameter	Frequency	Reporting
	Pre-rainfall inspection	Within 24 hours of the start of a forecasted rainfall event (or on the following working day)  Rainfall event being greater than 50% potential for 10mm or more with 24 hours	Pre-rainfall inspection checklist
	Post-rainfall inspection	Within 24 hours of rainfall event occurring	Post-rainfall inspection checklist
	Transgrid Environmental site inspections	Fortnightly	Site inspection checklist
Environmental Audits	Environmental internal audits as required under the auditing procedure to ensure compliance with the environmental management system, the CEMP and Legal and other requirements	Within the first 3 months and then at least every 6 months	Audit report
	Independent external audits	Within 3 months of commencing construction and then at least every 6 months	Audit report
EPL	Water quality	Monthly	6 monthly monitoring report Annual report
Soil and water (incl. ESC)	Any visible signs of erosion	Weekly	Site inspection checklist
	Drainage and erosion & sediment controls are in place and in good working order	Weekly	Site inspection checklist
	Soil stockpiles and excavations are being protected	Weekly	Site inspection checklist

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Aspect	Monitoring Parameter	Frequency	Reporting
	Sediment has been removed following large storm events and controls maintained	Weekly and after storm events	Post-rainfall inspection checklist
	Effectiveness of landscaping and rehabilitation	Weekly	Site inspection checklist Pre-rainfall inspection checklist Post-rainfall inspection checklist
	Visual inspection for indications of sediment-laden waters, waste waters or pollution (e.g., grease/oil, effluent) because of construction.	Weekly and after each rainfall event	Site inspection checklist Pre-rainfall inspection checklist Post-rainfall inspection checklist
	Visual inspection of settled water for contaminants or sedimentation will be made before water is discharged to drains.	Weekly and after each rainfall event	Site inspection checklist
	Visual inspection of waterway crossings and access tracks	Weekly and after each rainfall event	Site inspection checklist
	Visible erosion on spoil stockpiles	Weekly	
	Spoil and topsoil are being appropriately segregated during excavation and storage activities	Weekly	
	Spoil stockpiles and excavations are being protected	Weekly	
	No spoil is being transported between the east and west sections of the Project	Weekly	
	Inspection of VENM / ENM transportation documentation	Weekly	Refer to SMP
	Inspection of Plant and equipment being used during spoil management	Weekly	

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Aspect	Monitoring Parameter	Frequency	Reporting
	Site Rehabilitation	Refer to RMP	Refer to RMP
Biodiversity	<p>Monitoring the performance of mitigation measures in the BMP and strategies</p> <p>Including for;</p> <ul style="list-style-type: none"> <li>Protected Species – BF, YBG, Masked Owls, GG Cockatoos</li> <li>Breeding Places</li> <li>Bird / Bat collision or electrocution</li> <li>Pest / Predator</li> <li>Weeds / Pathogens</li> <li>Staged Clearing / BOS</li> </ul>	Refer to the BMP	Refer to the BMP
Noise & Vibration	Monitoring the performance of mitigation measures in the NVMP	Weekly	Site inspection checklist
	Noise or vibration being generated by the works	In response to a complaint or an identified concern of potential exceedance. During approved out of hours work	Noise or vibration report/recording forms
	Out Of Hours Works	At request	Refer to OOHWP Protocol in NVMP
Air Quality	<p>Visible dust in air</p> <p>Visual exhaust from machinery, Observation of odours</p>	Weekly	Site inspection checklist
Heritage	<p>Monitoring the performance of mitigation measures in the HMP</p> <p>No work to continue if heritage is found</p> <p>Heritage management measures fully implemented and no heritage incidents.</p>	<p>Weekly</p> <p>At completion of works</p>	<p>Site inspection checklist</p> <p>Post works report</p>



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Aspect	Monitoring Parameter	Frequency	Reporting
Aboriginal heritage salvaged items	Monitoring of salvaged items	Post salvage to outline the effectiveness of the program, Fortnightly to inspect items are still protected	Salvage report Site inspection checklist
Hazardous Materials/ Risk	Appropriate storage and use of hazardous materials (appropriate housekeeping)	Weekly	Site inspection checklist
	Hazards identified during inspections by the Client to be communicated to UGL immediately.	As needs basis	Monthly report
Waste	Effectiveness and appropriateness of waste management and disposal. Effectiveness of chemical bunds. Waste amount, type and proposed disposal locations	Weekly	Site inspection checklist
Spoil Management / Contaminated Land	Testing and managing spoil for leachate, to not impact receiving environments Testing and managing spoil for NOA Monitoring the performance of mitigation measures in the CLMP	As required. Refer to Contaminated Land Management Plan & Spoil Management Plan (in SWMP)	Refer to CLMP & SMP in SWMP

Environmental inspections will be undertaken to evaluate the effectiveness of environmental mitigation and controls. Inspection will include:

- Weekly site inspections;
- Pre and post rainfall site inspections;
- Transgrid inspections; and
- Pre-work inspections.

Audits will be undertaken as required and in accordance with Transgrid and the PC's audit procedures, Project COA or other permits, approvals and licences.

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The audits conducted on this Project will address the following areas:

- Compliance with the CEMP;
- Compliance with legal and other requirements (e.g., Project COA);
- All monitoring and operational reports required by any licences are adequate;
- Environmental mitigation measures specified in CEMP are being implemented and are effective;
- Environmental training records are in order;
- Environmental reports are being completed and acted on;
- Environmental events are being recorded and acted on; and
- Environmental targets are being achieved.

Internal audits are to be carried out within three (3) months of commencing work onsite and then at least every six (6) months thereafter. These audits will be risk-based and verify that the work under the contract complies with the CEMP, sub-plans and approval requirements. More frequent auditing may occur if environmental checks indicate major deficiencies with environmental management of the site.

External (independent) audits also apply. In accordance with the Project COA:

- Infrastructure approval independent audits of the Project will be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (2020) to the following frequency:
  - Within 3 months of commencing construction;
  - Every 6 months of the construction phase thereafter; and
  - Within 3 months of commencement of operations.
- EPBC approval independent audits of the Project will be undertaken in accordance with *Environment Protection and Biodiversity Conservation Act 1999* Independent Audit and Audit Report Guidelines (2019) every five years.

Monitoring, inspections and auditing is discussed further in Section 9 of the Project CEMP.

### 3.9 Environmental Non-Conformances

The PC will document and detail any non-compliances arising out of the above monitoring, inspections, and audits. Transgrid will be made aware of all non-compliances in a timely manner in accordance with the contract requirements.

Environmental non-conformances include:

- Non-compliance with environmental management controls or mitigation measures;
- Non-compliance with COAs;
- Project events which threaten or cause harm to the project site or receiving environments.

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The PC will develop and implement preventative and corrective actions to rectify non-compliance, near misses and hazards identified or reported.

Corrective actions will be developed in consultation with relevant parties and will be assigned to the appropriate staff for close out. Records will be kept of all corrective actions assigned.

### 3.10 Roles & Responsibilities

Environmental compliance is the responsibility of all Project and site personnel. For clarity and effective coordination of the EMS, specific roles and responsibilities for environmental performance and compliance during the construction have been allocated to the following positions:

- General Manager;
- Project Manager;
- Construction Managers;
- Environmental Manager;
- Environmental Advisors;
- HSE Advisors;
- Project Engineers;
- Project Supervisors;
- Leading hands;
- All workers; and
- Subcontractors.

The CEMP (Section 4.11) further details the roles, responsibilities, authorities and accountability of all key personnel involved in the environmental management of the Project. It also details the relationship between Transgrid, the PC and regulatory stakeholders.

All subcontractors engaged by the PC will be required to operate under this EMS and CEMP.

### 3.11 Environmental records and compliance reporting

All environmental records and compliance reporting is to occur in accordance with relevant standards, as specified by the Project COA or other permits, approvals and licences.

The PC is to supply a monthly report including HSE breakdown and works progress update to Transgrid. The Monthly Reports will include details of environmental performance and compliance and detail of any incidents and corrective actions.

Electronic copies of any required compliance records are to be provided to DCCEEW within the timeframe specified, when requested in writing.

Environmental reporting is further detailed in Section 9.4 of the CEMP.

Environmental Management Plans, records of training and inductions, inspections and audits will be kept within an electronic document management system. All documentation will be available onsite.

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Document control is outlined on the cover page of this EMS and shall be updated in line with revisions of the EMS.

### 3.12 Notifications

Notifications will occur in accordance with any standards, as specified by a Project COA or other permits, approvals and licences.

In accordance with the Project Infrastructure COA:

- Prior to commencing development, construction, operations, upgrading or decommissioning of the Project, Transgrid must notify the Department in writing via the Major Projects website portal and NPWS and FCNSW of the date of commencing the relevant phase;
- DPE and NPWS must be notified via the major projects website portal immediately after Transgrid becomes aware of an incident; and
- DPE and NPWS must be notified via the major projects website portal within seven days after Transgrid becomes aware of any non-compliance.

No additional staging of construction works is anticipated to be required for the PC's scope of works.

Requirements for written incident notifications can be found in Appendix 5 of the Project Infrastructure Approval.

In accordance with the Project EPBC COA:

- The approval holder must notify the department electronically of the date of commencement of the Action, within 5 business days of commencement of the Action.
- If the commencement of the Action does not occur within 5 years from the date of this approval, then the approval holder must not commence the Action without the prior written agreement of the Minister.
- The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.
- Within 20 business days after the completion of the Action, and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data.

Incident notification and duty to notify is outlined further in Section 8.4 of the CEMP.

### 3.13 Review and improvement of plans

The EMS (and associated subplans) is a working document that requires review and, if necessary, amendment during the life of the Project. A review of this EMS and other plans will be undertaken annually as a minimum or as required where:

- An audit makes findings or recommendations identifying a need;
- There is a significant change to the construction schedule, the site layout or a change in the construction methodology;

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- Site based conditions require a change to the environmental controls and procedures identified within the EMS;
- An environmental incident occurs that requires corrective actions or findings to be incorporated in the EMS. Any revised Strategy or Plans must be submitted to the Secretary within 3 months of submission of an incident report to the Secretary;
- The implementation of the Trigger Action Response Plan (TARP) requires corrective actions or findings to be incorporated in the EMS. Any revised Strategy or Plans must be submitted to the Secretary within 3 months of submission of an incident report to the Secretary;
- There is any modification to the conditions of consent. The revised Strategy or Plans must be submitted to the Secretary within 3 months of any modification to the conditions of consent; and
- Issue of a direction of the Planning Secretary.

These reviews shall generate actions for the continual improvement of the Project CEMP and supporting management plans and relevant documentation.

Changes to the EMS and other plans will be communicated through pre-start meetings and to existing onsite personnel and be incorporated into environmental induction material.

If necessary, strategies, plans or programs required under SSI 9717 will be revised and approved to the satisfaction of the Planning Secretary within 3 months of:

- The submission of an incident report under COA C7;
- The submission of an Independent Audit under COA C10;
- The approval of any modification of the conditions of this approval; or
- The issue of a direction of the Planning Secretary under COA A2 which requires a review.

## 4 Communication and engagement

### 4.1 Interface Management Plan

Requested by Transgrid, the PC's Interface Management Plan outlines process requirements for managing the various interfaces associated with the construction phase of the Project. It provides structure around interactions and communications between the PC, Transgrid, Subcontractors, Snowy Hydro, FGJV and relevant Stakeholders. The Interface Management Plan will be distributed to all relevant parties for visibility, and regularly updated by the PC. The Interface Management Plan is not required to be submitted for approval as part of the COAs.

### 4.2 Complaints Handling and Dispute Resolution

As the Proponent of the Project, all complaints and disputes will be managed in the first instance in accordance with Transgrid's Complaint Management Policy and Complaint Assessment Matrix.

The PC will pass on all complaints to Transgrid in accordance with the PC's 'Community Management' procedure and 'Customer Complaint & Feedback' procedure. Transgrid will advise on how to address the complaint. Complaint and community enquiry management is detailed in Section 7.4 of the CEMP.

All information gathered will be stored in an Enquires and Complaints Register. The System will be regularly reviewed.

### 4.3 Stakeholder Engagement

Stakeholder engagement is being managed by Transgrid such that information relating to the Project and its approvals can be better considered, managed and accounted for. The Project COAs refer to multiple consultation requirements for which a summary is provided in the CEMP (Table 4-3). Evidence of Consultations (COA A8) will be applied to the EMP subplans as it becomes available.

The PC supports feedback from Stakeholders and has engaged as requested with multiple parties such that information received can translate to tangible outcomes and reduced risk to the environment.

### 4.4 Business and property impacts

The Project site is relatively isolated to potential business and property impacts, and the PC have engaged with FCNSW, NPWS & Snowy Valleys Council regarding the anticipated impacts relating to Project activities. In consultation with Transgrid, the PC are endeavouring to avoid, moderate or otherwise lessen construction impacts on the Project site, and to the local community. Such mitigations are detailed in the various EMPs and include construction times, traffic movements, noise mitigation, dust management, speed limits, and avoiding sediment tracking.

Where impacts are unavoidable (known) or accidental, Transgrid will manage discussions concerning approvals, closures, damages or losses and how compensatory aspects may apply.

### 4.5 Access to Information

The following Project documentation is publicly available from the Project (Transgrid) website:



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- The EIS;
- The final layout plans for the Project
- Current statutory approvals for the Project;
- Approved strategies, plans or programs required under the COA;
- Any proposed staging plans for the development if the construction, operation and/or decommissioning of the development is to be staged;
- Summary of monitoring results of the Project in accordance with the plans;
- How complaints about the Project can be made; and
- Any independent environmental audits and Transgrid's response to recommendations in any audit.

The website will be updated with any additional information as required by the Secretary.

## 5 General site works

### 5.1 Work hours

Unless the Planning Secretary agrees otherwise, road upgrades and construction works undertaken by the PC will be between 6am and 6pm. The following activities may be carried out outside these hours:

- The delivery of oversized plant or structures that police or other authorised authorities determine require special arrangements to transport along public roads for reasons of safety or otherwise;
- The delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons;
- Road upgrades required by the relevant roads authority/manager to be undertaken outside the approved construction hours;
- Emergency work to avoid the loss of lives or property, or to prevent environmental harm; and
- Activities that are inaudible at sensitive receivers that do not require traffic movement on local roads.

An Out of Hours Protocol will be prepared outlining the process for the consideration, management and approval of works which are outside the Project work hours. The protocol is to be approved by the Secretary and will:

- Be prepared in consultation with Council;
- Provide a process for the consideration of out-of-hours works against the relevant construction noise, traffic noise and vibration criteria, including the determination of low and high risk activities;
- Identify an approval process that considers the risk of activities, proposed mitigation, management, and coordination; and
- Identify Department and Council arrangements for approved out of hours work.

This is outlined further in the PC's Noise and Vibration Management Plan.

### 5.2 Site layout

The PC must integrate the following in the layout of construction sites:

- The Project approval documentation;
- The Project COA; and
- Other permits, approvals and licences.

Prior to commencing construction, Transgrid will submit detailed plans of the final layout of the Project to DPE, via the Major Projects website, which will include:

- Details on siting of transmission towers and ancillary facilities; and

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- Showing comparison to the approved layout and approved vegetation clearing.

Transgrid will ensure that construction works are undertaken in accordance with the finalised versions of these layout plans.

### 5.3 Reinstatement and rehabilitation

Mitigation measures for reinstatement and rehabilitation must be produced in accordance with Project COA, consultation with Transgrid, community and stakeholders (as applicable). Mitigation measures and requirements are included within the CEMP and the Rehabilitation Management Plan. The Rehabilitation Management Plan will comply with the objectives and timing requirements outlined in the COA.

## 6 Key Environmental Management

### 6.1 Noise and vibration management

Work hours and out of hours protocols are discussed in Section 5.1 of this EMS.

Transgrid and the PC will take all reasonable and feasible steps to minimise the noise of the Project in locations where the noise is audible to sensitive receivers including construction traffic noise. Measures to minimise noise including construction traffic noise are in accordance with the Project COA and EIS inclusive of road traffic noise assessment criteria for land uses as per the NSW Road Noise Policy (DECCW, 2011). Although not obligated, the PC have decided to prepare and submit a Noise and Vibration Management Plan for stakeholder consideration. The NVMP details the mitigations and strategies the PC will abide with during the construction activities including operation of plant and equipment in accordance with COA A13.

### 6.2 Air Quality management

Transgrid and the PC will take all reasonable steps to minimise the off-site dust, fumes, odours and other air pollutants of the Project, as well as minimise surface disturbance of the site. Air quality management is addressed in the Soil and Water Management Plan inclusive of operation of plant and equipment in accordance with COA A13.

### 6.3 Spoil Management

A specific Spoil Management Plan has been developed, and once approved will be implemented in accordance with the Project COA B8 and the EIS. The plan will be finalised in consultation with the NPWS, FCNSW, Environment Protection Authority (EPA), Water Group, Natural Resources Access Regulator (NRAR) and Department of Primary Industries (DPI).

The plan includes:

- A description of the measures that will be implemented to minimise the spoil generated by the Project, maximise the reuse of non-reactive spoil on site and in other parts of the Kosciuszko National Park (KNP), Bago State Forest and/or offsite in accordance with COA B7 and minimise the water quality impacts of the temporary spoil stockpiles;
- An overarching framework for the management of all spoil generated on site, including the testing, classification, handling, temporary storage, chain of custody and disposal of spoil. This will comply with the requirement that spoil disposed within the KNP must be emplaced in the three identified emplacement areas, Ravine Bay, GF01 and Lobs Hole;
- A detailed plan for managing the temporary spoil stockpiles of the Project, which includes suitable triggers for remedial measures (if necessary) and describes the contingency measures that would be implemented to address any water quality risks; and
- A program to monitor and publicly report on:
  - the management of spoil on site; and
  - progress against the detailed completion criteria and performance indicators.

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The requirements for investigating, assessing and managing contaminated land and naturally occurring asbestos is outlined in Section 6.10 below.

#### 6.4 Soil and water management

A Soil and Water Management Plan has been developed, and once approved will be implemented in accordance with the Project COA B16 and the EIS. The plan has been prepared by a suitably qualified and experienced person and will be finalised in consultation with the EPA, FCNSW, NPWS, the Water Group and NSW DPI. The plan includes:

- Provisions for detailed baseline data on surface water flows and quality in the watercourses that could be affected by the Project, and a program to augment this baseline data over time;
- Provisions for detailed criteria for determining surface water impacts of the Project (flows, quality and flooding), including criteria for triggering remedial action (if necessary);
- Provisions for a description of the measures that would be implemented to minimise the surface water impacts of the Project and comply with the relevant water management requirements; and
- Measures for:
  - Managing flood risk during construction and not altering the flood storage capacity, flows or characteristics of the Project site or offsite;
  - Prevention of water pollution in accordance with Section 120 of the *Protection of the Environment Operations Act 1997* and Project EPL requirements;
  - Spill control, response and disposal procedures including appropriate bunding and waste management;
  - Minimising impacts on surface water, localised flooding and groundwater at the site;
  - Prevention of discharge of groundwater to watercourses;
  - Erosion and sediment management including measures to minimise erosion, control sediment generation and prevent sediment laden discharge of water from site;
  - Water supply management and ensuring sufficient water supply for the Project including obtaining necessary water licences; and
  - Riparian area protection, including all activities on waterfront land are constructed in accordance with the Guidelines for Controlled Activities on Waterfront Land (2012), unless DPHI Water agrees otherwise. Additionally, ensuring that the geomorphic conditions of the major rivers and distributary channels crossed by the development are not impacted.

#### 6.5 Biodiversity Management

Transgrid will prepare a Biodiversity Offset Package, consistent with the EIS, in accordance with COA B18, and in consultation with the Biodiversity, Conservation and Science Directorate (BCS). Transgrid will lodge a bank guarantee in accordance with COA B19 prior to construction

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commencing. Transgrid will pay a nominated fee in accordance with COA B20 to the NPWS to offset residual biodiversity impacts prior to carrying out any development that could impact the biodiversity values inside KNP.

A Biodiversity Management Plan has been developed, and once approved will be implemented in accordance with the Project COA B21, EPBC approval and the latest version of the Biodiversity Development Assessment Report. The plan has been prepared by a suitably qualified and experienced person and will be finalised in consultation with NPWS, BCS, FCNSW and DCCEE. The plan includes measures to:

- Ensure the Project does not adversely affect the native vegetation and habitat outside the disturbance footprint;
- Establish maximum areas of clearing in accordance with the Project COA;
- Minimise the clearing of native vegetation and habitat within the disturbance area including hollow-bearing trees;
- Minimise the impacts of the Project on threatened flora and fauna species within the disturbance area and its surrounds, including the:
  - Caladenia montana;
  - Gang-gang Cockatoo;
  - Masked Owl;
  - Eastern Pygmy-possum;
  - Spot-tailed Quoll;
  - Yellow-bellied Glider; and
  - Booroolong Frog
- Minimise the potential indirect impacts on threatened flora and fauna species, migratory species and 'at risk' species;
- Minimise potential fauna strike in sensitive habitat areas on the road network within the site, including reducing speed limits between sunset and sunrise;
- Minimise the impacts on fauna on site, including undertaking pre-clearance surveys;
- Protect native vegetation and key fauna habitat outside the approved disturbance area;
- Monitor the areas of partial clearance within three months of the commencement of construction and provision of a verification report to confirm if any changes are required to the construction vegetation clearing protocols;
- Maximise the salvage of resources within the disturbance area for reuse in the restoration of vegetation and habitat on site, including native vegetative material, hollow logs, ground timber, and topsoil containing vegetative matter and native seed bank;



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- Collect seeds within the approved disturbance area for use in the ecological rehabilitation of the site;
- Minimise the spread of weeds, pathogens and feral pests on site, and import or export of these matters to or from the site;
- Minimise the generation and dispersion of sediment to watercourses, particularly the Sheep Station Creek, Lick Hole Gully, Cave Gully, Wallaces Creek and Yarrangobilly River;
- Minimise the light spill from night works, including using directional and LED lighting; and
- Minimise bushfire risk.

The plan will also include the following:

- Construction clearing and operation vegetation management protocols;
- A strategy to manage activities within the 50 m exclusion zone of the Yarrangobilly River and its tributaries;
- A monitoring program and TARP outlining actions to be implemented should any water quality criteria be exceeded and potential impact on the Booroolong Frog;
- A Rehabilitation Management Plan;
- Weed monitoring and control programs;
- Measures to mitigate and monitor the impact of the project on Yellow-bellied Glider; and
- A program to monitor, evaluate and publicly report on the effectiveness of these measures.

### 6.6 Heritage Management

Heritage (Aboriginal, historic and natural) management has been addressed through the Heritage Management Plan (HMP). This plan has been prepared and once approved will be implemented in accordance with the Project COA B24 and EIS.

Prior to carrying out any activity that could harm heritage items, Transgrid will develop and implement a program to:

- Salvage and relocate all heritage items identified for salvage and relocation to a suitable alternative location, in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010); and
- Undertake archival recording, test excavation and/or salvage of the historic items listed to be affected by the development.

The heritage management plans (AHMP and HMP) will include:

- Measures to protect the heritage items, including fencing off the heritage items (where required) prior to carrying out any activity that could harm the heritage items;
- Measures to protect any Aboriginal and historic heritage items located outside the approved construction envelope;

## Snowy 2.0 TCP Construction Environmental Management Strategy

- Where impacts cannot be avoided to R56 and R120, details of the proposed archaeological research design and excavation methodology, and findings of the Final Archaeological Excavation Report, in accordance with the relevant Heritage Council guidelines;
- Measures to minimise and manage the impacts of the Project on heritage items within the construction envelope, including a strategy for the long-term management of any heritage items or material collected during the test excavation or salvage works;
- A contingency plan and reporting procedure if:
  - Heritage items outside the approved construction envelope are damaged;
  - Previously unidentified heritage items are found; or
  - Aboriginal skeletal material is discovered;
- Measures ensuring workers on site receive suitable heritage inductions prior to carrying out any Project on site, and that records are kept of these inductions;
- Ensure ongoing consultation with Aboriginal stakeholders during the implementation of the plan;
- A program to monitor and publicly report on the effectiveness of these measures and any heritage impacts of the Project; and
- A program to publish detailed archival records required under the conditions of this approval, and findings of any excavations and salvage works.

### 6.7 Traffic and transport Management

Transgrid will prepare a Transport Strategy in accordance with the Project COA B32 and in consultation with the relevant roads authority prior to starting construction in Project Area West. The Transport Strategy will be included in the PCs Traffic and Transport Management Plan once received.

The Strategy will:

- Identify the location and type of any necessary road upgrades (including roads, intersections, crossing points, bridges and access points), including consideration of relevant amenity impacts;
- Ensure that any road upgrades comply with the Austroads Guide to Road Design (as amended by TfNSW supplements), unless the relevant road authority agrees otherwise;
- Include a detailed assessment of potential impacts of any necessary road upgrades (such as heritage and biodiversity impacts), including consideration of appropriate mitigation measures;
- Identify whether intersections, crossing points and access points would be permanent or temporary; and
- Include measures or notifying, seeking feedback from, and addressing the concerns of impacted residents along the route.

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Any expected or unexpected impacts to public infrastructure during works will be managed by Transgrid in accordance with COA A9.

Prior to commencing construction in Project Area West, Transgrid must implement the road upgrades and the mitigation measures identified in the Transport Strategy, to the satisfaction of the relevant roads authority/manager. To sufficiently delineate these road upgrades from the future 500kV substation construction, Transgrid are in the process of submitting a Staging Letter to the department. The Staging Letter and response will be attached to the TTMP when received.

A Traffic and Transport Management Plan has been developed, and once approved will be implemented in accordance with the Project COA and EIS. The plan will be prepared by a suitably qualified and experienced person and finalised in consultation with FCNSW, NPWS, TfNSW, Snowy Valleys Council, Snowy Monaro Regional Council and NSW Police. The plan will include the following key items:

- Details of the transport routes to be used for all Project-related traffic;
- Details of the road upgrade works required by the Transport Strategy;
- Details of temporary and permanent bridge crossings in accordance with COA B31 for Sheep Station Creek;
- Details of the measures that would be implemented to comply with the transport management requirements including:
  - Designated over-dimensional vehicle Primary Access Routes;
  - Designated heavy and light vehicle Primary and Secondary Access Routes and Water Supply Routes;
- Details of road maintenance and vehicle restrictions including:
  - Restricting development-related vehicle speeds to 30 km/h between sunset and sunrise on Lobs Hole Ravine Road, Mine Trail Road and within the Project site, unless the Planning Secretary agrees otherwise;
  - No more than 8 heavy vehicles per day, for water cartage purposes only from the Snowy Hydro T2 Tailbay site on Elliot Way inside KNP;
  - Restricting vessel speeds on Talbingo Reservoir to current Transport for NSW speed limits.
- Details of the measures that would be implemented to:
  - Minimise traffic safety impacts of the Project and disruptions to local road users during the works;
  - Minimising convoy lengths;
  - Keeping the local community informed about development-related traffic impacts;
  - Managing and responding to community related traffic complaints;
  - Minimise the impacts of the road and intersection upgrades of the Project;

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### Construction Environmental Management Strategy

- Minimising the impacts to public facilities and services;
- Managing Out of Hours Work impacts;
- Mitigating traffic noise where relevant;
- Provide sufficient parking on site for all vehicles and ensure vehicles associated with the Project do not park on the public road network;
- Managing fatigue and driving to weather conditions;
- Maintain all roads and water-related infrastructure on site in a safe and serviceable condition; and
- Minimise the traffic noise impacts of the Project.
- Ensure any vessel or structure occupying waters must display appropriate shapes and lights in accordance with the Marine Safety (Domestic Commercial Vessel) National Law 2012;
- Include a detailed:
  - Heavy Vehicle Salvage Plan;
  - Driver's Code of Conduct;
  - Marine Transport Management Plan;
  - Snow & Ice Management Plan;
  - Communication Strategy to keep the public informed about the impacts of the Project.
- Include a program to:
  - Ensure drivers working on the Project receive suitable training on the code of conduct and any other relevant obligations under the Traffic and Transport Management Plan;
  - Record and track vehicle movements; and
  - Monitor and publicly report on the effectiveness of these measures.

Details on dilapidation survey requirements are discussed in Section 3.4 of this EMS.

## 6.8 Visual impact Management

Transgrid and the PC will take reasonable steps to minimise the visual impacts of the Project in accordance with the Project COA B34. A Visual Impact Management Plan will be developed and implemented in accordance with the Project COA B36 and EIS by Transgrid. The plan will be prepared in consultation with FCNSW and NPWS. The plan will include measures to reduce potential visual impacts of the Project including potential glare and reflection from towers, visual appearance of new infrastructure and ancillary facilities and external lighting.

Transgrid will also ensure that any residual Project impacts on National Park values are managed through compensatory payments to NPWS in accordance with COA B37.

## 6.9 Hazard and risk

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Transgrid will ensure the design, construction and operation of the Project is managed to comply with the applicable electric and magnetic fields (EMF) limits in the *International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100 kHz)* (ICNIRP, 2010).

The storage, handling, and transport of dangerous goods onsite will be undertaken in accordance with the relevant Australian Standards and guidelines, particularly *AS1940 The storage and handling of flammable and combustible liquids* and *AS/NZS 1596:2014 The storage and handling of LP Gas*, the *Dangerous Goods Code*, and the EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual*.

## 6.10 Contamination and Waste Management

Although not obligated, the PC have decided to prepare and submit a Contaminated Land Management Plan for stakeholder consideration. The CLMP details the mitigations and strategies the PC will abide with during the construction activities and incorporates the following:

- A procedure for investigating, assessing, and managing contaminated land, and soils in the Project area;
- A procedure for investigation, assessing and managing the potential for naturally occurring asbestos, potentially acid forming material and other hazardous materials in the Project area;
- A detailed plan for managing and the disposal of all the reactive or contaminated spoil generated on site, including the contingency measures that would be implemented if the volumes of this spoil are greater than expected and unsuitable for land disposal;
- Waste management measures including:
  - Waste being dealt with in accordance with the following priorities:
    - Waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced;
    - Where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and
    - Where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.
  - The importation of waste and storage, treatment, processing, reprocessing or disposal of such waste must comply with the *Protection of the Environment Operations Act 1997*, the *Protection of the Environment Operations (Waste) Regulation 2014*, and orders or exemptions under the regulation;
  - Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under *the Protection of the*

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*Environment Operations (Waste) Regulation 2014*, or to any other place that can lawfully accept such waste; and

- All waste that is removed from site must be classified in accordance with the EPA's *Waste Classification Guidelines*, with appropriate records and disposal dockets retained for audit purposes.



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## 7 References

DECCW (2010) *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW – Part 6 National Parks and Wildlife Act 1974*. September 2010.

DECCW. (2011). *NSW Road Noise Policy*. Department of Environment, Climate Change and Water

ICNIRP (2010). *International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100 kHz)*. Published in: *Health Physics* 99(6): 818-826; 2010.

Jacobs. (2021). *Snowy 2.0 Transmission Connection Project EIS v.2*. Jacobs Pty Ltd.

Transgrid. (2022a). *Amendment Report Snowy 2.0 Transmission Connection Project*. March 2022

Transgrid (2022b) *Submissions Report Snowy 2.0 Transmission Connection Project*. March 2022

## APPENDIX A PROJECT CONDITIONS OF APPROVAL

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## A.1 NSW Project Infrastructure Approval

### NSW Project Infrastructure Approval SSI9717 (DPE, 14<sup>th</sup> September 2022)

ID	Condition	Responsibility	Plan
SCHEDULE 2 - PART A ADMINISTRATIVE CONDITIONS			
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT			
A1	In meeting the specific performance measures and criteria of this approval, 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, operation, rehabilitation, upgrading or decommissioning of the development.	TG / the PC	CEMP and subplans
TERMS OF APPROVAL			
A2	The development must be carried out: (a) in compliance with the conditions of this approval; (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 2.	TG / the PC	CEMP and subplans
A3	The Proponent 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 approval; (b) any reports, reviews or audits commissioned by the Department regarding compliance with this	TG / the PC	EMS, CEMP and subplans

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ID	Condition	Responsibility	Plan
	approval; and (c) the implementation of any actions or measures contained in these documents.		
A4	The conditions of this approval 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) and A2(d), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.	TG	Noted
A5	Any document that must be submitted within a timeframe specified in or under the terms of this approval may be submitted within a later timeframe agreed with the Planning Secretary. This condition does not apply to the immediate written notification required in respect of an incident under condition C7.	TG	Noted, EMS
LIMITS ON APPROVAL			
A6	Restrictions on Disturbance Area and Native Vegetation Clearing The Proponent must comply with the restrictions in Table 1 below.		CEMP and BMP

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ID	Condition	Responsibility	Plan																
	<p><b>Table 1 Restrictions on Approval</b></p> <table> <tr> <th>Matter</th><th>Kosciuszko National Park</th><th>Bago State Forest</th><th>Total</th></tr> <tr> <td>Maximum Disturbance Area</td><td>81 ha</td><td>44 ha</td><td>125 ha</td></tr> <tr> <td>Maximum Native Vegetation Full Clearing</td><td>37 ha</td><td>34 ha</td><td>71 ha</td></tr> <tr> <td>Maximum Native Vegetation Partial Clearing</td><td>38 ha</td><td>9.2 ha</td><td>47.2 ha</td></tr> </table> <p><i>The areas in Table 1 relate to direct disturbance and clearing and do not include the indirect impacts of this disturbance and clearing.</i></p>	Matter	Kosciuszko National Park	Bago State Forest	Total	Maximum Disturbance Area	81 ha	44 ha	125 ha	Maximum Native Vegetation Full Clearing	37 ha	34 ha	71 ha	Maximum Native Vegetation Partial Clearing	38 ha	9.2 ha	47.2 ha		
Matter	Kosciuszko National Park	Bago State Forest	Total																
Maximum Disturbance Area	81 ha	44 ha	125 ha																
Maximum Native Vegetation Full Clearing	37 ha	34 ha	71 ha																
Maximum Native Vegetation Partial Clearing	38 ha	9.2 ha	47.2 ha																
LAPSE OF APPROVAL																			
A7	This approval will lapse if the Proponent does not physically commence the development within 5 years of the date on which it is granted.	TG	EMS																
EVIDENCE OF CONSULTATION																			
A8	Where conditions of this approval require consultation with an identified party, the Proponent must: (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and (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 Proponent and how the Proponent has addressed the matters not resolved.	TG	CEMP and subplans																
PROTECTION OF PUBLIC INFRASTRUCTURE																			

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ID	Condition	Responsibility	Plan
A9	Unless the Proponent and the applicable authority agree otherwise, the Proponent must: (a) undertake any works on or in the vicinity of public infrastructure in consultation with the applicable public authority or service provider responsible for the public infrastructure; (b) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and (c) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. (d) This condition does not apply to any damage to roads caused as a result of general road usage which is expressly provided for in the conditions of this approval.	TG / the PC	EMS
DEMOLITION			
A10	The Proponent must ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures (Standards Australia, 2001), or its latest version.	TG / the PC	N/A (no demolition works are proposed)
STRUCTURAL ADEQUACY			
A11	All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the BCA; and where the BCA is not applicable, to the relevant Australian Standard. Notes: • <i>Under Part 6 of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.</i> • <i>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the development</i>	TG / the PC	Design



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ID	Condition	Responsibility	Plan
COMPLIANCE			
A12	The Proponent 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 approval relevant to activities they carry out in respect of the development.	TG / the PC	CEMP
OPERATION OF PLANT AND EQUIPMENT			
A13	All plant and equipment used on site, or in connection with the development must be: (a) maintained in a proper and efficient condition; (b) operated in a proper and efficient manner; and (c) kept free of weeds, seeds and pathogens when entering or leaving the site.	TG / the PC	NVMP, BMP
APPLICABILITY OF GUIDELINES			
A14	References in the conditions of this approval 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 approval.	TG	Noted
A15	However, consistent with the conditions of this approval and without altering any limits or criteria in this approval, the Planning Secretary may, when issuing directions under this approval 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.	TG	Noted
SCHEDULE 2 - PART B ENVIRONMENTAL CONDITIONS - GENERAL			

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
NOISE AND VIBRATION			
B1	Unless the Planning Secretary agrees otherwise, road upgrades, construction, upgrading and decommissioning activities may only be undertaken between 6 am to 6 pm.	TG / the PC	NVMP
B2	<p>The following construction, upgrading and decommissioning activities may be carried out outside the hours specified in condition B1 above:</p> <p>(a) the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons; or</p> <p>(b) emergency work to avoid the loss of life, property or to prevent material harm to the environment; or</p> <p>(c) activities that are inaudible at sensitive receivers that do not require traffic movements on local roads; or</p> <p>(d) road upgrades required by the relevant roads authority/manager to be undertaken outside the construction hours specified in condition B1; or</p> <p>(e) works carried out in accordance with an Out-of-Hours Work Protocol approved in accordance with condition B3.</p>	TG / the PC	NVMP

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ID	Condition	Responsibility	Plan
B3	An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of works which are outside the hours defined in condition B1. The Protocol must be approved by the Planning Secretary before commencing these works. The Protocol must: (a) be prepared in consultation with Council; (b) provide a process for the consideration of out-of-hours works against the relevant construction noise, traffic noise and vibration criteria, including the determination of low and high risk activities; (c) identify an approval process that considers the risk of activities, proposed mitigation, management, and coordination, (d) identify Department and Council arrangements for approved out of hours work.	TG / the PC	NVMP (Out-of-Hours Work Protocol)
Construction and Decommissioning			
B4	The Proponent must take all reasonable and feasible steps to minimise the construction, upgrading or decommissioning noise of the development in the locations where the noise is audible to sensitive receivers, including any associated traffic noise	TG / the PC	NVMP
B5	The Proponent must implement mitigation measures with the aim of achieving the road traffic noise assessment criteria for land uses from NSW Road Noise Policy (DECCW, 2011).	TG / the PC	NVMP
AIR QUALITY			
B6	In addition to the performance outcomes, commitments and mitigation measures specified in the EIS, the Proponent must take all reasonable steps to: (a) minimise the off-site dust, fume, blast emissions and other air pollutants of the development; and (b) minimise the surface disturbance of the site.	TG / the PC	SWMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
SOIL AND WATER			
Permanent Spoil Emplacement Areas			
B7	<p>Apart from the spoil that is provided to the NPWS for use in other parts of the Kosciuszko National Park, Forestry Corporation for use in other parts of State Forest, sent off-site, used to construct temporary or permanent infrastructure for the development or used to rehabilitate the site or the Snowy 2.0 Main Works site, the Proponent must ensure that any spoil disposed within Kosciuszko National Park are emplaced in the following emplacement areas:</p> <p>(a) Ravine Bay; (b) GF01; or (c) Lobs Hole.</p> <p>(d) Tantangara for spoil containing naturally occurring asbestos only. Note: The location of these emplacement areas is shown in the figures in Appendix 2.</p>	TG	SMP
Spoil Management Plan			
B8	<p>Prior to the commencement of construction, the Proponent must prepare a Spoil Management Plan to the satisfaction of the Planning Secretary for the development. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person in consultation with the NPWS, FCNSW, EPA, Water Group, NRAR and DPI; (b) include a description of the measures that would be implemented to:</p> <p>(i) minimise the spoil generated by the development; (ii) maximise the reuse of non-reactive spoil on site and in other parts of the Kosciuszko National Park, Bago State Forest and/or offsite; (iii) minimise the water quality impacts of the temporary spoil stockpiles;</p>	TG / the PC	SMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
	<p>(c) provide an overarching framework for the management of all spoil generated on site, including the testing, classification, handling, temporary storage, chain of custody and disposal of spoil – that complies with the spoil management requirements in condition B7 above;</p> <p>(d) include a detailed plan for managing the temporary spoil stockpiles of the development, which includes suitable triggers for remedial measures (if necessary) and describes the contingency measures that would be implemented to address any water quality risks;</p> <p>(e) investigating, assessing and managing contaminated land, soils and groundwater in the development area;</p> <p>(f) investigation, assessing and managing the potential for naturally occurring asbestos, potentially acid forming material and other hazardous materials in the development area;</p> <p>(g) include a detailed plan for managing and the disposal of all the reactive or contaminated spoil generated on site, including the contingency measures that would be implemented if the volumes of this spoil are greater than expected and unsuitable for land disposal;</p> <p>(h) include a program to monitor and publicly report on:</p> <p>(i) the management of spoil on site;</p> <p>(ii) progress against the detailed completion criteria and performance indicators.</p> <p>Following the Planning Secretary's approval, the Proponent must implement the approved Spoil Management Plan.</p>		
Water Supply			
B9	<p>The Proponent 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.</p> <p><i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Proponent is required to obtain the necessary water licences for the development.</i></p>	TG / the PC	SWMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
Erosion and Sedimentation			
B10	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) minimise erosion and control sediment generation;</li> <li>(b) take all reasonable and feasible measures to prevent a discharge to waters. This may include, but need not be limited to: <ul style="list-style-type: none"> <li>(i) adopt enhanced erosion and sediment controls, taking into consideration the best available information from the Snowy 2.0 Main Works project;</li> <li>(ii) minimising the volume of dirty water generated onsite; and</li> <li>(iii) exploring and implementing beneficial reuse opportunities such as irrigation and dust suppression.</li> </ul> </li> </ul>	TG / the PC	ESCP
Pollution of Waters			
B11	Unless otherwise authorised by an EPL the Proponent must ensure the development does not cause any water pollution, as defined under Section 120 of the POEO Act.	TG / the PC	SWMP
B12	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) ensure that appropriate components of the substation are suitably bunded;</li> <li>(b) ensure that all liquid waste captured by the substation's spill oil containment system is classified, transported, and disposed of at a facility that can lawfully accept the waste; and</li> <li>(c) minimise any spills of hazardous materials or hydrocarbons, and clean up any spills as soon as possible after they occur.</li> </ul>	TG / the PC	SWMP
B13	The Proponent must ensure that any groundwater dewatering activities do not discharge to watercourses.	TG / the PC	SWMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
Riparian Areas			
B14	The Proponent must ensure: (a) all activities on waterfront land are constructed in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (2012)</i> , unless DPE Water agrees otherwise; and (b) the geomorphic condition of the major rivers and distributary channels crossed by the development is not impacted.	TG / the PC	SWMP
Flooding			
B15	The Proponent must ensure that the development: (a) does not materially alter the flood storage capacity, flows or characteristics in the development area or off- site; and (b) is designed, constructed and maintained to reduce impacts on surface water, localised flooding and groundwater at the site, unless otherwise agreed by either FCNSW or NPWS.	TG / the PC	SWMP



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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
Water Management Plan			
B16	<p>Prior to the commencement of construction, the Proponent must prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary. This sub-plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared by a suitably qualified and experienced person in consultation with the EPA, FCNSW, NPWS, the Water Group and NSW DPI;</li> <li>(b) include provisions for: <ul style="list-style-type: none"> <li>(i) detailed baseline data on surface water flows and quality in the watercourses that could be affected by the development, and a program to augment this baseline data over time;</li> <li>(ii) detailed criteria for determining surface water impacts of the development (flows, quality and flooding), including criteria for triggering remedial action (if necessary); and</li> <li>(iii) a description of the measures that would be implemented to minimise the surface water impacts of the development and comply with the relevant water management requirements in conditions B10 to B15 are complied with; and</li> </ul> </li> <li>(c) managing flood risk during construction.</li> </ul> <p>Following the Planning Secretary's approval, the Proponent must implement the Water Management Plan.</p>	TG / the PC	SWMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
BIODIVERSITY			
Restrictions on Clearing and Habitat			
B17	<p>Unless otherwise agreed with the Planning Secretary, the Proponent must:</p> <ul style="list-style-type: none"> <li>(a) ensure that no more than: <ul style="list-style-type: none"> <li>(i) 9.35 ha of Caladenia montana species habitat</li> <li>(ii) 89.06 ha of Gang-gang Cockatoo (breeding) species habitat</li> <li>(iii) 10.86 ha of Masked Owl (breeding) species habitat</li> <li>(iv) 117.29 ha of Eastern Pygmy-possum species habitat</li> <li>(v) 59.03 ha of Yellow-bellied Glider species habitat; and</li> <li>(vi) 1.67 ha of Booroolong Frog species habitat is cleared for the development; and</li> </ul> </li> <li>(b) minimise: <ul style="list-style-type: none"> <li>(i) the impacts of the development on hollow-bearing trees;</li> <li>(ii) the impacts of the development on threatened species; and</li> <li>(iii) the clearing of native vegetation and key habitat.</li> </ul> </li> </ul>	TG	BMP
Biodiversity Offset Package			

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ID	Condition	Responsibility	Plan
B18	<p>Prior to carrying out any development that would impact on biodiversity values outside Kosciuszko National Park, the Proponent must prepare a Biodiversity Offset Package (Package) that is consistent with the EIS, in consultation with BCS, to the satisfaction of the Planning Secretary in writing. The Package must include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>(a) details of the specific biodiversity offset measures to be implemented and delivered in accordance with the EIS;</li> <li>(b) the cost for each specific biodiversity offset measures, which would be required to be paid into the Biodiversity Conservation Fund if the relevant measures is not implemented and delivered (as calculated in accordance with Division 6 of the Biodiversity Conservation Act 2016 (NSW)) and the offset payment calculator that was established as of 29 July 2021;</li> <li>(c) the timing and responsibilities for the implementation and delivery of measures required in the Package; and</li> <li>(d) confirmation that the biodiversity offset measures will have been implemented and delivered by no later than 1<sup>st</sup> September 2024. <p>Following approval, the Proponent must implement and deliver the Biodiversity Offset Package.</p> </li></ul>	TG	Biodiversity Offset Package
B19	<p>Prior to carrying out any development outside of the Kosciuszko National Park that could impact the biodiversity values requiring offset, the Proponent or its nominee must lodge a bank guarantee with a total value of \$24,869,236, in accordance with the Deed of Agreement with the Planning Secretary executed on day month 2022. The Proponent must comply with the terms of the Deed.</p> <p><i>Note: this condition provides security to the Minister for the performance of the Proponent's obligations under this approval in relation to biodiversity offsets and release funds for payment into the Biodiversity Conservation Trust in the event that the biodiversity offsets (either in whole or part) are not delivered in accordance with the Package by the Proponent.</i></p>	TG	Biodiversity Offset Package

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ID	Condition	Responsibility	Plan
Biodiversity Offset Package (Kosciuszko National Park)			
B20	<p>Prior to carrying out any development that could impact the biodiversity values inside Kosciuszko National Park, the Proponent or its nominee must pay \$10,586,027 to the NPWS to offset the residual biodiversity impacts.</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>• <i>The NPWS will use these funds and any interest generated by these funds to enhance the biodiversity values of the Kosciuszko National Park. However, in limited circumstances where it is not possible to address all of the residual impacts of the development within Kosciuszko National Park, the NPWS may use some of these funds to ensure suitable conservation actions are carried outside the park.</i></li> <li>• <i>To ensure accountability, the NPWS will:</i> <ul style="list-style-type: none"> <li>- <i>develop and implement a detailed program for the allocation of these funds to specific projects, focusing on the ecosystems and species affected by the development; and</i></li> <li>- <i>monitor, evaluate and publicly report on the progress of the implementation of the detailed program and the effectiveness of the specific projects;</i></li> </ul> </li> <li>• <i>The NPWS will develop and implement a specific program in consultation with DCCEW and BCS to carry out conservation actions to address the residual biodiversity impacts of the development on the following Commonwealth listed species and communities:</i> <ul style="list-style-type: none"> <li>- <i>Booroolong Frog.</i></li> </ul> </li> </ul>	TG	Biodiversity Offset Package
Biodiversity Management Plan			
B21	<p>Prior to carrying out any development that could impact biodiversity values, unless the Planning Secretary agrees otherwise, the Proponent must prepare a Biodiversity Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p>	TG / the PC	BMP

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ID	Condition	Responsibility	Plan
	<p>(a) be prepared by a suitably qualified and experienced biodiversity expert/s in consultation with NPWS, BCS, FCNSW and DCCEEW;</p> <p>(b) be prepared in accordance with the Biodiversity Development Assessment Report (Revision 7, dated 22 August 2022);</p> <p>(c) include a description of the measures that would be implemented to:</p> <p>(i) ensure the development does not adversely affect the native vegetation and habitat outside the disturbance footprint;</p> <p>(ii) minimise the clearing of native vegetation and habitat within the disturbance area;</p> <p>(iii) minimise the impacts of the development on threatened flora and fauna species within the disturbance area and its surrounds, including the:</p> <ul style="list-style-type: none"> <li>• Caladenia montana;</li> <li>• Gang-gang Cockatoo;</li> <li>• Masked Owl;</li> <li>• Eastern Pygmy-possum;</li> <li>• Yellow-bellied Glider; and</li> <li>• Booroolong Frog</li> </ul> <p>(iv) minimise the potential indirect impacts on threatened flora and fauna species, migratory species and 'at risk' species;</p> <p>(v) minimise potential fauna strike in sensitive habitat areas on the road network within the site, including reducing speed limits between sunset and sunrise;</p> <p>(vi) minimise the impacts on fauna on site, including undertaking pre-clearance surveys;</p> <p>(vii) protect native vegetation and key fauna habitat outside the approved disturbance area;</p> <p>(viii) monitor the areas of partial clearance within three months of the commencement of construction and provision of a verification report to confirm if any changes are required to the construction vegetation clearing protocols;</p> <p>(ix) maximise the salvage of resources within the disturbance area for reuse in the restoration of</p>		

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ID	Condition	Responsibility	Plan
	<p>vegetation and habitat on site, including native vegetative material, hollow logs, ground timber, and topsoil containing vegetative matter and native seed bank;</p> <p>(x) collect seeds within the approved disturbance area for use in the ecological rehabilitation of the site;</p> <p>(xi) minimise the spread of weeds, pathogens and feral pests on site, and import or export of these matters to or from the site;</p> <p>(xii) minimise the generation and dispersion of sediment to watercourses, particularly the Sheep Station Creek, Lick Hole Gully, Cave Gully, Wallaces Creek and Yarrangobilly River;</p> <p>(xiii) minimise the light spill from night works, including using directional and LED lighting; and</p> <p>(xiv) minimise bushfire risk.</p> <p>(d) include construction clearing and operation vegetation management protocols</p> <p>(e) include a strategy to address:</p> <p>(i) management of activities within the 50 m exclusion zone of the Yarrangobilly River and its tributaries;</p> <p>(ii) a trigger action response plan identifying actions to be implemented should any water quality criteria be exceeded focusing on the extent to which exceedances might affect the Booroolong Frog; and</p> <p>(f) include a program to monitor, evaluate and publicly report on the effectiveness of these measures.</p> <p>Following the Planning Secretary's approval, the Proponent must implement the Biodiversity Management Plan.</p>		
HERITAGE			
Protection of Heritage Items			

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ID	Condition	Responsibility	Plan
B22	The Proponent must ensure the development does not cause any direct or indirect impacts on: (a) any Aboriginal heritage items located outside the approved construction envelope (see Appendix 3); and (b) any of the historic heritage items outside the construction envelope (see Appendix 3).	TG / the PC	HMP
B23	Prior to carrying out any activity that could harm heritage items, the Proponent must: (a) salvage and relocate all heritage items identified for salvage and relocation to a suitable alternative location, in accordance with the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010)</i> ; (b) undertake archival recording, test excavation and/or salvage of the historic items listed in Table 5 and Table 7 of Appendix 3 if these items are to be affected by the development.	TG / the PC	HMP
Heritage Management Plans			
B24	Prior to carrying out any development that could directly or indirectly impact the heritage items identified in Appendix 3, the Proponent must prepare a Heritage Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:  (a) be prepared in consultation with Heritage Council, Heritage NSW, NPWS and Aboriginal Stakeholders;  (b) include a description of the measures that would be implemented for:  (i) protecting the heritage items identified in Table 1 of Appendix 3, including fencing off the heritage items (where required) prior to carrying out any development that could harm the heritage items, and protecting any items located outside the approved construction envelope;  (ii) salvaging and relocating the heritage items identified in condition B24;	TG / the PC	HMP



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ID	Condition	Responsibility	Plan
	<p>(iii) where impacts cannot be avoided to R56 and R120, details of the proposed archaeological research design and excavation methodology, and findings of the Final Archaeological Excavation Report, in accordance with the relevant Heritage Council guidelines;</p> <p>(iv) minimising and managing the impacts of the development on heritage items within the construction envelope, including a strategy for the long-term management of any heritage items or material collected during the test excavation or salvage works;</p> <p>(v) a contingency plan and reporting procedure if:</p> <ul style="list-style-type: none"> <li>• heritage items outside the approved construction envelope are damaged;</li> <li>• previously unidentified heritage items are found; or</li> <li>• Aboriginal skeletal material is discovered;</li> </ul> <p>(vi) 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</p> <p>(vii) ongoing consultation with Aboriginal stakeholders during the implementation of the plan; and</p> <p>(c) include a program to monitor and publicly report on the effectiveness of these measures and any heritage impacts of the development; and</p> <p>(d) include a program to publish;</p> <p>(i) any detailed archival records required under the conditions of this approval; and</p> <p>(ii) the findings of any excavations and salvage works.</p> <p>Following the Planning Secretary's approval, the Proponent must implement the Heritage Management Plan.</p>		

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ID	Condition	Responsibility	Plan
TRAFFIC AND TRANSPORT			
Designated Heavy and Over-Dimensional Vehicle Routes			
B25	<p>All over-dimensional vehicles associated with the development must only travel to and from the site via the Primary Access Routes described in the EIS, as identified in the figure in Appendix 4, unless the Planning Secretary agrees otherwise.</p> <p><i>Note: The Proponent is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over- dimensional vehicles on the road network.</i></p>	TG / the PC	TTMP
B26	<p>All heavy and light vehicles associated with the development:</p> <p>(a) must travel to and from the site via the Primary Access Route described in the EIS, as identified in the figure in Appendix 4; and</p> <p>(b) may travel to and from the site via the Secondary Access Routes and Water Supply Routes, subject to the requirements in condition B31, to the satisfaction of the relevant roads authority/manager.</p> <p>unless the Planning Secretary agrees otherwise.</p>	TG / the PC	TTMP

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ID	Condition	Responsibility	Plan
Transport Strategy			
B27	<p>Prior to commencing construction in Project Area West, the Proponent must prepare a Transport Strategy, in consultation with the relevant roads authority/manager, to the satisfaction of the Planning Secretary, which:</p> <ul style="list-style-type: none"> <li>(a) identifies the location and type of any necessary road upgrades (including roads, intersections, crossing points, bridges and access points), including consideration of relevant amenity impacts;</li> <li>(b) ensures that any road upgrades comply with the Austroads Guide to Road Design (as amended by TfNSW supplements), unless the relevant road authority agrees otherwise;</li> <li>(c) includes a detailed assessment of potential impacts of any necessary road upgrades (such as heritage and biodiversity impacts), including consideration of appropriate mitigation measures;</li> <li>(d) identifies whether intersections, crossing points and access points would be permanent or temporary; and</li> <li>(e) includes measures or notifying, seeking feedback from and addressing the concerns of impacted residents along the route;</li> </ul>	TG / the PC	Transport Strategy
B28	<p>Prior to commencing construction in Project Area West, the proponent must implement the road upgrades and the mitigation measures identified in the Transport Strategy in condition B27, to the satisfaction of the relevant roads authority/manager.</p>	TG / the PC	Transport Strategy

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ID	Condition	Responsibility	Plan
Road Maintenance			
B29	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) undertake an independent dilapidation survey to assess the: <ul style="list-style-type: none"> <li>(i) existing condition of all local roads on the transport route shown in the figure in Appendix 4 (including local road crossings) prior to construction, upgrading or decommissioning works; and</li> <li>(ii) condition of all local roads on the transport route (including local road crossing): <ul style="list-style-type: none"> <li>• within 1 month of the completion of construction, upgrading or decommissioning works, or within a timeframe agreed to by the relevant roads authority/manager;</li> <li>• on an annual basis during construction, or within a timeframe agreed to by the relevant roads authority/manager;</li> </ul> </li> </ul> </li> <li>(b) repair (or pay the full costs associated with repairing) any damage to local roads on the transport route (including local road crossings):</li> <li>(c) rehabilitate and/or make good any development related damage: <ul style="list-style-type: none"> <li>(i) identified during the construction and/or decommissioning works if it could endanger road safety, as soon as possible after it is identified but within 7 days at the latest, unless the relevant road authority/manager agrees otherwise; and</li> <li>(ii) identified in any dilapidation survey completed after the construction, upgrading or decommissioning works within 2 months of the completion of the survey to the satisfaction of the relevant roads authority/manager</li> </ul> </li> </ul>	TG / the PC	TTMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
Vehicle Restrictions			
B30	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) restrict development-related vehicle speeds on Lobs Hole Ravine Road, Mine Trail Road and within the site to 30 km/h between sunset and sunrise, unless the Planning Secretary agrees otherwise;</li> <li>(b) restrict the use of Elliott Way inside KNP to no more than 8 heavy vehicles per day, for water cartage purposes only from the Snowy Hydro T2 Tailbay site;</li> <li>(c) restrict vessel speeds on Talbingo Reservoir to current TfNSW speed limits.</li> </ul>	TG / the PC	TTMP
Bridge Crossing – Sheep Station Creek			
B31	<p>The Proponent must ensure that any temporary and the permanent bridge over Sheep Station Creek is designed and constructed to comply with the relevant requirements of the:</p> <ul style="list-style-type: none"> <li>(a) Relevant Austroads Standards (such as elevating them above the 1% AEP flood level);</li> <li>(b) Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018); and</li> <li>(c) Policy and Guidelines for Fish Habitat Conservation (DPI, 2013) and Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries, 2003).</li> </ul>	TG / the PC	Design, SWMP

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ID	Condition	Responsibility	Plan
Traffic and Transport Management Plan			
B32	<p>Prior to commencing construction or road upgrades identified in condition B27 (whichever comes first), the Proponent must prepare a Traffic Management Plan for the development in consultation with FCNSW, NPWS, TfNSW, Snowy Valleys Council, Snowy Monaro Regional Council and NSW Police, and to the satisfaction of the Planning Secretary. This plan must include:</p> <ul style="list-style-type: none"> <li>(a) details of the transport route to be used for all development-related traffic;</li> <li>(b) details of the road upgrade works required by condition B27 of this approval;</li> <li>(c) details of the measures that would be implemented to comply with the transport management requirements in conditions B25 to B30 above;</li> <li>(d) details of the measures that would be implemented to: <ul style="list-style-type: none"> <li>(i) minimise traffic safety impacts of the development and disruptions to local road users during construction, upgrading or decommissioning works, including: <ul style="list-style-type: none"> <li>• a description of the proposed dilapidation surveys required by condition B29 of this approval;</li> <li>• a description of the proposed measures for managing traffic flow around the work sites, construction compounds and accommodation camp;</li> <li>• scheduling heavy vehicle movements to avoid peak periods;</li> <li>• minimising convoy lengths;</li> <li>• reducing the speeds of development-related traffic at key intersections along the Snowy Mountains Highway, including the Link Road intersection;</li> <li>• temporary traffic controls, including detours and signage;</li> </ul> </li> </ul> </li> </ul>	TG / the PC	TTMP

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ID	Condition	Responsibility	Plan
	<ul style="list-style-type: none"> <li>• procedures for stringing cables and transmission lines across roads and Talbingo Reservoir;</li> <li>• notifying the local community about development-related traffic impacts;</li> <li>• procedures for receiving and addressing complaints from the community about development- related traffic;</li> <li>• minimising potential cumulative traffic impacts with other projects in the area;</li> <li>• minimising potential conflict between development-related traffic and rail services, stock movements and school buses, in consultation with local schools, including preventing queueing on the public road network;</li> <li>• minimising impacts to the public using Talbingo Reservoir and any water related infrastructure such as the O'Hares campground boat ramp;</li> <li>• implementing measures to minimise development-related traffic on the public road network outside standard construction hours;</li> <li>• minimising dirt and debris tracked on to the public road network from development related-traffic;</li> <li>• 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;</li> <li>• encouraging car-pooling or ride sharing by employees;</li> <li>• scheduling the haulage vehicle movements to minimise convoy lengths or platoons;</li> <li>• responding to local climate conditions that may affect road safety, such as snow, ice, fog, dust, wet weather and flooding;</li> </ul>		



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ID	Condition	Responsibility	Plan
	<ul style="list-style-type: none"> <li>• ensuring loaded vehicles entering or leaving the site have their loads covered or contained and leave site in a forward direction;</li> <li>• responding to any emergency repair or maintenance requirements;</li> <li>• provisions for maintaining access to the site for FCNWS, NPWS and emergency vehicle access to the site at all times;</li> <li>• a traffic management system for managing over-dimensional vehicles; and</li> <li>• fatigue management;</li> </ul> <p>(ii) minimise the impacts of the road and intersection upgrades of the development;</p> <p>(iii) provide sufficient parking on site for all vehicles and ensure vehicles associated with the development do not park on the public road network;</p> <p>(iv) maintain all roads and water-related infrastructure on site in a safe and serviceable condition;</p> <p>(v) minimise the traffic noise impacts of the development;</p> <p>(e) details of the haulage of spoil to be disposed within Kosciuszko National Park in accordance with condition B7;</p> <p>(f) ensure any vessel or structure occupying waters must display appropriate shapes and lights in accordance with the <i>Marine Safety (Domestic Commercial Vessel) National Law 2012</i>;</p> <p>(g) include a detailed:</p> <ul style="list-style-type: none"> <li>(i) Heavy Vehicle Salvage Plan;</li> <li>(ii) Driver's Code of Conduct;</li> <li>(iii) Marine Transport Management Plan;</li> </ul>		

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ID	Condition	Responsibility	Plan
	<p>(iv) Snow &amp; Ice Traffic Management Plan;</p> <p>(v) Communication Strategy to keep the public informed about the impacts of the development;</p> <p>(h) include a program to:</p> <p>(i) ensure drivers working on the development receive suitable training on the code of conduct and any other relevant obligations under the Traffic Management Plan;</p> <p>(ii) record and track vehicle movements; and</p> <p>(iii) monitor and publicly report on the effectiveness of these measures.</p> <p>Following the Planning Secretary's approval, the Proponent must implement the Traffic Management Plan.</p>		
Long-Term Road Strategy – Kosciuszko National Park			
B33	<p>Within 2 years of the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must prepare a Long-Term Road Strategy for the development to the satisfaction of NPWS. This strategy must:</p> <p>(a) identify the road network within the Kosciuszko National Park required for the development during operations, including the detailed specifications for this road network;</p> <p>(b) identify which roads within the Kosciuszko National Park can be narrowed or closed following construction and then rehabilitated;</p> <p>(c) include a detailed program for the rehabilitation of these roads, which can be incorporated into the Rehabilitation Management Plan for the development; and</p> <p>(d) identify future road maintenance and funding responsibilities for the long-term road network</p>	TG	Long-Term Road Strategy

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ID	Condition	Responsibility	Plan
	following construction. Following the Planning Secretary's approval, the Proponent must implement the Long-Term Road Strategy.		
VISUAL AMENITY			
Visual Appearance			
B34	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) take reasonable steps to minimise the visual impacts of the development;</li> <li>(b) ensure all transmission towers blend into the surrounding landscape as far as possible and minimises the potential for glare and reflection by either: <ul style="list-style-type: none"> <li>(i) painting towers with a colour that; and/or</li> <li>(ii) pre-dulling towers with a finish that;</li> </ul> </li> <li>(c) ensure the visual appearance of ancillary facilities (including paint colours), blends in as far as possible with the surrounding landscape; and</li> <li>(d) not mount any advertising signs or logos on site, except where this is required for identification or safety purposes.</li> </ul>	TG	Design, VIMP
B35	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) take all reasonable steps to minimise the off-site visual impacts of the development; and</li> <li>(b) ensure that any external lighting associated with the development: <ul style="list-style-type: none"> <li>• is installed as low intensity lighting (except where required for safety or emergency purposes);</li> <li>• does not shine above the horizontal; and</li> <li>• complies with Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting</li> </ul> </li> </ul>	TG / the PC	Design, VIMP

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ID	Condition	Responsibility	Plan
Visual Impact Management Plan			
B36	<p>Prior to the commencement of construction, the Proponent must prepare a Visual Impact Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared in consultation with FCNSW and the NPWS;</li> <li>(b) describe the measures that would be implemented to comply with condition B34 above; and</li> <li>(c) include detailed plans for minimising the visual impacts of the following permanent infrastructure: <ul style="list-style-type: none"> <li>(i) Maragle switchyard and substation;</li> <li>(ii) transmission line, towers and easement.</li> </ul> </li> </ul> <p>Following the Planning Secretary's approval, the Proponent must implement the Visual Impact Management Plan for the development.</p>	TG	VIMP
PARK VALUES			
B37	<p>The Proponent must make the following payments to NPWS for residual impacts of the development on park values:</p> <ul style="list-style-type: none"> <li>(a) \$1 million prior to carrying out any development;</li> <li>(b) \$1 million within 1 year of commencing construction;</li> <li>(c) \$1 million within 2 years of commencing construction;</li> <li>(d) \$1 million within 3 years of commencing construction;</li> <li>(e) \$1 million within 4 years of commencing construction;</li> </ul> <p>unless the Planning Secretary agrees otherwise.</p>	TG	VIMP

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ID	Condition	Responsibility	Plan
	<p>Note: The NPWS will use these funds and any interest generated by these funds to enhance the park values of the Kosciuszko National Park. The NPWS will:</p> <ul style="list-style-type: none"> <li>• develop a detailed program for the allocation of these funds to specific projects;</li> <li>• monitor, evaluate and publicly report on the spending of these funds and the effectiveness of these projects.</li> </ul>		
B38	<p>Within 6 months of the commencement of construction, the Proponent must prepare an Additional Easement Rehabilitation Strategy to the satisfaction of NPWS, to undertake the following infrastructure projects, that addresses:</p> <p>(a) Providence Portal substation to Tantangara Dam – removal of transmission line, replacement with underground line, if it cannot be decommissioned, and rehabilitation of the easement;</p> <p>(b) Eucumbene Portal to Happy Jacks transmission – lines being removed and replaced by an alternative standalone power supply and rehabilitation of the easement; and</p> <p>(c) timing for each program of works.</p> <p>Following approval, the Proponent must implement the Additional Easement Rehabilitation Strategy.</p>	TG	Easement Rehabilitation Strategy
HAZARD AND RISK			
Dangerous Goods			
B39	<p>The Proponent must ensure that the storage, handling, and transport of dangerous goods is undertaken in accordance with the relevant Australian Standards and guidelines, particularly <i>AS1940 The storage and handling of flammable and combustible liquids</i> and <i>AS/NZS 1596:2014 The storage</i></p>	TG / the PC	SWMP

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ID	Condition	Responsibility	Plan
	<i>and handling of LP Gas, the Dangerous Goods Code, and the EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual.</i>		
Electric and Magnetic Fields			
B40	The Proponent 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 <i>International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100 kHz) (ICNIRP, 2010).</i>	TG	Design
Operating Conditions			
B41	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) minimise the fire risks of the development, including managing vegetation fuel loads on-site;</li> <li>(b) ensure that the development; <ul style="list-style-type: none"> <li>(i) complies with the relevant asset protection requirement sin the RFS's Planning for Bushfire Protection 2019 (or equivalent) and Standards for Asset Protection Zones;</li> <li>(ii) is suitably equipped to respond to any fire 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 at each of the construction compounds;</li> <li>(iii) incorporates the recommendations of a fire risk assessment as per Transgrid's design standards;</li> </ul> </li> <li>(c) ensures that buildings within the compounds comply with Australian Standard AS3959-2018 Construction of buildings in bushfire-prone areas (or equivalent) and RFS's <i>Planning for Bushfire Protection 2019</i>;</li> <li>(d) ensure any fire trails or asset protection zones associated with the development are wholly</li> </ul>	TG / the PC	EP

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ID	Condition	Responsibility	Plan
	<p>contained within the approved disturbance area;</p> <p>(e) develop procedures to manage potential fires on site, in consultation with the RFS, FRNSW, FCNSW and NPWS;</p> <p>(f) assist the RFS, FRNSW, FCNSW, NPWS and emergency services as much as practicable if there is a fire in the vicinity of the site; and</p> <p>(g) notify the relevant local emergency management committee following completion of construction of the development, and prior to commencing operations.</p>		
Emergency Plan			
B42	<p>Prior to commencing construction, the Proponent must prepare and implement a comprehensive Emergency Plan and detailed emergency procedures for the development, in consultation with the Local Emergency Management Committee and to the satisfaction of the NPWS, FCNSW, RFS and FRNSW. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by NPWS and FCNSW;</p> <p>(b) be consistent with:</p> <p>(i) the Department's <i>Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'</i>,</p> <p>(ii) <i>Kosciuszko National Park Fire Management Strategy 2008-2013</i> (NPWS, 2008),</p> <p>(iii) FCNSW Guidelines including the <i>Code of Practice for Timber Harvesting in Softwood Plantations 2022</i>;</p> <p>(iv) RFS's <i>Planning for Bushfire Protection 2019</i> (or equivalent);</p> <p>(v) RFS's <i>Development Planning – A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan</i> (RFS, 2014);</p> <p>(vi) the <i>Fire and Rescue NSW Act 1989</i>; and</p> <p>(vii) the <i>Work Health and Safety (WHS) Act 2011</i>;</p>	TG / the PC	EP



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ID	Condition	Responsibility	Plan
	(c) include evacuation protocols for the site; (d) describe the measures that would be implemented to: (i) minimise the risk of bushfire on site; (ii) protect the assets on site from bushfires; (iii) respond to any bushfires on or in the vicinity of the site; (iv) minimise flood risks on site, including flooding response procedures; (v) minimise the risk of landslips on site, including landslip response procedures; (vi) evacuate the site in an emergency; and (e) include details on how live transmission infrastructure can be safely isolated in an emergency.  The Proponent must implement the Emergency Plan for the duration of the development.		
WASTE			
B43	Excluding the spoil generated by the development from within KNP, waste generated during construction, operation, upgrading and decommissioning must be dealt with in accordance with the following priorities: (a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced; (b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and (c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	TG / the PC	SWMP

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ID	Condition	Responsibility	Plan
B44	The importation of waste and storage, treatment, processing, reprocessing or disposal of such waste must comply with the <i>Protection of the Environment Operations Act 1997</i> , the <i>Protection of the Environment Operations (Waste) Regulation 2014</i> , and orders or exemptions under the regulation.	TG / the PC	SWMP
B45	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the <i>Protection of the Environment Operations (Waste) Regulation 2014</i> , or to any other place that can lawfully accept such waste.	TG / the PC	SWMP
B46	All waste that is removed from site must be classified in accordance with the EPA's <i>Waste Classification Guidelines</i> , with appropriate records and disposal dockets retained for audit purposes.	TG / the PC	SWMP
REHABILITATION			

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ID	Condition	Responsibility	Plan										
B47	<p>The Proponent must:</p> <p>(a) rehabilitate all parts of the site within the Kosciuszko National Park to comply with the rehabilitation objectives in Table 2 and the ecological rehabilitation objectives in Table 3;</p> <p>(b) rehabilitate the Bago State Forest site to comply with the rehabilitation objectives in Table 2;</p> <p>(c) complete the rehabilitation of the site, including the removal of all temporary infrastructure, creation of landforms, narrowing of roads within 3 years of completing construction;</p> <p>(d) complete the ecological rehabilitation of the site, apart from areas used for operations, within 20 years of completing construction;</p> <p>(e) complete the final rehabilitation of the site, including the removal of all remaining infrastructure within 3 years of decommissioning the development; and</p> <p>(f) complete the ecological rehabilitation of the areas used for operations within 20 years of decommissioning the development.</p> <p><b>Table 2 Rehabilitation Objectives</b></p> <table><tr><th>Feature</th><th>Objective</th></tr><tr><td>Land Use</td><td>Return the site to its previous use in consultation with NPWS and FCNSW</td></tr><tr><td>Land</td><td>Safe, stable and non-polluting;  Progressively rehabilitate the site as soon as possible following disturbance;  Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation, erosion, uncontrolled discharges of sediment, and the spread of weeds to other parts of the Kosciuszko National Park;</td></tr><tr><td>Infrastructure</td><td>Decommission and remove infrastructure, unless NPWS and/or FCNSW agrees otherwise;</td></tr><tr><td>Community</td><td>Ensure public safety</td></tr></table>	Feature	Objective	Land Use	Return the site to its previous use in consultation with NPWS and FCNSW	Land	Safe, stable and non-polluting;  Progressively rehabilitate the site as soon as possible following disturbance;  Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation, erosion, uncontrolled discharges of sediment, and the spread of weeds to other parts of the Kosciuszko National Park;	Infrastructure	Decommission and remove infrastructure, unless NPWS and/or FCNSW agrees otherwise;	Community	Ensure public safety	TG	RMP
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## Snowy 2.0 TCP Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan																		
	<div>Table 3   Ecological rehabilitation objectives, including indicative completion criteria and performance indicators</div> <table><tr><th>Ecological rehabilitation objective</th><th>Completion criteria</th><th>Performance indicators</th></tr><tr><td><b>Objective 1:</b> The vegetation composition of the rehabilitation is recognisable as a plant community type (PCT) contained within the BioNet Vegetation Classification and which was present on site prior to the project's temporary disturbance</td><td>(a) Native plant species composition is characteristic of the target PCT based on suitable analysis against a reference data set using the PCT Assignment Tool (b) The target PCT BAM composition score is within or greater than the inter-quartile range of local reference site values for the assigned PCT.</td><td>All native vascular plant species are monitored to species level from fixed 0.04 ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary. 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ID	Condition	Responsibility	Plan
Rehabilitation Management Plan			
B48	<p>Within 12 months following commencement of construction, the Proponent must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p> <ul style="list-style-type: none"> <li>(a) be prepared by a suitably qualified and experienced person in consultation with the NPWS, FCNSW, BCS, EPA, NSW DPI and TfNSW;</li> <li>(b) be consistent with the Spoil Management Plan, Long-Term Road Strategy and Visual Mitigation Management Plan;</li> <li>(c) include a conceptual plan for the rehabilitation of the whole site;</li> <li>(d) include the detailed program for the rehabilitation of roads in the Kosciuszko National Park in accordance with the approved Long-Term Road Strategy;</li> <li>(e) include a topsoil balance for the site, which includes a strategy for: <ul style="list-style-type: none"> <li>(i) maximising the reuse of topsoil on site (provided it is suitable for reuse);</li> <li>(ii) using other suitable growth media; and</li> <li>(iii) importing additional topsoil to the site (if necessary);</li> </ul> </li> <li>(f) include a native seed collection and propagation program in accordance with Florabank (<a href="http://www.florabank.org.au">www.florabank.org.au</a>) and/or NPWS guidelines for the site, which includes a strategy for: <ul style="list-style-type: none"> <li>(i) maximising the collection and use of native seed resources from the site prior to disturbance;</li> <li>(ii) collecting seed from the surrounding area, including other parts of the Kosciuszko National Park (with the approval of the NPWS); and</li> </ul> </li> </ul>	TG / the PC	RMP

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ID	Condition	Responsibility	Plan
	<p>(iii) prioritising the use of local sources of seed for the ecological rehabilitation of the site;</p> <p>(g) include a detailed ecological rehabilitation management plan for the development that:</p> <p>(i) provides an overarching description of the proposed ecological rehabilitation works, identifying the:</p> <ul style="list-style-type: none"> <li>• plant community types to be established; and</li> <li>• area of land to be established for each plant community type;</li> </ul> <p>(ii) provides maps showing the proposed location of each plant community type;</p> <p>(iii) describes the detailed measures that would be implemented to comply with the ecological rehabilitation objectives in Table 3;</p> <p>(h) identify the key risks to the successful completion of the rehabilitation and describe the contingency measures that would be implemented to address these risks;</p> <p>(i) include detailed completion criteria and performance indicators for the rehabilitation of the development (having regard) to the criteria and indicators in Table 3, including criteria for triggering remedial action (if necessary); and</p> <p>(j) include a program to monitor and publicly report on:</p> <p>(i) the rehabilitation of the site;</p> <p>(ii) the implementation of the each of the detailed plans, including the effectiveness of the proposed mitigation and contingency measures; and</p> <p>(iii) progress against the detailed completion criteria and performance indicators; and</p> <p>Following the Planning Secretary's approval, the Proponent must implement the Rehabilitation Management Plan</p>		

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
SCHEDULE 2 - PART C - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING			
ENVIRONMENTAL MANAGEMENT STRATEGY			
C1	<p>Prior to commencing development, the Proponent must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:</p> <ul style="list-style-type: none"> <li>(a) provide the strategic framework for environmental management of the development;</li> <li>(b) identify the statutory approvals that apply to the development;</li> <li>(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</li> <li>(d) set out the procedures that would be implemented to: <ul style="list-style-type: none"> <li>(i) keep the local community and relevant agencies informed about the operation and environmental performance of the development;</li> <li>(ii) receive, handle, respond to, and record complaints;</li> <li>(iii) resolve any disputes that may arise;</li> <li>(iv) respond to any non-compliance;</li> <li>(v) respond to emergencies; and</li> </ul> </li> <li>(e) include: <ul style="list-style-type: none"> <li>(i) references to any strategies, plans and programs approved under the conditions of this approval; and</li> <li>(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 approval.</li> </ul> </li> </ul> <p>Following the Planning Secretary's approval, the Proponent must implement the Environmental Management Strategy.</p>	TG / the PC	EMS, CEMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
REVISION OF STRATEGIES, PLANS AND PROGRAMS			
C2	<p>The Proponent must review and, if necessary, revise the strategies, plans or programs required under this approval to the satisfaction of the Planning Secretary within 3 months of the:</p> <ul style="list-style-type: none"> <li>(a) the submission of an incident report under condition C7;</li> <li>(b) the submission of an Independent Audit under condition C10;</li> <li>(c) the approval of any modification of the conditions of this approval; or</li> <li>(d) the issue of a direction of the Planning Secretary under condition A2 which requires a review.</li> </ul>	TG / the PC	EMS, CEMP
STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS			
C3	<p>With the approval of the Planning Secretary, the Proponent may:</p> <ul style="list-style-type: none"> <li>(a) prepare and submit any strategy, plan or program required by this approval 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);</li> <li>(b) combine any strategy, plan or program required by this approval (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and</li> <li>(c) update any strategy, plan or program required by this approval (to ensure the strategies, plans and programs required under this approval are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).</li> </ul> <p>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 approval.</p> <p>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,</p>	TG / the PC	EMS, CEMP



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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
	plan or program. If the Planning Secretary agrees, a strategy, plan or program may be staged without addressing particular requirements of the relevant condition of this approval if those requirements are not applicable to the particular stage.		
NOTIFICATIONS			
Notification of Department			
C4	Prior to commencing development, construction, operations, upgrading or decommissioning of the development or, the Proponent must notify the Department in writing via the Major Projects website portal and NPWS and FCNSW of the date of commencing the relevant phase. If any of these phases of the development are to be staged, then the Proponent 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.	TG	EMS, CEMP
Final Layout Plans			
C5	Prior to commencing construction, the Proponent must submit detailed plans of the final layout of the development to the Department via the Major Projects website, including: (a) details on siting of transmission towers and ancillary facilities; and (b) showing comparison to the approved layout and approved vegetation clearing. The Proponent must ensure that the development is constructed in accordance with the Final Layout Plans.	TG	Design Layout Plans

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ID	Condition	Responsibility	Plan
Works as Executed Plans			
C6	Prior to commencing operations, the Proponent must submit plans that confirm the constructed layout of the development and showing comparison to the final layout plans to the Planning Secretary, via the Major Projects website.	TG	As-built Plans
Incident Notification			
C7	The Department and the NPWS must be notified via the Major Projects website portal immediately after the Proponent 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 5.	TG	EMS, CEMP
Non-Compliance Notification			
C8	The Planning Secretary and the NPWS must be notified in writing via the Major Projects website portal within seven days after the Proponent becomes aware of any non-compliance.	TG	EMS, CEMP
C9	A non-compliance notification must identify the development and the application number for it, set out the condition of approval 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. <i>Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</i>	TG	EMS, CEMP

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ID	Condition	Responsibility	Plan
INDEPENDENT ENVIRONMENTAL AUDIT			
C10	Independent Audits of the development must be conducted and carried out at the frequency described and in accordance with the <i>Independent Audit Post Approval Requirements (2020)</i> , unless otherwise agreed or directed by the Planning Secretary.	TG / the PC	EMS, CEMP
ACCESS TO INFORMATION			
C11	<p>The Proponent must:</p> <ul style="list-style-type: none"> <li>(a) make the following information and documents publicly available on its website as relevant to the stage of the development: <ul style="list-style-type: none"> <li>(i) the EIS;</li> <li>(ii) the final layout plans for the development;</li> <li>(iii) current statutory approvals for the development;</li> <li>(iv) approved strategies, plans or programs required under the conditions of this approval;</li> <li>(v) the proposed staging plans for the development if the construction, operation and/or decommissioning of the development is to be staged;</li> <li>(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 approval;</li> <li>(vii) how complaints about the development can be made;</li> <li>(viii) any independent environmental audit, and the Proponent's response to the recommendations in any audit; and</li> <li>(ix) any other matter required by the Planning Secretary; and</li> </ul> </li> <li>(b) keep such information up to date.</li> </ul>	TG	EMS, CEMP

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Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
APPENDIX 5 - WRITTEN INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS			
Written Incident Notification Requirements			
1	A written incident notification addressing the requirements set out below must be notified to the Department via the Major Projects website within seven days after the Proponent becomes aware of an incident. Notification is required to be given under this condition even if the Proponent fails to give the notification required under condition C7 or, having given such notification, subsequently forms the view that an incident has not occurred.	TG	EMS, CEMP
2	Written notification of an incident must: (a) identify the development and application number; (b) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident); (c) identify how the incident was detected; (d) identify when the Proponent became aware of the incident; (e) identify any actual or potential non-compliance with conditions of approval; (f) describe what immediate steps were taken in relation to the incident; (g) identify further action(s) that will be taken in relation to the incident; and (h) identify a project contact for further communication regarding the incident.	TG / the PC	EMS, CEMP
Incident Report Requirements			
3	Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Proponent must provide the Planning Secretary and any relevant public authorities (as	TG	EMS, CEMP

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ID	Condition	Responsibility	Plan
	determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.		
4	<p>The Incident Report must include:</p> <ul style="list-style-type: none"> <li>(a) a summary of the incident;</li> <li>(b) outcomes of an incident investigation, including identification of the cause of the incident;</li> <li>(c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and</li> <li>(d) details of any communication with other stakeholders regarding the incident.</li> </ul>	TG / the PC	EMS, CEMP

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## A.2 EPBC Act Approval

### EPBC Approval 2018/8363 (DCCEEW, 21<sup>st</sup> October 2022)

ID	Condition	Responsibility	Plan
PART A – CONDITIONS SPECIFIC TO THE ACTION			
1	To minimise the impacts of the action on protected matters, the approval holder must: a. not clear more than: i. 1.67 ha of habitat for Booroolong Frog; and ii. 118.34 ha of habitat for Spot-tailed Quoll; and b. minimise the impacts of the Action on hollow-bearing trees.	TG / the PC	BMP
2	The approval holder must not clear outside the project area.	TG / the PC	BMP
3	To mitigate impacts on protected matters, the approval holder must implement conditions B21, B41 and C1 of the State Infrastructure Approval, in so far as they relate to monitoring, mitigating and avoiding impacts to protected matters.	TG / the PC	EMS CEMP BMP SWMP EP

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ID	Condition	Responsibility	Plan
4	<p>The Biodiversity Management Plan required under condition B21 of the State Infrastructure Approval must:</p> <ul style="list-style-type: none"> <li>a. be consistent with relevant statutory documents;</li> <li>b. demonstrate how the approval holder will minimise erosion and control sediment generation;</li> <li>c. demonstrate how the approval holder will take all reasonable and feasible measures to prevent any discharge to waters;</li> <li>d. in respect of all watercourses which contain habitat for Booroolong Frog, as indicated by the areas within the yellow polygons designated 'Booroolong Frog' within the designated 'Study area' in the map at Attachment B, specify: <ul style="list-style-type: none"> <li>i. what and how detailed baseline data on surface water flows and quality will be collected prior to the commencement of the Action; and</li> <li>ii. a program to augment data regarding surface water flows and quality data over time;</li> </ul> </li> <li>e. specify detailed criteria for determining surface water impacts (in respect of flows, quality and flooding) of the Action on the Booroolong Frog, including criteria for triggering remedial action (if necessary);</li> <li>f. specify a monitoring program capable of detecting any specified criteria for triggering remedial action, if they occur; and</li> <li>g. include a description of the measures that will be implemented to minimise the surface water impacts of the Action on the Booroolong Frog.</li> </ul>	TG / the PC	BMP

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ID	Condition	Responsibility	Plan
5	The approval holder must submit the Biodiversity Management Plan and Environmental Management Strategy required by conditions B21 and C1 of the State Infrastructure Approval to the department for the Minister's approval before they are approved by the NSW Planning Secretary.	TG / the PC	BMP EMS
6	The approval holder must implement the Biodiversity Management Plan and Environmental Management Strategy approved by the Minister until the end date of this approval, unless otherwise agreed by the Minister in writing.	TG / the PC	BMP EMS
7	To offset the impacts of the Action on protected matters, the approval holder must implement conditions B18, B19 and B20 of the State Infrastructure Approval.	TG	BMP
8	The approval holder must notify the department in writing within 10 business days of making a biodiversity offset payment to the NSW National Parks and Wildlife Service. Each notification must state the date of payment, the amount paid, and the component of the biodiversity offset obligations in respect of which the payment is made.	TG	Biodiversity Offset Package
SUBMISSION AND PUBLICATION OF PLANS			
9	The approval holder must submit all plans required by these conditions electronically to the department.	TG / the PC	EMS
10	Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date:  a. the plan is approved by Secretary of the NSW Department of Planning and Environment as required under a state/territory government condition which must be complied with in accordance with these EPBC Act conditions.	TG / the PC	EMS



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ID	Condition	Responsibility	Plan
11	The approval holder must keep all published plans required by these conditions on the website until the expiry date of this approval.	TG / the PC	EMS
12	The approval holder is required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public.	TG / the PC	BMP
13	If sensitive ecological data is excluded or redacted from a plan in accordance with condition 12, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website.	TG / the PC	EMS
PART B – ADMINISTRATIVE CONDITIONS			
NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION			
14	The approval holder must notify the department electronically of the date of commencement of the Action, within 5 business days of commencement of the Action.	TG	EMS
15	If the commencement of the Action does not occur within 5 years from the date of this approval, then the approval holder must not commence the Action without the prior written agreement of the Minister.	TG	EMS
COMPLIANCE RECORDS			
16	The approval holder must maintain accurate and complete compliance records.	TG / the PC	EMS CEMP

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ID	Condition	Responsibility	Plan
17	<p>If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request.</p> <p>Note: Compliance records may be subject to audit by the department, or by an independent auditor in accordance with section 458 of the EPBC Act, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the department's website or through the general media.</p>	TG / the PC	EMS
18	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the department's Guidelines for biological survey and mapped data (2018), or any subsequent official version or as otherwise specified by the Minister in writing.	TG / the PC	CEMP
19	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the department's Guide to providing maps and boundary data for EPBC Act projects (2021), or any subsequent official version or as otherwise specified by the Minister in writing.	TG / the PC	CEMP
20	The approval holder must submit all monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the department within 12 months of the commencement of the Action.	TG / the PC	CEMP

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ID	Condition	Responsibility	Plan
ANNUAL COMPLIANCE REPORTING			
21	The approval holder must prepare a compliance report for each 12-month period following the date of this approval, or as otherwise agreed to in writing by the Minister.	TG	CEMP
22	Each compliance report must be consistent with the department's Annual Compliance Report Guidelines (2014), or any subsequent official version.	TG	CEMP
23	<p>Each compliance report must include:</p> <ul style="list-style-type: none"> <li>a. Accurate and complete details of compliance and any non-compliance with the conditions and the plans, and any incidents.</li> <li>b. One or more shapefile showing all clearing of any protected matters, and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared.</li> <li>c. A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.</li> </ul>	TG	CEMP

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ID	Condition	Responsibility	Plan
24	<p>The approval holder must:</p> <ul style="list-style-type: none"> <li>a. Publish each compliance report on the website within 60 business days following the end of the 12-month period for which that compliance report is required.</li> <li>b. Notify the department electronically, within 5 business days of the date of publication that a compliance report has been published on the website.</li> <li>c. Provide the weblink for the compliance report in the notification to the department.</li> <li>d. Keep all published compliance reports required by these conditions on the website until the expiry date of this approval.</li> <li>e. Exclude or redact sensitive ecological data from compliance reports published on the website or otherwise provided to a member of the public.</li> <li>f. If sensitive ecological data is excluded or redacted from the published version, submit the full compliance report to the department within 5 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website.</li> </ul> <p><i>Note: Compliance reports may be published on the department's website.</i></p>	TG	CEMP
REPORTING NON-COMPLIANCE			
25	<p>The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan.</p>	TG / the PC	CEMP

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ID	Condition	Responsibility	Plan
26	<p>The approval holder must specify in the notification:</p> <ul style="list-style-type: none"> <li>a. Any condition or commitment made in a plan which has been or may have been breached.</li> <li>b. A short description of the incident and/or potential non-compliance and/or actual non-compliance.</li> <li>c. The location (including co-ordinates), date, and time of the incident and/or potential non-compliance and/or actual non-compliance.</li> </ul> <p><i>Note: If the exact information cannot be provided, the approval holder must provide the best information available.</i></p>	TG / the PC	CEMP
27	<p>The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan. The approval holder must specify:</p> <ul style="list-style-type: none"> <li>a. Any corrective action or investigation which the approval holder has already taken.</li> <li>b. The potential impacts of the incident and/or non-compliance and/or non-compliance.</li> <li>c. The method and timing of any corrective action that will be undertaken by the approval holder.</li> </ul>	TG / the PC	CEMP
INDEPENDENT AUDIT			
28	<p>The approval holder must ensure that an independent audit of compliance with the conditions is conducted for every five-year period following the commencement of the Action until this approval expires, unless otherwise specified in writing by the Minister.</p>	TG	CEMP

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ID	Condition	Responsibility	Plan
29	<p>For each independent audit, the approval holder must:</p> <ul style="list-style-type: none"> <li>a. Provide the name and qualifications of the nominated independent auditor, the draft audit criteria, and proposed timeframe for submitting the audit report to the department prior to commencing the independent audit.</li> <li>b. Only commence the independent audit once the nominated independent auditor, audit criteria and timeframe for submitting the audit report have been approved in writing by the department.</li> <li>c. Submit the audit report to the department for approval within the timeframe specified and approved in writing by the department.</li> <li>d. Publish each audit report on the website within 15 business days of the date of the department's approval of the audit report.</li> <li>e. Keep every audit report published on the website until this approval expires.</li> </ul>	TG	CEMP
30	Each audit report must report for the five-year period preceding that audit report.	TG	CEMP
31	Each audit report must be completed to the satisfaction of the Minister and be consistent with the department's Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines (2019), or any subsequent official version.	TG	CEMP
COMPLETION OF THE ACTION			
32	The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.	TG	EMS

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ID	Condition	Responsibility	Plan
33	Within 20 business days after the completion of the Action, and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data.	TG	EMS
CHANGES TO STATE INFRASTRUCTURE DEVELOPMENT			
34	The approval holder must notify the department in writing of any proposed change to the State Infrastructure Approval that may relate to protected matters within 2 business days of formally proposing a change and within 5 business days of becoming aware of any proposed change.	TG	Noted
35	The approval holder must notify the department in writing of any change to the State Infrastructure Approval conditions that may relate to protected matters, within 10 business days of a change to conditions being finalised.	TG	Noted
REVISION OF ACTION MANAGEMENT PLANS			
36	The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.	TG	Noted
37	The approval holder may choose to revise an action management plan approved by the Minister under condition 5 or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the Action in accordance with the RAMP would not be likely to have a new or increased impact.	TG	Noted

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ID	Condition	Responsibility	Plan
38	<p>If the approval holder makes the choice under condition 37 to revise an action management plan without submitting it for approval, the approval holder must:</p> <p>a. Notify the department electronically that the approved action management plan has been revised and provide the department with:</p> <p>i. an electronic copy of the RAMP;</p> <p>ii. an electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP;</p> <p>iii. an explanation of the differences between the approved Action management plan and the RAMP;</p> <p>iv. the reasons the approval holder considers that taking the Action in accordance with the RAMP would not be likely to have a new or increased impact; and</p> <p>v. written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 business days after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the department.</p> <p>b. Subject to condition 40, implement the RAMP from the RAMP implementation date.</p>	TG	Noted
39	<p>The approval holder may revoke its choice to implement a RAMP under condition 37 at any time by giving written notice to the department. If the approval holder revokes the choice under condition 37, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under condition 37.</p>	TG	Noted



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ID	Condition	Responsibility	Plan
40	<p>If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the Action in accordance with the RAMP would be likely to have a new or increased impact, then:</p> <p>a. Condition 37 does not apply, or ceases to apply, in relation to the RAMP.</p> <p>b. The approval holder must implement the action management plan specified by the Minister in the notice.</p>	TG	Noted
41	<p>At the time of giving the notice under condition 40, the Minister may also notify that for a specified period of time, condition 37 does not apply for one or more specified Action management plans.</p> <p>Note: Conditions 37, 38, 39 and 40 are not intended to limit the operation of section 143A of the EPBC Act which allows the approval holder to submit a revised Action management plan, at any time, to the Minister for approval.</p>	TG	Noted

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### A.3 Environment Protection Licence

#### NSW EPA Environment Protection Licence 21753

ID	Condition	Responsibility	Plan
1 - ADMINISTRATIVE CONDITIONS			
A1.1	<p>This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2.</p> <p>There are four stages to the scheduled development works of which the following stages are authorised by this licence:</p> <p>Construction of high-voltage overhead transmission lines, new substation, grid connection between the new substation and existing Line 64, and construction facilities such as construction compounds and access tracks.</p>	TG / the PC	EMS CEMP
A1.2	<p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p>	TG / the PC	EMS CEMP

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ID	Condition	Responsibility	Plan						
A2.1	<p>The licence applies to the following premises:</p> <table><tr><td>Premises Details</td></tr><tr><td>SNOWY 2.0 TRANSMISSION CONNECTION PROJECT</td></tr><tr><td>KOSCIUSZKO NATIONAL PARK &amp; BAGO STATE FOREST</td></tr><tr><td>KOSCIUSZKO</td></tr><tr><td>NSW 2642</td></tr><tr><td>PREMISES DEFINED BY: SNOWY 2.0 TRANSMISSION CONNECTION INFRASTRUCTURE APPROVAL SSI 9717 (02 SEPTEMBER 2022): APPENDIX 1 - SCHEDULE OF LANDS</td></tr></table>	Premises Details	SNOWY 2.0 TRANSMISSION CONNECTION PROJECT	KOSCIUSZKO NATIONAL PARK & BAGO STATE FOREST	KOSCIUSZKO	NSW 2642	PREMISES DEFINED BY: SNOWY 2.0 TRANSMISSION CONNECTION INFRASTRUCTURE APPROVAL SSI 9717 (02 SEPTEMBER 2022): APPENDIX 1 - SCHEDULE OF LANDS	TG / the PC	EMS CEMP
Premises Details									
SNOWY 2.0 TRANSMISSION CONNECTION PROJECT									
KOSCIUSZKO NATIONAL PARK & BAGO STATE FOREST									
KOSCIUSZKO									
NSW 2642									
PREMISES DEFINED BY: SNOWY 2.0 TRANSMISSION CONNECTION INFRASTRUCTURE APPROVAL SSI 9717 (02 SEPTEMBER 2022): APPENDIX 1 - SCHEDULE OF LANDS									
A3.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <p>a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</p> <p>b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	TG / the PC	EMS CEMP						

ID	Condition	Responsibility	Plan		
2 – DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND					
P1.1	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.		TG / the PC	SWMP	
	EPA ID No.	Type of Monitoring Point			Location Description
	1	Surface Water – YORKERS CREEK			Yorkers Creek Upstream labelled YK-RS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)
	2	Surface Water – YORKERS CREEK			Yorkers Creek at Western end of alignment labelled YK-IS in the document titled Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)
	3	Surface Water – YORKERS CREEK			Yorkers Creek downstream (d/s) labelled YK-IS (d/s) in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)
4	Surface Water – NEW ZEALAND GULLY	New Zealand Gully labelled NZG-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)			

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ID	Condition			Responsibility	Plan
	5	Surface Water – TUMUT RIVER	Tumut River u/s O'Hares Creek labelled TR-RS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
	6	Surface Water – LICK HOLE GULLY	Lick Hole Gully d/s alignment labelled LHG-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
	7	Surface Water – SHEEP STATION CREEK	Sheep Station Creek labelled SSC-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
	8	Surface Water – CAVE GULLY	Cave Gully labelled CG-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
	9	Surface Water – YARRANGOBILLY RIVER	Yarrangobilly River at alignment labelled YR1-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
	10	Surface Water – YARRANGOBILLY RIVER	Yarrangobilly River d/s alignment labelled YR2-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
	11	Surface Water – WALLACES CREEK	Wallaces Creek u/s alignment labelled WC-RS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		

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ID	Condition			Responsibility	Plan
	12	Surface Water – WALLACES CREEK	Wallaces Creek labelled WC-IS in the document titled "Construction Water Quality Monitoring Program and Methodology Snowy 2.0 Transmission Connection Project" (DOC 22/918656-1)		
3 – LIMIT CONDITIONS					
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.			TG / the PC	EMS CEMP
4 – OPERATING CONDITIONS					
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.			TG / the PC	SWMP SMP
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.			TG / the PC	CEMP

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ID	Condition	Responsibility	Plan
O3.1	All operations and activities occurring at the premises must be carried out in a manner that minimises or prevents the emission of dust from the premises.	TG / the PC	SWMP ESCP
O4.1	The licensee must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines 2014 and the Act. Waste need to be transported to a place that can lawfully accept that waste.	TG / the PC	SWMP
O5.1	<p>Location and geochemistry</p> <p>The Licensee must ensure that all samples collected for spoil characterisation are:</p> <ul style="list-style-type: none"> <li>a. representative of the material currently being extracted from the specific area;</li> <li>b. is not skewed by veins; and</li> <li>c. corresponds to the material placed on the emplacement area</li> </ul>	TG / the PC	SWMP SMP
O5.2	<p>All treatment of spoil including but not limited to the temporary storage of spoil, and treatment of Potentially Acid Forming (PAF) material and material at risk of resulting in Acid Mine Drainage or Neutral Mine Drainage, must be undertaken in a manner that:</p> <ul style="list-style-type: none"> <li>a. achieves permanent neutralisation of the material</li> <li>b. prevents pollution of waters; and</li> <li>c. prevents contamination of land</li> </ul>	TG / the PC	SWMP SMP
O5.3	The Licensee must validate that all treated spoil material meets the requirements of condition O5.2.	TG / the PC	SWMP SMP

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ID	Condition	Responsibility	Plan
5 – MONITORING AND RECORDING CONDITIONS			
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	TG / the PC	SWMP SMP BMP
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	TG / the PC	SWMP SMP BMP
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	TG / the PC	SWMP SMP BMP
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	TG / the PC	SWMP SMP BMP



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ID	Condition	Responsibility	Plan																																												
M2.2	<p>Water and/ or Land Monitoring Requirements</p> <p>Analysis requirements for surface water monitoring is to include both total and dissolved concentrations for inorganics, metals and metalloids.</p> <p>Point 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12</p> <table border="1"> <thead> <tr> <th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr> </thead> <tbody> <tr><td>Aluminium</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Ammonia</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Arsenic</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Cadmium</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Chromium</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Copper</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Cyanide</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> <tr><td>Dissolved Oxygen</td><td>percent</td><td>Monthly</td><td>In situ</td></tr> <tr><td>Electrical conductivity</td><td>microsiemens per centimetre</td><td>Monthly</td><td>In situ</td></tr> <tr><td>Iron</td><td>milligrams per litre</td><td>Monthly</td><td>Grab sample</td></tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Aluminium	milligrams per litre	Monthly	Grab sample	Ammonia	milligrams per litre	Monthly	Grab sample	Arsenic	milligrams per litre	Monthly	Grab sample	Cadmium	milligrams per litre	Monthly	Grab sample	Chromium	milligrams per litre	Monthly	Grab sample	Copper	milligrams per litre	Monthly	Grab sample	Cyanide	milligrams per litre	Monthly	Grab sample	Dissolved Oxygen	percent	Monthly	In situ	Electrical conductivity	microsiemens per centimetre	Monthly	In situ	Iron	milligrams per litre	Monthly	Grab sample	TG / the PC	SWMP SMP BMP
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ID	Condition				Responsibility	Plan
	Lead	milligrams per litre	Monthly	Grab sample		
	Manganese	milligrams per litre	Monthly	Grab sample		
	Mercury	milligrams per litre	Monthly	Grab sample		
	Nickel	milligrams per litre	Monthly	Grab sample		
	Nitrogen (total)	milligrams per litre	Monthly	Grab sample		
	Nitrogen Oxides	milligrams per litre	Monthly	Grab sample		
	pH	pH	Monthly	In situ		
	Phosphorus (total)	milligrams per litre	Monthly	Grab sample		
	Reactive Phosphorus	milligrams per litre	Monthly	Grab sample		
	Silver	milligrams per litre	Monthly	Grab sample		
	Total dissolved solids	micrograms per litre	Monthly	Grab sample		
	Total Hardness	micrograms per litre	Monthly	Grab sample		
	Total Kjeldahl Nitrogen	milligrams per litre	Monthly	Grab sample		
	TSS	milligrams per litre	Monthly	Grab sample		
	Turbidity	nephelometric turbidity units	Monthly	In situ		

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ID	Condition					Responsibility	Plan
	Zinc	milligrams per litre	Monthly	Grab sample			
M3.1	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.					TG / the PC	SWMP SMP BMP
M4.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.					TG	CEMP
M4.2	<p>The record must include details of the following:</p> <ul style="list-style-type: none"> <li>a) the date and time of the complaint;</li> <li>b) the method by which the complaint was made;</li> <li>c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;</li> <li>d) the nature of the complaint;</li> <li>e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and</li> <li>f) if no action was taken by the licensee, the reasons why no action was taken.</li> </ul>					TG	CEMP
M4.3	The record of a complaint must be kept for at least 4 years after the complaint was made.					TG	CEMP
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.					TG	CEMP

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ID	Condition	Responsibility	Plan
M5.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	TG	CEMP
M5.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	TG	CEMP
M5.3	The preceding two conditions do not apply until immediately from the date of the issue of this licence.	TG	CEMP
6 – REPORTING CONDITIONS			
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> <li>1. a Statement of Compliance,</li> <li>2. a Monitoring and Complaints Summary,</li> <li>3. a Statement of Compliance - Licence Conditions,</li> <li>4. a Statement of Compliance - Load based Fee,</li> <li>5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,</li> <li>6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and</li> <li>7. a Statement of Compliance - Environmental Management Systems and Practices.</li> </ol> <p>At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.</p>	TG	CEMP

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ID	Condition	Responsibility	Plan
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	TG	CEMP
R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	TG	CEMP
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	TG	CEMP
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	TG	CEMP
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	TG	CEMP

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ID	Condition	Responsibility	Plan
R1.7	<p>Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <p>a) the licence holder; or</p> <p>b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</p>	TG	CEMP
R2.1	<p>Notifications must be made by telephoning the Environment Line service on 131 555.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>	TG	CEMP
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.	TG	CEMP
R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <p>a) where this licence applies to premises, an event has occurred at the premises; or</p> <p>b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.</p>	TG	CEMP
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	TG	CEMP

Snowy 2.0 TCP  
Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
R3.3	<p>The request may require a report which includes any or all of the following information:</p> <ul style="list-style-type: none"> <li>a) the cause, time and duration of the event;</li> <li>b) the type, volume and concentration of every pollutant discharged as a result of the event;</li> <li>c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;</li> <li>d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;</li> <li>e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;</li> <li>f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and</li> <li>g) any other relevant matters.</li> </ul>	TG	CEMP
R3.4	<p>The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.</p>	TG	CEMP
R4.1	<p>The licensee must notify the EPA within 24 hours by phone or in writing of any results from monitoring required by condition M2 that exceed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG) and NSW Water Quality Objectives and caused by activities carried out by or on behalf of the Licensee.</p>	TG	CEMP

Snowy 2.0 TCP  
Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
R4.2	The licensee must submit an Environmental Monitoring Report every six (6) months to the EPA, unless otherwise agreed in writing by the EPA.	TG	CEMP
R4.3	<p>The Environmental Monitoring Report must be prepared by a suitably qualified and experienced person and include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a) results of all water quality monitoring undertaken in the preceding six (6) month period;</li> <li>b) results of all weather monitoring undertaken in the preceding six (6) month period;</li> <li>c) assessment of historical trends in all water sampling data for each monitoring point inclusive of the current six (6) month period;</li> <li>d) identification of instances where the water quality objective triggers for each relevant pollutant were exceeded at receiving water locations and/or where the predicted discharge water quality was exceeded at sediment basin discharge points;</li> <li>e) include details of any actions taken by the Licensee in response to exceedances identified under point (d), including but not limited to: <ul style="list-style-type: none"> <li>i. additional monitoring</li> <li>ii. remedial actions; and</li> <li>iii. activation of trigger, action, response plans (TARPs);</li> </ul> </li> <li>f) recommendations for future actions in relation to monitoring and/or management</li> </ul>	TG	CEMP



Snowy 2.0 TCP  
Construction Environmental Management Strategy

ID	Condition	Responsibility	Plan
7 – GENERAL CONDITIONS			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	TG / the PC	CEMP
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	TG / the PC	CEMP
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	TG / the PC	CEMP
G2.1	Each monitoring point in condition P1.1 must be clearly marked by a sign that indicates the EPA point identification number.	TG / the PC	CEMP

## APPENDIX B TRANSGRID ENVIRONMENTAL POLICY STATEMENT

## Snowy 2.0 TCP Construction Environmental Management Strategy

### Environment Policy



The Transgrid Group is committed to conducting its activities and services in a manner that protects the environment, prevents pollution, meets our compliance obligations, and supports the development of a green energy future. Transgrid actively supports and encourages employees and contractors to consider the environmental impact of their daily activities, aligning with our commitment to sustainability.

The Environment Policy covers all activities and services undertaken by the Transgrid Group including the planning, building and operation of infrastructure, ongoing management of these assets and their decommissioning.

We aim to enhance our systems and processes in a manner that promotes continuous improvement in environmental management and performance which will lead to the achievement of good industry practice and a reduction in our environmental footprint.

#### In meeting these commitments, Transgrid:

- Maintains an Environmental Management System that provides the framework for setting and reviewing our environmental objectives and targets, including the implementation, monitoring and review of these objectives and targets, as well as facilitating continuous improvement in environmental performance.
- Continues to develop systems that recognise sensitive environmental and cultural sites on or near our infrastructure and provides processes to manage our activities with the aim of preventing environmental harm or adversely impacting the environment.
- Integrates environmental management considerations into the planning, design, siting, construction, maintenance, operation, decommissioning, and disposal of all Transgrid assets.
- Provides environmental training, assessment, and authorisation under our Environmental Management System to employees and contractors to enable them to perform their duties in an environmentally sensitive manner.
- Engages with the community, customers, employees, government, and other stakeholders regarding potential environmental or cultural impacts associated with our plans and activities.
- Pursues opportunities to maximise resource efficiencies and reduce the generation of waste through reduction, reuse and recycling programs.
- Identifies, sets, and monitors realistic environmental performance measures and communicates them to all employees and stakeholders.

Approved by: Brett Redman, CEO, February 2024

Official



## APPENDIX C TRANSGRID ENVIRONMENTAL FRAMEWORK



The background of the entire page is a photograph of a dense forest with tall, slender trees and a thick canopy of green leaves. Overlaid on this image is a network of thin, white, curved lines that resemble power lines or a web, creating a sense of connectivity and infrastructure within nature.

## | Environmental handbook

Helping you look after the environment  
when you're working with Transgrid



# 1. Introduction

The purpose of this Handbook is to assist Transgrid workers and contractors in meeting their environmental responsibilities.

This Handbook applies to Transgrid workers and contractors involved in the construction and maintenance of our network. This Handbook specifies the minimum environmental controls for all construction and maintenance work on Transgrid’s network. Additional project specific controls may be required (refer to s1.3 Environmental Documents). This Handbook applies to all construction and maintenance work and must be made available on site.

Section	Description
Introduction	Provides an overview of Transgrid’s environmental management system (EMS), defines responsibilities, summarises key legislative requirements and explains additional documents that might apply to your work.
Pollution	Describes minimum environmental control measures for all construction and maintenance work on Transgrid’s network.
Environmental Incidents Emergency Contact Numbers	Describes what to do in the event of an environmental incident, contains Transgrid’s spill response procedure and provides a list of emergency contact numbers.

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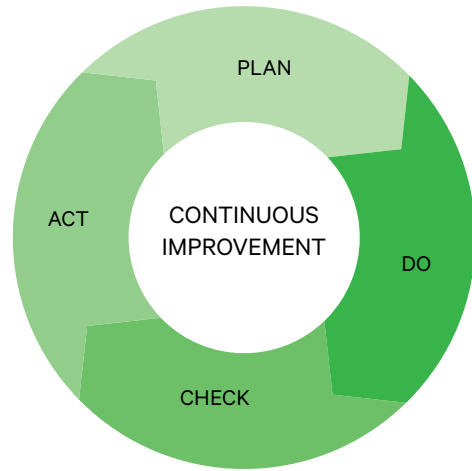
# 1.1 Environmental Management System

Transgrid's EMS provides a structured approach to our environmental management. Our EMS includes procedures, training, records, inspections, objectives and policies.

At an organisational level, our EMS involves:

- Planning to implement policy
- Implementing programs and procedures identified from the planning
- Monitoring performance
- Correcting problems
- Periodically reviewing the entire system

This is a repeating cycle of plan, do, check and act.



At a project level the principles are the same. The key steps include:

## Plan

- Environmental documentation relevant to the project must be available on-site (refer to s1.3 Environmental Documents).
- Understand your environmental responsibilities (s1.2 Responsibilities).
- Think about the site, type of works, project controls and what could go wrong before starting work.

## Do

- Implement the requirements of environmental documentation relevant to the project (s1.3 Environmental Documents).
- Respond to environmental incidents in accordance with section 8 Environmental Incidents.

## Check

- Monitor the works and controls regularly using site conformance inspections (SCIs) or Environmental Inspector Checklists.

## Act

- Act if you see something is not right or could be improved.

Contact Transgrid's HSE Group if you need assistance.

# 1.2 Responsibilities

You can also find further information in Transgrid's Environmental Authorisations procedure.

## All workers must:

- Comply with the requirements in all relevant environmental documents related to the works (s1.3 Environmental Documents).
- Speak up if you think an environmental document is missing or cannot be followed, something appears to be wrong, you are not sure what to do or something could be improved.
- Discuss environmental risks and hazards when performing the pre-work risk assessment (PWRA).
- Immediately report environmental incidents to your Team Leader/Manager.

## Team leaders and managers must:

- Understand environmental risks and legal requirements relevant to your area of operations
- Check there are specific procedures and instructions for your workers to effectively manage environmental risks (s1.3 Environmental Documents)
- Ensure environmental documents are accessible to your workers
- Check your workers have adequate supervision, training and resources to comply with procedures and instructions (Refer to Environmental Authorisations)
- Follow appropriate contingency plans for environmental emergencies
- Consider, and if appropriate, investigate all reported environmental concerns

# 1.3 Environmental Documents

All workers must comply with Transgrid's Environmental Policy which provide the overarching values and behaviours expected of our workers.

Some sections of this Handbook refer to other Transgrid environmental guidelines, plans, registers, etc.

These documents provide more detail than this Handbook and will override the requirements of this Handbook in the case of any inconsistencies.

The HSE Documents tab under the Safety, Wellbeing and Environment page is the key document portal on The Wire to find environmental procedures and information.

In addition to this Handbook, a range of project specific documents could also apply to your work, depending on the type of activity. These documents include:

- Environmental assessments
- Other approvals, licences and permits
- Issue specific management plans
- Construction Environmental Management Plans (CEMP)

Compliance with these documents is required by law.

## Accreditation

Transgrid's EMS is certified to AS/NZS ISO 14001:2004 Environmental Management Systems. To maintain certification, Transgrid and its workers must demonstrate compliance with the requirements of this handbook.

Check if environmental management plans and/or other project specific documentation are applicable to the work / activity.



### 1.3.1 Environmental Assessment

Where projects are proposed for the construction of new assets and/or substantial asset replacement or augmentation, an assessment may be required under Part 5 of the EPA Act 1979 and would either be a Summary Environmental Report (SER) or Review of Environmental Factors (REF).

Routine repairs, maintenance, asset replacement and emergency works will generally not be subject to the EP&A Act, provided that the work is of minimal environmental impact once the appropriate mitigation and control measures are in place.

#### Approvals, licences, permits and notifications

These may be required depending on the nature of the activity and the location of the activity (e.g. harming threatened species, aboriginal heritage, discharging to sewer, working in a National Park). Examples include Aboriginal Heritage Impact Permits (AHIPS), Species Impact Statements (SIS) for threatened species and Trade Waste Licenses for sewage discharge.

Where the requirement for approvals or licenses has been identified, these will be clearly identified in either issue specific management plans or the Construction Environmental Management Plan (CEMP) for the project.

#### Issue specific management plans

In some cases the environmental assessment or type of activity will trigger the need for an issue specific management plan (eg waste management plan, noise and vibration management plan).

#### Construction environmental management plan (CEMP)

This document can be a condition of an environmental assessment. It usually applies to large construction projects or projects in sensitive areas. It details the project requirements and the measures to comply with those requirements (Auditing, training, incident response, Erosion and Sediment Control Plans (ESCP), hours of work, project organisational structure and relevant responsibilities, and complaint handling).

If you are unsure whether an appropriate approval, licence, permit or notification is required, please contact Transgrid's Asset Strategy/Environment or HSE Group.

Assistance with the interpretation and implementation and of environmental documentation can be requested from Transgrid's HSE Group.

#### Before you Proceed

- Check that the environmental assessment is on site and understood. Project specific requirements are clearly outlined in the environmental assessment as well as any approvals, licenses or permits.
- If the scope of works increases, the environmental assessment may need to be revised.
- Understand the environmental risks for the project. Check the environmental assessment and assess the site to identify any additional risks that may be relevant on the day (e.g. will it rain? Is there a risk of sediment runoff?)
- Check current controls are working effectively and if not, correct them.

#### Exempt development and environmental checklists

For activities not subject to the EP&A Act, internal due diligence applies and an environmental checklist will need to be completed (unless the potential impacts are negligible.

The following is a list of Environmental Checklists that are used within Transgrid for exempt development:

- Environmental Low Risk Checklist
- Environmental Moderate Risk Checklist (General)
- Environmental Moderate Risk Checklist (Vegetation Maintenance)
- Environmental Moderate Risk Checklist (Access Track Maintenance)
- Environmental Moderate Risk Checklist (Oil/PCB Handling and Transport)

Examples of types of activities that fall within each Checklist can be found in the Environmental Framework.

### 1.4 Legislation

You can find further information on specific environmental legislative requirements in the Environmental Legal and Other Requirements Register located on the Transgrid's intranet the Wire.

#### What do environmental laws require?

Put simply, the law requires Transgrid workers to:

- Adequately assess environmental risk and obtain the required planning approvals, licences and permits
- Undertake activities in a manner that minimises environmental harm
- Put in place control measures to minimise environmental harm
- Immediately report environmental incidents.

In addition to assisting with compliance, this handbook aims to:

- Prevent and reduce incidents
- Improve environmental performance
- Promote community and regulator relationships
- Reduce costs and increase efficiencies.

#### Penalties under the POEO Act

Severe penalties can be imposed for non-compliance with environmental regulations:

- Up to \$5.5 million for a corporation
- Up to \$1 million and/or seven years jail for individuals.

When investigating an incident, the NSW Environmental Protection Authority (EPA) advises that a worker who acts in good faith and follows environmental procedures (such as this Handbook) would not normally be prosecuted.

#### Planning laws

The EP&A Act provides the overall framework for development planning approvals in New South Wales (NSW).

All new construction projects and the majority of maintenance activities carried out by or on behalf of Transgrid will require either an environmental assessment or some form of environmental due diligence check before works begin. Additional approvals may be required under both Commonwealth and NSW law.

#### Pollution control laws

The Protection of the Environment Operations (POEO) Act 1997 regulates air, water, noise and land pollution through a system of licensing, offences and penalties in NSW.

Transgrid is required to:

- Mitigate air, water, noise and land pollution
- Report environmental incidents
- Classify and appropriately manage waste
- Hold an environmental protection licence (EPL) for certain activities and depots.

For further information regarding your requirements under the POEO Act, contact the HSE Group.



## 2. Pollution

### 2.1 Erosion and Sediment Control

Transgrid employees can find further information in Erosion and Sediment Control Field Guide.

Activities that disturb soil or remove vegetation can increase the risk of soil erosion, surface runoff and the possibility of sediment entering drainage or a waterway. This can harm aquatic plants and animals and our waterways.

Check environmental documentation for project specific requirements (section 1.3 Environmental documents).

Comply with a site specific erosion and sediment control plan (ESCP).

Work in accordance with the Working near water courses Fact Sheet (Appendix 1) and Excavation and Machine work Fact Sheet (Appendix 2).

Effective erosion and sediment control involves managing your worksite to minimise erosion and prevent sediment and dirty water leaving the site or entering drainage or a waterway.

Effective erosion and sediment control should aim to:

1. Assess the soil and water risks present or potential on the work site,
2. Minimise the areas disturbed,
3. Conserve topsoil/spoil where required for re-use,
4. Control water flows around and through work sites,
5. Stabilise/rehabilitate disturbed areas progressively,
6. Inspect and maintain all control measures,
7. Remove sediment controls when site is stable.

#### 2.1.1 Controlling Erosion

When disturbing soil during excavation or construction activities best practice is to minimise the amount/area disturbed.

Minimising and controlling erosion reduces the amount of sediment generated.

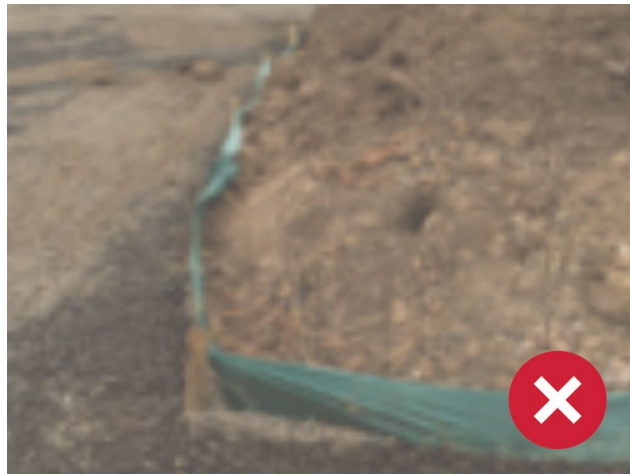
Mitigate erosion by:

- Minimising disturbance
- Stabilise high traffic areas
- Slow down or redirect water flow through the site
- Protect disturbed areas with gravel, mulches, erosion matting or blankets
- Stabilise disturbed areas ASAP once work is complete





### 2.1.2 Stockpiling



#### Where possible avoid stockpiling by:

- Placing unwanted spoil directly into a truck or skip bin.
- Scheduling deliveries so that materials are delivered only as required.

#### When stockpiling:

- Put excavated soil upslope of excavation.
- Make sure sediment fences are installed correctly and are maintained.
- Reuse spoil elsewhere on-site.
- Place stockpiles away from roadways, gutters, drains, slopes, concentrated flow paths and channels.

#### If stockpiles are at risk of wind or water erosion:

- Cover stockpiles with a tarpaulin if the site is left unattended or when rain is expected.
- Minimise surface water flowing on to the stockpile using barriers such as sand bags.

### 2.1.3 Trenching

#### Mitigate erosion by:

- Avoid trenching during periods of heavy rainfall.
- Divert surface water away from trenches using the trench spoil or barriers such as sandbags.
- Minimise the time trenches are open.
- When discharging water off site refer to section 2.3 Water discharge.



1.

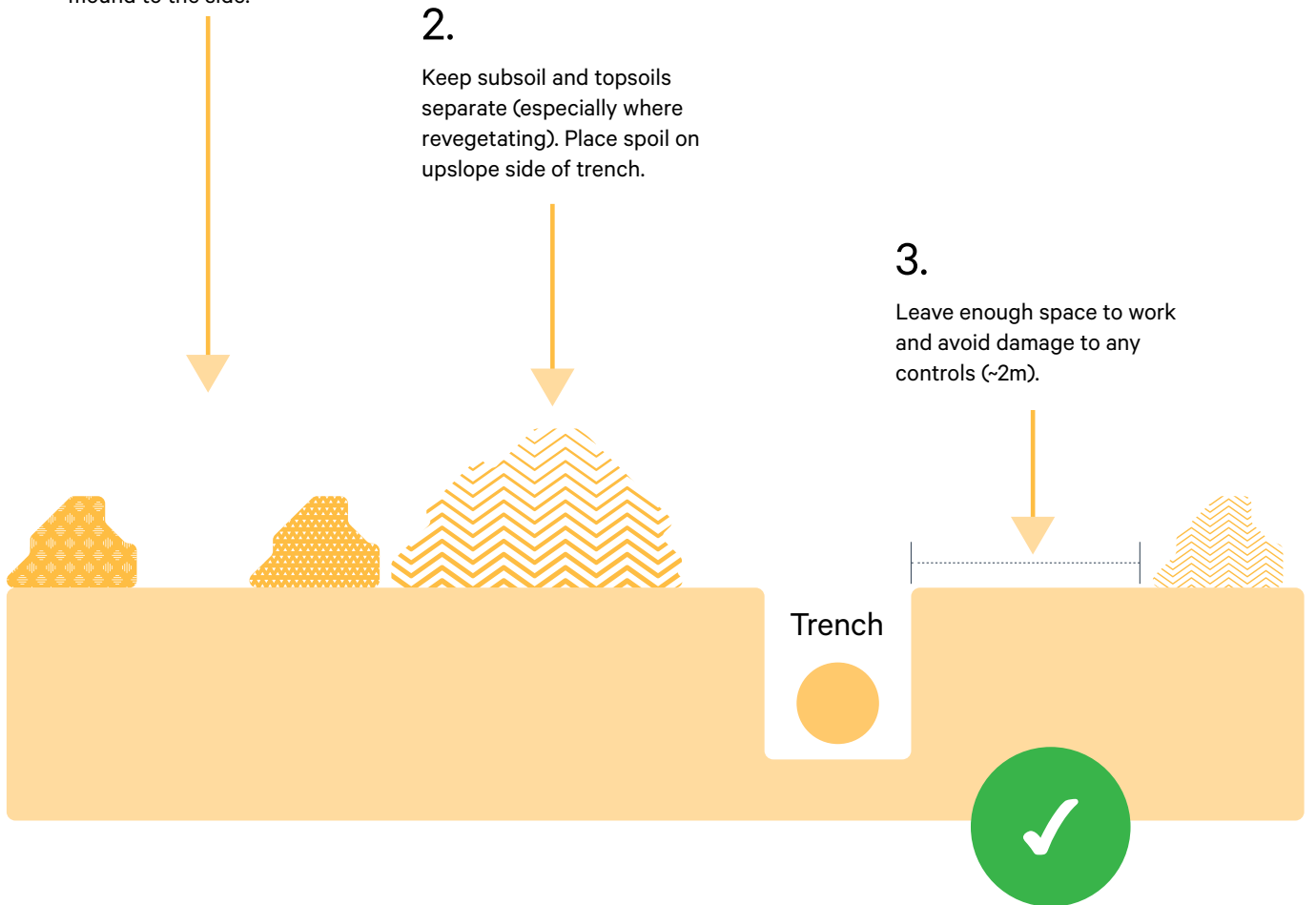
If in gravelled areas, clear gravel from the trench alignment and work area, and stockpile or mound to the side.

2.

Keep subsoil and topsoils separate (especially where revegetating). Place spoil on upslope side of trench.

3.

Leave enough space to work and avoid damage to any controls (~2m).



## 2.1.4 Sediment Control General

If erosion occurs sediment is generated. You should avoid allowing sediment to leave the worksite or enter drainage (it is an offense under the POEO for sediment to enter any 'waters' which includes creeks and storm water drainage).

Gravel bags (or similar off the shelf products) should be installed in/around site drainage where there is a risk of sediment entering 'waters'.

### Sediment fences

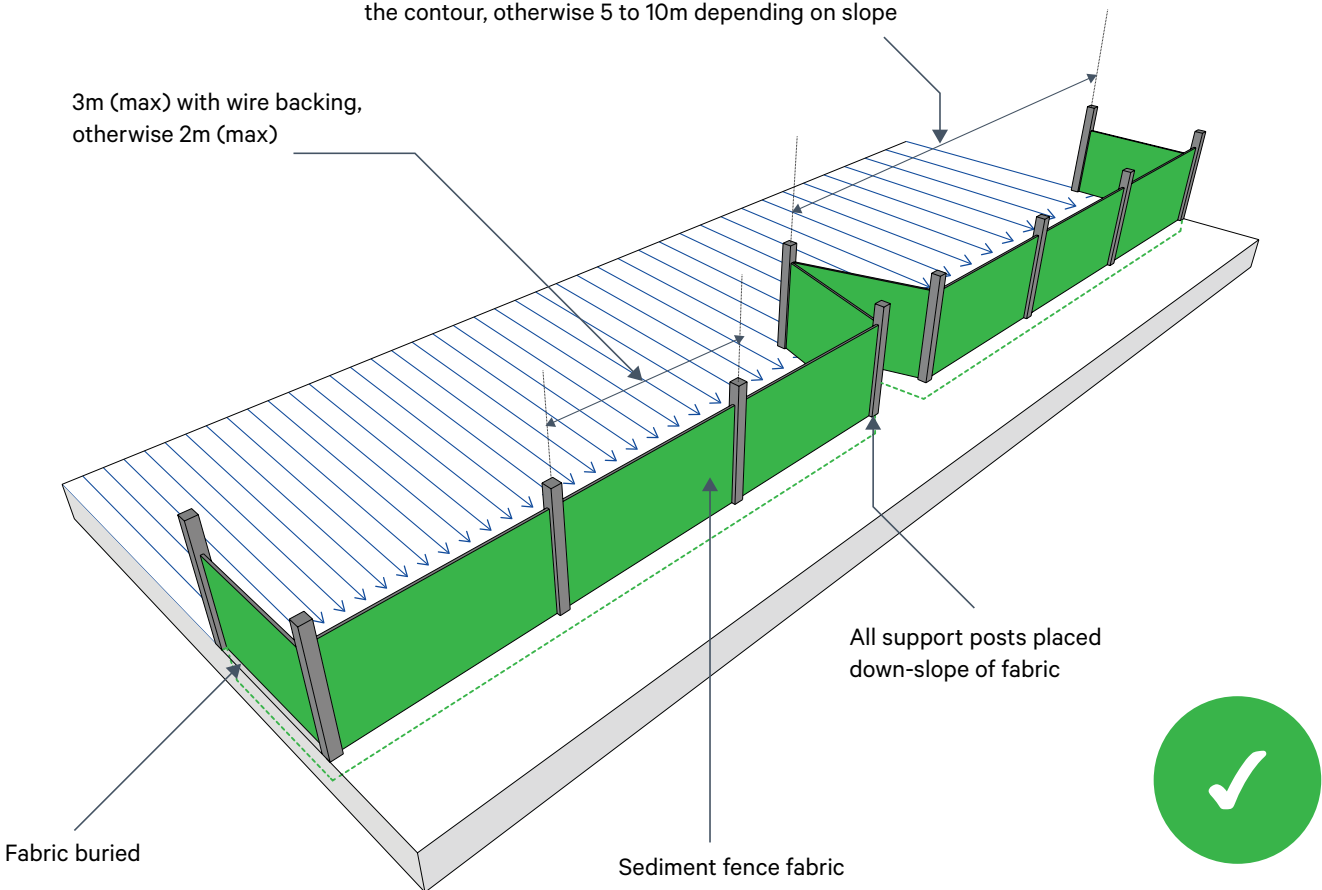
Sediment fences are the most commonly used sediment trapping/filtering device used on construction sites, but, their effectiveness in controlling sediment can be limited when poorly installed or located and/or there is inadequate maintenance.



#### Locate sediment fences:

- Parallel to the site contours
- As close as possible to disturbed areas.
- Trench fence in 150-200mm
- If the fence runs downslope create small returns every 20m along the fence to limit the catchment area of any one section.

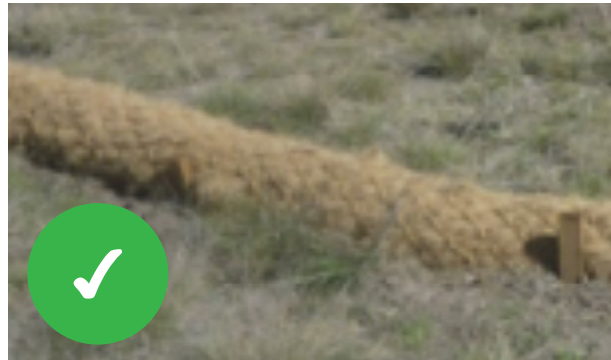
'Returns' placed at 20m spacing (max) if fence is located along the contour, otherwise 5 to 10m depending on slope



### Coir logs

Natural and biodegradable products such as coir logs are suited to natural areas as an alternative to sediment fence.

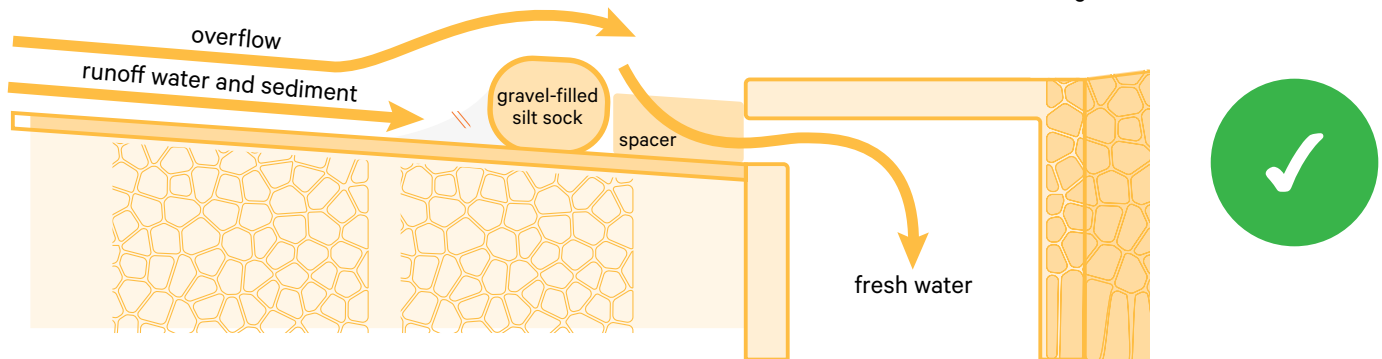
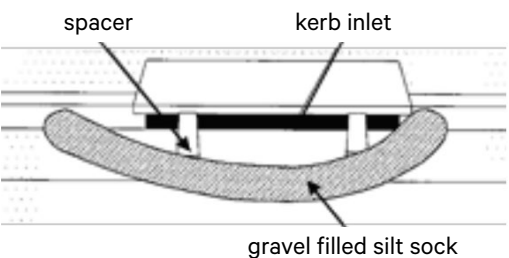
- Coir logs can be considered for filtering water from coarse/sandy soils.
- Bed the logs in at least 75mm to prevent undermining.
- Stake logs at regular intervals to prevent movement/uplift.



### Sediment control in drainage

- Fill geotextile filter bags to two-thirds capacity with 25 to 50mm aggregate.
- Form a seal with the kerb to prevent sediment bypassing the filter bag.
- When protecting a kerbside inlet:
  - Make the geotextile filter bag longer than the length of the kerbside inlet pit
  - Use spacer blocks between the filter bag and the kerbside inlet as shown.

**REMEMBER: Sand bags form a dam to slow water and gravel bags slow water and filter**



- Check environmental documentation for project specific requirements (section 1.3 Environmental documents).
- Comply with a site specific erosion and sediment control plan (ESCP).



## 2.2 Air Quality

Dust, smoke, fumes and odours can adversely impact the environment, human health and property.

When planning works, consider the likelihood of the activities impacting on the local air quality, with consideration given to the amount of excavation occurring, wind speed and neighbouring land occupiers.



### Dust prevention

Prevent dust from leaving the worksite by using appropriate controls. Examples include:

- Use water sprays to dampen (but not saturate) disturbed surfaces and stockpiles at material transfer points and during construction and demolition (make sure water is not saline).
- Minimise soil disturbance (section 2.1 Erosion and Sediment control).
- Minimise excavations on windy days.
- Stabilise long term stockpiles by covering, or with soil binders.
- Install dust barriers on fences and gates.
- Restrict traffic movement and vehicle speeds over disturbed areas and unsealed roads.
- Use dust collection devices on construction and rock breaking equipment where available.
- Always cover loads on trucks (eg use 'enviro- tarps'). This is a legal requirement.

### Other emissions:

Reduce emissions such as SF6, other gases and air pollutants:

- Handle SF6 and other gases in accordance with Transgrid procedures : Management of SF6 Gas, Work Instructions – Disposal of SF6 Electrical Equipment and Cylinders – SF6 Powder and Material
- Check vehicles and equipment are serviced regularly and operate efficiently.
- Position vehicles and equipment where the fumes will least affect receivers.
- Do not leave vehicles or equipment idling when they are not needed.

## 2.3 Water Discharge

Water often collects on site in pits, trenches and excavations or may be stored in sediment tanks, traps or basins. When discharging collected water there may be site specific criteria for water quality.

In the absence of project or site specific targets the default water quality must be:

- pH between 6.5-8.5;
- TSS <50mg/L (generally correlates to field turbidity of less than 60 NTU);
- No visible oil and grease, and
- No vegetative matter or trash.



- Check environmental documentation for project specific requirements (section 1.3 Environmental documents).
- Comply with a site specific water management plan when one is required for large construction sites or long term water discharges.

### General control measures

- Use the dewatering work instruction for discharging water from a trench, pit or excavation.
- Organise a licensed tanker to remove the water if the relevant discharge criteria cannot be achieved.
- Non-domestic discharges to sewer must be in accordance with a permit from the relevant water supply authority.
- For storage of oils, fuels and chemicals refer to section 3.1 Oil, fuel and chemicals.
- For sediment runoff refer to section 2.1 Erosion and sediment control.



## General process for dewatering of pits, excavations and/or sediment tanks

Water must be monitored for each discharge by field measurements as follows (monitor water quality at the discharge point):

- An electronic waterproof pH meter and/or pH strips,
- A turbidity tube and/or NTU meter (calibrated for the site soils),
- Oil and grease will only be tested for if an oily sheen is visible on the surface of the water,
- Debris (such as trash, vegetative matter etc.).

### Prior to discharge

Before the discharge of any water from an excavation or sediment tank, the location of the stored water and proposed release location must be recorded as well as the following information:

- Date
- Tested by
- Flocculant & rate (if any)
- Time
- pH 6.5-8.5
- Turbidity Field (generally less than 60 NTU)
- Turbidity Lab (for larger projects)
- TSS (lab result) <50ppm
- Oils (no visible film)
- Debris (none visible)
- Approved by/ Comments

Contact the Transgrid's HSE team for assistance if required



## 3. Chemical Management

Chemicals must be handled, stored, transported and disposed of in a way that minimises the risk of a spill or leak.

Check environmental documentation for project specific requirements (section 1.3 Environmental documents).

Comply with an approved checklist for:

- Oil transfers greater than 2,000 litres (L) or any amount of PCB materials within a Premise (Moderate Risk Checklist and Oil PCB Management Form).
- Oil transfers greater than 200 litres (L) or any amount of PCB materials outside a Premise (Moderate Risk Checklist and Oil PCB Management Form).
- Oil transfers greater than 200 litres (L) but less than 2,000 litres, outside a permanent bund and within a Premise (Low Risk Action checklist).
- Oil transfers less than 2,000 litres (L) inside a permanent bund or less than 200 litres (L) outside a permanent bund and within a Premise (negligible risk — no checklist required, however the requirements of this handbook still apply).
- Oil transfers less than 200 litres (L) outside a Premise (negligible risk - no checklist required, however the requirements of this handbook still apply).



3.1 Oil, Fuel and Chemicals

General control measures

- Clearly label all oil, fuel and chemical containers.
- Promptly clean spills and leaks (section 8 Environmental incidents)

Transport and handling

Vehicles transporting oil must be roadworthy and appropriately equipped to securely transport oil and contain the following as a bare minimum

- Spill kit
- Radio or mobile phone
- Protective clothing
- Dry-chemical fire extinguisher
- 2 x foam AFFF fire extinguishers



Spills kits should be readily available in storage areas



Equipment stored too close to bund wall.



Bunded chemical storage cabinet used to store chemicals and fuels.



Spray distance is half the height of the container.

- Position oil transfer equipment as far away as practical from drains and property boundaries.
- Monitor oil hoses and pumps while in use.
- Regularly inspect and maintain all plant and equipment used in the handling and transport of oil, fuel or chemicals.
- Secure equipment, containers and drums during transport.
- Where practical, handle oil, fuel and chemicals where in the event of a spillage, they can be easily recovered and minimize the possibility of entering a drain or waterway (eg on hard stand, within a bunded area, under cover).

Storage

- Store oil in a bund unless it is temporary storage. Temporary storage must meet all of the following requirements:
  - Total volume is less than 1,000 L
  - Stored for less than 24 hours
  - Spills can be easily recovered and minimize the possibility of entering a drain or waterway
  - The oil less than 2 ppm polychlorinated biphenyls (PCB). If unsure or a NATA certificate is unavailable, treat as PCB oil
  - A stocked spill kit is nearby
- Chemicals, fuels and all other oil storage must be bunded.
- Bunds should be at least 133% of the volume of the largest container.
- Bunds must be in good condition (eg impervious, free of debris, drain valve closed, emptied after rain).
- Store incompatible chemicals separately.

Spill Response and Clean-up Materials



Product	Uses	Notes
Socks and booms	<ul style="list-style-type: none"><li>Surround leaking drums.</li><li>Place in the flow path (eg drain).</li><li>Use as a floating boom.</li></ul>	<ul style="list-style-type: none"><li>A 3m sock holds around 6L of oil.</li><li>Will eventually deteriorate and sink in water.</li><li>Can be disposed to general solid waste if no PCB or free liquids.</li></ul>
Polymer agent	<ul style="list-style-type: none"><li>Can be used for spills on water.</li><li>Apply as a powder. Solidifies hydrocarbons into a rubber like mass and suppresses harmful odours.</li><li>Has been tested as non-harmful to aquatic plants and animals.</li></ul>	<ul style="list-style-type: none"><li>Can be disposed to general solid waste if no PCB or free liquids.</li></ul>
Absorbent pads	<ul style="list-style-type: none"><li>Place under leaks and drips.</li><li>Use as a floating pad.</li><li>Place in trafficable areas.</li><li>Place in drip trays.</li><li>Use as a wipe.</li></ul>	<ul style="list-style-type: none"><li>Holds around 1 L of oil.</li><li>Will eventually deteriorate and sink in water.</li><li>Can be disposed to general solid waste if no PCB or free liquids.</li></ul>
Powder absorbent	<ul style="list-style-type: none"><li>Use for spills on hardstand such as concrete.</li><li>Apply powder, work in with a broom then remove.</li><li>Do not use on water.</li></ul>	<ul style="list-style-type: none"><li>Can be disposed to general solid waste if no PCB or free liquids.</li></ul>
Loose absorbent	<ul style="list-style-type: none"><li>Apply loose material over spill and spread with a broom for maximum absorption.</li><li>Do not use on water.</li></ul>	<ul style="list-style-type: none"><li>Holds approximately half the volume of the absorbent (eg 50 L bag holds 25 L oil).</li><li>Can be disposed to general solid waste if no PCB or free liquids.</li></ul>
Absorbent pillows	<ul style="list-style-type: none"><li>Absorb &gt; quantity than sheets</li><li>Can use in drains, pits or gutters.</li></ul>	<ul style="list-style-type: none"><li>Holds around half the volume of the absorbent (eg 20 L pillow holds 10 L oil).</li><li>Will eventually deteriorate and sink in water.</li><li>Can be disposed to general solid waste if no PCB or free liquids.</li></ul>

### 3.2 Polychlorinated Biphenyls

PCBs are considered hazardous material and have strict requirements for storage, handling, and disposal under the POEO Act.

PCBs are a group of synthetic compounds once used for their insulating properties and durability. However, they are now known to pose a risk to human health and the environment.

Transgrid is removing PCB contaminated oil and equipment from our network in accordance with our PCB management plan and licence.

The following requirements apply when managing PCB material and wastes, in addition to 3.1 Oil, fuel and Chemicals.

#### Testing

- The Substations Officer is responsible for arranging oil samples to determine the PCB level.
- Consider the item to be scheduled PCB where the PCB level is unknown or if the equipment was manufactured before 1997 or if the date is uncertain.

#### General transport and handling

- Wear required personal protection equipment (PPE) and use good hygiene practices. Clearly label PCB material, waste and storage areas and have spill kits and PPE readily available.
- Store PCB material in waste storage areas bunded in accordance with AS 1940 The storage and handling of flammable and combustible liquids and located in secure areas.
- Clearly label and secure.

Transgrid employees can find further information in the Transportation, Storage and Disposal of Polychlorinated Biphenyls (PCBs) procedure and the waste management work instructions located on the Wire.



Classification	PCB Range
PCB Free	<ul style="list-style-type: none"> <li>• 2 parts per million (ppm) or less</li> </ul>
Non-scheduled PCB	<ul style="list-style-type: none"> <li>• Between 2 ppm and 50 ppm</li> </ul>
Scheduled PCB	<ul style="list-style-type: none"> <li>• 50 ppm or greater</li> </ul>
PCB material and waste	<ul style="list-style-type: none"> <li>• Oil, equipment, rags, oil absorbent products and soils which are contaminated with PCB</li> </ul>

Scheduled PCB is a dangerous good in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).



Non-schedule PCB label



PCB drum label



PCB placard

#### Legislative requirements

A licence is required for the transport and storage of scheduled PCB oil or waste electrical scrap greater than one tonne. Where a PCB licence is required:

- Use PCB licensed transporters to take PCB material directly to a licenced waste disposal facility.

#### OR

Transport and store in accordance with Transgrid's Environmental Protection Licenses (EPLs), including:

- Store for no more than 14 days at Transgrid premises (unless in the Scheduled PCB Store at Wallgrove).
- Store in an area which is covered, bunded with no drainage outlets and locked from unlawful entry.

Direct transport by Transgrid employees from Transgrid premises to a disposal facility or Transgrid's licensed storage facility at Wallgrove is permitted as long as the vehicle which is transporting the PCB material:

- Is fit for purpose.
- Copies of the EPL 7153 Licence and the PIRMP are on board.
- Suitable PPE, spill equipment and fire extinguishers are on board.
- Waste tracking certificates may also be required.

- Check environmental documentation for project specific requirements (section 1.3 Environmental documents).
- Refer to safety data sheet (SDS) and contact the HSE group for WHS requirements.

Receptacles include drums, containers and tanks, but do not include equipment containing oil.

#### Dangerous goods

Dangerous goods requirements apply when transporting scheduled PCB material:

- Label as dangerous goods in accordance with the ADG Code.
- Carry required PPE, safety equipment and documentation on transport vehicles.
- When carrying receptacles greater than 500 kg(L), use a dangerous goods licensed driver and vehicle.
- Placard receptacles greater than 500 kg (L) and aggregate loads greater than or equal to 1000 kg (L) with emergency information panels.

#### Disposal

- Dispose of all PCB waste to an EPA licensed facility.
- Comply with waste licensing and tracking requirements (section 4.3 Waste management).
- To arrange disposal Transgrid employees can contact the Substations Manager or Support Engineer.



### 3.3 Pesticides

The appropriate storage, handling and disposal of pesticides is a requirement under the Pesticides Act 1999.

Pesticides manage problems associated with unwanted pests and include herbicides, termiticides, insecticides, biocides and fungicides. If these chemicals are misused they can have harmful effects on human health and the surrounding environment.

#### Notification requirements

- Display approved notification signage when pesticides are used in public places in accordance with Transgrid's Pesticide Use Notification Plan.
- Notify owners and occupiers of private property at least 72 hours prior to use on their property.
- Have the SDS available during use for employees or members of the public.

Note: Pesticides may have a withholding period when applied on agricultural/pastoral land that may extend past 72 hours. This should be kept in mind when planning pesticide application works.

#### Planning and use

- Only use Transgrid approved pesticides (refer to the Schedule of Approved Pesticides).
- Use the correct equipment and pesticide for the job.
- Use well maintained equipment that is in good working order.
- Mix only what you need.
- Handle, store, mix, use and dispose of pesticides in accordance with the label or permit.
- Ensure spray does not drift outside the target area.
- Avoid spraying during periods of rain or wind.
- Provide an adequate buffer area between the application and dwellings, waterways, animals or environmentally sensitive areas.

#### Storage

- Store pesticides in a container with an Agricultural and Veterinary Chemicals (AGVET) Code approved label.
- Store in areas that are bunded, secure, cool and well ventilated.

#### Transport

- Transport only enough pesticide as is reasonably required for the job.
- Carry an appropriate spill kit in all vehicles used to transport pesticides.

You can find further information on pesticides in Transgrid's Use of Pesticides and Schedule of Approved Pesticides procedures on the Wire. Transgrid also has a Pesticide Use Notification Plan which is publicly available on Transgrid's external website.



## 4. Contamination and Waste





## 4.1 Asbestos

Asbestos Containing Material (ACM) are hazardous materials that have the potential to cause long term health effects including Mesothelioma (Cancer of the pleura) and Asbestosis (Lung disease) and can easily become inhaled into the respiratory system when disturbed.

Asbestos is typically classified as either bonded (concrete/cement) or friable (powder/'fluffy' form that is able to be crushed with hand when dry). Friable asbestos is considered more dangerous than bonded.

Asbestos materials were historically used in Transgrid as backing boards, arc shields, general insulating material, floor tiles, wall panels, waterproof mastic and textiles (such as rope seals).



ACM asbestos arc shields



ACM floor tiles



ACM rope seals of fuse box



ACM old water pipe

All currently known asbestos in Transgrid can be found on the Asbestos Registers which were completed in 2014 for the Northern, Central and Southern Regions.

Note: All sites are re-surveyed every five years and constantly updated as information becomes known.

- Transgrid employees can find further information in Transgrid's Asbestos Management Plan and Asbestos Removal Plan and Work Instruction – Disposal of Asbestos located on the Wire.
- Before working within a Substation, radio repeater site or on a transmission line structure, check the Asbestos Register.
- If unsure of requirements, contact the Transgrid HSE Group.

Asbestos is generally referred to as either brown, white or blue and includes mineral silicates such as: actinolite, grunerite (or amosite), anthophyllite, chrysotile asbestos (white), crocidolite asbestos (blue) and tremolite.

### If suspected ACM is uncovered:

- Cease work immediately and evacuate the area
- Contact the Transgrid Team Leader & HSE Team
- Erect barricades and provide appropriate PPE to all personnel required to be in the vicinity
- DO NOT disturb the suspected ACM until verification and removal strategies are completed.

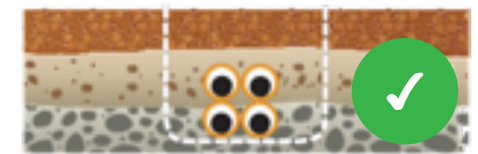
## 4.2 Acid Sulfate Soil

Acid sulfate soils (ASS) are naturally occurring sediments and soil containing iron sulfides. They are generally found in low lying areas and near waterways such as swamps, marshes or mangroves. Potential Acid Sulfate Soils (PASS) are mapped on TAMIS.

When ASS is exposed to air, such as by excavating or lowering the water table, sulfuric acid is formed. The acid can harm aquatic life, impact groundwater and corrode infrastructure. A site specific ASS management plan will need to be prepared by a specialist, assistance should be sought from the HSE Group.

Typical control measures in an ASS management plans can include:

- Minimise disturbance to the soil.
- Keep the excavation as shallow as possible.
- Minimise the time that soils are exposed to air by staging works and storing soils in a lined and covered skip bin or wrapped in plastic.
- Where possible, re-bury soil at the same depth from which it was excavated.
- Undertake necessary testing and treatment prior to disposal.



### Field indicators of the PASS include:

- The presence of mangroves, reeds, rushes or swamp vegetation
- Rotten egg smell after rain following a dry spell or when soils are disturbed
- Marine or estuarine sediments
- Soils that can be described as unripe muds or sediments (eg soft, buttery, blue/grey or dark greenish grey) which can include sands and gravels
- Milky blue/green water
- Shell fragments in the soil
- Waterlogged, scalded or backswamp areas
- Land below 10 m Australian height datum (AHD) elevation
- Any jarosite (a pale yellow mineral deposit) or iron oxide (rusty) mottling
- Extensive iron stains on any drain surfaces or iron stained drain water and ochre deposits
- Corrosion of concrete and/or steel structures
- Surface or ground water with either a pH below 5.5 or that is unusually clear.

Check environmental documentation for project specific requirements (section 1.3 Environmental documents):

- Comply with an ASS management plan when excavating in PASS areas.
- Site specific ASS management plan are required for:
- Excavations in ASS which are greater than 50m3 at any one time
- Discharging water in ASS or affecting the water table.
- Comply with a waste management plan when one applies to your project.

Transgrid employees can contact the HSE Group for further assistance.

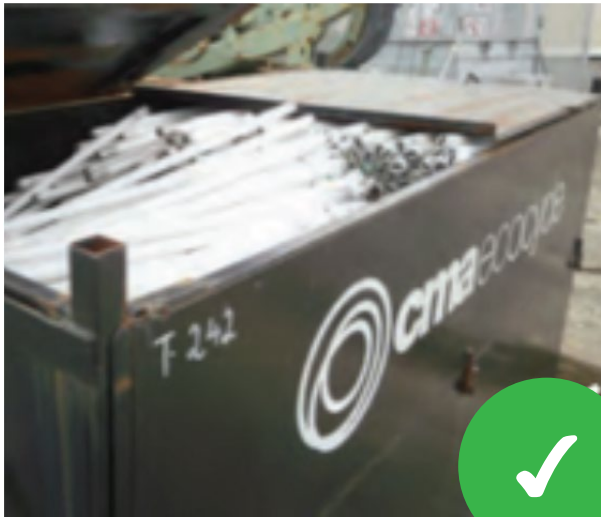
### 4.3 Waste Management

Waste is defined as any discarded, rejected, unwanted, surplus or abandoned substance or material – even if it can be processed, recycled, reused, recovered or is intended for sale.

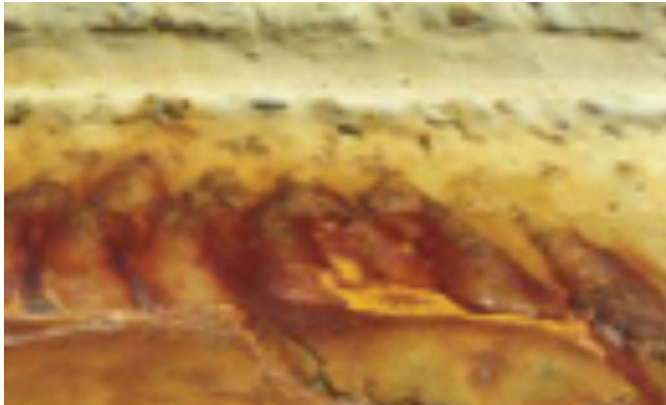
Good waste management reduces waste going to landfill, minimises disposal costs, conserves resources and avoids environmental damage.

Transgrid employees can find further information in the Waste Management procedure and work instructions on the Wire.

Segregate waste



Indicator of ASS – milky blue/green water



Indicator of ASS/PASS - rusty leaching in exposed soils



Stockpile ASS/PASS correctly to minimise exposure to air

#### Plan

- Classify wastes to determine licensing, waste tracking and disposal requirements.
- Where possible, avoid, reduce, reuse and recycle.

#### Store

- Segregate and label waste to improve recycling opportunities, avoid cross- contamination and reduce disposal costs.
- Check the bins capacity. Do not overfill.
- Keep containers in good condition.
- Cover wastes that can be blown or washed away.
- Avoid storing waste near drains, waterways and incompatible substances.
- Store liquid waste as per section 3.1 Oil, fuel and chemicals.
- Store waste quantities exceeding licensing thresholds at licensed premises. Refer to the waste classification table.
- Note: Sydney West has an Environmental Protection Licence to store hazardous waste including PCBs and Asbestos.

#### Transport

- Secure and cover loads to prevent spilling waste.
- Use a licensed transporter for certain wastes. Refer to the waste classification table.
- Before transporting any waste which requires waste tracking:
  - Obtain consignment approval from the receiving waste facility
  - Complete and sign the waste transport certificate
  - Follow record keeping requirements and retain hard copies of waste tracking records for four years.

#### Disposal

- Dispose of the waste to an appropriately licensed facility.
- Transgrid employees should use waste bins at depots or refer to work instructions on the Wire for specific disposal instructions for particular types of waste.

Note: You don't need a licence or waste tracking for transport by Transgrid employees in Transgrid vehicles between Transgrid premises (eg from a substation to a depot). Requirements may be required for dangerous goods or PCB and Asbestos, depending on concentration and volume.

Contact the HSE Group for further assistance if unsure.





## 4.4 Waste Classification

The following table shows licensing and tracking requirements for common wastes. The requirements are general and exceptions may apply.

Some wastes may have special requirements, including scheduled chemical waste, dangerous goods, PCB, soil from transmission trenches and radioactive waste.

Waste Class	Examples	Legal requirements		
		Licence to store?	Licence to transport	Waste tracking?
General solid waste	<ul style="list-style-type: none"> <li>Asphalt</li> <li>Building and demolition waste</li> <li>Bricks, concrete and timber</li> <li>Oil filter and absorbent materials (no free liquids and PCB free)</li> <li>Vegetation waste</li> <li>Wood poles (including treated poles)</li> <li>Soil/spoil</li> </ul>	<ul style="list-style-type: none"> <li>Yes, if storing more than 2,500 tonnes of waste</li> <li>Generated off-site</li> <li>Refer to Waste Classification Guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>No</li> </ul>
Restricted solid waste	<ul style="list-style-type: none"> <li>Transgrid has no pre-classified restricted solid waste</li> </ul>	<ul style="list-style-type: none"> <li>Yes, if storing more than 5 tonnes of waste generated off-site</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Hazardous waste	<ul style="list-style-type: none"> <li>Aerosols (eg empty spray cans, LPG bottles, etc)</li> <li>Dangerous goods - compressed gas, flammable, corrosive, toxic</li> <li>Lead-acid or nickel-cadmium batteries</li> <li>Dry lead paint waste</li> <li>Street lamps</li> </ul>	<ul style="list-style-type: none"> <li>Yes, if storing &gt;5 tonnes of waste generated off-site</li> </ul>	<ul style="list-style-type: none"> <li>Yes, in loads of more than 200 kg</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Liquid waste	<ul style="list-style-type: none"> <li>Chemicals, solvents, acids, alkalis, poisons, cleaning agents</li> <li>Grease and lubricants</li> <li>Liquid grease trap wastes</li> <li>Oil (for PCB &gt;2 ppm refer to section 3.2 PCBs for additional requirements)</li> <li>Liquid paint</li> <li>Liquid pesticides</li> <li>Septic tank waste</li> </ul>	<ul style="list-style-type: none"> <li>Yes, if storing &gt;5 tonnes of waste generated off-site (60 tonnes for recyclable oil)</li> </ul>	<ul style="list-style-type: none"> <li>Yes, in loads of more than 200 kg</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Special waste	<ul style="list-style-type: none"> <li>Asbestos</li> <li>Sharps</li> <li>Tyres</li> </ul>	<ul style="list-style-type: none"> <li>Yes, if storing &gt;5 tonnes of waste generated off-site (50 tonnes for tyres)</li> </ul>	<ul style="list-style-type: none"> <li>Yes, in loads &gt;200 kg (2 tonnes for tyres)</li> </ul>	<ul style="list-style-type: none"> <li>Yes, except for asbestos and tyres within NSW</li> </ul>

Type of Spoil	Management Options
<p>Virgin excavated natural material (VENM) Natural material that comes from undisturbed areas that are not contaminated.</p> <p>Assistance is required from the HSE Group for VENM classification.</p>	<ul style="list-style-type: none"> <li>Reuse as fill on any site, provided it meets the conditions of the planning approval for that site OR</li> <li>Dispose to a landfill licensed to accept VENM.</li> </ul>
<p>Excavated natural material (ENM) Naturally occurring rock and soil that meets specific requirements.</p> <p>Chemical testing is required. Assistance is required from the HSE Group for ENM classification and arranging chemical testing.</p>	<ul style="list-style-type: none"> <li>Reuse as fill on any site, provided you comply with record keeping requirements and meet the conditions of the planning approval OR</li> <li>Dispose to a landfill licensed to accept ENM.</li> </ul>
<p>Suspected contaminated spoil Refer to section 4.5 Contamination and section 4.2 Acid sulfate soils.</p> <div>   </div>	<ul style="list-style-type: none"> <li>Segregate suspected contaminated spoil from clean spoil to reduce disposal costs.</li> <li>Temporarily store excavated spoil in a lined/ sealed skip or bulk storage bag on-site or at a licensed storage facility if required.</li> <li>Undertake chemical testing to determine the waste classification and subsequent storage, transport, tracking, licensing and disposal requirements.</li> </ul>
Other spoil	<ul style="list-style-type: none"> <li>Undertake an assessment to determine the waste classification and subsequent reuse options, storage, transport, tracking, licensing and disposal requirements. Transgrid employees can contact Transgrid’s HSE Group to arrange these assessments.</li> </ul>



## 4.5 Contamination

Contaminated sites are a risk for workers, Transgrid's infrastructure, the public and the environment.

Contaminated sites require a specialist assessment to determine necessary health, safety and environmental controls.

Some examples of where you may find a contaminated site include fuel storage areas, areas where oil filled equipment is being used or has been used, petrol stations, drycleaners and industrial sites.

Contaminated soil or water requires testing to determine remediation and disposal options.

Transgrid employees can find further information on the process for the investigation, notifications and remediation of contaminated land or waters in Transgrid's Contaminated Land Management procedure located on the Wire. A register of all known contaminated sites is also kept by the HSE Group.



Contamination may require special PPE for the safety of workers

- Indicators of the presence of contamination include:
- Odorous material (eg fuels, solvents, rotten egg gas)
  - Oil staining
  - Oil sheen on groundwater
  - Underground storage tanks (UST)
  - Buried waste (eg asbestos, construction waste, containers)
  - Imported fill (eg ash, coke, asbestos)
  - Unusually coloured material.

- Check environmental documentation for project specific requirements (section 1.3 Environmental documents).
- Comply with a remediation action plan (RAP) when one applies to your project.
- If you think that you have found contamination, you must stop work immediately, restrict access and notify:
  - Your supervisor
  - Transgrid's HSE Group for environmental and safety requirements.

Failure to notify the regulator could result in severe penalties. The Corporate Environment Manager will notify the regulator if required.



Excavation reveals oil contamination in an excavation next to a Transformer Bund

## 5. Ecology

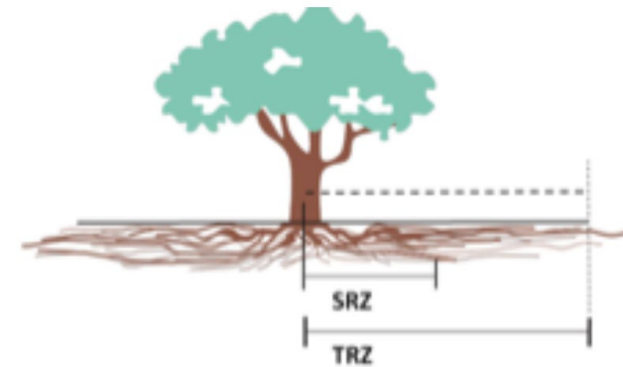


# 5.1 Vegetation

Healthy vegetation has a range of benefits for the environment and the community. Minimising impacts on vegetation, protecting the soil around trees and using correct trenching and pruning procedures can help to maintain healthy vegetation.

Works within the tree protection zone (TPZ) such as trenching, stockpiling soils or parking vehicles and plant can directly impact the health of a tree. The TPZ can extend a significant distance beyond the canopy, and should be protected to ensure the long-term viability of the tree.

The structural root zone (SRZ) is the area where the roots provide critical structural stability for the tree.



## General control measures

- Make sure the work plans for vegetation maintenance are correctly followed and contractors are aware of any trees that are to be protected.
- Minimise clearing and disturbance of all vegetation, particularly along watercourses.
- Where possible, establish and work outside the TPZ. Refer to the TPZ and SRZ radius graph.
- Avoid physical damage to trees.
- Where possible, avoid the removal of ground cover and understory vegetation.
- Where possible, use existing access tracks.
- Avoid the introduction of pathogens such as root rot (*Phytophthora cinnamomi*) by maintaining vehicle and equipment hygiene (section 5.4 Noxious weeds and pathogens).
- Consider watering affected trees during the construction process to reduce tree stress.
- Where works could inadvertently harm adjacent vegetation, fence off the vegetation that needs to be protected.

Where mulching and slashing are to be undertaken, work in accordance with the Mulching and Slashing Fact Sheet (Appendix 3)

# 5.2 Wildlife Habitat

Vegetation, particularly hollow bearing trees and native vegetation, provides important shelter, food and nest sites for our native wildlife. Maintaining wildlife habitat assists in minimising the loss of our unique biodiversity as a result of our expanding urban development.



## General control measures

- Avoid over clearing native vegetation and mature trees.
- Retain groundcover and understory vegetation.
- Employ measures to protect existing vegetation
- Avoid disturbing habitat such as hollow bearing trees or rocky areas.
- Use local provenance native stock for revegetation.
- Provide an escape route for fauna if trenches or pits will be open for extended periods (e.g. log or stick).

## Requirements

Check environmental documentation for project specific requirements (section 1.3 Environmental documents).

Comply with assessment and approval requirements for works affecting habitat (such as tree hollows or bush rock) and works on undisturbed land.

Contact local wildlife rescue organisations for the rescue or care of native wildlife (Emergency contact numbers).

Contact Transgrid's HSE team if wildlife is detected and is likely to be impacted by the works.

### 5.3 Hot Works

Transgrid employees can find further information in the Hot Works procedure located on the Wire.

#### 5.3.1 Hot Works

Hot Work is any action that involves high temperatures such as welding or gas (flame) cutting, metal grinding/ cutting, naked flames or any other high heat or spark producing operation.

Examples of Hot Work are:

- Welding, Oxy-Acetylene or Plasma cutting
- Grinding/cutting of metal including the use of flexible sanding disks
- Production of heat, flammable fumes / gases during work activities
- Dry concrete metal grinding/cutting

#### 5.3.2 Hazardous areas

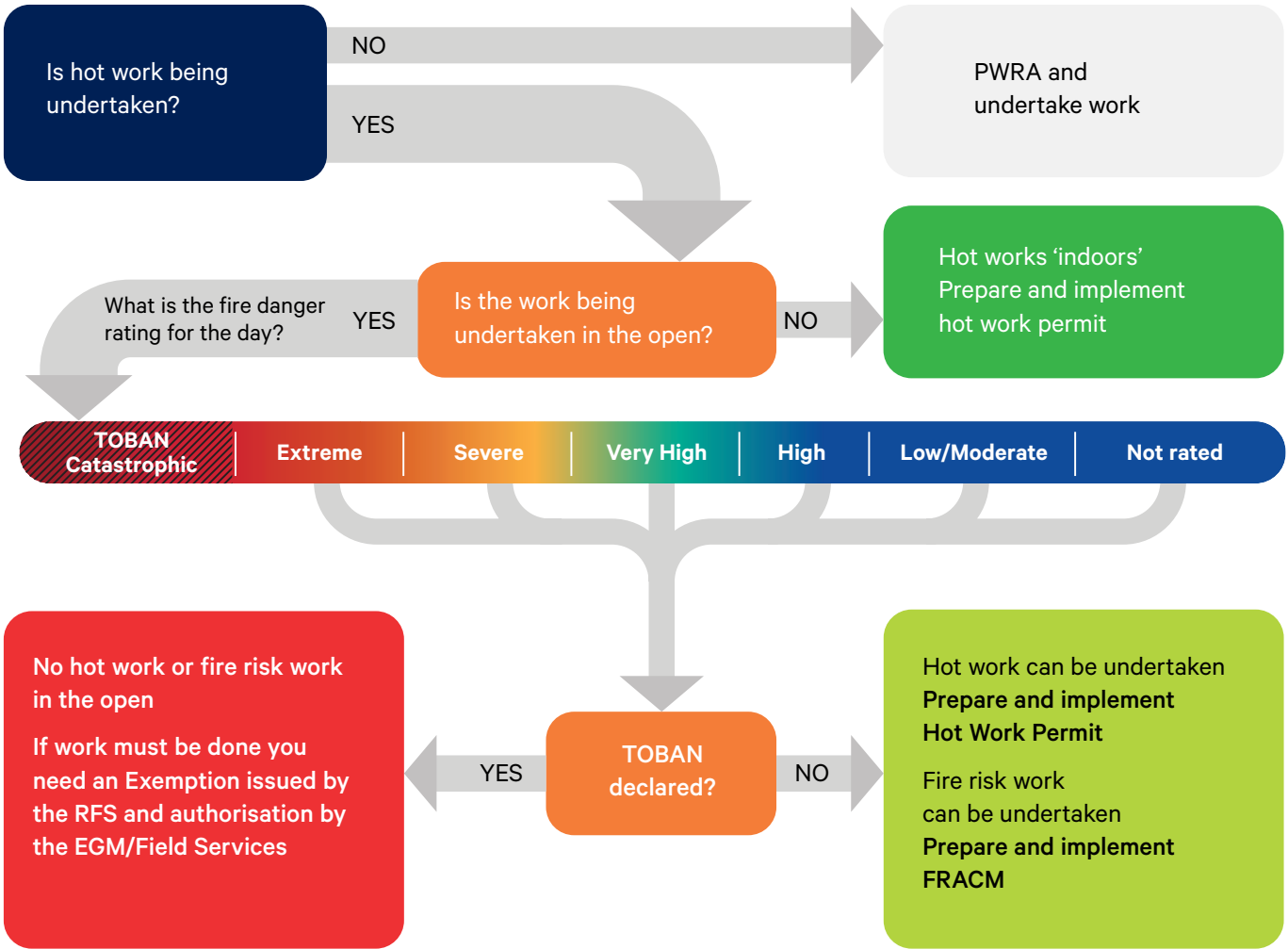
Hazardous Areas are any work areas where flammable/ combustible materials may come into contact with flames, sparks, molten materials or hot surfaces, hazardous areas may include (but not exclusively):

- Confined spaces
- Buildings where there are materials that are made of or contain combustible matter
- Dry / combustible vegetation
- Rubbish
- Oil and Fuel storage areas

- Keep firefighting equipment in good condition (including getting equipment regularly inspected).
- Check equipment is fit for purpose.
- Complete a Hot Work or FRACM form and have all mitigation measures in place prior to the commencement of work.
- Supervise Hot Work for the entire time (never leave a naked flame unattended).
- Schedule Hot Work activities during more favourable periods of the day / week.
- Clear Hot Work areas clear of combustible material or wet down.
- Isolate Hot Work activities using appropriate warning barriers and signage.
- Keeps adequate firefighting equipment immediately at hand.

- Determine if Hot Work is being undertaken or if a Fire Risk is being created
- Complete Hot Work Permit/FRACM if required
- Ensure all controls and observation is established before starting work.

### Hot Work Flowchart



#### 5.3.3 Fire Risk Work

Fire Risk Work involves heat or potential spark producing activities that have the potential of creating a fire risk when undertaken in a hazardous area, and includes:

- Slashing/mulching
- Operation of steel tracked machines or steel attachments on heavy plant (e.g. grading, boring, excavation and the like)
- Chainsaw operation
- Chipping
- Mowing
- Brush cutting
- Operation of motor vehicles

If a Fire Risk is identified a Fire Risk Assessment and Control Measures Form must be completed prior to any work.

#### 5.3.3 Total fire bans

Total Fire Bans can be declared during the Bush Fire Danger period which typically runs from the 1st October through to the 31st March. They are generally declared at 5 pm and are effective for 24 hours beginning at midnight.

If a TOBAN is declared by the NSW RFS no Hot Work is to be undertaken unless authorised by the EGM/Field Services and an exemption applies to Transgrid (refer to Hot Work Procedure).



## 5.4 Pathogens and Noxious Weeds

Pathogens and noxious weeds are among the most serious threats to Australia's biosecurity as they have the potential to become more widespread and impact agriculture, human health and the environment. Pathogens, such as Myrtle Rust, can affect the viability of ecological communities and adversely impact on property owner activities. Areas which are particularly vulnerable to noxious weeds and pathogens include areas where threatened species are likely to be present (e.g. orchards, vineyards, undisturbed bushland, state forests and protected areas such as national parks and conservation areas).

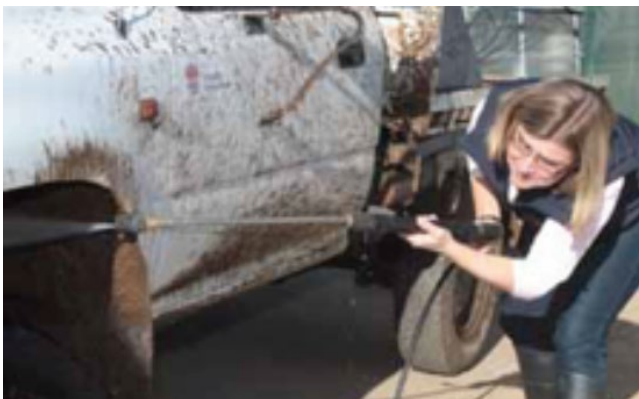
### 5.4.1 Pathogens

It is critical that Transgrid staff and Contractors comply with any quarantine restrictions and also ensure they do not spread pathogens.

Good work hygiene practices can be effective in controlling the spread of noxious weeds and pathogens.



Comply with quarantine restrictions during any access, inspection and/or maintenance activities



Make sure vehicles and plant are free of soil, mud and vegetative matter prior to entry

#### During works:

- Notify the HSE Team immediately if any issues arise.
- Keep to the tracks when driving or walking through vulnerable areas.
- When removing noxious weeds, select the most appropriate method, taking in to account weed species, environmental considerations and the extent of infestation.
- When removing and disposing of noxious weeds off-site, cover loads and contact the receiver prior to delivery.

#### At site entry and exit:

Choose clean down sites:

- Which are relatively flat and away from vulnerable areas
- Where contaminants would be contained
- Away from watercourses.
- Check boots, personal items and all components of vehicles and equipment are free of soil and vegetation and disinfected with solutions such as 'Pine-o-Cleen', 'Farmcleanse', 'Nu Clenz' or methylated spirits prior to undertaking works in vulnerable areas.

After works:

- Change and launder work clothes after working in areas containing known noxious weeds or pathogens.



### 5.4.2 Noxious weeds

There are various classes of Noxious Weeds which are declared by the Department of Primary Industry.

Noxious weeds may be classed differently in different Local Government Areas.

To check Noxious Weeds listings for LGA/LCA go to <http://weeds.dpi.nsw.gov.au/>

#### Weed Class / Type / Example Controls

**Class 1** – Plants that pose a potentially serious threat to primary production or the environment and are not present in NSW or are present only to a limited extent.

The plant must be eradicated from the land and the land must be kept free of the plant.

The weeds are also “notifiable” and a range of restrictions on their sale and movement exist.

**Class 2** – Plants that pose a potentially serious threat to primary production or the environment of a region to which the order applies and are not present in the region or are present only to a limited extent.

The plant must be eradicated from the land and the land must be kept free of the plant.

The weeds are also “notifiable” and a range of restrictions on their sale and movement exist.

**Class 3** – Plants that pose a potentially serious threat to primary production or the environment of a region to which the order applies, are not widely distributed in the area and are likely to spread in the area or to another area. The plant must be fully and continuously suppressed and destroyed.

**Class 4** – Plants that pose a potentially serious threat to primary production, the environment or human health, are widely distributed in an area to which the order applies and are likely to spread in the area or to another area. The growth of the plant must be managed in a manner that continuously inhibits the ability of the plant to spread.

#### Examples



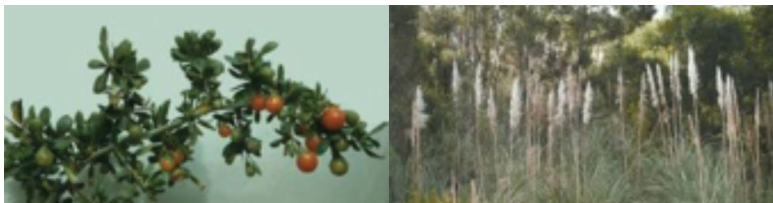
Rubber Vine

Mimosa



Chilean Needle Grass

Gorse



Boxthorn

Pamaps Grass



Blackberry

Lantana



# 6. Heritage

Heritage is classified as either Aboriginal or Non Aboriginal. There is a duty under NSW and federal legislation to protect heritage items.

## 6.1 Aboriginal Heritage

Aboriginal heritage includes objects and places with evidence of Aboriginal occupation or with special cultural significance. These can include artefacts, middens, axegrinding or tool sharpening grooves, scarred or carved trees, paintings, rock engravings and burial sites.

- Check environmental documentation for project specific requirements (see section 1.3 Environmental Documents).
- Comply with assessment and approval requirements for works near Aboriginal heritage and works on undisturbed land.
- If you think you have discovered an Aboriginal heritage object or evidence of Aboriginal occupation you must stop work immediately, restrict access and notify your Supervisor to ensure the regulator is contacted.

In these cases Transgrid's HSE Group will contact the regulator.

- Transgrid employees should contact Transgrid's HSE Group if unsure about controls to prevent harm.

### Heritage on undisturbed land

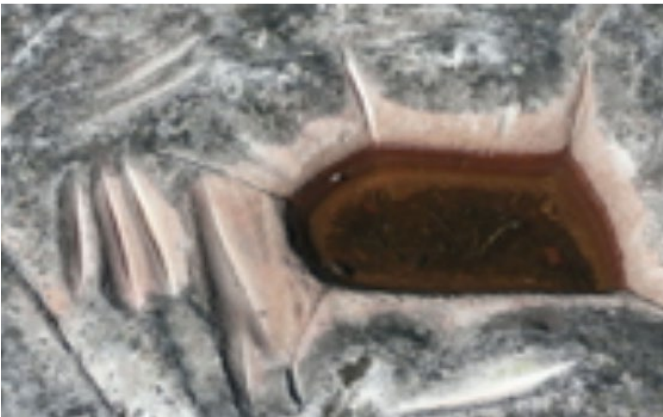
Transgrid has a duty to undertake activities in a manner that does not cause 'harm' to Aboriginal heritage.

Where an environmental assessment or permit is not required but the work site or access to the work site is on undisturbed land where there is Aboriginal heritage, the following controls apply:

- Be aware of the potential for Aboriginal heritage objects.
- Do not disturb the ground surface, vegetation (if scar trees are present) or rock outcrops.
- Retain ground cover vegetation.
- Restrict vehicle and plant movements to existing roadways or access tracks.
- Only use plant and equipment that have rubber tyres.
- Where relevant, install a temporary barrier near known Aboriginal heritage objects and places to restrict access.



Engravings



Grinding grooves and a well

### 6.1.1 Non Aboriginal Heritage

Heritage items and places are those aspects of the past that help to define our culture and which are preserved for future generations.

Transgrid owns one heritage listed substation of local heritage significance and maintains a register of heritage items.

Heritage items have various levels of protection including local (local council), state (NSW government), or national and world heritage (federal government).

Items protected can include:

- Buildings, places and trees that are of historical, cultural, social, architectural, natural or aesthetic value.
- Cobblestone roads and sandstone gutters.
- Movable objects such as early transformers, switchgear and street lights.
- Archaeological sites.

- Check environmental documentation for project specific requirements (section 1.3 Environmental Documents).
- Comply with assessment and approval requirements for works affecting heritage items or excavating in archaeological areas (some exemptions apply for maintenance or repair works).
- Comply with exemption requirements when relying on exemptions.
- If you think you have discovered a heritage item you must stop work immediately, restrict access and notify your Supervisor to ensure the regulator is contacted. Transgrid employees should contact Transgrid's HSE Group who will contact the regulator.





# 7. Resources

Water restrictions are sometimes imposed by water supply authorities across Transgrid's network.

Transgrid may be granted water use exemptions from these restrictions for some essential activities.

In addition, water saving rules apply in a number of areas. These rules should be applied across Transgrid's network to reduce the burden on town water supplies.

## 7.1 Water restrictions

If water restrictions are in place and you are working under a water use exemption:

- Undertake exempt activities in accordance with the conditions of the exemption.
- Display exemption and authorisation permits at the work site. Exemption signs can be obtained from Transgrid's HSE Group.
- Minimise water use.



Native plants are better adapted to low-nutrient and low moisture content soils.

## Water saving rules

Comply with water saving rules. These include:

- All hoses must have a trigger nozzle.
- Watering is allowed before 10 am and after 4 pm on any day.
- No hosing of hard surfaces such as paths and driveways, but washing vehicles is allowed.
- Fire hoses must be used for fire-fighting activities only.

Note: In some cases exemptions apply.

Check if water restrictions are in place, if Transgrid has a water use exemption

## 7.2 Washbays

If using a washbay, comply with its trade waste permit.

Typical requirements include:

- Only allow wash water to enter the wash bay drain (e.g. no oil, hydraulic fluid or degreaser).
- Radiator coolant is strictly prohibited from entering the drainage system.
- Fluids from all parts washers, irrelevant of chemicals used (ie. acid, caustic, solvent, kerosene), are required to be removed for approved disposal by a licensed contractor and not directed towards the pre-treatment system or direct discharge to the sewerage system or the stormwater system.
- Use only the 'quick break' detergents provided.
- Clean up spills and leaks immediately using spill absorbents.
- Remove sediment and debris from the wash bay slab and drain after each use.
- Trade waste permits are in place at Tamworth, Newcastle and Orange.
- The washing of vehicles at other depots is not allowed. If vehicles require washing, they will need to be washed off-site at a designated washing facility.

Assistance can be provided from Transgrid's HSE Group.



Transgrid's vehicle wash bays must be used in accordance with any relevant permits.



# 8. Environmental Incidents

Transgrid employees can find further information in the Environmental Incident Notification procedure and the Guidance on High Consequence Incidents guideline.

If pollution goes unreported, the people who know of the incident can be fined up to \$500,000 and a further \$120,000 each day the offence goes unreported.



Oil spill into a waterway

## Environmental Pollution Incidents:

- A spill of sediment in a sensitive area, drain or waterway
- Any volume of oil or chemical spilled on or off-site
- A spill that contains hazardous materials such as PCB or mercury

## Other Environmental Incidents:

- Discovering contamination
- Damage to heritage items
- Unauthorised vegetation clearing
- Illegal waste disposal (e.g. asbestos dumping)
- Works without the necessary approval, licence or permit

## High Consequence Incidents are those incidents that cause or threaten significant or serious environmental harm.

These include:

- Pollution incidents reportable under the POEO Act
- Significant planning and conservation breaches
- Significant unauthorised vegetation clearing
- Damage to a heritage item

In the case of an incident, Transgrid employees must report the incident to their supervisor/team leader and enter the incident details into the ARMS Incident Reporting Module at the earliest possible opportunity.

Contact Transgrid's HSE Group if you require any assistance.

For pollution incidents that fall into the High Consequence Incidents (HCIs) category and are potentially reportable to the regulator, please contact the Corporate Environment Manager and/or Transgrid Legal (depending on availability) for advice.

If neither can be contacted within a reasonable time period, notify the appropriate authorities immediately.

Refer to Guide to Environmental High Consequence Incidents on the Wire.

# Appendices

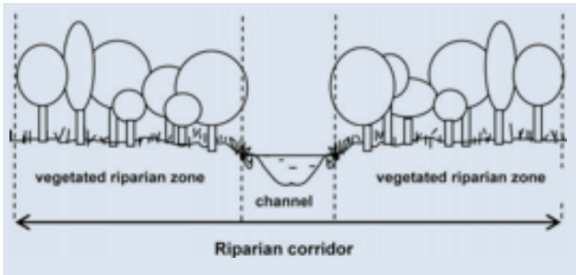


# Appendix 1: Working Near Watercourses

Working in/near watercourses (instream and within the Vegetated Riparian Zone, VRZ) may require site specific environmental controls to mitigate potential impacts and minimise the effects on the environment. The following controls are mandatory for all work near watercourses.

## Earthworks

- Prior to any actions where excavation / earthworks are being undertaken in proximity to watercourses, erosion control and sediment mitigation must be implemented in a manner consistent with currently accepted Best Management Practice (Blue Books) to prevent the entry of sediment into waterways.
- All controls must be maintained in good working order the duration of the works and maintained until the site has been stabilised and the risk of erosion and sediment movement from the site is minimal.
- Instream works are to be conducted during periods of nil creek flow where possible. If water levels rise, work should be suspended until levels fall again.
- Do not remove, realign, or relocate snags/large woody debris without first consulting the contact officer.
- Set the bed level of pipes / crossings 100mm above the downstream bed level or standing water level in the pool below (if this is not possible contact the Regional Environmental Officer for design information/guidance).
- All work must be done in accordance with OEH Guidelines (attach as required).



## Pesticide Use

- An onsite risk assessment must be done for spray applications within 20m of waterways.
- DO NOT store or mix pesticides in proximity to waterways/ stormwater.
- DO NOT saturate soil with herbicide over-spray.
- DO NOT spray across open bodies of water.
- Ensure wind direction (and spray application) is away waterways.
- Refer to product label rain-fast times if rainfall is predicted.
- Unless specified or permitted by the product label:
- Only RoundUp Biactive should be used within 5m of a waterway.
- Avoid applying herbicide directly to vegetation in drainage ditches and channels.
- Do not apply foliar sprays to vegetation growing in or over water.
- Do not add detergent based wetting agents or surfactants to herbicide mixes.

## Physical Vegetation Removal

- Minimise damage to riparian vegetation on the banks. Any damage caused is to be restored.
- Below top of bank: DO NOT mulch vegetation or poison / remove tree stumps / roots below top of bank and where safe leave stumps ≥500mm high.
- Abide by maximum clearing restrictions on/protected waterways.



# Appendix 2: Excavation and Machine Work

Excavation and earthworks that disturbs soil requires site specific environmental controls to mitigate erosion and prevent sediment off works sites and/or into waterways/ drainage. The following controls are mandatory for all excavation/ earthworks and Machine Work.

## Excavation / Earthworks

- All disturbed soils (i.e. stock piles, graded material, ripped road surfaces) to be consolidated or protected from erosion prior to daily shutdown or predicted rainfall.
- Install sediment controls where there is a risk of sediment entering waterways, stormwater or drainage (i.e. within 50m).
- Sediment controls should be considered for all drainage outlets where site water is not discharged as a sheet into stable vegetation.
- Locate stockpiles away from drainage lines and high hazard areas (>10% slope) and protect from erosion and loss of sediment.
- All plant and equipment must be clean i.e. free of soil, mud and vegetative matter, prior to delivery to and removal from site.
- Erosion and Sediment Controls must be implemented in accordance with Managing Urban Stormwater, Soil and Construction Volume 1 and Volume 2C Unsealed Roads (Blue Books).
- Prior to site disestablishment all disturbed areas must be rehabilitated; i.e. gravel replaced or top soil replaced, compacted (where necessary) protected from erosion and rehabilitated using mulch, brush matting and/or seeding.





### Machine Work\*

- E5 review and approval required.
- Machine work must not be undertaken on slopes exceeding 18° where there is a risk of land slip or erosion.
- Avoid machine work on slopes > 12°, leave some vegetation to assist soil stability.
- Avoid sharp turns to minimise soil disturbance.
- Set mulching attachments above ground level to minimise soil disturbance.
- Mulched up material should be evenly spread over the treated area; a minimum of 70% mulch cover is required to mitigate soil erosion.
- Minimise damage to ground covers e.g. grasses and very low growing plants.
- An ESCP may be required where soil disturbance exceeds 250m<sup>2</sup>.

\*Machine Work is any action that involves the use of heavy plant such as forest harvesters, shin cutters, excavators, graders, bulldozers, backhoes and similar large equipment for the following activities:

1. Vegetation removal and/or maintenance that may disturb soil.
2. Access track maintenance or construction.
3. Installation/maintenance of safe work platforms or construction benches.

NOTE: Mulching and slashing of vegetation using tractors and skid steer loaders is NOT considered to be Machine Work as soil disturbance should be minimal.



### Appendix 3: Mulching and Slashing

Mulching and Slashing requires site specific environmental controls to mitigate potential environmental impacts and minimise the effects on the environment. The following controls are mandatory for all Mulching and Slashing.

- Mulching/Trittoring should not be undertaken on slopes exceeding 18° where there is a risk of land slip or erosion.
- Avoid mulching/trittoring long runs slopes > 12°, leave some vegetation to assist soil stability.
- Avoid sharp turns to minimise soil disturbance.
- Set mulcher and slasher decks above ground level to minimise soil disturbance.
- Mulched material should be evenly spread over the treated area; a minimum of 70% mulch cover is required to mitigate soil erosion.
- Minimise damage ground covers e.g. grasses and very low growing plants.
- Avoid disturbing soil with mulcher/trittor heads and slashers.

NOTE: If removal of low growing ground cover is likely consult the local Environmental Officer for advice prior to undertaking maintenance works.



# Emergency Contacts

Issue	Contact	Number
Emergency Services/HAZMAT	Emergency Services	000
Environmental Issues		
• Environmental Incidents	• Corporate Environment Manager	
• General assistance, noise complaints, heritage discoveries and contaminated sites	• HSE Environmental Advisor or HSE Environmental Officers	
• Environmental planning issues	• Property and Environment Asset Manager or Environmental Strategy Team Leader	
Safety Issues	Safety Manager	
Building maintenance	Manager/Property	
Corporate communications, public affairs and media	Manager/Stakeholder Engagement	
Pollution incidents	HSE Environment Manager or EPA	
Spill response	NSW Fire Brigade	000
Discovery of Aboriginal heritage items	Environment Line	131 555
Discovery of Non-Aboriginal heritage items	Environment Line	131 555
PCB transport and disposal	EPA	131 555
Water and sewer mains	Water NSW	1300 662 077
Waste disposal	EPA	131 555
Local council issues	Relevant Council	
Injured native wildlife	WIRES	1300 094 737
Traffic incidents and road conditions reporting	RMS	13 17 00





**Contact details**

Sydney  
180 Thomas Street  
Sydney NSW 2000  
PO Box A1000  
Sydney South NSW 123

**Transgrid**

For all enquiries regarding this  
document please contact Transgrid:  
Telephone: 1800 222 537  
Email: [community@transgrid.com.au](mailto:community@transgrid.com.au)

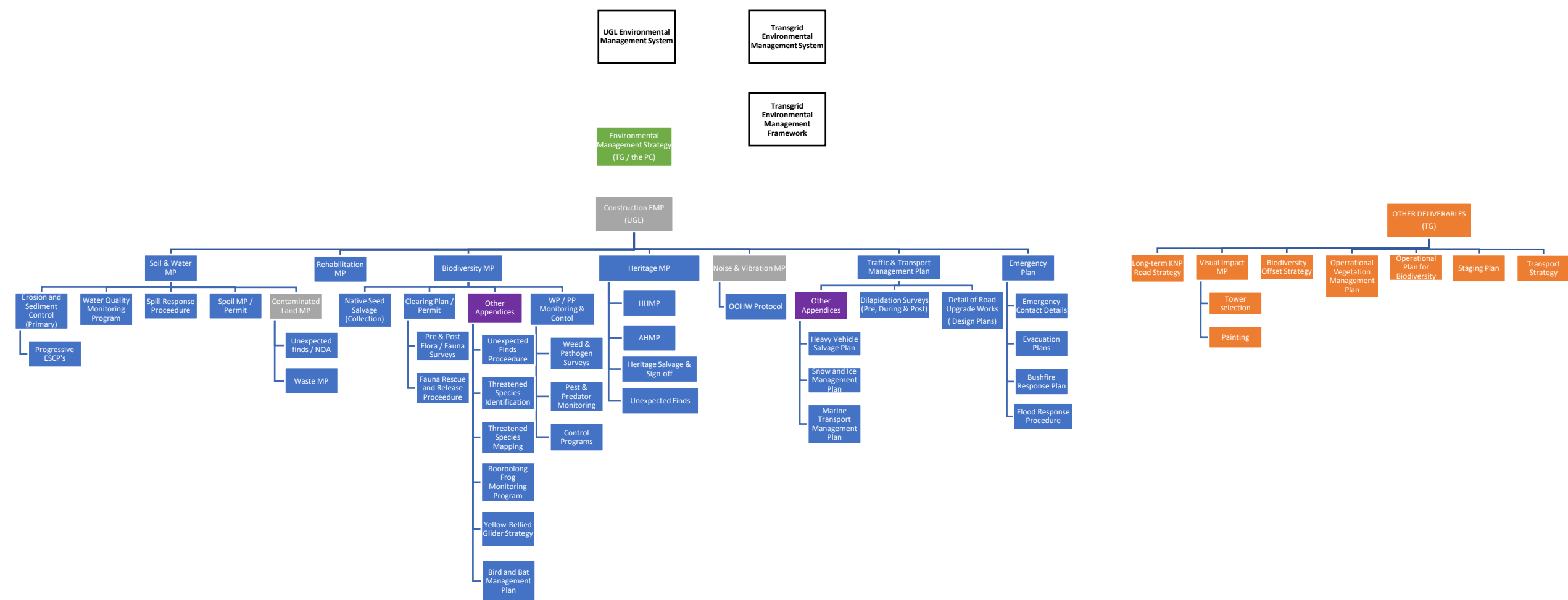
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as trustee for NSW Electricity Networks Operations Trust (ABN 70 250 995 390).  
Registered business name is TransGrid (ABN 70 250 995 390).

Snowy 2.0 TCP

Construction Environmental Management Strategy

APPENDIX D DOCUMENT MAP



LEGEND:

<div></div>	CoA deliverable by the PC	<div></div>	Document – not deliverable	<div></div>	CoA deliverable by Transgrid	<div></div>	CoA deliverable co-written the PC-TG	<div></div>	Placeholder only	<div></div>	System Documents
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