MANAGEMENT PLAN

SNOWY 2.0 MAIN WORKS – TRANSPORT MANAGEMENT PLAN

S2-FGJV-LOG-PLN-0008

JANUARY 2023

This Transport Management Plan (TMP or plan) forms part of Future Generation's environmental management framework as described in the EMS. It has been prepared for the construction of the Snowy 2.0 Main Works project and sets out measures to detail management measures and inform site procedures for implementation so that traffic and transport related impacts are minimised and within the scope permitted by the Approval.

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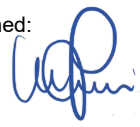
E ndorsed:	Name: Massimo Franceschi Job Title: Project Director Signed:  Date: 09/01/2023

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Revision Tracking

Rev.	Date	Description of Revision
A	29.11.2019	Initial draft for Snowy Hydro review.
B	27.03.2020	Revised to address RTS. For consultation.
C	27.05.2020	Revised following issue of the Infrastructure Approval.
D	3.06.2020	Revised to address Snowy Hydro comments. For consultation.
E	10.07.2020	Revised to address agency comments. For review by DPE.
F	20.07.2020	Revised to address NPWS comments. For review by DPE.
G	03.08.2020	Revised to address DPE comments. For approval.
H	30.11.2022	Updated to address audit findings
I	09.01.2023	Updated to address Snowy Hydro comments. For issue to external Agencies for review.

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Acronym	Definition
ADG code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AFL	Agreement for Lease
CoR	Chain of Responsibility
Construction envelope	The envelope within which the disturbance area of the development may be located
CSSI	Critical State significant infrastructure
DAWE	Department of Agriculture, Water and Environment
DECC	Department of Environment and Climate Change (now part of Department of Planning, Industry and Environment)
Disturbance area	The area within the construction envelope where development may be carried out; the precise location of the disturbance area will be fixed within the construction envelope following final design
DCC	Drivers Code of Conduct
DPE	NSW Department of Planning and Environment
EIS	Environmental Impact Statement
Main Works EIS	*Snowy 2.0 Main Works - Environmental Impact Statement*
EMS	Environmental Management Strategy
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
Future Generation	Future Generation Joint Venture
Future Generation-PMS	Project Management System
GHS code	Globally Harmonised System of Classification and Labelling of Chemicals National Codes of Practice
Hydro-electric	Generation of electricity using flowing water (typically from a reservoir held behind a dam or barrage) to drive a turbine which powers a generator
HVNL	Heavy Vehicle National Law
ISO	International Standards Organisation
IVMS	In Vehicle Monitoring Systems
Kosciuszko National Park	A National Park protected under the *National Parks and Wildlife Act 1974* (NSW) and managed by NSW National Parks and Wildlife Service. It covers an area of 673,543 hectares and forms part of Australia's only Alpine area
KNP	Kosciuszko National Park
NEM	National Electricity Market
NPW Act	NSW *National Parks and Wildlife Act 1995*
NPW Regulation	NSW *National Parks and Wildlife Regulation 2009*
NPWS	NSW National Parks and Wildlife Service
NPW Act	*National Parks and Wildlife Act 1974*

Acronym	Definition
Main Works	The development of an underground power station and associated infrastructure described in the Environmental Impact Statement for the *Snowy 2.0 Main Works* (CSSI 9687) dated September 2019, and modified by the: • *Preferred Infrastructure Report and Response to Submissions – Snowy 2.0 Main Works*, dated February 2020; and • Additional information provided to the Department by EMM on 24 March 2020 and 7 April 2020
OEH	NSW Office of Environment and Heritage
OSOM	Over-sized Over-mass
Project, the	Snowy 2.0 Main Works
Project area	The project area is the broader region within which Snowy 2.0 will be built and operated, and the extent within which direct impacts from Snowy 2.0 Main Works are anticipated. The project area does not represent a footprint for the construction works, but rather indicates an area that was investigated during environmental assessments.
POEO Act	*Protection of the Environment Operations Act 1997*
REMMs	Revised environment management measures
RMS	Roads and Maritime Services (now Transport for NSW)
RTS or Submissions Report	*Snowy 2.0 Main Works – Preferred Infrastructure Report and Response to Submissions*
SDS	Safety Data Sheet
SEP	Site Environmental Plan
SMRC	Snowy Monaro Regional Council
Snowy Hydro	Snowy Hydro Limited
SSI	State significant infrastructure
SVC	Snowy Valleys Council
TCG	Traffic Control Group
TCP	Traffic Control Plans
TfNSW	Transport for New South Wales
TMC	Traffic Management Centre
TMP	Transport Management Plan (this Plan)
TTLG	Traffic and Transport Liaison Group
UN number	United Nations numbers for Dangerous Goods transportation
VMP	Vehicle Movement Plans

1. INTRODUCTION

1.1. Project Description

1.1.1. Overview

Snowy Hydro Limited (Snowy Hydro) is constructing a pumped hydro-electric expansion of the Snowy Mountains Hydro-electric Scheme (Snowy Scheme), called Snowy 2.0. Snowy 2.0 will be built by the delivery of two projects: Exploratory Works (which is complete) and Snowy 2.0 Main Works.

Snowy 2.0 is a pumped hydro-electric project that will link the existing Tantangara and Talbingo reservoirs through a series of new underground tunnels and a hydro-electric power station. Most of the project's facilities will be built underground, with approximately 27 kilometres of concrete-lined tunnels constructed to link the two reservoirs and a further 20 kilometres of tunnels required to support the facility. Intake and outlet structures will be built at both Tantangara and Talbingo Reservoirs.

Snowy 2.0 will increase the generation capacity of the Snowy Scheme by an additional 2,000 MW, and at full capacity will provide approximately 350,000 MWh 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.

WeBuild (formerly Salini Impregilo), Clough and Lane have formed the Future Generation Joint Venture (Future Generation) and have been engaged to deliver both Stage 2 of Exploratory Works and Snowy 2.0 Main Works.

1.1.2. Construction Activities and Program

Construction of the Snowy 2.0 Main Works project includes, but is not limited to:

- pre-construction preparatory activities including dilapidation studies, survey, investigations, access etc;
- an underground pumped hydro-electric power station complex;
- water intake structures at Tantangara and Talbingo reservoirs;
- power waterway tunnels, chambers and shafts;
- access tunnels;
- new and upgraded roads to allow ongoing access and maintenance;
- power, water and communication infrastructure, including:
    - a cable yard to facilitate connection between the NEM electricity transmission network and Snowy 2.0;
    - permanent auxiliary power connection;
    - permanent communication cables;
    - permanent water supply to the underground power station; and
- post-construction revegetation and rehabilitation.

The Snowy 2.0 Main Works construction program is summarised in Figure 1-1.

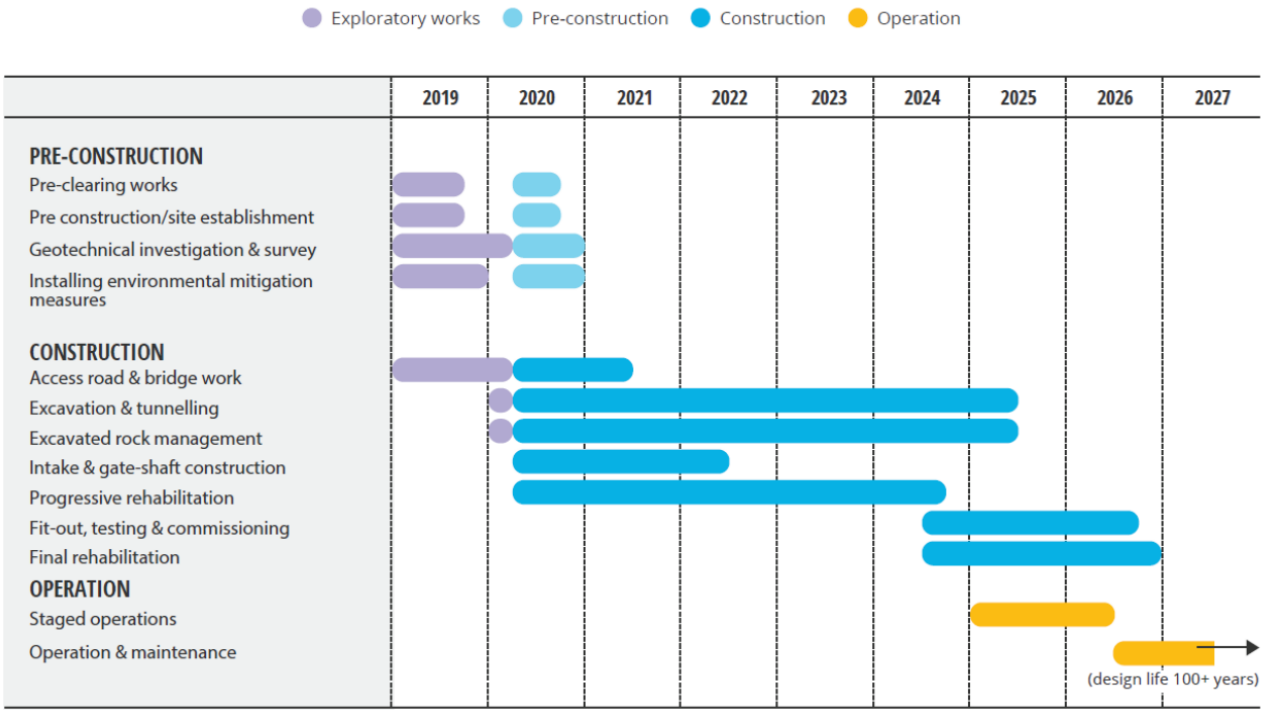

Figure 1-1: Timing of Snowy 2.0 Exploratory Works and Main Works

Snowy 2.0 Main Works includes various work areas as shown in Figure 1-2. These work areas include:

- Lobs Hole Ravine Road;
- Lobs Hole;
- Marica;
- Plateau;
- Rock Forest;
- Talbingo; and
- Tantangara.

This management plan excludes the operation of the hydro-electric scheme. Operation will be addressed through a separate Snowy Hydro 2.0 framework or document.

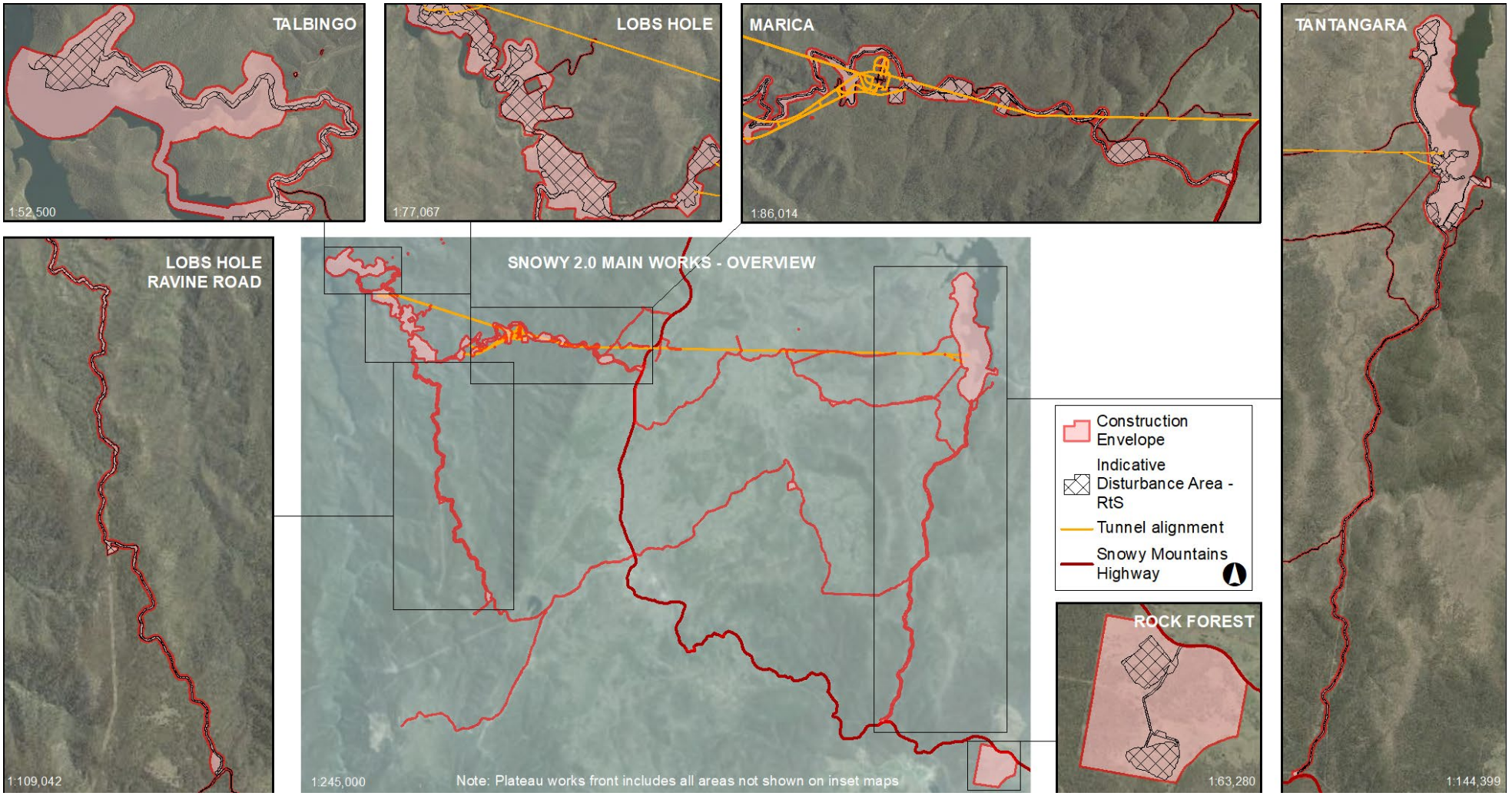

Figure 1-2: Snowy 2.0 Main Works work areas

1.2. Project Approval

On 7 March 2018 the NSW Minister for Planning declared Snowy 2.0 to be State significant infrastructure (SSI) and critical State significant infrastructure (CSSI) under the *Environmental Planning and Assessment Act 1979* (EP&A Act) on the basis that it is critical to the State for environmental, economic or social reasons.

An environmental impact statement for the first stage of Snowy 2.0, the Exploratory Works for Snowy 2.0 (Exploratory Work EIS) was submitted to the then Department of Planning and Environment in July 2018 and publicly exhibited between 23 July 2018 and 20 August 2018. Approval for the first stage of Snowy 2.0 was granted for Exploratory Works by the Minister for Planning on 7 February 2019. The purpose of Exploratory Works is primarily to gain a greater understanding of the underground geological conditions at the new power station. In accordance with section 5.25 of the EP&A Act, the infrastructure approval for the Exploratory Works was modified on 2 December 2019 and on 27 March 2020.

An environmental impact statement for the second stage of Snowy 2.0, the Main Works for Snowy 2.0 (Main Work EIS) was submitted to Department of Planning and Environment (DPE) in September 2019 and was publicly exhibited between 26 September 2019 and 7 November 2019. A total of 222 submissions were received during the public exhibition period, including 10 from government agencies, 30 from special interest groups and 182 from the general public. In February 2020, the response to submissions (RTS or Submissions Report) was issued to DPE to address the public and agency submissions (*Snowy 2.0 Main Works - Preferred Infrastructure Report and Response to Submissions*, February 2020).

Following consideration of the Main Works EIS and RTS, approval was granted by the Minister for Planning and Public Spaces on 20 May 2020, through issue of Infrastructure Approval SSI 9687.

Further to the Infrastructure Approval, the Main Works RTS includes revised environmental management measures (REMMs) within Appendix C which will also be implemented for the project.

In addition to the State approval, a referral (EPBC 2018/8322) was prepared and lodged with the Commonwealth Department of Agriculture, Water and the Environment (DAWE) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Commonwealth Minister's delegate determined on 5 December 2018 that Snowy 2.0 Main Works is a "controlled action" under the EPBC Act. The EPBC Act referral decision determined that the project will be assessed by accredited assessment under Part 5, Division 5.2 of the NSW *Environmental Planning and Assessment Act 1979.*

1.3. Disturbance area

A key refinement following public exhibition of the Main Works EIS was a change to and clarification of disturbance area terminology. The revised disturbance area terminology as per the Infrastructure Approval, RTS and this plan, is outlined in Table 1-1. An example of the terminology is shown in Figure 1-3 at Ravine Road.

Table 1-1: Disturbance area terminology

Term	Definition	Reasoning
Project area	The project area is the broader region within which Snowy 2.0 will be built and operated, and the extent within which direct impacts from Snowy 2.0 Main Works are anticipated.	The project area does not represent a footprint for the construction works, but rather indicates an area that was investigated during environmental assessments.

Term	Definition	Reasoning
Construction envelope	The envelope within which the disturbance area of the development may be located.	As detailed design continues, final siting of the infrastructure (i.e. the disturbance area) can move within the assessed construction envelope subject to recommended environmental management measures and provided it does not exceed the limits defined by the construction envelope.
Disturbance area	The area within the construction envelope where development may be carried out; the precise location of the disturbance area will be fixed within the construction envelope following final design.	

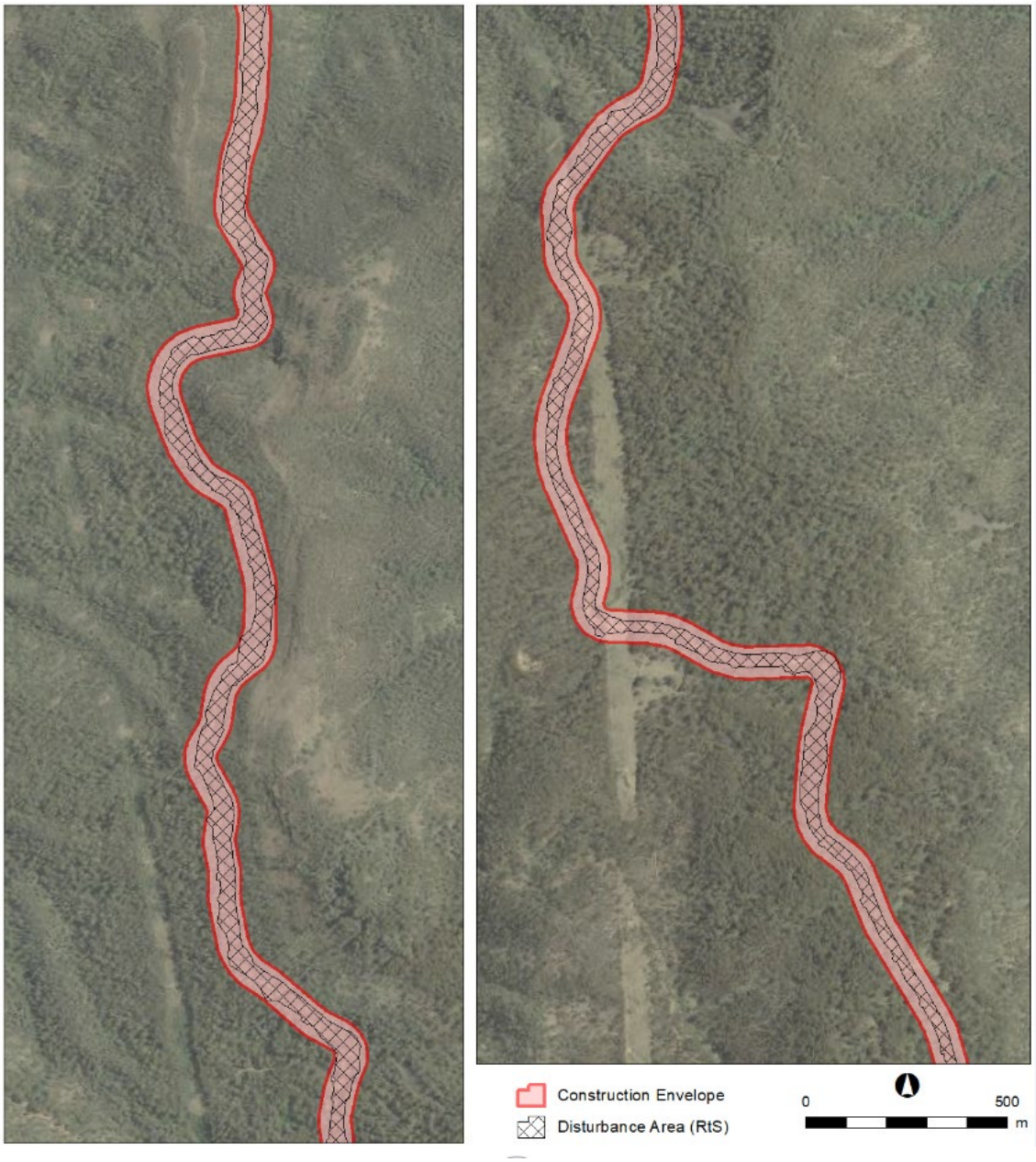

Figure 1-3: Disturbance area and construction envelope

1.4. Environmental Management System

The overall environmental management system for the project is described in the Environmental Management Strategy (EMS). The EMS forms part of the Project Management System (Future Generation PMS) and will include any requirements specified in the contract documents, where appropriate. All Future Generation PMS procedures will support, interface or directly relate to the development and execution of the plan.

This Transport Management Plan (TMP or plan) forms part of Future Generation's environmental management framework as described in the EMS (Figure 1-4). This plan aims to transfer the relevant requirements of the Approval documents into a management plan which can be practically applied on the project site and managed by the Future Generation logistics department. This plan incorporates the relevant aspects of the Exploratory Works Traffic Management Plan.

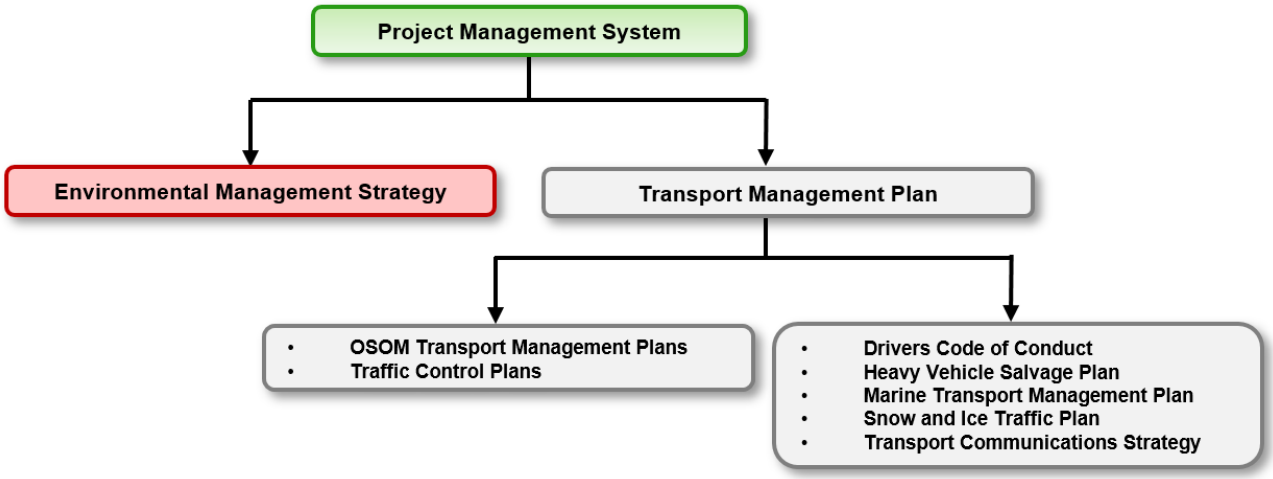

Figure 1-4: Main Works environmental management framework

This document has been prepared for construction of the Snowy 2.0 Main Works project and supersedes the Exploratory Works Traffic Management Plan. It does not address the operational phase of the project.

This plan supersedes the Exploratory Works Traffic Management Plan,, as shown in Figure 1-5.

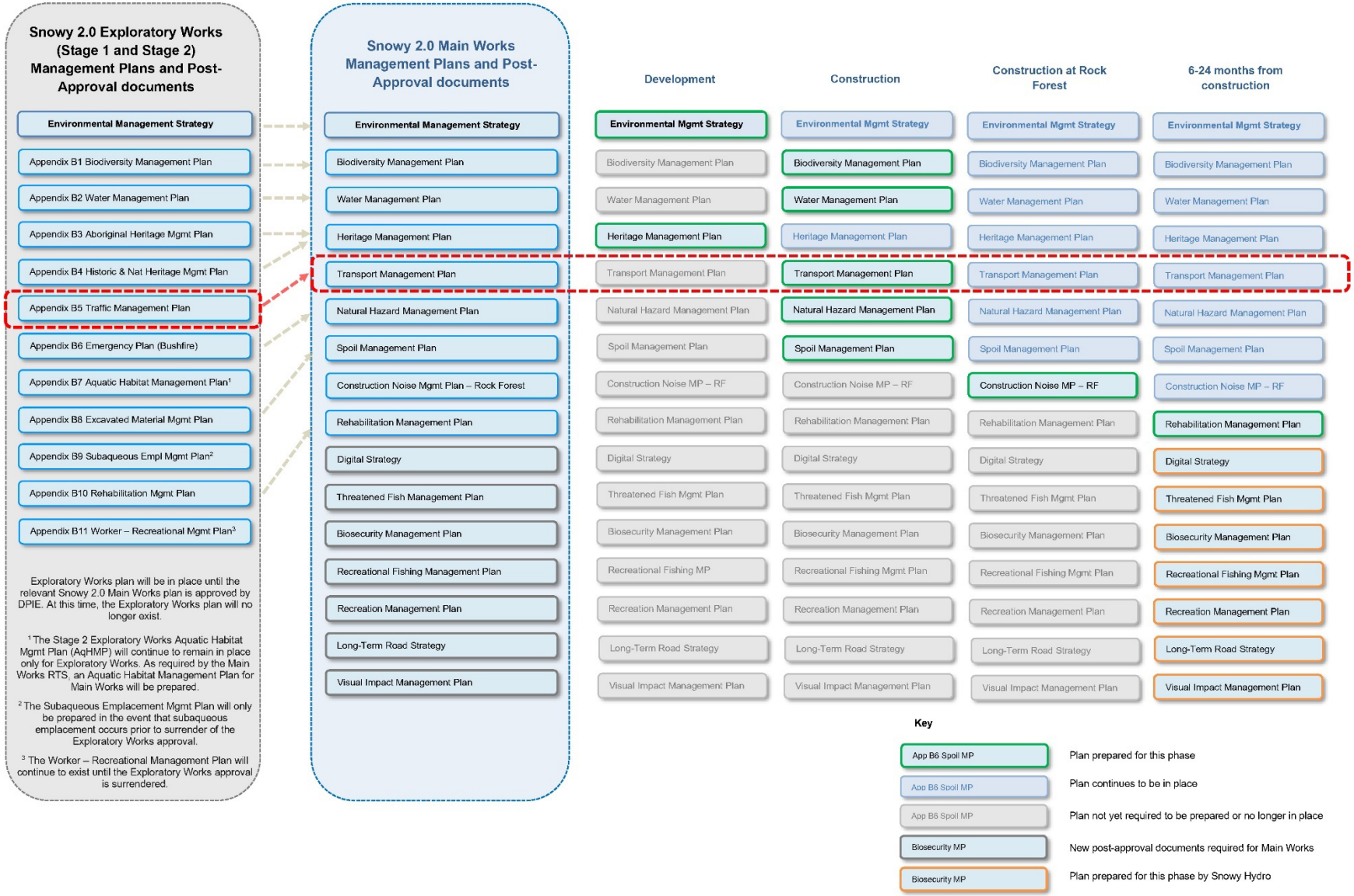

Figure 1-5: Management plans and post-approval documents with the TMP indicated

1.5. Purpose and objectives of this plan

The purpose of this plan is to address the construction environmental management requirements relevant to traffic and transport, detailed in:

- the Infrastructure Approval (SSI 9687) (Approval) issued for Snowy 2.0 Main Works on 20 May 2020;
- the Infrastructure Approval (SSI 9208) issued for Snowy 2.0 Exploratory Works on 07 February 2019;
- the *Main Works Snowy 2.0 - Environmental Impact Statement*;
- the revised environmental management measures (REMMs) within the Main Works RTS;
- the *Exploratory Works for Snowy 2.0 - Environmental Impact Statement*;
- the *Exploratory Works for Snowy 2.0 – Modification 1 Assessment Report*;
- the *Exploratory Works for Snowy 2.0 – Modification 2 Assessment Report*; and
- the REMMs within the Exploratory Works RTS.

The key objective of this plan is to detail management measures and inform site procedures for implementation so that traffic and transport related impacts are minimised and within the scope permitted by the Approval. To achieve this objective, Snowy Hydro and Future Generation will:

- ensure appropriate measures are implemented to address the relevant conditions of Approval and the REMMs listed within the Submissions Report, as detailed within Table 2-1 and Table 2-2;
- ensure appropriate measures are implemented during construction to avoid or minimise traffic and transport related impacts including safety related impacts;
- ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 2 of this plan; and
- establish a traffic and transport monitoring program to assess the effectiveness of management measures and promote adherence with the code of conduct.

1.6. Consultation Summary

In accordance with schedule 3, condition 46 of the Approval, the TMP is to be prepared in consultation with;

- National Parks and Wildlife Services (NPWS);
- Transport for New South Wales (TfNSW);
- Snowy Valleys Council (SVC);
- Snowy Monaro Regional Council (SMRC); and
- NSW Police.

Agency briefings for the TMP were held on 19 and 28 May 2020 with SVC, SMRC, NPWS, TFNSW, National Heavy Vehicle Regulator (NHVR) and NSW Police.

On 3 June 2020, the plan was also issued to relevant stakeholders for review and comment.

Comments from the consultation process have been incorporated into this plan where appropriate and are summarised in Table 1-2.

Table 1-2: Consultation undertaken for this plan

Date	Consultation	Outcomes
19 March 2020	Traffic Transport Liaison Group Meeting	Presentation on the content of the Main Works Transport Management Plan prior to issue of the Main Works approval.
28 May 2020	Traffic Transport Liaison Group Meeting	Presentation on the content of the Main Works Transport Management Plan following issue of Main Works approval and prior to agency consultation.
26 June 2020	NPWS Snowy 2.0 Team - Southern Ranges Branch	Comments on various items in the Main Works Transport Management Plan and its appendices. Management plans were revised following receipt of NPWS comments.
26 June 2020	TfNSW Maritime Division	Comments on various items in the Main Works Marine Transport Management Plan. Management plans were revised following receipt of TfNSW Maritime Division comments.
30 June 2020	NSW Police Force – Southern Cluster	The NSW Police confirmed on 30 June 2020 that they have no comments on the TMP or its Sub-plans.
01 July 2020	Snowy Valleys Council	A representative from Snowy Valleys Council confirmed on 01 July 2020 that they have no comments on the TMP or its Sub-plans.
06 July 2020	Snowy Monaro Regional Council	A representative from Snowy Monaro Regional Council confirmed on 06 July 2020 that they have no comments on the TMP or its Sub-plans.
07 July 2020	TfNSW	Comments on various items in the Main Works Transport Management Plan and its appendices. Management plans were revised following receipt of TfNSW comments.
30 July 2020	DPE	Comments on various items in the Main Works Transport Management Plan and its appendices. Management plans were revised following receipt of DPE comments and reissued.

2. ENVIRONMENTAL REQUIREMENTS

2.1. Legislation

Legislation relevant to traffic and transport management includes:

- *Environmental Planning and Assessment Act 1979* (EP&A Act);
- *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation);
- *Roads Act 1993*;
- *Dangerous Goods (Road and Rail Transport) Act 2008*;
- *Road Transport Act 2013*;
- *Transport Administrations Act 1988*;
- *Heavy Vehicle National Law* (NSW) (2013 No 42a);
- *Road Rules 2014*;
- *Marine Safety Act 2013*;
- *Marine Safety Regulation 2016*;
- *Commonwealth Marine Safety (Domestic Commercial Vessel) National Law 2012*; and
- *National Parks and Wildlife Act 1974* (NPWS Act).

Relevant provisions of the above legislation are explained in the register of legal and other requirements included in Appendix A1 of the EMS.

2.2. Conditions of Approval

The conditions relevant to traffic, transport and access are presented in Table 2-1.

Table 2-1: Conditions of Approval relevant to traffic, transport and access

Condition	Requirement	Where addressed
Schedule 2, condition 13	**Operation of Plant and Equipment** The Proponent must ensure that all plant and equipment used on site, or in connection with the development, is: (a) maintained in a proper and efficient condition; (b) operated in a proper and efficient manner; and	Table 5-1
	(c) kept free of weeds, seeds and pathogens when entering or leaving the site.	Section 5.10 Biodiversity Management Plan
Schedule 3, condition 17 (e)	**Biodiversity Management Requirements** The Proponent must: .... (e) minimise potential fauna strike on the roads and access tracks within the Kosciuszko National Park, including using fencing and underpasses, and reducing speed limits along Lobs Hole Ravine Road and the Marica trail at night.	Section 7.1 Appendix A Biodiversity Management Plan – Appendix G, Section 4.2

Condition	Requirement	Where addressed
Schedule 3, condition 38	**Recreation Management Requirements** The Proponent must: (a) keep Tantangara Road open to the public once it has been upgraded for the development, and have suitable procedures in place to ensure it is safe for unrestricted use and to respond promptly to any temporary public safety risks;	Section 5.11.3
	(b) minimise the impacts of the development on users of the Kosciuszko National Park both within and in the vicinity of the construction envelope;	Section 5.11.2
	(c) minimise any disruption to the use of the Talbingo Boat Ramp;	Appendix C, Section 5.2.3
	(d) minimise the dust and noise impacts of the development on the Wares Yards campground;	Recreation Management Plan
	(e) control the recreational activities of the workers staying in the accommodation camp to minimise the impacts of the development outside the approved disturbance area;	Recreation Management Plan
	(f) progressively reopen those areas of the Kosciuszko National Park that are closed to the public during construction as soon as possible following the completion of construction;	Recreation Management Plan
	(g) keep the community informed about the temporary closure of areas or any recreational facilities within the Kosciuszko National Park.	Section 5.11 Section 7.4
Schedule 3, condition 41	**Road Upgrades** The Proponent must carry out the road and intersection upgrades in Tables 5-1 and 5-2 in Appendix 5 in accordance with any specified timeframes to the satisfaction of the relevant roads authority.	Section 5.1
Schedule 3, condition 42	**Maintenance – Link Road and Tantangara Road** The Proponent must: (a) prepare a dilapidation survey of Link Road between the Snowy Mountains Highway and Goat Ridge Road and Tantangara Road in accordance with the relevant Austroads standards and guidelines: • prior to the commencement of construction and/or the decommissioning of the development; and • within 2 months of the completion of construction and/or the decommissioning of the development;	Section 5.5
	(b) rehabilitate and/or make good any development-related damage to Link Road between the Snowy Mountains Highway and Goat Ridge Road and Tantangara Road: • 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 NPWS agrees otherwise; and • identified in any dilapidation survey completed after the construction and/or decommissioning works within 2 months of the completion of the survey, to the satisfaction of the NPWS. If there is a dispute about the scope of any remedial works or the implementation of these works, then either party may refer the matter to the Planning Secretary for resolution.	Section 5.5
Schedule 3, condition 43	**Vehicle Restrictions** All heavy vehicles associated with the development must travel to and from the site via the: (a) Snowy Mountains Highway, Miles Franklin Drive and Spillway Road;	Section 5.6 Appendix F

Condition	Requirement	Where addressed
	(b) Snowy Mountains Highway, Link Road and Lobs Hole Ravine Road; (c) Snowy Mountains Highway, Coppermine Trail and Wallaces Creek Trail; (d) Snowy Mountains Highway, Marica Trail; (e) Snowy Mountains Highway, Tantangara Road and Quarry Trail; or (f) Elliott Way and Link Road (but only following the written approval of the Planning Secretary). *Note: The Proponent must obtain permits under the Heavy Vehicle National Law (NSW) for the use of any OSOM vehicles on the public road network.*	
Schedule 3, condition 44	The Proponent must: (a) Restrict vehicle speeds on the road network within the site to 30 km/h between sunset and sunrise, unless the Planning Secretary agrees otherwise;	Section 5 Table 5-1
	(b) restrict the use of Lobs Hole Ravine Road – North to:	Table 5-1 Section 6.1
	• access to and from the site during emergencies;	
	• light vehicles at all other times with: – a maximum of 120 vehicle movements allowed a day (60 each way); and – an annual average maximum of 60 vehicle movements allowed a day (30 each way); and	
	(c) restrict vessel speeds on Tantangara Reservoir and Talbingo Reservoir to current TfNSW speed limits.	Appendix C
Schedule 3, condition 45	**Transport Management Requirements** The Proponent must: (a) minimise the impacts of the road and intersection upgrades of the development;	Section 5.1
	(b) maintain all roads and water-related infrastructure on site in a safe and serviceable condition;	Section 5.5
	(c) allow NPWS officers to access the site at all times, including during the upgrade of Tantangara Road;	Section 5.11.8
	(d) provide sufficient parking on site for all vehicles and ensure vehicles associated with the development do not park on the public road network;	Table 5-1
	(e) ensure heavy vehicles entering and leaving the site have loads covered or contained and enter and leave the site in a forward direction;	Section 5.8 Table 5-1 Appendix A
	(f) minimise dust and/or sediment being tracked onto Link Road and the public road network;	Table 5-1
	(g) minimise the traffic impacts of the development on the public road network, including: • scheduling heavy vehicle movements to avoid peak periods; • minimising convoy lengths; • reducing the speeds of development-related traffic at key intersections along the Snowy Mountains Highway, including the Rock Forest, Tantangara Road, Link Road, Coppermine Trail, Marica Road, Lobs Hole Ravine Road – North and Miles Franklin Drive intersections;	Section 5.4 Section 5.6 Appendix A Section 5.1.1
	(h) minimise the traffic safety risks of the development in snow and ice conditions;	Section 5.2 Appendix D

Condition	Requirement	Where addressed
	(i) respond rapidly to any heavy vehicle accidents on the designated heavy vehicle routes for the development and secure access to a suitable heavy vehicle recovery vehicle;	Section 5.6.6 Appendix B
	(j) minimise the traffic noise impacts of the development, particularly in Cooma and Adaminaby, including: • limiting the use of truck engine braking on the Snowy Mountains Highway; • notifying the local community about development-related traffic impacts;	Appendix A Section 7.4
	(k) minimise the development-related traffic safety impacts of the development for the public: • using the Talbingo Reservoir and Tantangara Reservoir and any water-related infrastructure, such as the Talbingo Boat Ramp;	Appendix C
	• using Tantangara Road, particularly during the construction of the development;	Section 5.11.3
	(l) ensure any vessel or structure occupying waters must display appropriate shapes and lights in accordance with the Marine Safety (Domestic Commercial Vessel) National Law Act 2012;	Appendix C
	(m) keep the public informed of any road or infrastructure upgrades, disruptions to traffic, the closure of roads or other infrastructure, OSOM vehicle use, peak construction periods, and any emergencies.	Section 5.11 Section 7.4
Schedule 3, condition 46	**Transport Management Plan** Prior to the commencement of construction, the Proponent must prepare a Transport Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: (a) be prepared in consultation with the TfNSW, NPWS, Snowy Monaro Regional Council, Snowy Valleys Council and NSW Police;	Section 1.5 Section 7.3
	(b) include the establishment of a working group – which includes representatives from TfNSW, NPWS, NSW Police, Destination NSW, Snowy Monaro Regional Council and Snowy Valleys Council – to ensure effective communication and co-ordination between stakeholders on transport-related matters during the construction of the project;	Section 7.3
	(c) describe the measures that would be implemented to comply with the transport management requirements in condition 45 above;	Section 5
	(d) include a detailed: • Heavy Vehicle Salvage Plan; • Driver's Code of Conduct; • Marine Transport Management Plan; • Snow & Ice Traffic Management Plan; • Communication Strategy to keep the public informed about the transport impacts of the development; and	Appendix B Appendix A Appendix C Appendix D Appendix E
	(e) include a program to: • record and track vehicle movements; and • monitor and publicly report on the effectiveness of these measures	Section 6.1 Section 7.7
Schedule 3, condition 49	The Proponent must implement the approved Transport Management Plan for the development	This plan
Schedule 3, condition 50	**Long-Term Road Strategy – Kosciuszko National Park** Within 2 years of the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must prepare a Long-Term Road	A Long-Term Road Strategy will be developed by

Condition	Requirement	Where addressed
	Strategy for the development to the satisfaction of the Planning Secretary. This strategy must be: (a) be prepared in consultation with the NPWS and TfNSW	Snowy Hydro within 2 years of the commencement of construction.
	(b) identify the road network within the Kosciuszko National Park required for the development during operations, including the detailed specifications for this road network;	
	(c) identify which roads within the Kosciuszko National Park can be narrowed or closed following construction and then rehabilitated;	
	(d) include a detailed program for the rehabilitation of these roads, which can be incorporated into the Rehabilitation Management Plan for the development; and	
	(e) identify future road maintenance and funding responsibilities for the long-term road network following construction	
Schedule 4, condition 6	**Notification of Dates** At least 1 week prior to the relevant notification date, the Proponent must notify the Department, NPWS and NSW DPI via the Major Projects Portal of the date of the …. (c) commencement and completion of the required road upgrades ….	Snowy Hydro
Schedule 4, condition 6	**Incident Reporting** The Proponent must notify the Department and NPWS via the Major Projects Portal immediately after it becomes aware of an incident on site. This notice must set out the location and nature of the incident	Section 5.12

2.3. Revised Environmental Management Measures

Environmental safeguards and management measures are included in the Main Works EIS in Appendix G. During preparation of the Submissions Report, REMMs were developed and included in Appendix C.

The revised environmental management measures relevant to this plan are listed in Table 2-2 below. If additional measures are cross-referenced from another section of the Main Works EIS or Submissions Report, these measures are also included. To evaluate the continuity or redundancy of Exploratory Works REMMs, these are provided in Table 2-3.

In accordance with CSSI 9687, schedule 2, condition 3, if there is any inconsistency between the Exploratory Works and Main Works documents, the most recent document will prevail to the extent of the inconsistency (i.e. Main Works).

Table 2-2: Main Works (CSSI 9687) revised environmental management measures relevant to traffic, transport and access.

Impact	Reference	Environmental Management Measures	Where addressed
Speed limit reductions	TRA01	At locations where minimum sight distances cannot be achieved, due to the existing road alignments, the posted speed limits adjacent to the intersections will be reduced to satisfy the sight distance requirements and maintain safe maneuvering conditions for motorists. These intersections and the proposed speeds are:	Snowy Hydro Table 5-1

Impact	Reference	Environmental Management Measures	Where addressed
		• Snowy Mountains Highway / Tantangara Road – 60 km/hr • Snowy Mountains Highway / Rock Forest – 80 km/hr • Link Road / Lobs Hole Ravine Road – 60 km/hr • Link Road / Snowy Mountains Highway – 80 km/hr Based on feedback from community consultation speed limit reductions are also being considered for Snowy Mountains Highway through the township of Adaminaby to 60 km/h. Any speed limit changes will be discussed with the relevant roads authority and documented in the construction traffic management plan as required.	
Intersection upgrades	TRA02	Based on the consideration of construction activities as well as intersection capacity assessment following intersections will be upgraded: • **Snowy Mountains Highway / Marica access** - establish new **construction** access (Basic Right- turn (BAR) / Basic Left-turn (BAL)); and • **Snowy Mountains Highway /Rock Forest access** - establish new construction access (Basic Right- turn (BAR) / Basic Left-turn (BAL)).	Section 5.1 Table 5-3
OSOM vehicle movements	TRA03	The TMPs will be prepared, submitted and approved by the RMS under permit, prior to the commencement of any deliveries considered 'high risk' OSOM movements in accordance with RMS guidelines.	Section 5.6.4
Road Maintenance	TRA04	Road maintenance will be managed through the following measures: • a Road Dilapidation Report will be prepared and approved prior to and following Snowy 2.0 Main Works; • routine defect identification and rectification of the internal road network will be managed during construction as part of the project maintenance procedure; and • internal access roads will be designed in accordance with the relevant vehicle loading requirements.	Section 5.5 Section 5.5 Section 7.2 Section 5.1
Traffic Control	TRA05	Road works associated with pavement widening, such as those associated with intersection upgrades, that require temporary occupation of traffic lanes or working adjacent to the road, a Traffic Control Plan (TCP) will be prepared identifying the traffic control measures.	Section 5.1 Section 5.3
Community consultation	TRA06	Affected communities, visitors and emergency services will be notified in advance of any disruptions to traffic and restriction of access to areas of KNP impacted by project activities.	Section 7.4
Construction traffic management	TRA07	A Construction Transport Management Plan will be prepared and will include guidelines, general requirements and procedures to be used when construction activities have a potential impact on existing traffic arrangements.	This plan
Marine transport	NAV01	The following measures will be implemented to manage interactions between marine transport and public boating activities during construction: • public exclusion zones will be established around all in-reservoir construction areas; • an aquatic licence will be obtained from RMS for in-reservoir construction activities and exclusion zones in accordance with Section 12 and 18 of the Marine Safety Act 1998;	Appendix C

Impact	Reference	Environmental Management Measures	Where addressed
		• all work vessels will be limited to 4 knots; [*this REMM is inconsistent with CoA 44 (c). Vessel speeds will be in accordance with current TfNSW limts]	
		• all vessels and barges will be fitted with Automatic Identification System and comply with all licensing requirements of Australian Maritime Safety Authority and Roads and Maritime Services including specific requirements for Alpine Waters;	
		• any fixed obstruction such as marker buoys and moorings will comply with Roads and Maritime Services requirements and are adequately lit at night; and	
		• notification signs advising of the works and public closures at: – the intersection of Snowy Mountains Highway and Tantangara Road; – the intersection of Snowy Mountains Highway and Long Plain Road; and Tantangara Boat Ramp.	
Weed Management	ECO2	A weed and pathogen monitoring program will be implemented, with a weed control program to be implemented if weeds are identified along road verges. This may include wash-down stations to be constructed at a suitable location, with wash down for weeds as well as *P.cimmamomi.*	Section 5.10 Biodiversity Management Plan

Table 2-3: Exploratory Works (CSSI-9208) revised environmental management measures relevant to traffic, transport and access

Impact	Reference	Environmental Management Measures	Where addressed
Impacts to threatened species	ECO05	Vehicle traffic movements along Upper Lobs Hole Ravine Road will be: • limited to day time hours only (except for emergencies). Day time hours are to be taken as the time between First Light and Last Light; • limited to 40km/h; and • where practicable, reduced through the use of Talbingo Reservoir to barge heavy machinery, construction equipment and materials.	Superseded by Main Works. Refer to schedule 3, condition 44
Construction traffic management plan	TRA01	A Construction Traffic Management Plan (CTMP) will be prepared and implemented during construction. The CTMP will set out the strategy and procedures to manage the impacts of the Exploratory Works construction on the local road network and traffic systems, including: • community and stakeholder notification processes for oversized vehicle movements and any planned disruptions to traffic and restriction of access to areas of KNP and Talbingo Reservoir • traffic safety requirements, including appropriate signage, driver conduct and safety protocols.	Superseded by Main Works. Refer to TRA07 and schedule 3, condition 46

Impact	Reference	Environmental Management Measures	Where addressed
Road maintenance	TRA02	Road maintenance will be managed through the following measures: • a Road Dilapidation Report will be prepared and submitted to the relevant road authority prior to and following Exploratory Works for: – Link Road; – all roads within KNP not upgraded as part of the exploratory works and which will potentially be used by Heavy Vehicles during construction; – local roads within Talbingo which will potentially be used by Heavy Vehicles during exploratory works; – Spillway Road; and – Miles Franklin Drive. • routine defect identification and rectification of the roads used by construction heavy vehicles within KNP and the Spillway Road will be managed as part of the project maintenance procedure; and • internal access roads upgraded or constructed as part of the Exploratory Works will be designed in accordance with the relevant vehicle loading requirements.	Road Dilapidation Reports completed prior to Exploratory Works. Section 5.5 covers dilapidation report to be undertaken by Snowy Hydro following Exploratory Works. See Section 5.5 See Section 5.1
Signage	TRA03	Where changes to the traffic conditions are required, appropriate signage will be installed in accordance with the following: • Traffic Control Device for Works on Roads (AS1742.3; 2009); and • Traffic Control at Work Sites (Roads and Maritime Services; 2010).	See Section 5 See Section 5.1
Time of travel	TRA04	Standard hours of operation of heavy vehicles on local roads will be 7 am to 6 pm during weekdays and 8am to 1pm on Saturday, excluding upper Lobs Hole Ravine Road where no heavy vehicle movements will occur outside of day time hours (except in emergencies). Daytime hours being defined as First Light to Last Light. Access to the Barge Access Facility via Miles Franklin (Murray Jackson) Drive, and Spillway Road will be permitted 24 hours a day and 7 days a week to all vehicles.	Superseded by Main Works. Refer to schedule 3, condition 44
Traffic control	TRA05	Where temporary occupation of lanes is required traffic control measures specified in AS1742-2002 will be implemented. Where works require lane occupancy on RMS or council classified roads, a Road Occupancy Licence will be obtained.	See Section 2.4.1
Restricted access to Talbingo Reservoir for recreational users	SEC06	Access to Talbingo spillway and boat ramp will be closed to the public for the period of the Exploratory Works.	Talbingo spillway and boat ramp to remain open to the public, where works are undertaken disruption to users will be minimised and managed in accordance with the Marine Transport Management Plan (Appendix C).

Impact	Reference	Environmental Management Measures	Where addressed
Impact of increased traffic in KNP on recreational users	SEC07	Traffic management arrangements will be put in place to minimise the amenity and safety risks for recreational users during periods of high traffic flow.	See Section 5.11
Fauna strike	M1.3	Restrictions on vehicle movements in the Marica area limited to speeds of 20 km/h between dusk and dawn.	Superseded by Main Works. Refer to schedule 3, condition 44
Coppermine Trail intersection	M1.21	The construction traffic management plan and traffic control plan, including the road occupancy license for the Coppermine Trail/Snowy Mountains Highway intersection will be revised and updated to accommodate the latest proposed Modification 1 temporary construction access requirements.	TCPs and ROLs to be updated to accommodate Main Works access requirements.
OSOM vehicle movements	MOD2-003	For scheduled OSOM movements and associated road closures, Transport Management Plans (TMP) will be prepared. The TMP will detail the date, duration, load details, driver detail, proposed route, emergency contact details, communication protocols, route surveys that include road width dimensions (pinch points) and procedures to mitigate the pinch point locations. The TMPs will be prepared, submitted and approved by the RMS, prior to the commencement of any deliveries in accordance with RMS 'high risk' OSOM movements. In addition, the TMPs will be prepared in consultation with relevant councils and emergency providers and include emergency contingency plans. Where required a Traffic Control Plans (TCP) for OSOM movements will also be obtained.	See Section 5.6

2.4. Licences and Permits

Environment Protection Licence (EPL) 21266 has been issued for the project for the scheduled activity of extractive activities for the Exploratory Works phase.

The premises boundary of the EPL has been expanded to encompass both Exploratory Works and Main Works activities and the governing scheduled activity for Main Works will be Electricity Generation.

A Construction Lease and Works Access Licence will be established with NPWS in order to carry out the relevant Snowy 2.0 Main Works.

2.4.1. Road Occupancy Licence

In accordance with Section 138 of the *Roads Act 1993, a* road occupancy licence (ROL) will be obtained from the relevant road authorities for construction activities that are likely to impact on the operational efficiency of the road network (classified and unclassified roads). This includes activities impacting a traffic lane or lanes or off-road activities which affect traffic flow.

Any ROL required during construction will be obtained in consultation with the relevant road authorities in advance of the traffic controls being implemented.

In conjunction with an ROL it may be necessary to reduce the speed limit of the roadway for the period of the occupancy for the safety of road users and workers. Roadwork speed zones will be established in accordance with AS1742.3-2009 Traffic control devices for works on roads in

consultation with the road authority(s). The speed zone authorisations will form part of the ROL application process as required by the road authority.

2.4.2. Oversize Overmass (OSOM) Access Permit

If vehicles exceed the dimension or mass limits contained in a Class 1 Notice or Ministerial Order, an access permit will be required to operate on the NSW road network.

OSOM vehicles are defined as Class 1 vehicles under the Heavy Vehicle National Law. A vehicle or vehicle combination is considered to be OSOM if it exceeds any general access mass or dimension limits. When undertaking an oversize and/or overmass movement in NSW that is classified as 'high risk', travelling on a 'high risk' route, or undertaking a movement that involves the transportation of a 'critical/sensitive' load, a Transport Management Plan must be prepared to accompany the access permit application.

A Transport Management Plan is required for any of the following OSOM movements:

- all OSOM movements that are classified as 'High Risk' due to their dimensions and/or weights;
- all OSOM movements that travel on a 'High Risk' route; and
- all OSOM movements that involve the transport of a 'Critical/Sensitive' load.

2.5. Guidelines

The main guidelines, specifications and policy documents relevant to this plan include:

- *Roads and Maritime Services (RMS) QA Specification G10 – Traffic Management* (as applied for the Main Works project);
- *RMS Traffic Control at Worksites Manual* (Version 5, 2018);
- *Road Occupancy Manual* (Roads and Maritime Services (RMS)), 2015;
- Australian Standard 1742 Parts 1 to 14 *Manual of Uniform Traffic Control Devices*;
- Australian Standard 1742.3-2009 *Traffic control devices for works on roads*;
- AGTM 02-08 *Guide to Traffic Management Part 2: Traffic Theory,* 2015;
- AGTM 06-07 *Guide to Traffic Management Part 6: Intersections and Crossings – General,* 2013;
- AGRD 04-09 *Guide to Road Design Part 4: Intersections and Crossings – General,* 2009; and
- AGPT05-11 *Guide to Pavement Technology Part 5: Pavement Evaluation and Treatment Design,* 2011.

3. EXISTING ENVIRONMENT

The Traffic and Transport Assessment (and revised Traffic and Transport Assessment within the Submissions Report) considered a study area encompassing the main transport route and the surrounding regional road network.

The predominant mode of transport within the study area is car travel with bus services available in Cooma and Tumut and the nearest train station in Canberra. Regional airports are located in Cooma (Snowy Mountains Airport) and Wagga Wagga, and a major airport in Canberra. Local and regional truck movements occur across the project area utilising both state and local road networks.

There are a number of walking and cycling trails within and surrounding the KNP. The KNP and nearby ski resorts mean that the locality attracts an influx of visitors during the snow season resulting in increased traffic volumes.

3.1. Existing Road Network

The Snowy Mountains Highway and Monaro Highway will be the main transport routes that will be accessed by project generated traffic during the construction of the Snowy 2.0 project. The connecting local road network will also be used to access individual worksites. Primary transport routes and the regional road network are provided in Figure 3-1. Table 3-1 lists the roads being used for Snowy 2.0 Main Works, their general locality and the authority to which they are allocated. Other roads and trails within the KNP, not listed below will be utilised for temporary works including the laying of the communications cable.

For roads utilised for the transportation of tunnel segments between the Polo Flat Segment Factory and the KNP (Polo Flat Road Saleyards Road and Yareen Road) further detail is provided within the Segment Factory Traffic Management Plan.

Table 3-1: Regional and local roads utilised for Main Works

Name	Description	Location	Authority
Snowy Mountains Highway	Characteristics of the Snowy Mountains Highway include: • 333 km State highway providing a connection between Hume Highway at Mount Adrah and Princes Highway at Stony Creek; • two-lane two-way for the majority of its alignment, with sign posted speed limits between 60 km/h to 100 km/h; • passes through Tumut and Cooma and funtions as a town centre main road in both locations; • provides access to Selwyn Snow Resort for vehicles travelling from either Tumut or Cooma.	Cooma Region	TfNSW
Monaro Highway	Characteristics of the Monaro Highway include: • 285 km long north-south highway connecting Canberra and Cooma where it joins the Snowy Mountains Highway at the intersection of Monaro Highway (Snowy Mountains Highway) / Bombala Street in Cooma; • two-lane, two-way highway with road width varying from between 7.4 to 10.3 metres; • speed limit varies between 60 km/h and 100 km/h and includes 40 km/hr school zones; • generally, an approved 25/26 metres B-Double route apart from a section of road between Murray Street and Snowy Mountains Highway which is not permitted to carry B-Double vehicles.	Cooma Region	TfNSW
Polo Flat Road	Characteristics of Polo Flat Road include: • 4 km long fully sealed road, connecting Monaro Highway to the north and the Snowy Mountain Highway to the south; • road width varies from between 6.0 to 8.6 metres with speed limit capped at 80 km/h within the industrial area; • there is a railway bridge on Polo Flat Road near its intersection with Baron Street, with low clearance of 4.1 metres; • Polo Flat Road is an approved 25/26 m B-Double route.	Cooma Region	SMRC
Saleyards Road	Characteristics of Saleyards Road include: • 209 metres long fully sealed road, connecting Snowy Mountains Highway to the south and Polo Flat Road to the north; • two-lane two-way local road with a road width varying from 10 metres to 13 metres; • provides a bypass route from Monaro Highway to Polo Flat Road for heavy vehicles more than 4.1 metres in height; • Saleyards Road is an approved 25/26 m B-Double route.	Cooma Region	SMRC
Yareen Road	Characteristics of Yareen Road include: • 1.6 km long fully sealed local road, connecting Monaro Highway to the west and Polo Flat Road to the east; • road width varies from 7.3 to 8.8 metres with a speed limit of 60 km/h; • Yareen Road is an approved 19 metre B-Double route with travel conditions: no travel is permitted between 7:00 am to 9:00 am and 3:00 pm to 5:00 pm on school days.	Cooma Region	SMRC

Name	Description	Location	Authority
Link Road	Characteristics of Link Road include: • two-lane road between Goat Ridge Road to the west and Snowy Mountains Highway (B72) to the east; • provides the connection between Cabramurra and the Snowy Mountains Highway with a speed limit ranging between 80 km/h to 45 km/h; • project road from the Snowy Mountains Highway to the heavy vehicle turnaround west of Ravine Road intersection; • Link Road is currently not an approved B-Double route; • during snow season, traffic volumes along the road increase due to the nearby Selwyn Snow Resort, which is accessible via the Link Road and Kings Cross Road intersection.	Within KNP	NPWS
Kings Cross Road (also known as Mount Selwyn Road)	Characteristics of Kings Cross Road include: • mostly unsealed; • sealed for the initial 3 km of its length between Link Road and the Mount Selwyn Resort. The last 1 km at the western end near Cabramurra is unsealed, but generally straight and level; • two-lane two-way road with a general speed limit of 100 km/h, although lower speed limits apply in the vicinity of the Selwyn Snow Resort; • sealed sections have a width between 5 and 6 metres, while the unsealed section has a width of approximately 7 metres; • all intersections are of a basic T-form; • Kings Cross Road is not an approved B-Double route; • only to be utilised for the project for ancillary works to install the communications line adjacent to the road.	Within KNP	NPWS
Tantangara Road	Characteristics of Tantangara Road include: • local road running in a north-south direction from the Snowy Mountains Highway to Tantangara Reservoir; • two-lane two-way road with a speed limit of 50/h generally as there is no speed limit posted; • general trafficable width of at least 6 metres on most sections; • sections of the road surface have frequent corrugations and loose gravel. Large potholes which retain water are also present on many sections; • all intersections are of a basic T-junction and lack additional turning lanes and other traffic capacity or safety improvements; • Tantangara Road is currently not an approved B-Double route.	Within project boundary	NPWS

Name	Description	Location	Authority
Lobs Hole Ravine Road	Characteristics of Lobs Hole Ravine Road include: • northern section (which will be for at least emergency use) is 23 km long, single lane and gravel; • southern section of Lobs Hole Ravine Road is approximately 14 km of narrow, single lane, unsealed road linking between Link Road to the future project worksite within the Lobs Hole-Ravine Reserve; • road has narrow sections along cliff edges and the road width varies from 3.0 to 4.6 metres; • existing road alignment will be substantially widened to dual lane in each direction and reconstructed for use by the project construction traffic; • internal intersections are proposed to be of a basic T-junction; • Lobs Hole Ravine Road is not an approved B-Double route.	Within project boundary	NPWS
Marica Track	Characteristics of Marica Track include: • 'off-road' 4WD access only fire trail which commences approximately 2.7 km south of Snowy Mountains Highway, along Wallaces Creek Trail; • Marica Track is not an approved B-Double route.	Within project boundary	NPWS

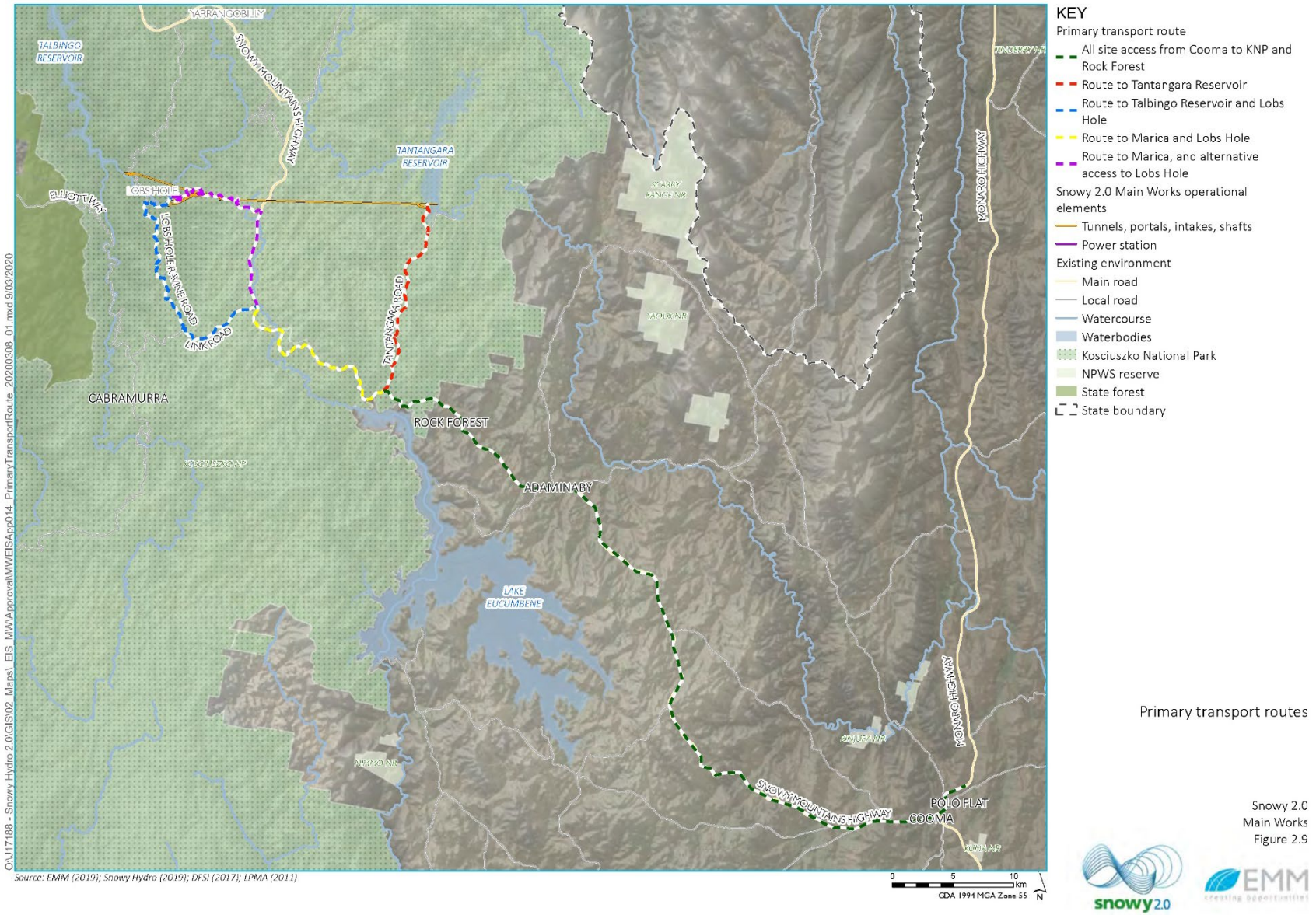

Figure 3-1: Primary transport routes and regional road network

3.1.1. Key Intersections

Table 3-2 lists the key intersections being utilised for Snowy 2.0 Main Works at Cooma / Polo Flat and within Kosciuszko National Park.

Table 3-2: Key intersections utilised for Main Works

Cooma / Polo Flat	Within Kosciuszko National Park
• Monaro Highway / Yallakool Road • Monaro Highway / Polo Flat Road (north end) • Monaro Highway / Saleyards Road (south of Polo Flat Road) • Monaro Highway (Snowy Mountains Highway) / Bombala Street • Snowy Mountains Highway / Vale Street • Snowy Mountains Highway / Kosciusko Road • Snowy Mountains Highway / Rock Forest	• Link Road / Lobs Hole Ravine Road • Snowy Mountains Highway / Link Road • Snowy Mountains Highway / Tantangara Road • Snowy Mountains Highway / Marica Trail

The revised traffic and transport assessment (Appendix K of the Submissions Report) showed that during current weekday peak hours, in the non-winter period, key intersections operate at Level of Service B or better with spare capacity.

All the intersections perform with lesser spare capacity, with increased traffic flows during the winter holiday peak hour, but still operate at Level of Service B or better, with the exception of:

- the intersection of Monaro Highway and Polo Flat Road (north end), operating at Level of Service F during the winter peak periods under existing conditions*; and
- the intersection of Monaro Highway (Snowy Mountains Highway) and Bombala Street in Cooma, operating at a Level of Service C, also considered to be failing by TFNSW as the degree of saturation exceeds 0.85 (0.882).

**Note: the intersection of Monaro Highway and Polo Flat Road has been upgraded since the writing of the Submissions Report. This intersection has been upgraded to provided future capacity for the Snowy 2.0 project.*

3.2. Seasonal Traffic Variation

Due to the location of the ski fields and resorts in the Snowy Mountains, significant seasonal variations in visitors and associated traffic in the road network exist within the study area. Existing traffic volumes on Link Road indicate peaks in the month of July (13,608 vehicles, which is more than double the average monthly traffic volume (5,935 vehicles) across the year).

The main roads within Cooma and the major corridors of Snowy Mountains Highway and Kosciuszko Road towards the Adaminaby / Kiandra and Jindabyne / Thredbo / Perisher Valley areas, experience significantly increased daily and peak hourly traffic volumes during the winter peak snow season periods, as well as on weekends, public holiday and school holiday periods.

3.3. Performance Based Standards Vehicles

For the purposes of transporting segments from the Polo Flat Segment Factory to the Exploratory and Main Works sites, Future Generation will be using Performance Based Standards (PBS) vehicles. These vehicles include three articulated trailers which would hold three times the number of concrete segments compared to a regular semi-trailer (nine segments compared to three) and as such are expected to reduce the number of heavy vehicle movements transferring concrete segments by approximately 66%. An indicative design of the proposed PBS vehicles is provided in Figure 3-2.

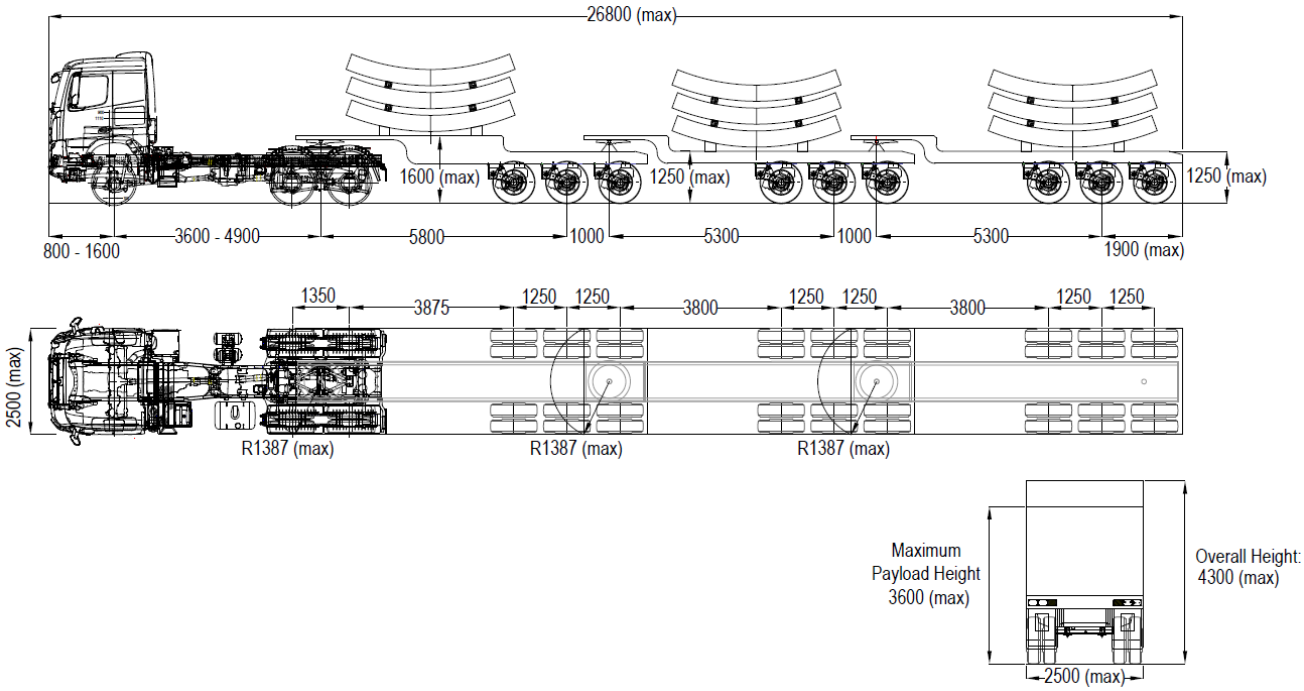

Figure 3-2: Indicative layout of PBS vehicles

4. TRAFFIC ASPECTS AND IMPACTS

4.1. Environmental Aspects and Impacts

An environmental aspect is an element of an organisation's activities, products, or services that has or may have an impact on the environment (ISO 14001 Environmental management systems). The relationship of aspects and impacts is one of cause and effect.

Key aspects of the project that could result in environmental impacts from traffic are identified in Table 4-1. The extent of these impacts will depend on the nature, extent and magnitude of construction activities and their interaction with the natural environment (Column 2). This is further exacerbated by environmental factors (Column 3).

Key aspects of the project that may result in impacts to traffic, transport and access include:

- the transport of equipment and materials to site;
- transport of workers to and from the site; and
- transport of goods for the operation of compounds and facilities.

The EIS determined in Section 6.9.6 that the key traffic issues for Main Works relate to the suitability of existing intersections within the KNP and in the Cooma township.

Table 4-1: Project aspects and impacts relevant to Main Works traffic

Environmental Aspects (Construction activities that may impact traffic)	**Environmental Impacts**	**Environmental Factors** (Conditions)
• The transport of plant, equipment and materials to site • Operation of compounds and facilities • Increased light and heavy vehicle movements	• Traffic queuing and increased travel times • Noise and vibration • Reduced access to public facilities – Campgrounds and other KNP facilities, tracks and trails • Damage to the road surface by construction heavy vehicles	• Road standard • Intersection type, standard and number • Existing traffic volumes • Time of day dependency • Weather related issues (e.g. snow and ice) • Season

The potential for impacts on traffic and transport will depend on a number of factors. Primarily impacts will depend on the nature, extent and magnitude of construction activities and their interaction with the natural environment. Potential impacts attributable to Main Works activities may include:

- short term road closures and/or traffic restrictions during the transport of oversize loads;
- short term road or lane closures and/or traffic restrictions during road upgrades, maintenance repairs and minor road improvements;
- increased traffic turning movements into and out of the site at the intersection of the Link Road with Lobs Hole Ravine Road and the intersection of the Link Road and the Snowy Mountain Highway;
- increased heavy vehicle volumes and associated impacts including noise, road deterioration and impacts on non-project traffic; and
- the closure of access roads to some recreational facilities within KNP.

4.2. Construction Traffic Volumes

The majority of the heavy vehicle movements will comprise the ongoing deliveries of tunnel segments, concrete aggregate and cement, road base material, and the necessary servicing of the camp and facilities such as food and supplies, fuel delivery, and waste removal.

The EIS and RTS reviewed a worst-case traffic and transport scenario for the purpose of determining potential cumulative traffic and transport impacts for Main Works and Segment Factory activities. The worst-case scenario comprised:

- the 'With Project' scenario;
- during the construction stage of Main Works;
- assessing the cumulative impact of both the Segment Factory and Main Works; and
- using the busiest year for the project – 2022.

It was determined that the level of daily increase of light and heavy vehicles as a result of the Main Works will not have significant impacts to the capacity of the road network given the network is currently operating at very low volume/capacity ratios with significant amount of spare capacity.

4.2.1. Predicted Traffic Volumes - KNP

Within the KNP road section, it is forecast that the cumulative impacts of Main Works and Segment Factory activities would be expected to generate the largest number of heavy vehicles at Link Road (between Kings Cross Road and Snowy Mountains Highway).

During the peak month of project traffic, it is expected that up to 402 two-way (201 one-way) heavy vehicle movements in a 24-hour period could be travelling on these sections of Link Road, noting the average number of trucks is lower through the duration of the project.

Predicted daily traffic movements during Main Works, within the KNP road section, without the use of PBS vehicles are provided in Table 4-2.

Table 4-2: Predicted daily traffic volumes by road section – KNP

Road	Location	Baseline traffic (Non-winter)		Main Works only		Main Works + Polo Flat	
		Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
Link Road	Between Kings Cross Road and Snowy Mountains Highway	316	44	150	224	150	402
Link Road	Between Kings Cross Road and Ravine Road	206	22	48	44	48	44
Snowy Mountains Highway	North of Link Road (Garden Gully Creek)	436	79	42	146	42	148
Snowy Mountains Highway	North of Yarrangobilly Caves intersection	385	70	24	64	24	64

4.2.2. Predicted Traffic Volumes – Cooma

Within the Cooma road section, it is forecast that the cumulative impacts of Main Works and Segment Factory activities would be expected to generate the largest number of heavy vehicles on Snowy Mountains Highway.

During the peak month of project traffic, it is expected that up to 410 two-way (205 one-way) heavy vehicle movements per day in a 24-hour period could be travelling on these sections of Snowy Mountains Highway, noting the average number of trucks is lower through the project.

Predicted daily traffic movements during Main Works, within the Cooma road section, without the use of PBS vehicles are provided in Table 4-3.

Table 4-3: Predicted daily traffic volumes by road section – Cooma

Road	Location	Baseline traffic (Non-winter)		Main Works only		Main Works + Polo Flat	
		Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
Snowy Mountains Highway	West of Cooma	3,499	477	98	252	124	410
Snowy Mountains Highway	Old SMEC Offices	4,261	586	98	252	194	410
Snowy Mountains Highway	Cooma	4,888	1,509	94	252	264	390
Monaro Highway	South of Cooma	1,524	971	36	82	50	78
Monaro Highway	East of Polo Flat	4,198	683	48	176	74	270
Polo Flat Road	Polo Flat North	1,036	806	26	82	196	252
Polo Flat Road	Polo Flat South	1,102	1,067	42	82	308	78

4.2.3. Use of Performance Based Vehicles

PBS vehicles as described in Section 3.3 will reduce heavy vehicle movements transferring segments by approximately 66%. Notwithstanding this, other heavy vehicles will be required for materials and segment transport during construction of Main Works.

4.2.4. Intersection Performance

The revised traffic and transport assessment (Appendix K of the Submissions Report) showed that during future weekday peak hours, in the non-winter period, key intersections operate at Level of Service B or better with spare capacity.

All the intersections perform with lesser spare capacity, with increased traffic flows during the future winter holiday peak hour, but still operate at Level of Service B or better, with the exception of:

- the intersection of Monaro Highway and Polo Flat Road (north end), operating at Level of Service F;

- the intersection of Monaro Highway (Snowy Mountains Highway) and Bombala Street in Cooma, operating at Level of Service F;
- the intersection of Snowy Mountains Highway and Vale Street, operating at Level of Service C, also considered to be failing by TfNSW as the degree of saturation exceeds 0.85 (0.871).

4.2.5. Rock Forest Spoil Haulage

Excess spoil that cannot be re-used during construction in permanent infrastructure or used elsewhere within the KNP will be placed in emplacement areas at Talbingo (Ravine Bay, GF01 and Lobs Hole Main Yard), Tantangara Reservoir and outside the KNP at Rock Forest.

With the exception of the Rock Forest site (Figure 4-1), all spoil emplacement areas will be located within the project site and accessible by project roads.

Spoil generated from the Marica zone that cannot be reused during construction in permanent infrastructure will be temporarily stockpiled within the construction footprint then loaded on to trucks and transported to Rock Forest (which is outside KNP) via the Snowy Mountains Highway. It is anticipated that approximately 0.4 million m^3 will be transported and emplaced at the Rock Forest site (with a capacity of 0.7 million m^3). Assuming the use of Truck and Dog for spoil haulage, this volume represents 26,000 truck movements. Over a period of approximately 650 days this equates to approximately 40 heavy vehicle movements daily, which for the peak-hour equates to 4 heavy vehicles.

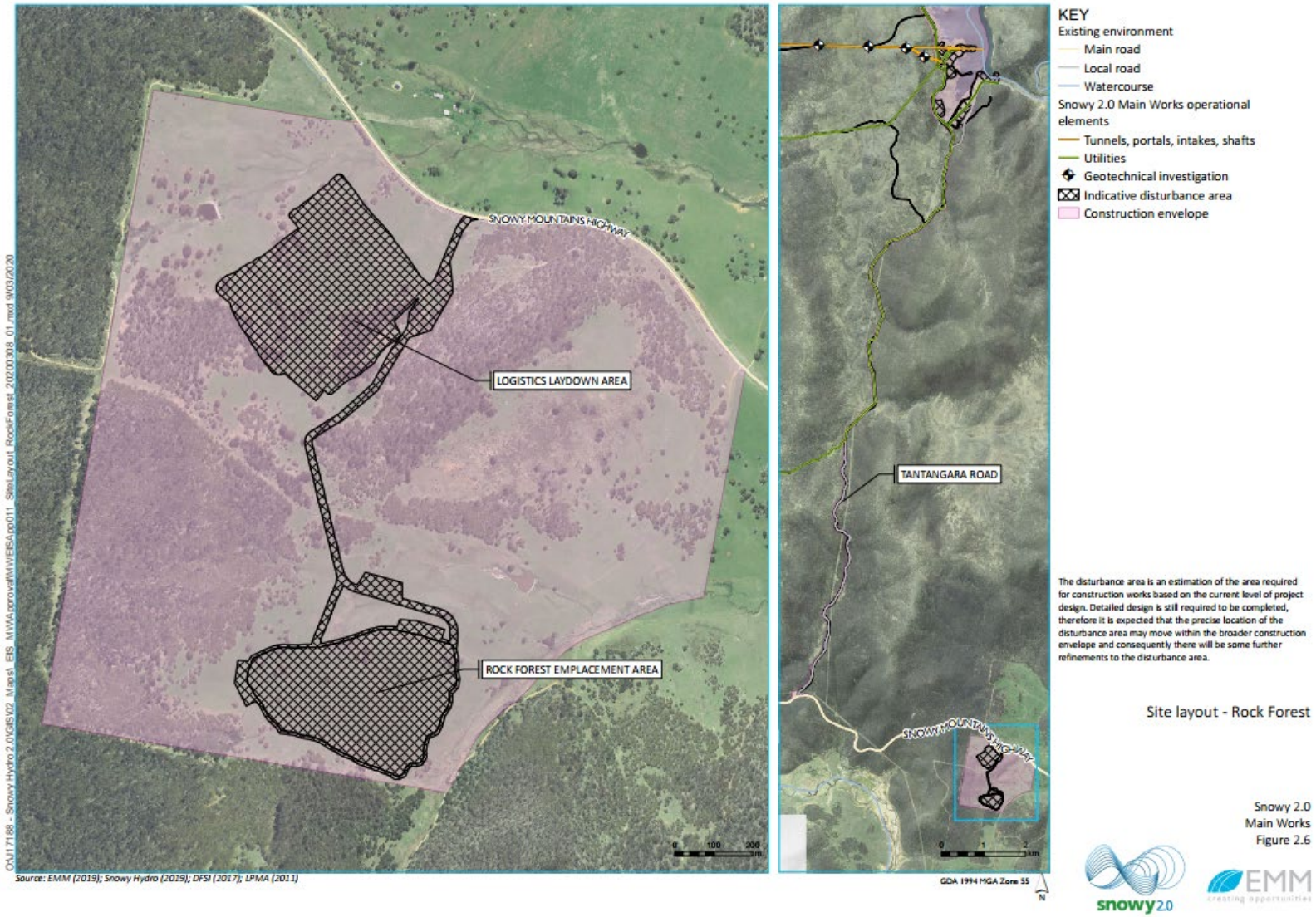

Figure 4-1: Rock Forest site layout

4.3. Public Transport

As presented in the EIS and Submissions Report there are no public transport systems currently in operation within the vicinity of the project area.

4.4. Emergency Vehicles

Access for emergency vehicles will be unaffected as there are no plans to close any of the roads to emergency vehicles. Access for emergency services vehicles will be maintained at all times. Further detail is provided in Section 5.11.

4.5. Ancillary Works

Throughout the life of the project, various local KNP roads and fire trails will be utilised for ancillary works including, but not limited to the laying of trunk services, erosion and sediment control, access for geotechnical works and emergency services. Works would not be used for spoil haulage, and would be activity specific, limited in duration, and have negligible impact. Local KNP roads which may be used during the project include, but are not limited to:

- Kings Cross Road;
- Link Road;
- Nungar Creek Fire Trail;
- Alpine Creek Fire Trail
- Tantangara Dam Fire Trail;
- Tantangara Road;
- Quarry Trail;
- Nungar Creek Trail;
- Bullocks Hill Trail;
- Gooandra FireTrail;
- Merica Trail; and
- Lobs Hole Road.

The laying of trunk services (including the communications cable) will include progressive road works with TCPs prepared, in consultation with the relevant road authorities.

4.6. Environmental Risk Assessment

The environmental aspects and impacts for traffic and transport are further considered within Appendix A3 of the EMS. This includes a risk assessment process. The risk assessment is based on (1) the likelihood of an impact occurring as a result of the aspect; and (2) the consequences of the impact if the event occurred.

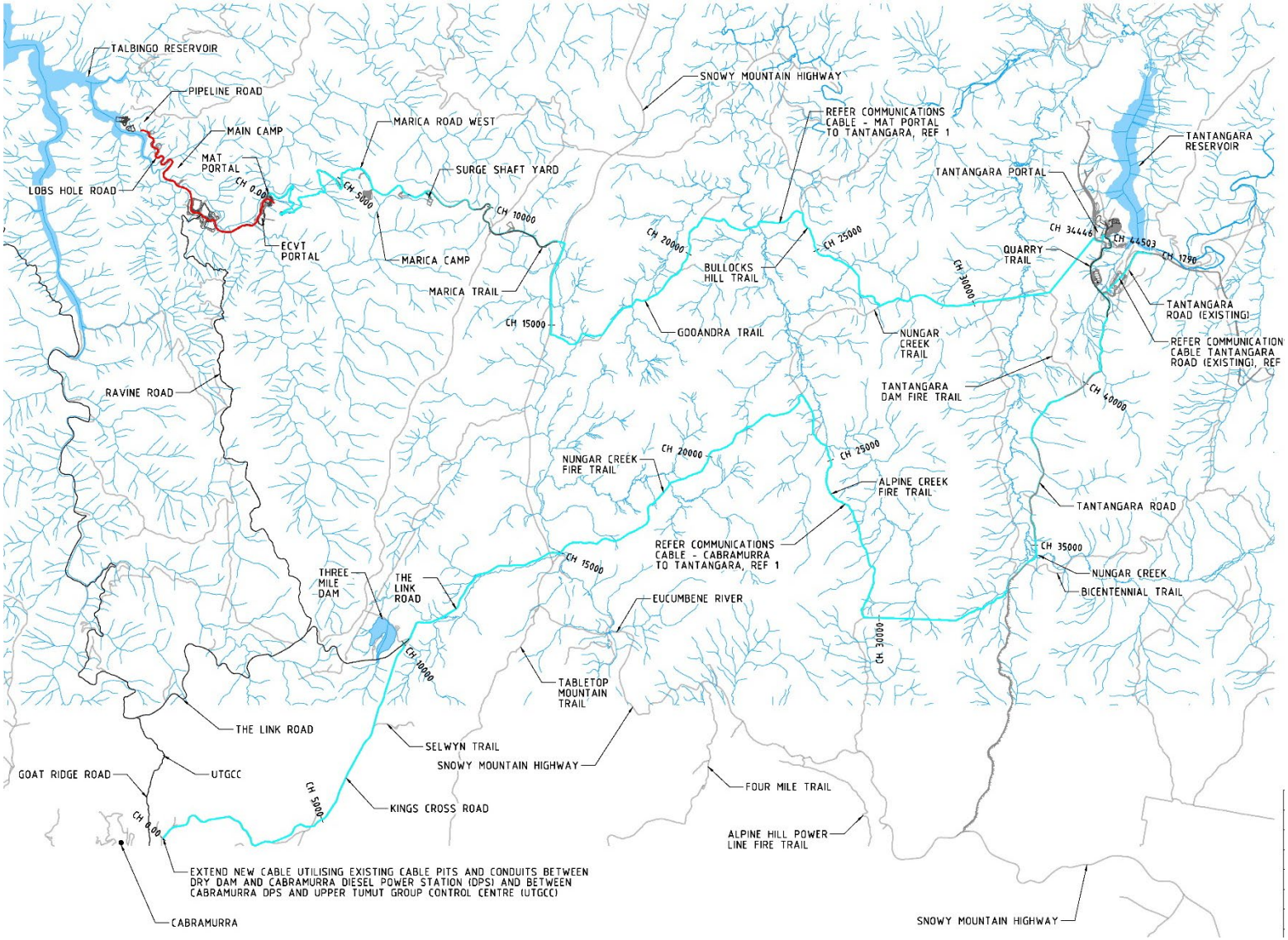

Figure 4-2: Indicative communications cable route

5. TRANSPORT MANAGEMENT MEASURES

A range of environmental requirements and control measures are identified in the Main Works EIS, Submissions Report and the Approval. Safeguards and management measures will be implemented to avoid, minimise or manage traffic impacts. Specific safeguards and management measures to address potential traffic impacts of the project are identified in Table 5-1 .

Regardless of the allocation of responsibilities within this plan, the responsible party is to be assigned in accordance with the project contract.

Table 5-1: Transport management measures

ID	Impact	Measure / Requirement	When to implement	Responsibility	Source document
General					
TRA01	Temporary speed limit reductions	Posted speed limits adjacent to the below intersections will be reduced to satisfy the sight distance requirements and maintain safe manoeuvring conditions for motorists. These intersections and the proposed speeds are: • Snowy Mountains Highway/ Tantangara Road – 60 km/hr; • Snowy Mountains Highway/ Rock forest – 80 km/hr; • Link Road / Lobs Hole Ravine Road – 60 km/hr; • Link Road / Snowy Mountains Highway – 80 km/hr; • Monaro Highway / Yallakool Road – 60 km/hr; and • Monaro Highway / Polo Flat Road – 60 km/hr.	Construction	Future Generation	REMM TRA01
TRA02	Community notification	Affected communities, visitors and emergency services will be notified in advance of any disruptions to traffic and restriction of access to areas of KNP impacted by project activities. Updates will be provided across a number of platforms so as to inform all demographics and provide ample warning of upcoming or changes in access restrictions.	Pre-construction Construction	Future Generation	REMM TRA06
TRA03	Construction traffic management	A Construction Transport Management Plan will be prepared and will include guidelines, general requirements and procedures to be used when construction activities have a potential impact on existing traffic arrangements.	Pre-construction	Future Generation	REMM TRA07
TRA04	Dust and Mud tracking	In order to minimise dust and the tracking of mud from the project area onto public sealed roads, management measures will be implemented, including but not limited to: • implementing progressive erosion sediment control plans (ESCP) to minimise on-site mud; • installation of stabilised site access points as required by the ESCP; • installation of rumble grids or wheel washes where necessary (e.g. wheel washes at Polo Flat and Rock Forest); • where weather warrants, inspections to monitor the condition of public sealed roads will be undertaken by the traffic and logistics team; • covering of heavy vehicle loads; and • where necessary public sealed roads will be maintained.	Pre-construction Construction	Future Generation	Schedule 3, condition 45 Good practice
TRA05	IVMS	To internally monitor compliance, In-Vehicle Monitoring Systems (IVMS) will be installed in project light vehicles to monitor vehicle usage and speed. IVMS performance will be internally monitored on a monthly basis.	Pre-construction Construction	Future Generation	Schedule 3, condition 46 Good practice

ID	Impact	Measure / Requirement	When to implement	Responsibility	Source document
TRA06	Rock Forest	The 'Rock Forest' site, outside the boundaries of the KNP near Adaminaby will be utilised for heavy vehicle lay-up, logistics, staging and stockpiling of tunnel spoil during construction.	Construction	Future Generation	Good practice
TRA07	Heavy Vehicle National Law	Persons involved in the loading of vehicles for road transport must ensure that the vehicle is not overloaded. It is noted that the recent changes to Chain of Responsibility provisions within the Heavy Vehicle National Law (HVNL) make all persons who may influence or manage the safety of a vehicle on he road is responsible for compliance with the HVNL.	Pre - construction Construction	Future Generation	Good practice
TRA08	Vehicle restrictions	Vehicle speeds will be restricted to 30 km/h within the site, between sunset and sunrise, unless the Planning Secretary agrees otherwise.	Pre - construction Construction	Future Generation	Schedule 3, condition 44
TRA09		The use of Lobs Hole Ravine Road – North will be restricted to: • access to and from the site during emergencies; • light vehicles at all other times with: – a maximum of 120 vehicle movements allowed a day (60 each way); and – an annual average maximum of 60 vehicle movements allowed a day (30 each way) Vehicle movements along Lobs Hole Ravine Road – North will be tracked and recorded by site traffic management and / or IVMS in order to monitor and restrict daily traffic movements.	Pre - construction Construction	Future Generation	Schedule 3, condition 44
TRA10	Parking	Sufficient parking will be provided on site for all vehicles, vehicles associated with the development will not be permitted to park on the public road network	Pre - construction Construction	Future Generation	Schedule 3, condition 45
TRA11	Plant and equipment	All plant and equipment on the site must be maintained and operated in a proper and efficient manner, including regular serving as per manufactures instructions	Pre - construction Construction	Future Generation	Schedule 2, condition 13
TRA12	Lobs Hole Road	Within 3 months of completing the upgrade of Lobs Hole Road (unless the Planning Secretary agrees otherwise) sections of Lobs Hole Road that are no longer required will be closed and rehabilitated to the satisfaction of the NPWS.	Pre - construction Construction	Snowy Hydro	Exploratory Works, Schedule 3, condition 38
ECO2	Weed Management	A Weed and pathogen monitoring program will be implemented, with a weed control program to be implemented if weeds are identified along road verges. This may include wash-down stations to be constructed at a suitable location, with wash down for weeds as well as *P.cimmamomi.*	Pre-construction Construction	Future Generation	REMM ECO2

5.1. Road and Intersection Upgrades

External road and intersection upgrades will be required for the Snowy 2.0 project generally, inclusive of Main Works activities. Upgrades to the external road network and intersections, that will be undertaken are detailed in Table 5-2 and Table 5-3 respectively (derived from Appendix 5, Tables 5-1 and 5-2 of the Approval). Road upgrades associated with the transportation of tunnel segments between Polo Flat and the KNP will be detailed within the Segment Factory Traffic Management Plan.

The commencement and completion of road and intersection upgrade works will be communicated by Snowy Hydro to the Department, NPWS and NSW DPI via the Major Projects Portal.

All internal access road upgrades required for the project will be designed in accordance with the relevant vehicle loading requirements.

Table 5-2: Road upgrades to be carried out as part of the Main Works

Road Section	Project Phase	Design Requirements	Approval Authority
Lobs Hole Ravine Road - South	During construction	Dual lane gravel road	NPWS
	Prior to operation	Dual lane sealed road	NPWS
Lobs Hole Ravine Road – North	Prior to use	Minor work to provide turning areas (as outlined in the Exploratory Works)	NPWS
	During spring 2020	Seal the last 30 metres before the intersection with the Snowy Mountains Highway (SMH)	TfNSW
Link Road (approved separate to the Main Works Infrastructure approval)	During spring 2020	Dual lane sealed road with widening to 6m in some sections	NPWS
Mines Trail Road	During construction	Dual lane gravel road	NPWS
Tantangara Road, including upgrading Nungar Creek Bridge	Prior to construction on the Tantangara site	Dual lane gravel road	NPWS
Marica Trail and Marica Trail\West	During construction	Single lane gravel road extended to Mines Trail Road	NPWS
Wharf Road/ Pipeline Road	During construction	Dual lane gravel road	NPWS
Quarry Trail	During construction	Dual lane gravel road	NPWS
Talbingo excavated road emplacement access road	Prior to the construction of the Ravine Bay permanent spoil emplacement area. To be removed and rehabilitated following construction.	New dual lane gravel road	NPWS
Tantangara camp road	During construction	Dual lane gravel road	NPWS
Ravine Bay spoil emplacement access road	Prior to the construction of the Ravine Bay permanent spoil emplacement area.	Dual lane gravel road	NPWS

Road Section	Project Phase	Design Requirements	Approval Authority
	To be removed and rehabilitated following construction.		
Gooandra, Bullock, Tantangara Dam, Nungar Creek and Alpine Creek fire trails	During construction	Minor works to allow for passing bays	NPWS
SMH (between Sawyer Hut and Link Road)	Prior to the delivery of transformers to the site	Two areas of minor cutback of existing embankment	TfNSW
Link Road turn around bay	Prior to construction	Laydown / turnback along Link Road to the west of Lobs Hole Ravine Road, of approximately 750 meters	NPWS

Table 5-3: Intersection upgrades to be carried out as part of the Main Works

Road Section	Project Phase	Design Requirements	Approval Authority
Snowy Mountains Highway/Bombala Street	Prior to the delivery of tunnel boring machines, transformers or concrete segments using OSOM vehicles	Works to kerbs, signage, internal roundabout pavement, trimming overhanging vegetation, installation of temporary traffic signal and traffic sensors	TfNSW
Snowy Mountains Highway/Vale Street	Prior to the delivery of tunnel boring machines, transformers or concrete segments using OSOM vehicles	Works to kerbs, signage, internal roundabout pavement, trimming overhanging vegetation	TfNSW
Snowy Mountains Highway/Rock Forest	Prior to construction on the Rock Forest site	Basic Right Turn (BAR) treatment / Auxiliary Left Turn (AUL) treatment and pavement widening	TfNSW
Snowy Mountains Highway/Marica Trail	During construction	BAR / AUL, road widening,and embankment works	TfNSW
Snowy Mountains Highway /Tantangara Road	Prior to construction on the Tantangara site	Right-turn lane on SMH and vehicle activated sign	TfNSW
Snowy Mountains Highway/Link Road	During construction	Minor pavement marking changes and vehicle activated sign	TfNSW
Link Road/Lobs Hole Ravine Road – South	During construction	Sealing of intersection and vehicle activated signage	TfNSW

5.1.1. Speed Limit Reductions

In accordance with REMM TRA01 Snowy Hydro will apply for required temporary speed zone reductions through TfNSW and ensure each proposed reduction has a supporting Traffic Control Plan (TCP) prepared by an appropriately qualified person.

Approved TCPs will be communicated to workers and relevant regulatory authorities prior to temporary speed limit reductions coming into effect.

5.2. Fog, Ice and Snow

Local climate and weather conditions in the project area such as fog, storms and snow present potential safety risks to road users during construction. The Snow and Ice Traffic Management Plan (SITMP), provided in Appendix D, describes how the interaction of project vehicles and inclement weather, especially snow and ice will be managed in order to prevent harm to project staff, subcontractors and the public.

5.3. Traffic Control Plans

Specific TCPs will be developed as part of the construction planning process for all construction activities that affect traffic conditions and the safety of road users on the external or internal road network. For example, pavement widening, such as those associated with intersection upgrades, that require temporary occupation of traffic lanes or working adjacent to the road.

TCPs will be developed progressively during construction in accordance with the Roads and Maritime publication Traffic Control at Works Sites Manual and the Australian Standard AS1742-2002 Manual of Uniform Traffic Control Devices.

Where required the TCPs will be developed in consultation with the relevant road authority(s) which include TfNSW, NPWS and Snowy Valleys and Snowy Monaro Councils. Emergency services will be notified prior to the implementation of traffic changes to ensure that they are aware of the potential impacts that may affect emergency responses.

The TCPs will establish the specific management measures to be implemented to ensure the safety of road users and to maintain efficient road network operations. They will include:

- the traffic control devices to be installed in advance of the works which may include cones, barriers, signs, traffic controllers and temporary traffic signals etc and how these are to be established;
- additional advisory signs or speed restrictions to be installed during construction;
- road occupancy requirements and approvals;
- road speed reductions required for the safety of the public and workers; and
- traffic management inspection and maintenance requirements.

5.4. Scheduling

In order to limit cumulative impacts on the road network and impacts to local residents and pedestrians, scheduling of vehicle movements to avoid peak traffic periods and conflicts with other road users will be implemented. Peak traffic periods include snow season (June long weekend – October long weekend) weekends, public holidays and school holidays. Scheduling will act to:

- minimise potential for conflict with peak winter traffic, school buses and other motorists as far as practicable; and
- minimise convoying or platoons.

In order to minimise cumulative impacts with other road users, management measures will include:

- scheduling of OSOM movements outside peak periods and at night-time where possible;
- liaison with local bus operators to avoid school pick up and drop of periods;
- next day and next week look aheads for deliveries;
- consultation with ski fields, NPWS and TfNSW during peak winter months; and

- the communication of 6-month and 2-week traffic movement forecasts at TTLG meetings to stakeholders including NSW Police, TfNSW, NPWS, Councils, and the HVNR.

To allow for the hold up of project traffic across the road network, lay up areas at Polo Flat, Rock Forest, the Link Road turn around and project sites will be established. Allocated security and logistics personnel at key site entry points and layup areas will work to communicate and direct the layup and flow of traffic. Where queuing into project sites impacts the road network, layup areas will be informed to hold or stagger project vehicles until clearance is given.

Project staff will be made aware of the need to report any impacts on the road network so that reactive measures can be implemented.

In advance of OSOM deliveries, OSOM permits will be sought. The issuing of these permit will take into consideration the scheduling of OSOM movements to minimise cumulative impacts on the road network. Scheduling requirements will be included in driver inductions, the DCC and will be reiterated through pre-starts.

5.5. Dilapidation Report

Prior to commencement of Main Works construction and decommissioning activities, a road dilapidation report will be prepared and approved in accordance with Austroads guidelines and a completed report provided to the relevant road authority(s) for information.

The report will capture the current condition of the road surface on Link Road, between Snowy Mountains Highway, Goat Ridge Road and Tantangara Road.

Throughout construction, routine defect identification and rectification of roads used by construction heavy vehicles within the internal road network will be managed as part of the project maintenance procedure. Within two months of completion of any construction and/or decommissioning works, a dilapidation survey will be made of the same roads and a report will be prepared to assess any damage caused by construction heavy vehicles. The report will give consideration to any damage as a result of general road usage (under equivalent pre-development conditions and heavy vehicle volumes). These surveys will include Dilapidation Reports prepared by Snowy Hydro following Exploratory Works, including:

- Link Road;
- all roads within KNP not upgraded as part of the exploratory works and which will potentially be used by Heavy Vehicles during construction;
- local roads within Talbingo which will potentially be used by Heavy Vehicles during exploratory works;
- Spillway Road; and
- Miles Franklin Drive.

Should assessed damage be deemed to have been caused by the project, activities such damage will be assessed against the initial dilapidation report and where agreed, repairs will be completed by Future Generation and Snowy Hydro in consultation with the relevant road authority and to the satisfaction of NPWS (for Link Road, between Snowy Mountains Highway, Goat Ridge Road and Tantangara Road). Where required, roads will be rehabilitated / made good to the extent that they are in a condition which is similar to that in place prior to Stage 2 of Exploratory Works.

Repairs that do not endanger road safety will be undertaken within an agreed timeframe from completion of the survey unless the relevant authority agrees otherwise. Repairs that do endanger road safety will be undertaken as soon as possible after the damage is identified, but within 7 days at the latest.

Internal roads and water related infrastructure will be maintained as required following monthly road surface inspections or otherwise observed by project staff. Throughout the life of the project, all roads and water-related infrastructure on site will be maintained in a safe and serviceable condition by the project construction team.

5.6. Heavy Vehicle and Over-Dimension Vehicle Management

5.6.1. Vehicle Movement Plans and Heavy Vehicle Haulage Routes

Vehicle Movement Plans (VMPs) will be developed for both external and internal roads. VMPs will be used to communicate approved heavy haulage routes and include travel directions, permitted intersection turning movements, speeds, approved parking, lay-up areas (including Polo Flat, Rock Forest, the Link Road turn around and project sites), areas off-limits to parking (e.g. Link Road NPWS pay station), types / size of trucks to be used and any traffic control required. VMPs are to be presented diagrammatically to allow for clear communication with the workforce. VMPs will be progressively developed during construction and updated as conditions change. Where necessary VMPs will be communicated to the relevant road authority.

Vehicle Movement Plans will be developed for key areas of the project road network including, but not limited to:

- State road haulage routes between Cooma and Main Works project sites;
- Key intersections provided in Table 3-2;
- Key project roads including Link Road, Lobs Hole Ravine Road and Tantangara Road; and
- Internal project access roads.

The designated heavy vehicle and over-dimension vehicle haulage routes to be used during the Main Works are included in Appendix F. Heavy vehicle routes to and from construction sites have been prepared with the objectives being to minimise impacts to local roads and maximise the utilisation of State and regional roads where feasible and reasonable.

Where an emergency requires, non-project listed roads, including local roads may be used by light vehicles and heavy vehicles only where safe to do so and authorised by the relevant authorities (as allocated in Table 3-1).

Heavy vehicle parking, idling and queuing on public roads will be minimised where practicable particularly within the regional towns of Tumut, Talbingo, Adaminaby and Cooma. The impact of heavy vehicles from convoys and congestion through local townships during peak traffic periods are to be mitigated through the following initiatives:

- deliveries will be scheduled and staggered to prevent vehicles queuing on the Link Road. Deliveries will be arranged so they travel at an ordered distance allowing for a steady entry into the Link Road without the need to queue;
- deliveries will be scheduled to occur such that heavy vehicle travel during snow season (June long weekend – October long weekend) weekends and public holidays is avoided where practicable;
- deliveries will be scheduled to occur such that heavy vehicle travel during peak periods through Cooma and Tumut, defined as between 8:00am and 9:30am and between 4:00pm and 5:30pm, will be avoided where practicable;
- particular care will be given to avoid the need for heavy vehicle travel through school zones such as that adjacent the Snowy Hydro office in Cooma during school zone operating hours;

- the DCC requires drivers to pull over when safe to do so should excessive queuing occur on single lane roads; and
- heavy vehicles will aim to travel staggered from one another when in transit in order to minimise delays to non-construction vehicle movements. This will be managed by:
  - scheduling of vehicle movements using:
    - 6 month and 2 week look aheads at TTLG meetings;
    - next day and next week look aheads for deliveries;
    - staggering of the departure of segment trucks from Polo Flat by site personnel;
  - adherence to heavy vehicle traffic movements leaving the Polo Flat Segment Factory (as specified in Infrastructure Approval (SSI-10034), see below):
    - ensure that the development does not generate more than:
      - 175 heavy vehicle movements during the day and evening;
      - 45 heavy vehicle movements transporting finished segments from the site during the night on the public road network;
    - monitor and record these heavy vehicle traffic movements at the Polo Flat Segment Factory gate.
  - drivers will communicate via radio and aim to maintain distance between each heavy vehicle; and
  - any OSOM escort vehicles will be used to coordinate staggered movements.

At all times heavy vehicle drivers will be required to obey the road rules which includes covering loads when in transit to and exit from the project site.

Where it is reasonable and safe to do so, project drivers will be encouraged to reduce speed at key intersections along the Snowy Mountains Highway, including the Rock Forest, Tantangara Road, Link Road, Coppermine Trail, Marica Road, Lobs Hole Ravine Road – North and Miles Franklin Drive intersections.

5.6.2. Pedestrian Safety

In order to manage pedestrian safety through local townships, the following initiatives have and will continue to be implemented by Snowy Hydro and relevant road authorities:

- community awareness campaigns; and
- notification of road closures and interruptions.

5.6.3. Drivers Code of Conduct and Fatigue Management

The safety of workers and road users is of paramount importance to Snowy Hydro and Future Generation, and the fit and proper behaviour of drivers is directly related to establishing and maintaining a high safety standard during Main Works. Further, all drivers involved in the project must comply with the legal obligations whilst operating vehicles.

To assist in achieving safe outcomes during construction, a Drivers Code of Conduct (DCC) has been developed and is included in Appendix A of the TMP. The DCC outlines acceptable behaviour for all vehicle drivers in connection with the project.

Prior to working on the project all vehicle drivers will be required to have read the code and acknowledge their compliance with it throughout their involvement in the project. The expectations

of the DCC will be established in the Project induction and will be reiterated through pre-starts. Future Generation will retain copies of the signed DCCs.

Heavy vehicle haulage routes will be communicated to haulage contractors during the procurement stage and requirements of the DCC, route use and compliance included in their contracts.

The DCC includes an element of fatigue management. This includes the requirements for drivers on the project to manage their fatigue, be suitably rested and for operators of heavy vehicles to comply with the Chain of Responsibility (CoR) legal requirements under the *National Heavy Vehicle Law (Heavy Vehicle (Adoption of National Law) Act 2013)*. The fatigue management standards including those outlined in the Chain of Responsibility will be consistent with the standards outlined in the Fatigue Management Plan.

The DCC will be monitored and reviewed as detailed in Section 6.1 and 0.

5.6.4. Over-size and Over-mass (OSOM) Vehicles

The designated haulage routes to be used during the Main Works by OSOM vehicles are included in Appendix F. All over-dimensional and heavy vehicles associated with the development must travel to and from the site via:

(a) Snowy Mountains Highway, Miles Franklin Drive and Spillway Road;

(b) Snowy Mountains Highway, Link Road and Lobs Hole Ravine Road;

(c) Snowy Mountains Highway, Coppermine Trail and Wallaces Creek Trail;

(d) Snowy Mountains Highway, Marica Trail;

(e) Snowy Mountains Highway, Tantangara Road and Quarry Trail; or

(f) Elliott Way and Link Road (but only following the written approval of the Planning Secretary, following consultation with the road authority (NPWS)).

The Snowy Mountains Highway will serve as the main transport route to and from the project during construction and provide access for OSOM vehicles required to deliver large indivisible objects. The Snowy Mountains Highway is classed as a Limited Access Location for the purpose of OSOM transport and requires a specific permit to be obtained in advance of travel for vehicles exceeding 2.5m in width and/or 19m in length.

In advance of OSOM deliveries, Future Generation (or sub-contractor) will apply for an OSOM permit through the National Heavy Vehicle Regulator (NHVR) Portal. This will capture all relevant information point of origin, route and destination. OSOM permits and accompanying documents will be kept and managed through the NHVR Portal and internal Future Generation systems.

As required through the OSOM permit process, when undertaking an oversize and/or overmass movement in NSW that is classified as ‘high risk’, travelling on a ‘high risk’ route, or undertaking a movement that involves the transportation of a ‘critical/sensitive’ load, a Transport Management Plan (separate to this plan) must be prepared to accompany the access permit application. A TMP is required for any of the following OSOM movements:

- all OSOM movements that are classified as 'High Risk' due to their dimensions and/or weights;
- all OSOM movements that travel on a 'High Risk' route; and
- all OSOM movements that involve the transport of a 'Critical/Sensitive' load.

OSOM TMPs will include detail of the following:

- materials and components to be transported;

- anticipated project delivery schedule;
- communications strategy and notification process for OSOM movements;
- incident response procedure with key project contacts for relevant agencies including TfNSW, NSW Police and local government;
- detailed route assessment including corridor restrictions and pinch points; and
- compliance management, demonstrating how OSOM access will be regulated, quality control and ensuring compliance with conditions of access.

The purpose of the OSOM permit will be to check and approve that the vehicle type, load limit and haul route (consistent with the routes detailed above) are suitable under OSOM requirements. Notice of the OSOM deliveries may be provided to the community and relevant stakeholders as required on a case-by-case basis based on the potential impact. This will be reviewed and undertaken by the Traffic and Transport and Community teams. OSOM travel will occur under the conditions of permit once granted.

5.6.5. OSOM movements

Tunnel Boring Machines (TBM) and associated infrastructure will require importation and transport to site. Transportation will occur during overnight off-peak periods via the surrounding road network where practical.

TBMs will be delivered to the site in various components and assembled on site, with a significant portion of the parts being oversized and exceeding the 2.55 m width of a vehicle as specified in the NSW *Roads Act 1993*. A typical OSOM vehicle configuration is shown in Figure 5-1.

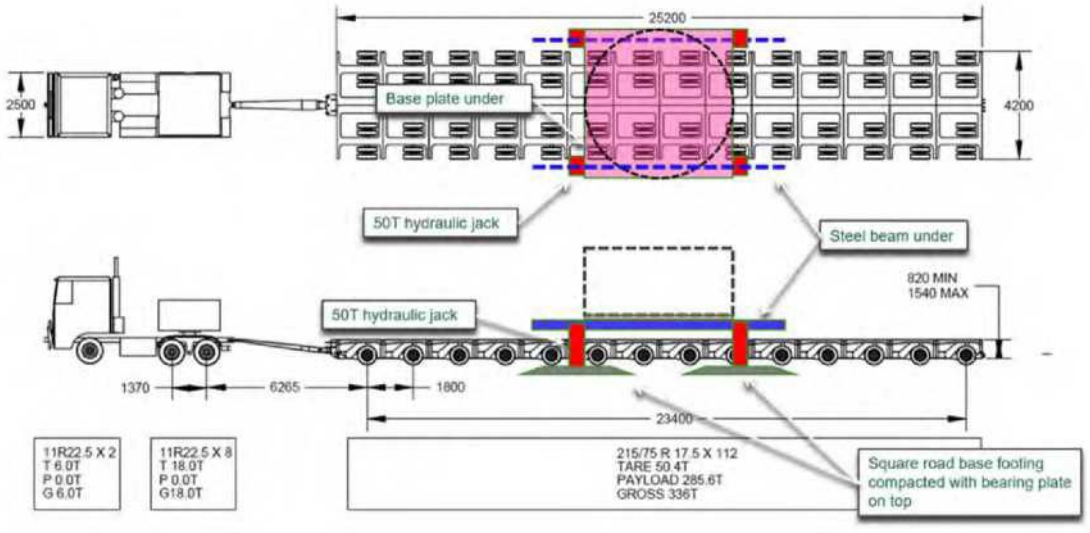

Figure 5-1: Typical OSOM configuration

5.6.6. Link Road Turnaround

To facilitate set down and turn-back of OSOM deliveries, with the typical OSOM configuration as shown in Figure 5-1, a laydown / turnback will be established along Link Road to the west of Lobs Hole Ravine Road, of approximately 750 metres. This will minimise the OSOM delivery duration along Link Road and Snowy Mountains Highway.

Following the trans-loading of TBMs and other OSOM deliveries, the Link Road Turnaround will continue to be utilised as a project facility for staging and queuing of heavy vehicles.

5.6.7. Heavy Vehicle Recovery or Salvage

Procedures to be followed in the event of the breakdown or crash of a project heavy vehicle on the public road network, are detailed in the Heavy Vehicle Salvage Plan provided in Appendix B.

5.6.8. Dangerous Goods

Transport of chemicals, hazardous materials and other dangerous goods will comply with the following principles:

- dangerous goods are assigned UN numbers and proper shipping names;
- dangerous goods are transported in accordance with their hazard classification and their composition;
- reactive materials will not be transported in the same consignment;
- dangerous goods will be packaged in accordance with their classification criteria and the packaging will be intact prior to acceptance for transport or delivery at the project site;
- dangerous goods will be properly labelled as per the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) or the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) National Codes of Practice (GHS Code) prior to acceptance for delivery to the project site;
- chain of custody and consignment documentation, including SDS, will be available for the duration of the transport and presented prior to acceptance of the dangerous goods at site;
- emergency response plans for the containment and clean-up of hazardous substances will be in place prior to shipment of the material.

Refer to the Australian Code for the Transport of Dangerous Goods by Road and Rail, Edition 7.5. August 2017 for further information.

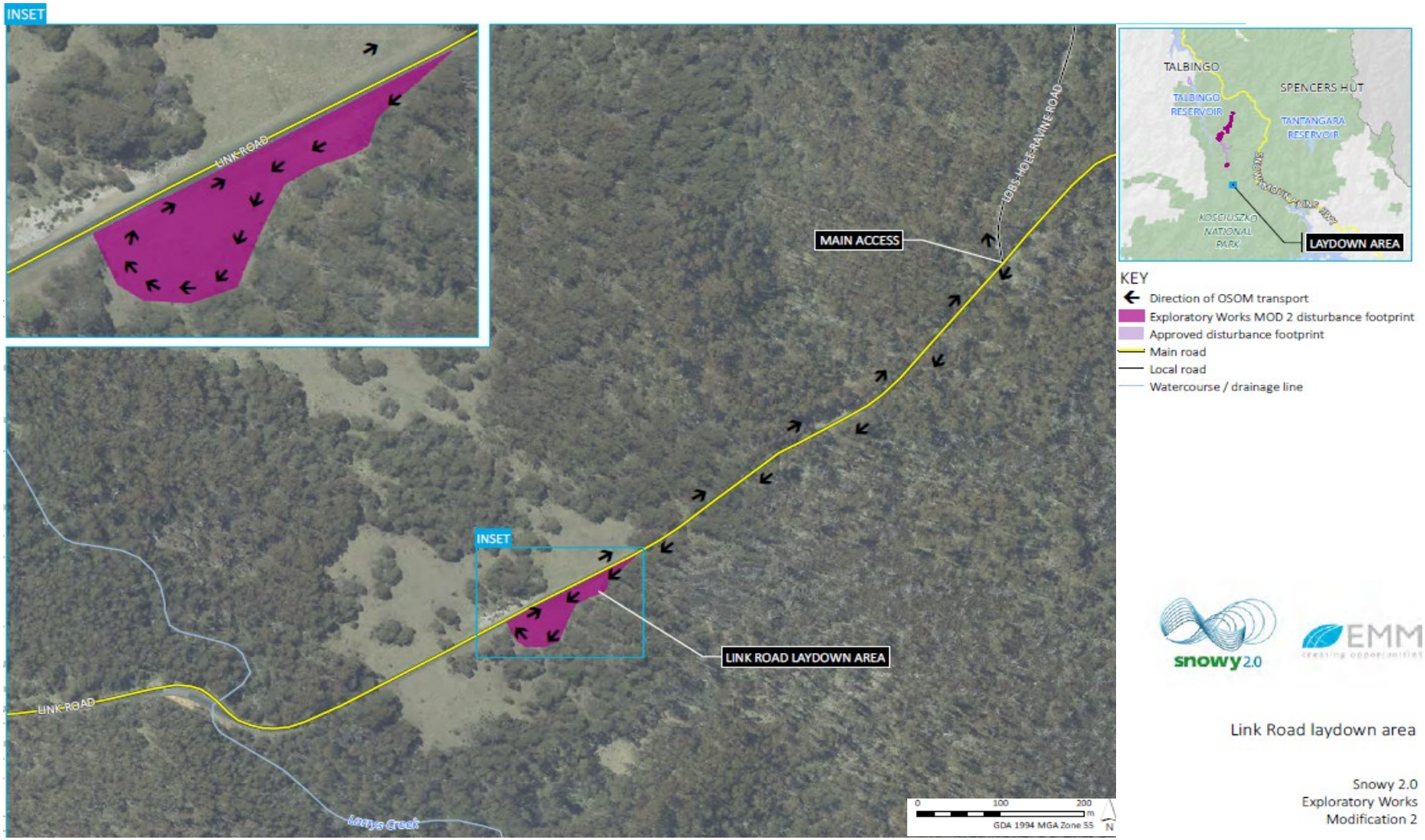

Figure 5-2: Link Road laydown / turnback

5.7. Maritime Traffic Management

Management of waterway traffic to minimise the potential impacts from construction marine traffic on the surrounding community and environment, is detailed in the Marine Transport Management Plan provided in Appendix C. The waterway management plan details waterway construction activities, hours of operation, and management measures for traffic control, extreme weather and access management.

5.8. Spoil Haulage Management

In order to manage impacts associated with the transport of spoil from Marica to Rock Forest, outside of the KNP, the following management measures will be implemented:

- Where spoil is transported on public roads, all vehicles will be covered to minimise the generation of dust; As described in Section 5.1, intersection upgrades to enable these works will include the intersection of Snowy Mountains Highway and Marica Trail and Snowy Mountains Highway and Rock Forest;
- As described in Section 5.1.1 and REMM TRA01, temporary speed limit reductions will be implemented for approaching the intersection of Snowy Mountains Highway and Rock Forest; and
- Traffic and construction noise associated with the disposal and emplacement of spoil at the Rock Forest site will be managed in accordance with the Construction Noise Management Plan – Rock Forest.

5.9. In-Vehicle Monitoring Systems

To monitor and record vehicle movements and internally monitor compliance with road rules, speed limits and transit hours, In-Vehicle Monitoring Systems (IVMS) will be installed in all dedicated full time project vehicles to monitor vehicle usage and speed.

Non-dedicated, intermittent project delivery vehicles are expected to use a form of IVMS (not administer by the project) and will be required at a minimum to complete the driver induction and DCC. During procurement and onboarding drivers will be issued with a driver's awareness pack, including an online drivers induction program outlining driver requirements, which must be completed before working on the project.

NPWS and emergency service vehicles do not require IVMS when utilising NPWS roads and trails except for when they are entering clearly identified lease areas. Where driving in the project footprint, NPWS and emergency services will be required to adhere to project speed limits and other vehicle safety requirements (e.g. UHF radio checkpoints).

IVMS performance will be internally monitored on a monthly basis and will be enforced across Future Generation personnel through an IVMS Performance Management Procedure which will deduct points from personnel based on the level of violation committed. Once a person reaches zero all driving privileges are revoked for 30 days.

5.10. Weed and Hygiene Control

In order to minimise the risk of any new weeds being introduced to project work areas, all vehicles, light vehicles and mobile plant shall be inspected prior to site entry and the hygiene declaration form completed. Vehicles will be inspected on arrival to site. All vehicles and equipment inspected will be documented using the Hygiene Declaration Form. Weed and hygiene requirements will be communicated to suppliers during procurement and within the DCC. Where washdown and inspection bays are provided at entry and exit to the site, all vehicles should use these bays, unless exemption is provided by the HSE manager (e.g. OSOM vehicles).

5.11. Access Management

5.11.1. Staff Movements

Project personnel will not be permitted to drive personal vehicles to the project site. In order to reduce traffic volumes, travel times and improve safety outcomes, personnel will travel via either project approved light vehicles or bus.

Personnel will be transported from designated local towns and airports to the accommodation camps by project-supplied buses. When on site, buses will collect workers and transport them between accommodation camps to various worksites before and after shifts. Bus pick-up and drop-off points will be marked at accommodation camps and at worksites, along with safe pedestrian routes.

Sufficient buses will be allocated to each camp to transport the workforce back and forth at the start and end of each shift. Exceptions will apply for personnel who require flexibility of movement due to their role and would use light vehicles.

5.11.2. National Park Public Access

Recreational activities currently undertaken in the northern area of KNP include drive touring, picnicking, camping, walking, horse riding, cross country skiing, downhill skiing, snowboarding and snow play, cycling, climbing, caving, canoeing and rafting, boating and fishing. This plan details the measures that will be implemented to minimise the impact of traffic, transport and access to ensure the safety of the public and an ongoing positive experience for park users during construction.

During construction the following will be implemented to manage impacts on users of the Kosciuszko National Park both within and in the vicinity of the construction envelope:

- providing advance notification to NPWS and the public of any changes to park facilities including access roads, Lobs Hole campground, Talbingo and Tantangara Reservoirs;
- providing updates as works progress and notification of any ongoing changes that impact park users undertaken any time a change occurs that modifies the previous access arrangement;
- providing clear signage of restricted access and alternative routes;
- providing park users, the opportunity to give feedback during construction to enable ongoing improvements to be made; and
- in areas where park users may come in close proximity of the project area, the project workforce will be informed of the presence of park users and actions to be taken in the event that they enter the project area through daily pre-starts and toolbox talks.

Updates and notifications will be provided across a number of platforms so as to inform all demographics and provide ample warning of upcoming or changes in access restrictions. Further information is provided in the Transport Communications Strategy (Appendix E).

Emergency services and NPWS officers will have access the site at all times, including during the upgrade of Tantangara Road (Section 5.11.3, Section 5.11.8). Access by NPWS, Snowy Hydro, DPI Fisheries, emergency services, utility asset owners and TfNSW to project areas within the KNP, will be managed through the Access Network Management Plan.

5.11.3. Tantangara Road Access

In order to ensure NPWS, emergency services and members of the public have access to areas of Tantangara Reservoir and other recreational areas, ongoing access management measures will be implemented.

During construction, Tantangara Road will be closed for upgrade and during high risk activities (e.g. transport of oversized equipment). Following upgrades, Tantangara Road will be open to members of the public, NPWS and emergency services for unrestricted use. Where temporary works occur (e.g. OSOM movements)suitable procedures will be used (such as vehicle escort and traffic controls) to ensure safe transit for all vehicles.

Tantangara Road access management will include Future Generation establishing operational gates in two separate locations to suit the delivery of different stages of Tantangara Road works.

- At the junction of Snowy Mountains Highway and Tantangara Road for the upgrade of Tantangara Road, as depicted in Figure 5-3. All public access will be restricted with entry permitted for certain parties as per the Access Network Plan. It is intended this gate will be in place only for the period of time required to upgrade Tantangara Road. Upon completion of the Tantangara Road upgrade works the upgraded road will be returned to NPWS for shared Project/Public use.
- At the junction of Tantangara Road and Quarry Trail Road for the remainder of works, as depicted in Figure 5-4. All public access will be restricted with entry permitted for certain parties as per the Access Network Plan, to restrict access from Tantangara Road onto Quarry Trail Road and into the project site.

The timing of these access restrictions will be confirmed according to the Construction Program and the priority of works at Tantangara. All community and NPWS access restrictions would be advised in advance of closures in accordance with the Access Network Plan and the Community and Stakeholder Engagement Plan.

Operational gates will be manned 24 hours, 7 days a week and hours of access for those permitted will be as per the Approval and Access Network Plan.

Passive gates, barriers and signage are proposed to be installed at other secondary access locations such as fire breaks and walking tracks in consultation with the Snowy Hydro and NPWS to restrict public access to project sites. Future Generation access restrictions outside of project footprint will be to the satisfaction and standard of NPWS to ensure consistency with NPWS policy and procedures.

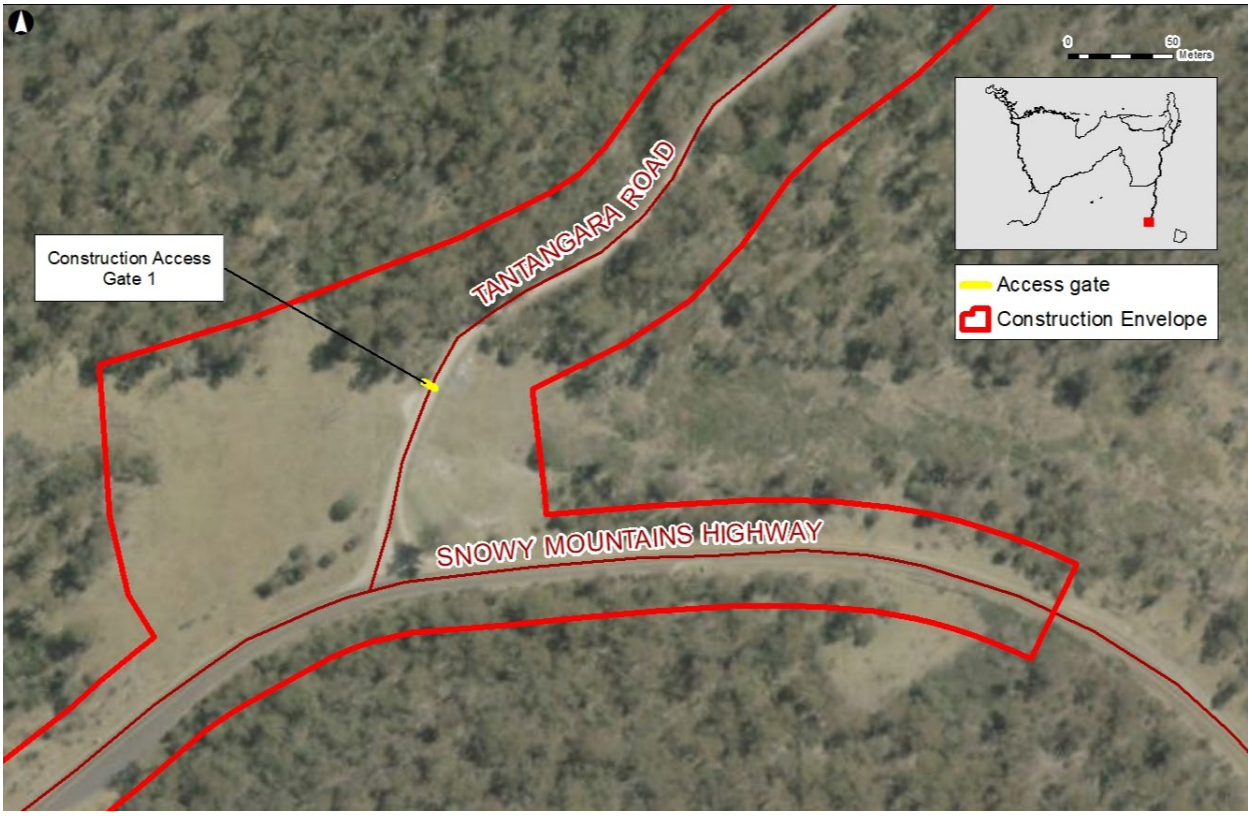

Figure 5-3: Tantangara access gate 1 (junction of Snowy Mountains Highway and Tantangara Road)

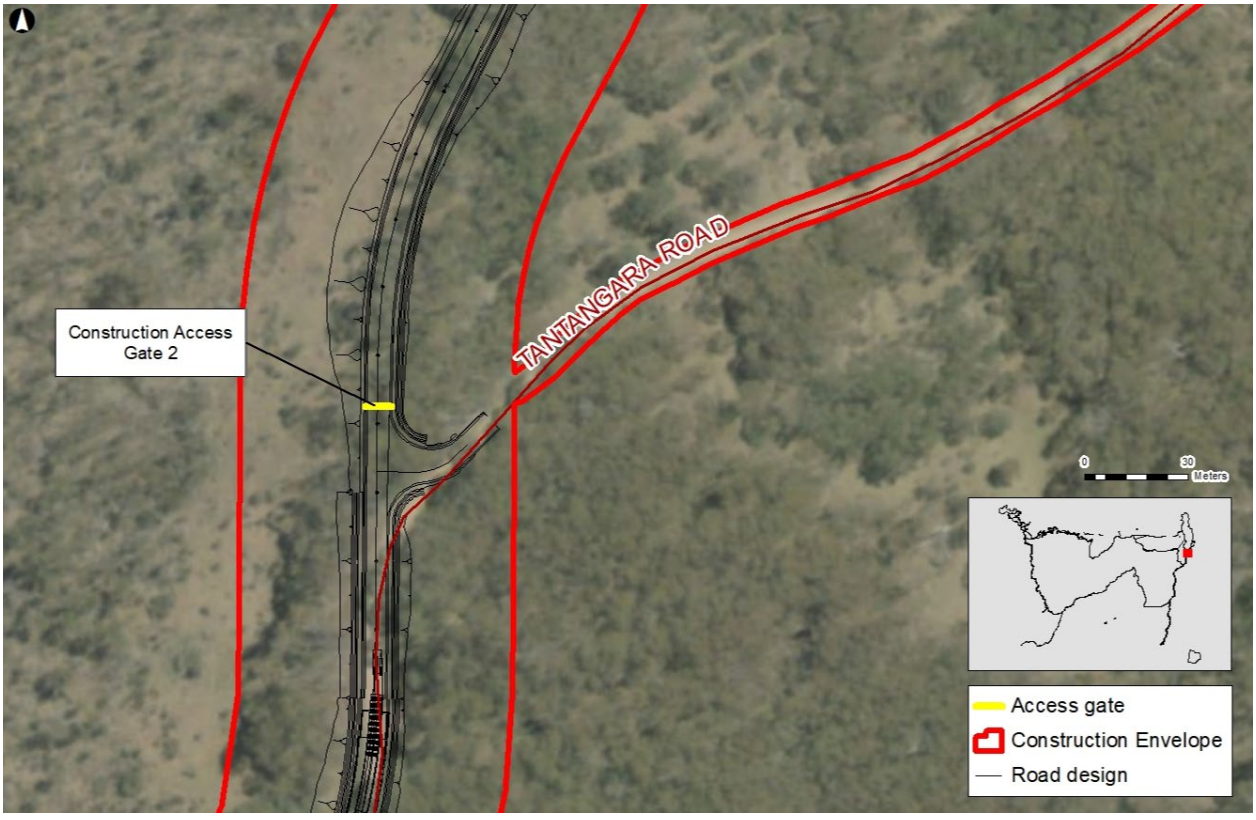

Figure 5-4: Tantangara access gate 2 (junction of Quarry Trail Road and Tantangara Road)

5.11.4. KNP Road closures

Internal roads within KNP which will be closed to the public during construction are provided in Figure 5-5, and listed below:

- Lobs Hole Ravine Road (south);
- Mines Trail Road;
- Lobs Hole Road;
- Lobs Hole Ravine Road (north) beyond first 5km;
- Marica Trail / Marica Trail west;
- Wharf Road / Pipeline Road;
- Quarry Trail;
- Gooandra / Bullock / Tantangara Dam fire trails;
- Nungar Creek Fire Trail; and
- Alpine Creek Fire Trail.

Prior to the road closure advance information signage will be installed at the start of the roadway and at key decision points which will include the KNP entrance points. Road closure signage including advance warning signs will be installed in accordance with the TfNSW Traffic Control at Worksites Manual to enforce the closure of these roads. In some cases, gates or fencing may be warranted to deter entry. Gates and fencing would be installed in consultation with NPWS. Future Generation and Snowy Hydro will coordinate the road closures with NPWS.

Where works involving a KNP road closure are completed, these roads will be reopened to the public where safe to do so (e.g. following the laying of trunk services and the communications cable).

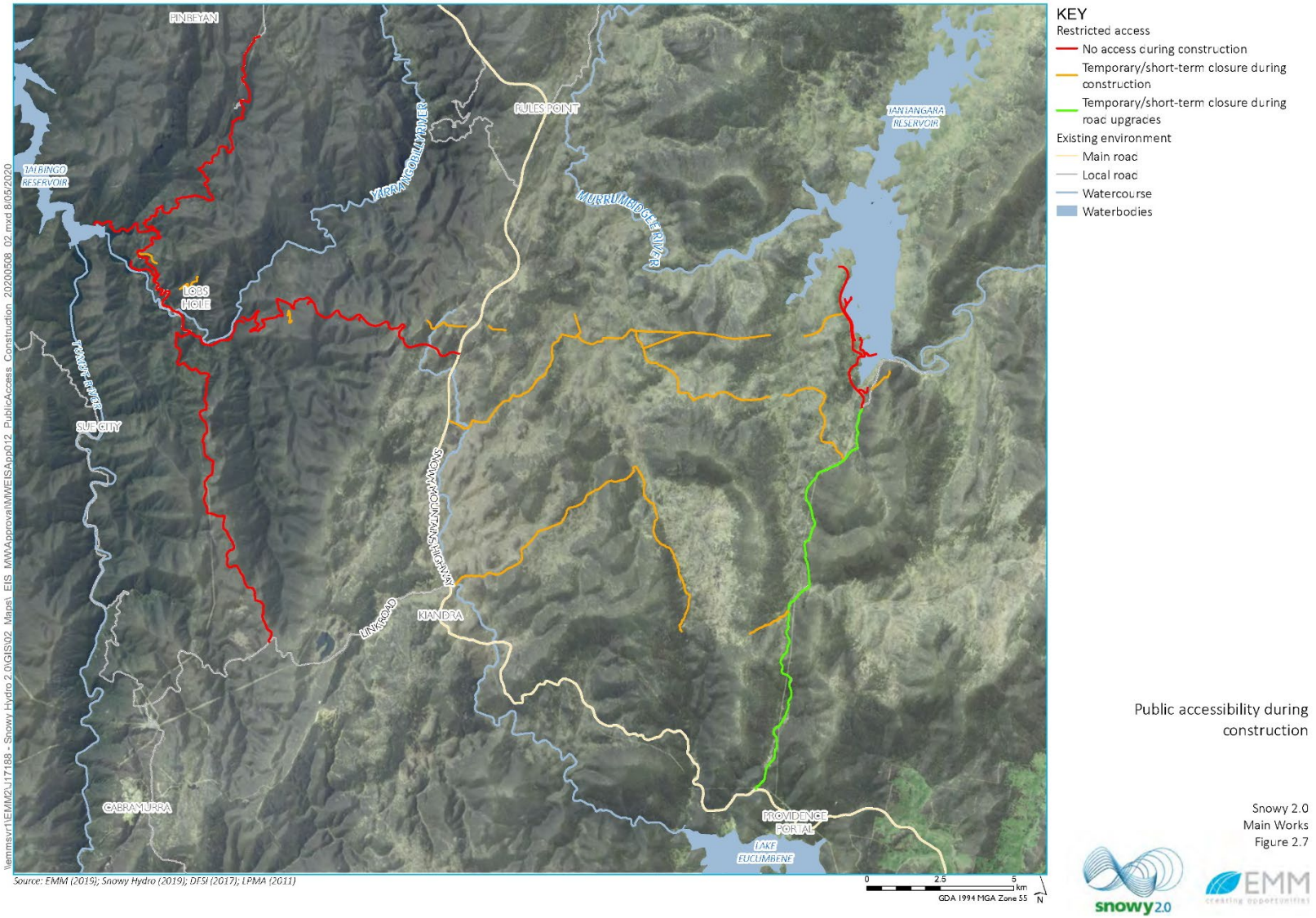

Figure 5-5: Public accessibility during construction

5.11.5. Water access

Potential impacts from marine transport operations associated with the development will be managed under the Marine Transport Management Plan provided in Appendix C.

5.11.6. Horse riding, Walking and Cycling Tracks

Throughout the project, Lobs Hole Ravine Road (from the Blue Creek Trail intersection (in the north) to the Link Road (in the south)) will be closed to the public as will Lobs Hole itself (including the Ravine Campground). Access during the construction of the Main Works is the subject of ongoing consultation with NPWS. The closures will affect existing walking, horse riding and mountain bike trails adjoining Lobs Hole Ravine Road.

Throughout the project the use of additional recreational trails may be restricted due to temporary works. Advance warning signs will be installed at key points along informal tracks and trails in consultation with Snowy Hydro and NPWS. In some cases, gates or fencing may be warranted to deter entry. Gates and fencing would be installed in consultation with NPWS. Signage and access restrictions will be provided to the satisfaction of and standard of NPWS to ensure consistency with NPWS policy and procedures.

It may not be possible to prevent members of the public from undertaking recreational activities in the project area. Future Generation will ensure that all site persons are briefed to be alert of unauthorised persons, and to stop works in the event that such a person enters the work area.

5.11.7. Peak Seasons and Events

Peak periods occur where there is potential for greater impacts to road traffic and park users due to the increase in tourism related traffic volumes. During these periods additional traffic inspections will be undertaken to confirm that these impacts do not warrant further mitigation and traffic management. Transport management measures, including changes will be made to construction delivery routines and project vehicle scheduling during these periods to minimise peak traffic impacts.

Where local events (including the Snowy Mountains Trout Festival) and project traffic have the potential to cumulatively impact the road network, Future Generation Community and Traffic teams will coordinate with event organisers in order to minimise and management impacts.

5.11.8. Access for NPWS, Emergency Services and Other Utility Service Providers

Ongoing access to the site is required for the following parties;

- Snowy Hydro (the Client);
- the Client's contractors including the E&M Works D&C contractors;
- National Parks and Wildlife Services (NPWS); and
- Utility asset owners.

During the construction works there will be several periods where access into the site will be restricted for lengths of time due to the nature of the works. Future Generation will make every effort to provide safe access when requested, however in the event that safe access through the works is not available, alternative access to the site will be provided.

Access is required for utility asset owners at all times in case of emergency repairs. Prior to the closure of the internal access roads the utility asset owners will be consulted, and a means of access determined. The agreed access provisions will be provided throughout construction. Should further access changes eventuate during construction access restrictions will not be implemented without first consulting with the affected asset owners.

Similar arrangements will be put in place for NPWS staff and vehicles required to carry out any park or emergency operations during Main Works. This arrangement will be detailed in the AfL between Future Generation and NPWS.

There is the potential for the works to impact emergency services access into the KNP. Future Generation will liaise with Emergency Services which may require access into the park for the purposes of emergency search and rescue. Future Generation will provide regular updates on access availability throughout the project. The emergency access and evacuation processes are detailed in the Emergency Response Management Plan.

Access arrangements during Tantangara Road upgrade works are provided in Section 5.11.3.

5.12. Traffic Incidents

Traffic incidents may occur within the project area or external to the project area.

In the event of a traffic incident within the site:

- safety and environment related traffic incidents within the bounds of the project area will be managed in accordance with the EMS and the Health and Safety Management Plan, and the associated incident and emergency reporting procedures;
- depending on the type and severity of the incident this may include notification to the Department in writing for incidents defined under the Approval, notification to the NPWS where required under the Deed of Agreement of Lease and notification to the EPA for pollution related incidents. Snowy Hydro would notify the Department in writing immediately after they become aware of the incident on site.

In the event of a traffic incident external to the project site, but within project roads as described in Table 3-1, relevant road authorities and emergency services will be notified. If a traffic incident were to occur external to project roads defined in Table 3-1, TfNSW and / or the relevant road authority will be notified.

For incidents involving the salvage and / or recovery of project heavy vehicles refer to the Heavy Vehicle Salvage Plan provided in Appendix B.

5.12.1. Traffic Incident Notification Process

In the event of a transport incident located outside the project site, but on project roads, the following people will be notified by Future Generation via phone call, text and / or email within 24 hours.

- TfNSW
- NPWS
- Relevant council
- Relevant emergency services (Police / Ambulance / Fire)

In the event of a transport incident located inside the project site, the following people will be notified by Snowy Hydro via phone call, text and / or email 24 hours if if the actual or potential harm to the health or safety of human beings or ecosystems is not trivial, or if actual or potential loss or property damage (including clean-up costs) associated exceeds $10,000.

- NPWS
- DPE
- EPA

The following information will be provided when notifying of the incident:

- a short description of the incident; and
- the location (including co-ordinates), date, and time of the incident. In the event the exact information cannot be provided, provide the best information available

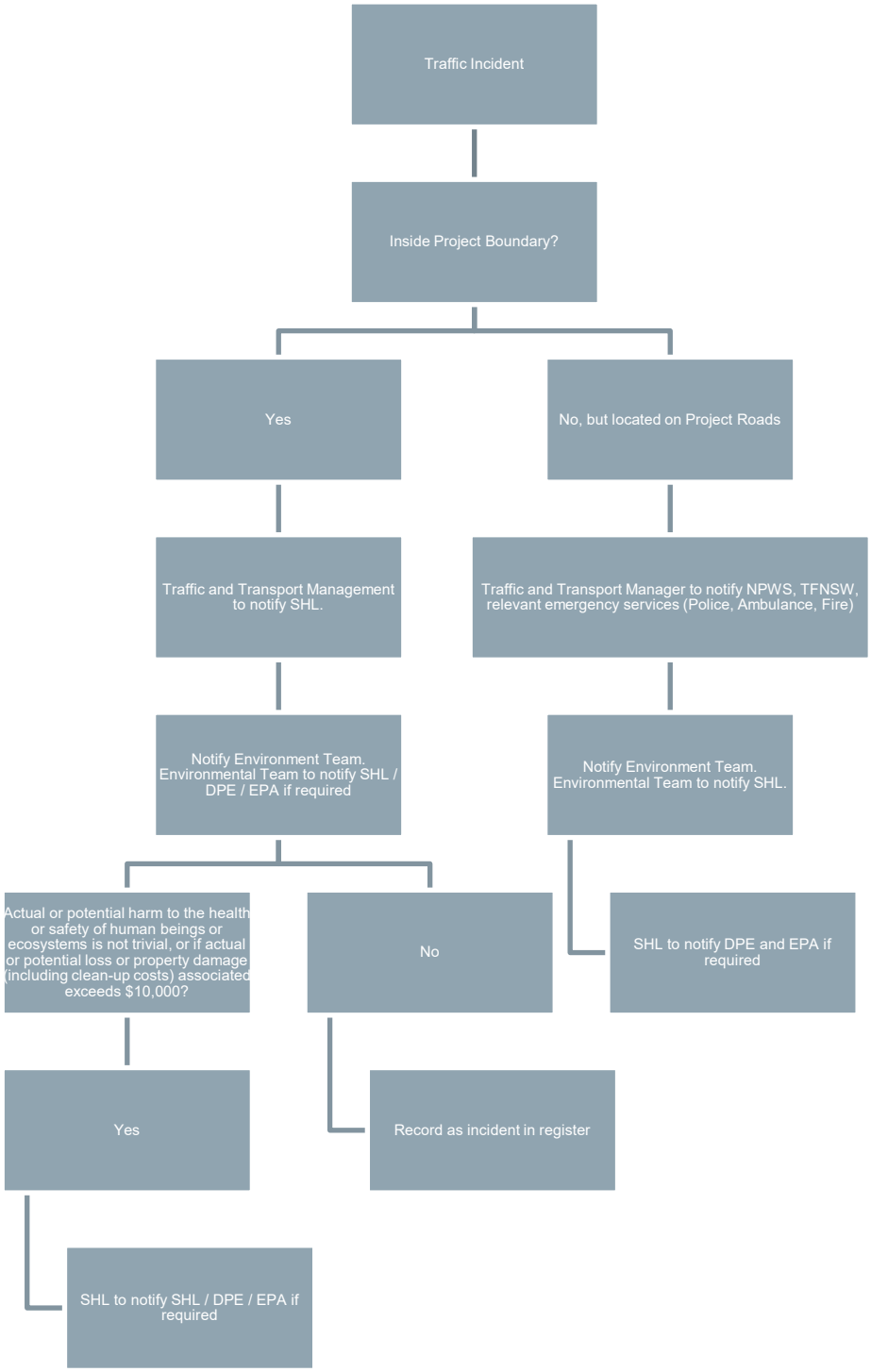

Figure 5-6: Traffic Incident Notification Process

5.13. Helicopter / Aircraft Operations within KNP

Future Generation will provide notification to NPWS, in accordance with the Access Network Plan, if operating helicopters or other aircraft above the project area. Where Future Generation helicopter or other aircraft operations occur outside of the construction project footprint, NPWS approval will be sought. This will be provided prior to the flight occurring through an agreed format between both parties.

Future Generation will liaise with NPWS when operating Unmanned Aircraft Vehicles (UAV) / drones above 50m in height or outside of the approved work areas. This will ensure that NPWS is aware of any potential conflicts between their operations or emergency situations.

Where other parties are operating helicopters in proximity to the work area, Future Generation will be made aware of works through appropriate channels.

6. TRANSPORT AND TRAFFIC MONITORING PROGRAM

6.1. Monitoring and Reporting

Monitoring will be undertaken to confirm the satisfactory traffic, transport and access outcomes are achieved during construction. The parameters and frequency of monitoring is provided in Table 6-1.

Table 6-1: Construction monitoring locations parameters and frequency

Road	Site location	Parameters	Type / Reporting	Frequency
Internal/External	All	Congestion impacts to level of service, convoys and driver conduct	Inspection	Refer to Section 7.2
Internal/External	All	Road conditions, safety and traffic signage	Inspection	Refer to Section 7.2
Traffic Numbers				
Internal/External	All	Movement of project vehicles on key road utilised by the project.	Cumulative summary Report submitted to the project website	Quarterly
Internal/External	All	Delivery traffic movements		
Internal/External	All	Vehicle use of Lobs Hole Ravine Road – North: • maximum of 120 vehicle movements allowed a day (60 each way); and • an annual average maximum of 60 vehicle movements allowed a day (30 each way).		
Weather Monitoring				
Internal/External	All	Inclement weather impacting project light and heavy vehicles.	Communications	As required
Marine Transport Monitoring				
External	All	Waterway use	Review	Monthly review of marine transport related complaints
Internal/ External	All	Marine safety signage and lighting	Inspection	Monthly review of signage and lighting whilst in use
Weather Monitoring				
Internal / External	Marica / Rock Forest	Vehicle tracking during spoil haulage between Marica and Rock Forest, including: • quantity of spoil; and • daily truck movements.	Monitoring	During spoil haulage between Marica and Rock Forest.

7. COMPLIANCE MANAGEMENT

7.1. Training

All site personnel will undergo site induction training relating to traffic, transport and access management issues. The induction training will address elements related to traffic management including:

- existence and requirements of this TMP;
- relevant legislation;
- roles and responsibilities for traffic management;
- light vehicle routes to and from site;
- arrangements for transport of workers to site;
- traffic, transport and access mitigation and management measures;
- fauna of the KNP, fauna strike and near miss reporting within the site (as described in the Biodiversity Management Plan, Appendix G, Section 4.2);
- driver behaviour and the DCC for heavy vehicles including permitted parking, areas off-limits to parking (e.g. Link Road NPWS pay station), lay-up areas and convoying; and
- procedures to be implemented in the event of an incident (e.g. traffic accidents).

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in traffic, transport and access management. Examples of training topics include:

- vehicle movement plans – approved heavy vehicle haulage routes, safe entry and exit and other access restrictions;
- delivery driver's induction which will include safe protocols to be followed whilst travelling on internal and external roads. The briefing will reinforce posted speed limits, advisory speeds and historic high accident points on winding sections of road;
- driving in snow and during icy conditions;
- triggers to report impacts on the road network to project management for response; and
- driver fatigue awareness training.

Targeted training in the form of toolbox talks or pre-start briefs will also be provided to personnel with a key role in traffic, transport and access management. Further details regarding the staff induction and training are outlined in Section 5 of the EMS.

7.2. Inspections

Inspections of traffic, transport and access management measures will be undertaken regularly during construction with attention being made to those areas that interface with the public and affecting public safety. For example, external roads, where lane closures may be required for maintenance purposes, and internal roads where road closures are installed. Additional inspections may be undertaken in accordance with the Future Generation Traffic Control Plans. Table 7-1 details the inspection and monitoring regime. All inspections will be internally recorded.

Table 7-1: Transport management inspections

Inspection	Frequency	Action	Reporting	Responsibility
Road closures	Weekly	Inspection of signage and road closure delineation	Traffic inspection report	Future Generation
Link Road Tantangara Road	Monthly during heavy vehicle or over-dimension vehicle use	Inspection of the road surfaces for signs of deterioration and maintenance requirements	Maintenance inspection report	Future Generation
Internal Roads	Monthly during construction	Inspection of the road surfaces for signs of deterioration and maintenance requirements	Maintenance inspection report	Future Generation
KNP Access including Link Road	Peak holiday season (June long weekend to October long weekend) and long weekends - Weekly and in addition daily during over-dimension vehicle movements on Link Road. Outside of peak holiday season (October long weekend to June long weekend) – monthly. Project staff will be made aware of the need to report any impacts on the road network.	Inspection of construction affected queuing/congestion and driver conduct (e.g. parking in allocated areas).	Traffic inspection report	Future Generation
Project Roads	As required and after snow and ice weather events.	Inspection of roads for snow and ice risk	Maintenance inspection report	Future Generation

7.3. Traffic Working Group

A traffic working group, in the form of the Traffic and Transport Liaison Group (TTLG) will operate throughout the life of the project. The TTLG will enable high-level notification to all stakeholders of project transport management including but not limited to logistics planning for upcoming changes and revision of existing traffic arrangements. The Traffic and Transport Liaison Group will be held on a regular basis and will include, but not be limited to representatives from:

- Snowy Hydro;
- Future Generation
- TfNSW;
- SMRC and SVC;
- NSW Police;
- NPWS;
- Destination NSW; and
- DPE.

The purpose of the working group will be to provide a platform for parties to:

- share communications tools and resources;

- understand roles and processes;
- ensure effective communication;
- ensure road safety;
- ensure road users are informed of increased traffic / heavy vehicles in the region; \
- ensure road users are informed of roadworks being undertaken; and
- comments and review of this TMP.

7.4. Community Communication

Communication tools which will be used by the project to inform stakeholders and the community of periodic traffic related impacts, including the movement of OSOM vehicles and access impacts within the KNP. Communication tools will include:

- notifications of construction activities;
- notification of out of hours works (as required);
- written correspondence (letters / emails);
- advertisements (as required);
- meetings / doorknocks;
- the project website; and
- enquiries and complaints line.

Further detail of communication management is provided in the Transport Communications Strategy in Appendix E.

7.5. Complaint Management

A complaints management system including a complaints register will be maintained by Snowy Hydro and Future Generation consistent with *AS4269: Complaints Handling,* in order to effectively manage traffic and noise related complaints.

The complaints management system will include a process to manage complaints including receiving, recording, tracking and responding to complaints within a defined timeframe. Details of the complaints and dispute resolution processes are provided in the Main Works EMS.

7.6. Review and Auditing

Audits will be undertaken to assess the effectiveness of traffic, transport and access management measures, compliance with this TMP, the Approval, and other relevant licences and permits as obtained. Specific traffic related auditing is identified in Table 7-2.

Table 7-2: Transport management audits

Road	Site location	Parameters	Type	Frequency
Internal/External	All	Driver fatigue	Audit	6 monthly audit of work rosters and delivery schedules
External	All	OSOM Permits	Audit	6 monthly audit of deliveries under OSOM permit
External	All	Driver conduct and transport route use	Review	6 monthly review of traffic related complaints

As required by the Approval, within 3 months of the following, this TMP and its sub-plans will be reviewed and, if necessary updated:

(a) the submission of an incident report to the Department;

(b) the submission of an independent environmental audit report; and

(c) any modification to the Approval; or

(d) at the direction of the Department.

Updates to this plan will be reviewed and discussed through the TTLG to enable comment from relevant stakeholders.

7.7. Reporting

Future Generation will report to Snowy Hydro and other agencies as required on transport management issues related to the project. Reporting will include:

- Non-compliances;
- Notification of works commencement (including commencement and completion of the required road upgrades);
- Monthly environmental reports;
- Snowy Hydro and / or other agency environmental inspection reports;
- Quarterly vehicle movement summary report uploaded to the project website; and
- Project website updates.

Reporting requirements and responsibilities are documented in Section 8.4 of the EMS.

APPENDIX A – DRIVERS CODE OF CONDUCT

Drivers Code of Conduct

All drivers involved in Main Works activities are to comply with this Driver's Code of Conduct. By reading the attached you acknowledge your obligations and accept your responsibility with regards to the safe and legal operation of vehicles at all times whilst working on this project.

Drivers obligations

1) Drivers MUST at all times:
   - adhere to all of the obligations required by law;
   - be licensed to operate the vehicle;
   - drive at no more than the legal speed limit including those imposed by the project;
   - comply with all construction and road work signs and Vehicle Movement Plans (VMPs);
   - take the necessary and/or prescribed rest breaks so that operation of the vehicle is not affected by fatigue;
   - enter and leave the site with loads covered or contained and enter and leave the site in a forward direction;
   - operate the vehicle free from the effects of drugs and alcohol;
   - where it is reasonable and safe to do so, project drivers are encouraged to reduce speed at key intersections along the Snowy Mountains Highway, including the Rock Forest, Tantangara Road, Link Road, Coppermine Trail, Marica Road, Lobs Hole Ravine Road – North and Miles Franklin Drive intersections; and
   - ensure that vehicles are operated safely and with a high degree of care and attention.
2) Vehicles will be operated in a manner that is suitable to the road and weather conditions including consideration for the likelihood for encountering wildlife.

   In the event of a fauna strike or near miss, on major project access roads, drivers are to:
   - ensure their personal safety;
   - notify their supervisor who MUST in turn notify the Future Generation environmental staff or Site Foreman / Superintendent;
   - adhere to reporting requirements within the Biodiversity Management Plan (and amended Fauna Strike Strategy).

   In the event of a fauna strike on the broader road network, drivers are to:
   - ensure their personal safety;
   - if safe to do so, check on the animal and / or notify Future Generation environmental staff or report to WIRES directly on 1300 094 737 (1300 WIRES); and
   - where a large mammal (e.g. horse or deer) is injured Future Generation environmental staff will notify NPWS officers or WIRES.

3) There shall be no littering either onsite or whilst operating on the roads. Rubbish is to be disposed of in appropriate bins.
4) Drivers are to notify their employer or operator immediately should the status or conditions of their driver's license change in any way.
5) Drivers of vehicles you are required to carry snow chains, are to be competent in the fitting and operating of snow chains in the required period and or if directed to do so.
6) Drivers are to give due consideration to the public at all times. This includes:
    - behaving and driving professionally at all times;
    - limiting the use of truck engine braking on all local roads and the Snowy Mountains Highway where safe to do so;
    - laying up in approved locations only. Stopping on unformed road shoulders is not permitted;
    - not queuing or idling on local roads. Deliveries are to be staggered to allow steady entry into site and to avoid queuing on public roads;
    - adhering to the approved heavy vehicle routes and approved turn movements;
    - covering loads on transit to and from the project site;
    - responding courteously if approached by members of the public and directing them to the community contact number (1800 766 992).

Additional requirements for heavy vehicles or over-dimension vehicles

In addition to the general driver requirements all heavy or over-dimension vehicle drivers involved in the Main Works are to comply with the additional requirements related to heavy vehicles.

1) Drivers MUST at all times:
    - adhere to their Chain of Responsibility requirements;
    - adhere to any permit to travel requirements; and
    - adhere to direction of road authorities and OSOM permit.
2) Drivers are to take regular rest breaks to manage fatigue and breaks of no less than the minimum periods prescribed by the National Heavy Vehicle Regulator. For solo drivers with no Basic Fatigue Management accreditation this means:
    - for the first 11 hours a maximum of 10 hours work time with 60 minutes rest in blocks of 15 continuous minutes;
    - a maximum work time of 12 hours in 24 hours with 7 continuous hours of stationary rest.
3) Convoys and congestion can have a large impact on the local community, motorists and road authority operations and are of particular concern to Snowy Hydro. Drivers are to avoid forming convoys where other road users are limited in vehicle movements by no-break in heavy vehicles. Convoys will be limited during travel and avoid travel during peak periods through Cooma, Tumut and the KNP:
    - deliveries are to be scheduled to occur such that heavy vehicle travel through Cooma, Tumut or the KNP is avoided where practicable during the peak traffic periods (winter weekends and public holidays);

- drivers are required to pull over and allow traffic to pass when safe to do so should excessive queuing occur on single lane roads. Slow vehicle turn out bays and lay up areas will be communicated to drivers during inductions; and
- heavy vehicles will aim to travel staggered from one another when in transit in order to minimise delays to non-construction vehicle movements.

APPENDIX B – HEAVY VEHICLE SALVAGE PLAN

S2-FGJV-LOG-PLN-0011

SNOWY 2.0 MAIN WORKS – HEAVY VEHICLE SALVAGE PLAN

Approval Record			
Document preparation, review and approval		Name in print	Signature
Prepared by	Environmental consultant	V. Gillies	
	Environmental consultant	R. Walker-Edwards	
Reviewed by	Environmental Manager	L. Coetzee	
	Construction Manager	W. Binsted	
Verified by	HSSE Manager	J. Weir	
Approved by	Project Director	A. Betti	

Document Revision Table		
Rev.	Date	Description of modifications / revisions
A	27.05.2020	Revision A for Snowy Hydro review
B	3.06.2020	Updated to reflect Snowy Hydro comments. For consultation
C	10.07.2020	Updated to reflect agency comments. For submission to DPIE

CONTENTS

TABLE OF TABLES

1. INTRODUCTION

This Heavy Vehicle Salvage Plan (HVSP or plan) forms part of the Transport Management Plan and Environmental Management Strategy (EMS) for Snowy 2.0 – Main Works (Main Works).

This HVSP has been prepared to address the requirements of:

- the Infrastructure Approval (SSI 9687) issued for Snowy 2.0 Main Works;
- the Main Works Snowy 2.0 - Environmental Impact Statement; and
- the revised environmental management measures (REMMs) within the Submissions Report.

1.1. Purpose and Objective

The purpose of this plan is to describe how project related heavy vehicle recovery and salvage will be managed during the delivery of Main Works. It outlines the control measures that are to be implemented to minimise the potential impacts on the road network from unexpected accidents or breakdowns.

The key objective of the HVSP is to ensure that impacts related to project heavy vehicle recovery and salvage are minimised and within the scope permitted by the conditions of Approval. To achieve this, Future Generation will:

- ensure appropriate measures are implemented to avoid or minimise the impact of project related heavy vehicle salvage, including safety related impacts; and
- ensure appropriate measures are implemented to comply with all relevant requirements.

Regardless of the allocation of responsibilities within this plan, the responsible party is to be assigned in accordance with the Contract.

2. ENVIRONMENTAL REQUIREMENTS

2.1. Conditions of Approval

The conditions relevant to heavy vehicle salvage are presented in Table 2-1.

Table 2-1: Conditions of approval relevant to heavy vehicle salvage

Condition	Requirement	Where addressed
Schedule 3, condition 46	Prior to the commencement of construction, the Proponent must prepare a Transport Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: … (d) include a detailed: • Heavy Vehicle Salvage Plan; …	This plan

3. HEAVY VEHICLE SALVAGE ASPECTS AND IMPACTS

The aspects and impacts relevant to heavy vehicle salvage are summarised in Table 3-1.

Table 3-1: Project aspects and impacts relevant to heavy vehicle salvage

Environmental Aspects	Environmental Impacts	Environmental Factors
Break downs or accidents involving project related heavy vehicles along the allocated road network	Reduced efficiency of the road network during salvage Safety risks to other road users during salvage Safety risks to project staff, sub contractors and emergency services	Inclement weather Driver fatigue Availability of maintenance and salvage response Lack of alternate routes within the regional and local road networks

3.1. Environmental Risk Assessment

The environmental aspects and impacts for heavy vehicle salvage and recovery are further considered within Appendix A3 of the EMS. This includes a risk assessment process. The risk assessment is based on (1) the likelihood of an impact occurring as a result of the aspect; and (2) the consequences of the impact if the event occurred.

4. HEAVY VEHICLE SALVAGE MANAGEMENT MEASURES

4.1. Heavy Vehicle Breakdown

In the event of the breakdown of a project heavy vehicle without incident / accident within the project site or on the public road network, Future Generation will have access to a 24 hour, on-call workshop service truck for vehicle repair and maintenance.

4.1.1. Future Generation Heavy Vehicles

In the event of a breakdown without incident / accident project heavy vehicle drivers should:

- Ensure personal safety.
- Ensure the vehicle is visible to the public (hazard lights, witches hats). All project heavy vehicles will require working hazard lights and reflective bollards in order to increase vehicle visibility and enable safe transit for other vehicles. Similarly, on-call workshop service trucks will require working hazard lights and sufficient reflective bollards to ensure a safe working environment during repairs.
- Contact Future Generation management to coordinate response.

If during transit road network impacts are observed, drivers will notify Future Generation management.

4.1.2. Future Generation Management

In the event of a breakdown without incident / accident Future Generation management will:

- Ensure the safety of the project heavy vehicle driver.
- Contact the on-call mechanic for response to project vehicles.
- Contact TfNSW, Transport Management Centre (TMC) and NSW Police to notify of the potential for network interruption.
- Coordinate movement of project and sub-contractor vehicles with authorities to minimise additional congestion on the road network (e.g. lay up and or alternate routes).

4.1.3. Subcontractors

Outside of the site boundary, vehicle breakdown will be the responsibility of the relevant subcontractor. Through procurement, Future Generation subcontractors would be required to provide a roadside rescue strategy (or similar) for their vehicles, detailing procedures to be undertaken in the event of requiring response.

In the event of a breakdown without incident / accident a sub-contracted heavy vehicle drivers should:

- Ensure personal safety.
- Contact the allocated on-call mechanic for response.
- Contact TfNSW, TMC and NSW Police to notify of the potential for network interruption.
- Contact Future Generation management.

4.2. Public Road Network Heavy Vehicle Salvage

In the event of an unexpected accident of a project related vehicle on a public road, requiring recovery or salvage, the Police and Road Authority would be notified, and Police control the accident scene for first response and or investigation. Any ultimate salvage operation would need to be coordinated through these agencies as Future Generation are not authorised to immediately commence a salvage or tow operation which would likely involve emergency TCPs for road closures, use of cranes and or other equipment.

In the event of a simple breakdown without incident/accident Future Generation would have access to both an on-call workshop service truck (best case – repair and recommence journey) or on-call HV tow service (worst case – tow back to base) for any project owned heavy vehicles. Future Generation subcontractors would be required to have a plan for the same (on road emergency plan).

Where vehicle recovery is required on site the Construction Manager will prepare a recovery plan with relevant project disciplines where required.

Where a Future Generation project vehicle is broken down or involved in an accident, Future Generation will notify the Police and relevant road authority so that Police and TfNSW can notify other road users and undertake appropriate measures to mitigate the situation. Project driver training will involve the appropriate notification of traffic incidents (project and otherwise) to relevant authorities and project personnel.

4.2.1. Future Generation Heavy Vehicles

If the accident has caused injury to the driver or members of the public, drivers are to contact emergency services immediately.

In the event of an breakdown / accident, without injury where tow or salvage is required, project heavy vehicle drivers should:

- Ensure personal safety.
- Ensure the vehicle is visible to the public (hazard lights, witches hats).
- Contact Future Generation management.

4.2.2. Future Generation Management

In the event of an breakdown / accident, without injury where tow or salvage is required, Future Generation managent will:

- Ensure the safety of the project heavy vehicle driver.
- Contact TfNSW, TMC and NSW Police to notify of the potential for network interruption.
- Coordinate tow or salvage in accordance with Section 4.2 of this plan.

4.2.3. Sub-contractors

If the accident has caused injury to the driver or members of the public, drivers are to contact emergency services immediately.

In the event of an breakdown / accident, without injury where tow or salvage is required, sub-contracted heavy vehicle drivers should:

- Ensure personal safety.
- Ensure the vehicle is visible to the public (hazard lights, witches hats).

- Contact the allocated heavy vehicle tow or salvage contractor for reponse.
- Contact TfNSW, TMC and NSW Police to notify of the potential for network interruption.
- Contact Future Generation management.

4.3. Project Site Heavy Vehicle Salvage

In the event of an unexpected accident or breakdown within the project site, resulting in a heavy vehicle requiring recovery, tow or salvage, the Future Generation Construction Manager will prepare a recovery plan with relevant project disciplines where required.

Project plant and infrastructure will be used to recover and repair the heavy vehicle prior to release. Within the project site, where necessary and in accordance with incident management protocols detailed in the project EMS and Health and Safety Management Plan, NSW Police and other emergency service authorities will be notified.

4.4. Responsibilities

Key contacts, in the event of heavy vehicle breakdown, tow or salvage are provided in Table 4-1.

Table 4-1: Key contacts

Organisation / Agency	Contact Details
Transport for New South Wales	Internal contact to be confirmed
Future Generation	Internal contact to be confirmed
Transport Management Centre	13 17 00
Emergency Services: • Fire and Rescue NSW • NSW Police • NSW Ambulance	000 (24/7)

5. COMPLIANCE MANAGEMENT

5.1. Training

Induction training for all project personnel including sub-contractors, will address elements related to heavy vehicle salvage and recovery including:

- vehicle routes to and from site;
- insight into the local road network, including peak traffic periods and activities;
- driver behaviour and the Drivers Code of Conduct (DCC) for heavy vehicles including permitted parking and lay-up areas; and
- procedures to be implemented in the event of an incident (e.g. traffic accidents or breakdown) and where vehicles require salvage or recovery.

Targeted training in the form of toolbox talks or specific training will also be provided to project personnel with a key role in traffic, transport and access management. Examples of training topics include:

- vehicle movement plans – approved heavy vehicle haulage routes, safe entry and exit and other access restrictions;
- delivery driver's induction which will include safe protocols to be followed whilst travelling on internal and external roads. The briefing will reinforce posted speed limits, advisory speeds and historic high accident points on winding sections of road
- communication of traffic incidents to Future Generation management, road authorities and emergency services;
- driving in snow and during icy conditions; and
- driver fatigue awareness training.

Targeted training in the form of toolbox talks or pre-start briefs will also be provided to project personnel with a key role in traffic, transport and access management. Further details regarding the staff induction and training are outlined in Section 5 of the EMS.

Details of requirements for heavy vehicle salvage and recovery procedures and plans and the training and induction requirements of personnel, will be integrated into procurement documents issued to relvent sub concontractors.

5.2. Inspection and Testing

Inspection of heavy vehicle salvage and recovery management measures will be undertaken regularly during construction with particular attention given to the testing and simulation of heavy vehicle salvage.

This strategy and heavy vehicle salvage and recovery scenarioswill be discussed and communicated at Traffic and Transport Liaison Group (TTLG) meetings. Testing at the TTLG will enable the salvage scenarios to be workshoped by all relevant stakeholders, including NSW Police, NPWS, TfNSW and councils. Where testing identifies any defects, the TTLG will work to rectify the non-conformance as soon as possible.

In addition, effectiveness of the implemented management measures will be monitored in accordance with the EMS Section 8. This includes monitoring through the implementation of a regular program of environmental inspections.

Audits will be undertaken to assess the effectiveness of the management measures, compliance with this HVSP, the conditions of approval, EIS, Submissions Reports and other relevant approvals, licences and guidelines. Audit requirements are detailed in Section 8.3 of the EMS.

5.3. Reporting

Future Generation will report to Snowy Hydro and other agencies as required on heavy vehicle recovery and salvage issues related to the project. This includes notification in relation to traffic incidents which adversely impact on road networks associated with the project as detailed within Section 4.

Where Future Generation management becomes aware of traffic incidents (including breakdowns), the nature of the incident will be communicated to emergency services, the relevant road authorities and Snowy Hydro.

Reporting requirements and responsibilities are documented in Section 8.4 of the EMS, Reporting will include:

- Non-compliances;
- Notification of works commencement (including commencement and completion of the required road upgrades);
- Monthly environmental reports;
- Snowy Hydro and / or other agency environmental inspection reports; and
- Website updates.

5.4. Procurement

Through procurement, Future Generation subcontractors will be required to provide a roadside rescue strategy (or similar) for their vehicles, detailing procedures to be undertaken in the event of requiring response. Sub-contractor roadside rescue strategies should include:

- procedures in the event of a heavy vehicle breakdown;
- procedures in the event of a heavy vehicle accident;
- communication channels between drivers, management, road authorities and Future Generation; and
- organisation of a heavy vehicle tow and breakdown response mechanic.

APPENDIX C – MARINE TRANSPORT MANAGEMENT PLAN

S2-FGJV-LOG-PLN-0012

SNOWY 2.0 MAIN WORKS – MARINE TRANSPORT MANAGEMENT PLAN

Approval Record			
Document preparation, review and approval		Name in print	Signature
Prepared by	Environmental consultant	V. Gillies	
Reviewed by	Environmental Manager	L. Coetzee	
	Construction Manager	W. Binsted	
Verified by	HSE Manager	J. Weir	
Approved by	Project Director	A. Betti	

Document Revision Table		
Rev.	Date	Description of modifications / revisions
A	27.05.2020	Initial draft for Snowy Hydro review
B	3.06.2020	Updated to reflect Snowy Hydro comments. For consultation
C	10.07.2020	Updated to reflect agency comments. For submission to DPIE
D	03.08.2020	Revised to address DPIE comments. For approval.

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ABBREVIATIONS AND DEFINITIONS

Acronym	Definition
AFL	Agreement for Lease
CoA	Conditions of Approval
Construction envelope	The envelope within which the disturbance area of the development may be located
CSSI	Critical State Significant Infrastructure
DAWE	Commonwealth Department of Agriculture Water and the Environment (formerly Department of Energy and Environment)
DEC	Department of Environment and Conservation (now Office of Environment and Heritage)
DECC	Department of Environment and Climate Change (now Office of Environment and Heritage)
Disturbance area	The area within the construction envelope where development may be carried out; the precise location of the disturbance area will be fixed within the construction envelope following final design
DPIE	NSW Department of Planning, Industry and Environment
EIS	*Environmental Impact Statement Exploratory Works for Snowy 2.0*
EMS	Environmental Management Strategy
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
FSL	Reservoir Full Supply Level
Future Generation	Future Generation Joint Venture
Future Generation-PMS	Project Management System
Hydro-electric	Generation of electricity using flowing water (typically from a reservoir held behind a dam or barrage) to drive a turbine which powers a generator
Kosciuszko National Park	A National Park protected under the *National Parks and Wildlife Act 1974* (NSW) and managed by NSW National Parks and Wildlife Service. It covers an area of 673,543 hectares and forms part of Australia's only Alpine area
KNP PoM	Kosciuszko National Park Plan of Management
Main Works EIS	*Snowy 2.0 Main Works - Environmental Impact Statement*
MOL	Reservoir Minimum Operating Level
MTMP	Marine Transport Management Plan
NPWS	NSW National Parks and Wildlife Service
PEP	Project Execution Plan
POEO Act	*Protection of the Environment Operations Act 1997*
Project, the	Snowy 2.0 Main Works
Project area	The project area is the broader region within which Snowy 2.0 will be built and operated, and the extent within which direct impacts from Snowy 2.0 Main Works are anticipated. The project area does not represent a footprint for the construction works, but rather indicates an area that was investigated during environmental assessments.
Project, the	Snowy 2.0 Main Works

REMM	Revised Environmental Management Measures
Submissions Report or RTS	*Main Works Preferred Infrastructure Report and Response to Submissions*
TfNSW	Transport for New South Wales
TMP	Transport Management Plan

1. INTRODUCTION

1.1. Project Description

1.1.1. Overview

Snowy Hydro Limited (Snowy Hydro) is constructing a pumped hydro-electric expansion of the Snowy Mountains Hydro-electric Scheme (Snowy Scheme), called Snowy 2.0. Snowy 2.0 will be built by the delivery of two projects: Exploratory Works (which has commenced) and Snowy 2.0 Main Works.

Snowy 2.0 is a pumped hydro-electric project that will link the existing Tantangara and Talbingo reservoirs through a series of new underground tunnels and a hydro-electric power station. Most of the project's facilities will be built underground, with approximately 27 kilometres of concrete-lined tunnels constructed to link the two reservoirs and a further 20 kilometres of tunnels required to support the facility. Intake and outlet structures will be built at both Tantangara and Talbingo Reservoirs.

Snowy 2.0 will increase the generation capacity of the Snowy Scheme by an additional 2,000 MW, and at full capacity will provide approximately 350,000 MWh 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.

Salini Impregilo, Clough and Lane have formed the Future Generation Joint Venture (Future Generation) and have been engaged to deliver both Stage 2 of Exploratory Works and Snowy 2.0 Main Works.

1.1.2. Construction Activities and Program

The Snowy 2.0 Main Works project includes, but is not limited to, construction of the following:

- pre-construction preparatory activities including dilapidation studies, survey, investigations, access etc;
- exploratory works including:
  - an exploratory tunnel to the site of the underground power station;
  - horizontal and test drilling;
  - a portal construction pad;
  - an accommodation camp;
  - barge access infrastructure;
- an underground pumped hydro-electric power station complex;
- water intake structures at Tantangara and Talbingo reservoirs;
- power waterway tunnels, chambers and shafts;
- access tunnels;
- new and upgraded roads to allow ongoing access and maintenance;
- power, water and communication infrastructure, including:
  - a cable yard to facilitate connection between the NEM electricity transmission network and Snowy 2.0;

- permanent auxiliary power connection;
- permanent communication cables;
- permanent water supply to the underground power station; and

- post-construction revegetation and rehabilitation.

The Snowy 2.0 Main Works construction program is summarised in Figure 1-1.

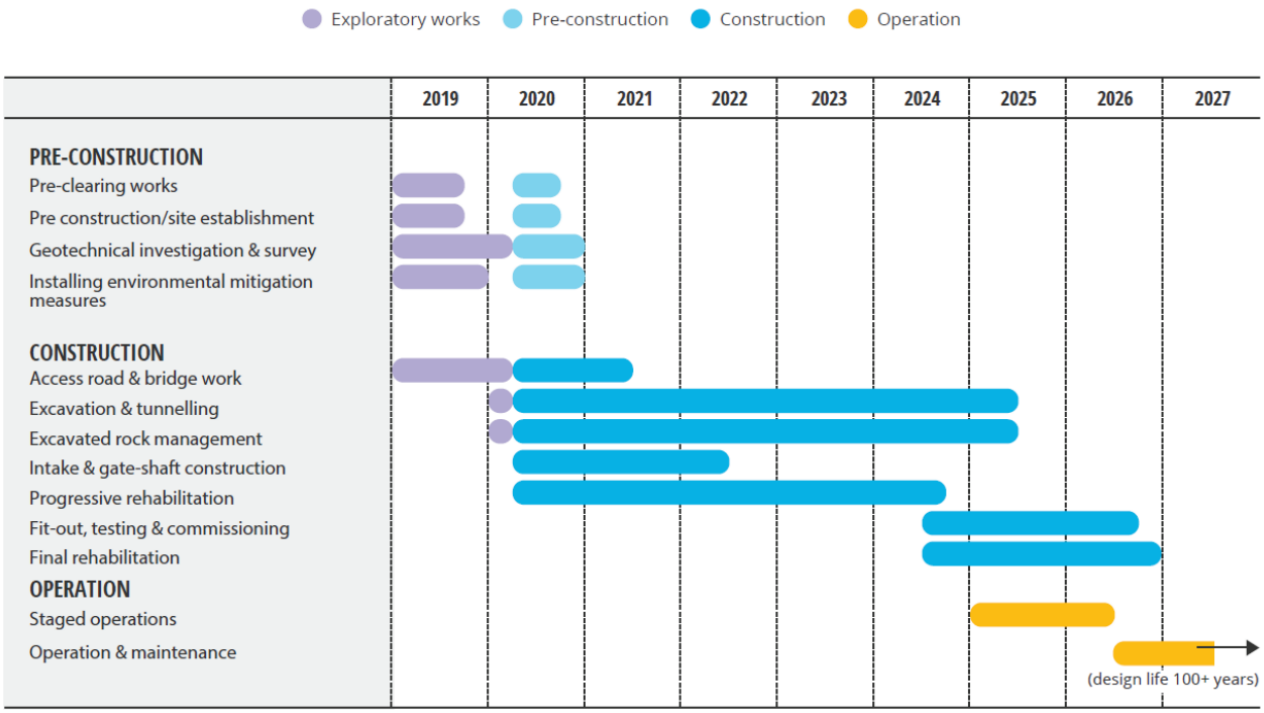

Figure 1-1: Timing of Snowy 2.0 Main Works

Snowy 2.0 Main Works includes various work areas as shown in Figure 1-2. These work areas include:

- Lobs Hole Ravine Road;
- Lobs Hole;
- Marica;
- Plateau;
- Rock Forest;
- Talbingo; and
- Tantangara.

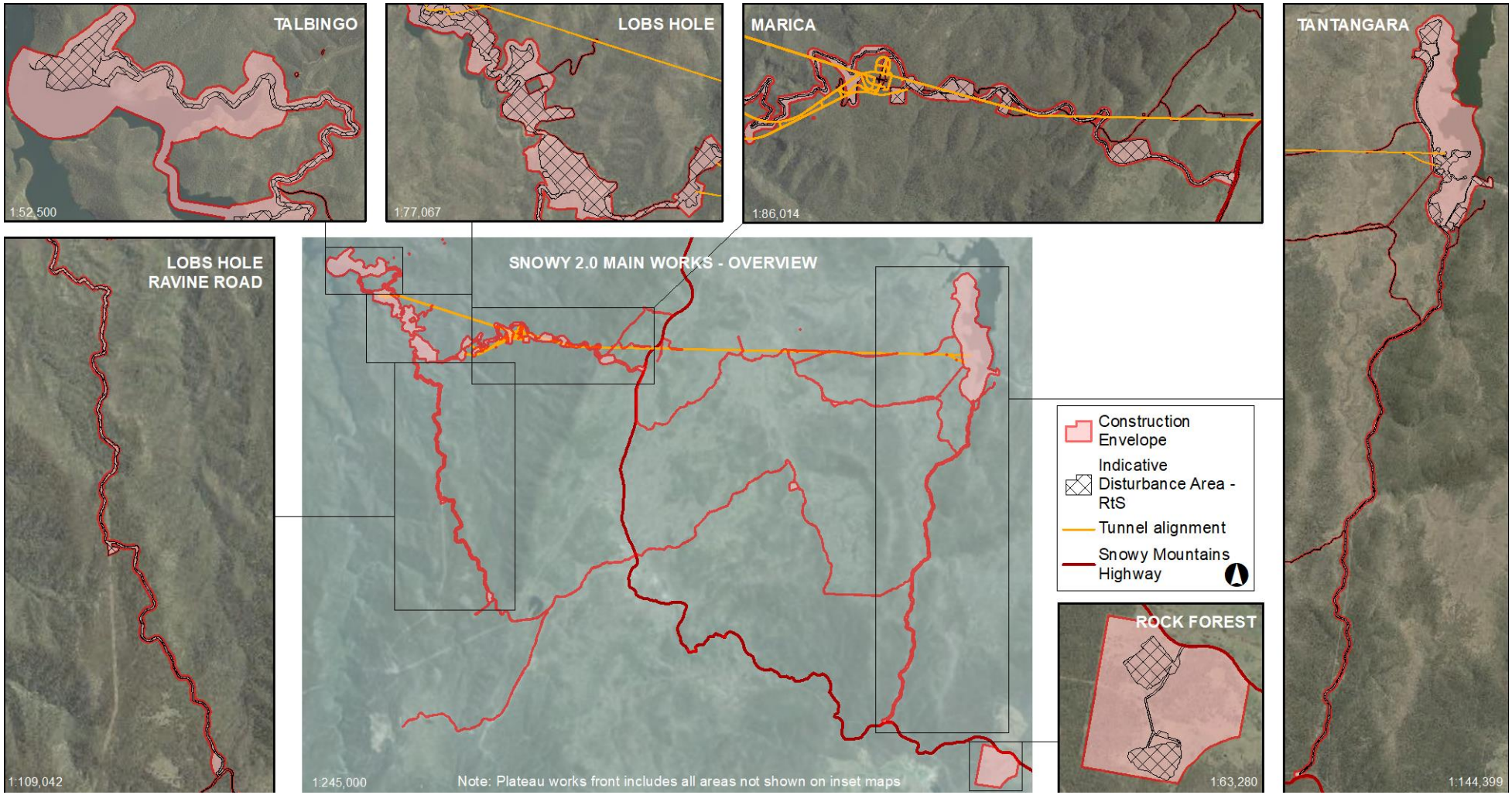

Figure 1-2: Snowy 2.0 Main Works work areas

1.2. Project Approval

On 7 March 2018 the NSW Minister for Planning declared Snowy 2.0 to be State significant infrastructure (SSI) and critical State significant infrastructure (CSSI) under the Environmental Planning and Assessment Act 1979 (EP&A Act) on the basis that it is critical to the State for environmental, economic or social reasons.

An environmental impact statement for the first stage of Snowy 2.0, the *Environmental Impact Statement Exploratory Works for Snowy 2.0* (Exploratory Work EIS) was submitted to the then Department of Planning and Environment in July 2018 and publicly exhibited between 23 July 2018 and 20 August 2018. Approval for the first stage of Snowy 2.0 was granted for Exploratory Works by the Minister for Planning on 7 February 2019. The purpose of Exploratory Works is primarily to gain a greater understanding of the underground geological conditions at the new power station. In accordance with section 5.25 of the EP&A Act, the Infrastructure Approval for Exploratory Works was modified on 2 December 2019 and on 27 March 2020.

An environmental impact statement for the second stage of Snowy 2.0, the *Snowy 2.0 Main Works - Environmental Impact Statement* (Main Work EIS) was submitted to Department of Planning, Industry and Environment (DPIE or the Department) in September 2019 and was publicly exhibited between 26 September 2019 and 6 November 2019. A total of 222 submissions were received during the public exhibition period, including 10 from government agencies, 30 from special interest groups and 182 from the general public. In February 2020, the response to submissions (RTS or Submissions Report) was issued to DPIE to address the public and agency submissions (*Snowy 2.0 Main Works - Preferred Infrastructure Report and Response to Submissions, February 2020*).

Following consideration of the Main Works EIS and RTS, approval was granted by the Minister for Planning and Public Spaces on 20 May 2020, through issue of Infrastructure Approval SSI 9687.

The Infrastructure Approval contains 86 conditions of Approval. The Snowy 2.0 Project will be carried out in accordance with these conditions of Approval. Further to the Infrastructure Approval, the Main Works RTS includes revised environmental management measures (REMMs) within Appendix C which will also be implemented for the project.

In addition to the State approval, a referral (EPBC 2018/8322) was prepared and lodged with the Commonwealth Department of Agriculture, Water and the Environment (DAWE) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Commonwealth Minister's delegate determined on 5 December 2018 that Snowy 2.0 Main Works is a "controlled action" under the EPBC Act. The EPBC Act referral decision determined that the project will be assessed by accredited assessment under Part 5, Division 5.2 of the NSW *Environmental Planning and Assessment Act 1979.*

1.3. Disturbance area

A key refinement following public exhibition of the Main Works EIS was a change to and clarification of disturbance area terminology.

The revised disturbance area terminology as defined within the Infrastructure Approval and Submissions Report is detailed within Table 1-1. An example of the terminology is provided in Figure 1-3.

Table 1-1: Disturbance area terminology

Term	Definition	Reasoning
Project area	The project area is the broader region within which Snowy 2.0 will be built and operated, and the extent within which direct impacts from Snowy 2.0 Main Works are anticipated.	The project area does not represent a footprint for the construction works, but rather indicates an area that was

Term	Definition	Reasoning
		investigated during environmental assessments.
Construction envelope	The envelope within which the disturbance area of the development may be located	As detailed design continues, final siting of the infrastructure (i.e. the disturbance area) can move within the assessed construction envelope subject to recommended environmental management measures and provided it does not exceed the limits defined by the construction envelope.
Disturbance area	The area within the construction envelope where development may be carried out; the precise location of the disturbance area will be fixed within the construction envelope following final design.	

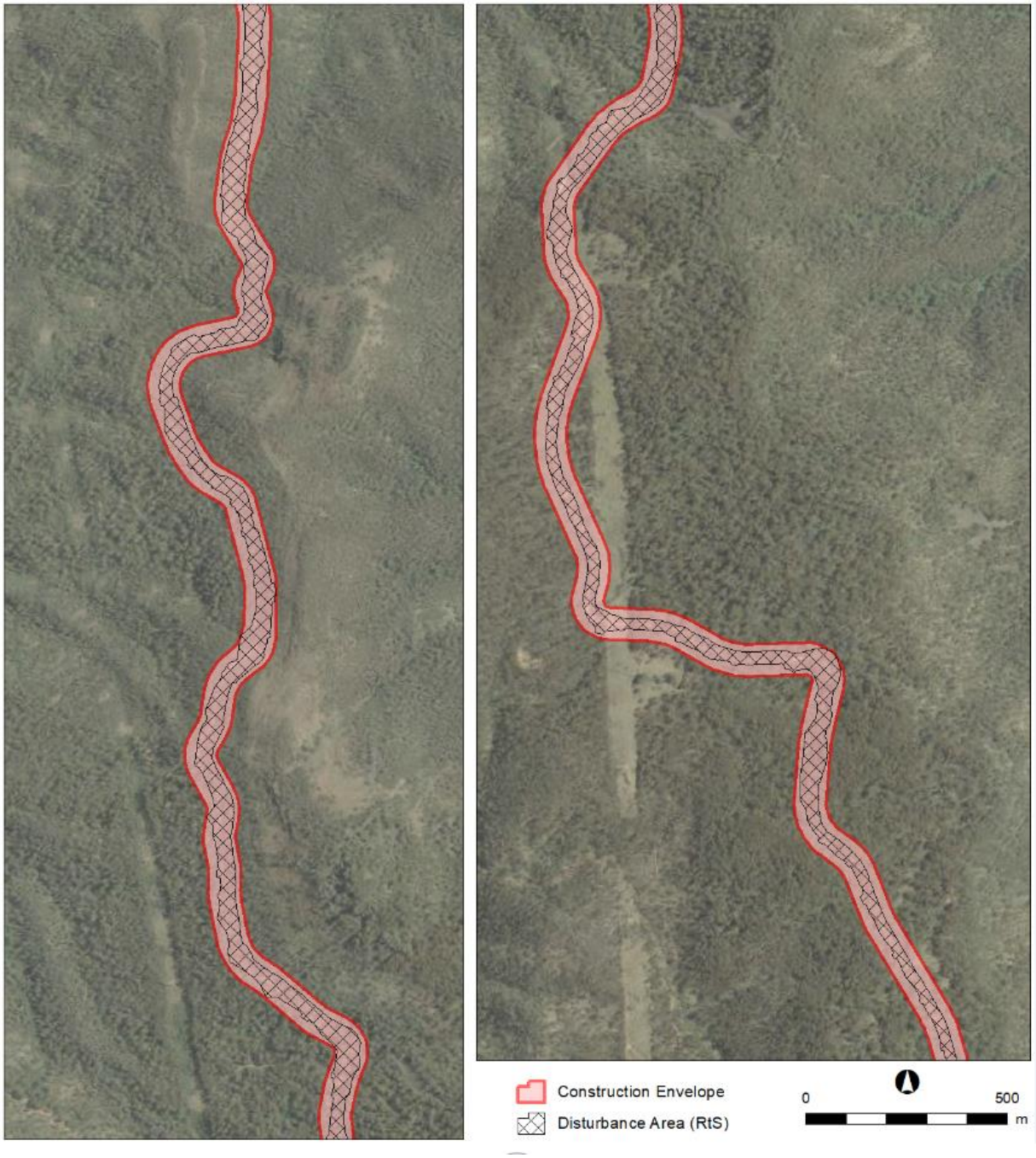

Figure 1-3: Disturbance area and construction envelope

1.4. Environmental Management System

The overall environmental management system for the project is described in the Environmental Management Strategy (EMS). The EMS forms part of the Project Management System (Future Generation-PMS) and will include any requirements specified in the contract documents, where appropriate. All Future Generation-PMS procedures will support, interface or directly relate to the development and execution of the plan.

This Marine Transport Management Plan (MTMP or plan) forms part of Future Generation's Transport Management Plan (TMP). This plan aims to transfer the relevant requirements of the Approval documents into a management plan which can be practically applied on the project site and managed by the Future Generation logistics department.

1.5. Purpose and objectives of this plan

The purpose of this Marine Transport Management Plan (MTMP) is to address the construction environmental management requirements detailed in:

- the Infrastructure Approval (SSI 9687) (Approval) issued for Snowy 2.0 Main Works on 20 May 2020;
- the Infrastructure Approval (SSI 9208) (Approval) issued for Snowy 2.0 Exploratory Works on 07 February 2019;
- the *Main Works Snowy 2.0 - Environmental Impact Statement*;
- the revised environmental management measures (REMMs) within the Main Works RTS;
- the *Exploratory Works for Snowy 2.0 - Environmental Impact Statement*;
- the *Exploratory Works for Snowy 2.0 – Modification 1 Assessment Report*;
- the *Exploratory Works for Snowy 2.0 – Modification 2 Assessment Report*; and
- the REMMs within the Exploratory Works RTS.

The key objective of this plan is to detail management measures and inform site procedures for implementation so that potential impacts from marine transport operations are minimised and within the scope permitted by the Approval. To achieve this, Snowy Hydro and Future Generation will:

- ensure appropriate measures are implemented to address relevant conditions of approval and REMMs listed within the Submissions Report;
- ensure reasonable and feasible measures are implemented during construction to avoid or minimise marine transport impacts on Talbingo and Tantangara Reservoirs associated with the construction of the project;
- ensure appropriate measures are implemented during construction to avoid or minimise marine transport related impacts including safety related impacts;
- ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in this plan; and
- establish a marine transport monitoring program to assess the effectiveness of management measures and promote adherence with the code of conduct.

1.6. Consultation

In accordance with schedule 3, condition 46 of the Approval, the MTMP, with the TMP, is to be prepared in consultation with;

- Transport for NSW (TfNSW);
- National Parks and Wildlife Service (NPWS);
- Snowy Monaro Regional Council;
- Snowy Valleys Council; and
- NSW Police.

The primary platform for consultation on the MTMP will be through the Traffic and Transport Liaison Group (TTLG) as described in Section 7.3 of the TMP. The Traffic and Transport Liaison Group will be held on a regular basis and will include all stakeholders listed above.

Agency briefings for the TMP were held on 19 and 28 May 2020 with SVC, SMRC, NPWS, TFNSW, National Heavy Vehicle Regulator (NHVR) and NSW Police.

On 03 June 2020, the plan was also issued to relevant stakeholders for review and comment.

Comments from the consultation process have been incorporated into this plan where appropriate and are summarised in Table 1-2.

Table 1-2: Consultation undertaken for this plan

Date	Consultation	Outcomes
19 March 2020	Traffic Transport Liaison Group Meeting	Presentation on the content of the Main Works Transport Management Plan prior to issue of the Main Works approval.
28 May 2020	Traffic Transport Liaison Group Meeting	Presentation on the content of the Main Works Transport Management Plan following issue of Main Works approval and prior to agency consultation.
26 June 2020	NPWS Snowy 2.0 Team - Southern Ranges Branch	Comments on various items in the Main Works Transport Management Plan and its appendices. Management plans were revised following receipt of NPWS comments.
26 June 2020	TfNSW Maritime Division	Comments on various items in the Main Works Marine Transport Management Plan. Management plans were revised following receipt of TfNSW Maritime Division comments.
30 June 2020	NSW Police Force – Southern Cluster	The NSW Police confirmed on 30 June 2020 that they have no comments on the TMP or its Sub-plans.
01 July 20202	Snowy Valleys Council	A representative from Snowy Valleys Council confirmed on 01 July 2020 that they have no comments on the TMP or its Sub-plans.
06 July 2020	Snowy Monaro Regional Council	A representative from Snowy Monaro Regional Council confirmed on 06 July 2020 that they have no comments on the TMP or its Sub-plans.
07 July 2020	TfNSW	Comments on various items in the Main Works Transport Management Plan and its appendices. Management plans were revised following receipt of TfNSW comments.
30 July 2020	DPIE	Comments on various items in the Main Works Transport Management Plan and its appendices. Management plans were revised following receipt of DPIE comments and reissued.

2. ENVIRONMENTAL REQUIREMENTS

2.1. Legislation

Legislation relevant to marine transport includes:

- *Marine Safety Act 2013*;
- *Marine Safety Regulation 2016*; and
- *Commonwealth Marine Safety (Domestic Commercial Vessel) National Law 2012*.

2.2. Conditions of Approval

Table 2-1 details the conditions from the Infrastructure Approval which are relevant to marine transport management.

Table 2-1: Conditions of approval relevant to marine transport

Condition	Requirement	Where addressed
Recreation Management Requirements		
Schedule 3, condition 38	The Proponent must: … (b) minimise the impacts of the development on users of the Kosciuszko National Park both within and in the vicinity of the construction envelope;	Transport Management Plan Recreation Management Plan (to be prepared within 12 months of construction commencement) Section 5 Section 5.2
	(c) minimise any disruption to the use of the Talbingo Boat Ramp;	Section 5 Recreation Management Plan
	(e) control the recreational activities of the workers staying in the accommodation camp to minimise the impacts of the development outside the approved disturbance area;	Section 5 Recreation Management Plan
	(f) progressively reopen those areas of the Kosciuszko National Park that are closed to the public during construction as soon as possible following the completion of construction;	Section 5 Section 5.2 Access Network Plan
	(g) keep the community informed about the temporary closure of areas or any recreational facilities within the Kosciuszko National Park.	Section 2.4 Section 5
Vehicle Restrictions		
Schedule 3, condition 44	The proponent must: … (c) restrict vessel speeds on Tantangara Reservoir and Talbingo Reservoir to current TfNSW speed limits.	Section 5 NAV05
Transport Management Requirements		
Schedule 3, condition 45	The proponent must: … (b) maintain all roads and water-related infrastructure on site in a safe and serviceable condition;	Section 5 NAV10

Condition	Requirement	Where addressed
	(k) minimise the development-related traffic safety impacts of the development for the public: • using the Talbingo Reservoir and Tantangara Reservoir and any water-related infrastructure, such as the Talbingo Boat Ramp; • using Tantangara Road, particularly during the construction of the development;	Section 5 Section 5.2 Transport Management Plan
	(l) ensure any vessel or structure occupying waters must display appropriate shapes and lights in accordance with the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012;*	Section 5 NAV06
Schedule 3, condition 46	Prior to the commencement of construction, the Proponent must prepare a Transport Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:	Transport Management Plan
	(a) be prepared in consultation with the TfNSW, NPWS, Snowy Monaro Regional Council, Snowy Valleys Council and NSW Police;	Transport Management Plan Section 1.6 of this plan
	(b) describe the measures that would be implemented to comply with the transport mitigation requirements in condition 45 above;	Transport Management Plan
	(c) include a detailed: • Heavy Vehicle Salvage Plan; • Driver's Code of Conduct; • Marine Transport Management Plan; • Snow & Ice Traffic Management Plan; • Communication Strategy to keep the public informed about the transport impacts of the development;	 TMP Appendix B TMP Appendix A This Plan TMP Appendix D TMP Appendix E
	(d) include a program to monitor and public report on the effectiveness of these measures.	Section 6.1 Section 6.5
Schedule 3, condition 49	The Proponent must implement the approved Transport Management Plan for the development.	Transport Management Plan

2.3. Revised Environmental Management Measures

Environmental safeguards and management measures are included in the Main Works EIS in Appendix G. During preparation of the Submissions Report, REMMs were developed and included in Appendix C.

The revised environmental management measures relevant to this plan are listed in Table 2-2 below. If additional measures are cross-referenced from another section of the Main Works EIS or Submissions Report, these measures are also included. To evaluate the continuity or redundancy of Exploratory Works REMMs, these are provided in Table 2-3.

In accordance with CSSI 9687, schedule 2, condition 3, if there is any inconsistency between the Exploratory Works and Main Works documents, the most recent document will prevail to the extent of the inconsistency (i.e. Main Works).

Table 2-2: Main Works (CSSI 9687) revised environmental management measures relevant to marine transport

Impact	Reference	Revised environmental management measure	Where addressed
Marine transport	NAV01	The following measures will be implemented to manage interactions between marine transport and public boating activities during construction:	This Plan
		• public exclusion zones will be established around all in-reservoir construction areas;	Section 5 NAV01
		• an aquatic licence will be obtained from RMS for in-reservoir construction activities and exclusion zones in accordance with Section 12 and 18 of the Marine Safety Act 1998;	Section 5 NAV01
		• all work vessels will be limited to 4 knots;	Superseded by Main Works. Refer to schedule 3, condition 44 (c)
		• all vessels and barges will be fitted with Automatic Identification System and comply with all licensing requirements of Australian Maritime Safety Authority and Roads and Maritime Services including specific requirements for Alpine Waters;	Section 5 NAV04
		• any fixed obstruction such as marker buoys and moorings will comply with Roads and Maritime Services requirements and are adequately lit at night; and	Section 5 NAV08
		• notification signs advising of the works and public closures at: – the intersection of Snowy Mountains Highway and Tantangara Road; – the intersection of Snowy Mountains Highway and Long Plain Road; and Tantangara Boat Ramp.	Section 5 NAV02 and 5.2

Table 2-3: Exploratory Works (CSSI 9208) revised environmental management measures

Impact	Reference	Revised environmental management measure	Where addressed
Restricted access to Talbingo Reservoir for recreational users	SEC06	Access to Talbingo spillway and boat ramp will be closed to the public for the period of the Exploratory Works.	This REMM is no longer applicable. Access to Talbingo Reservoir will be maintained and conflict with construction marine traffic and works managed in accordance with Section 5 of this plan.

Impact	Reference	Revised environmental management measure	Where addressed
Access	PUS05	Consideration of maritime traffic management to minimise conflict between Reservoir users and barge activities during Exploratory Works through the development and implementation of a maritime traffic management plan. Mitigation measures to be implemented include: • establishing exclusion zones around barge access infrastructure and at other locations where navigation channel widths are constrained; • undertaking community notification prior to maritime operations and barging. Posting information material at the boat ramps including the location of exclusion zones and • informing on legally enforceable speed restrictions around construction plant and equipment in accordance with the Marine Safety Act 2013; and • ensuring construction plant and equipment are fitted with Automatic Identification Systems	This plan Section 5 NAV01 Section 5 NAV02, Section 5.2 Section 5 NAV05 Section 5 NAV04

2.4. Licences and Permit

Environment Protection Licence (EPL) 21266 has been issued for the project for the scheduled activity of extractive activities for the Exploratory Works phase. The premises boundary for the Exploratory Works EPL has been expanded to encompass both Exploratory Works and Main Works activities and the governing schedule activity for Main Works will be Electricity Generation.

An Agreement for Lease (AfL) and Works Access Licence will be established with NPWS in order to carry out the relevant Snowy 2.0 Main Works.

As required, an aquatic licence will be obtained from TfNSW for in-reservoir construction activities and exclusion zones in accordance with Section 12 and 18 of the *Marine Safety Act 1998*. Appropriate notifications of exclusive use areas and waterway restrictions will be made including statutory Marine Notices published in the NSW Government Gazette.

2.5. Guidelines and Standards

The guidelines also considered in the completion of this assessment include:

- Safety Management System (SMS) Guidelines – Commercial Vessels (RMS); and
- Guidelines for a Safety Management System (Australian Maritime Safety Authority, 2018).

3. EXISTING ENVIRONMENT

3.1. Talbingo Reservoir and Recreational Facilities

Talbingo Reservoir is approximately 5km south of the township of Talbingo. It is used for water skiing, canoeing, swimming and paddle boarding. It is also a popular fishing spot with Brown Trout, Rainbow Trout, Golden Perch, Macquarie Perch, Redfin and Trout Cod present, however surveys undertaken for the project indicate that Redfin is the predominant species.

Public access to the reservoir for boats is from a concrete boat ramp on the eastern side of the dam wall. The reservoir is also accessible from points within KNP including Lobs Hole Ravine campground and O'Hares Camping and Rest Area. Access to Lobs Hole Ravine Campground has been closed as part of the Snowy Hydro project. Picnic tables and toilets are provided at both the boat ramp and the spillway.

Vessel counts undertaken between March and April 2018, reviewed as part of the Excavated Rock Placement - Navigation Impact Assessment for Talbingo and Tantangara Reservoirs (RHDHV, 2019) indicate a peak daily demand of 75 vessels per day using the boat ramp and a typical daily demand of less than 10 vessels.

Figure 3-1: Talbingo boat ramp

3.2. Tantangara Reservoir and Recreational Facilities

The southern end of Tantangara Reservoir is accessible to the public via Tantangara Road while the northern end is accessible via Port Phillip Trail. Both Tantangara Road and Port Phillip Trail are unsealed. The nearest town is Adaminaby, approximately 35km (via road) to the south. As access to Tantangara Reservoir is relatively limited, the site is not used as widely for recreational use as other Reservoirs in the area. Activities at the site include camping, boating and fishing. Trout fishing is the primary recreational purpose at this reservoir.

There is one formal unformed boat launching area at the southern end of the reservoir, accessible from Tantangara Road. Vessels are also launched at a number of unmarked and informal locations around the foreshore (particularly along the western foreshore).

Based on the available recreational user counts, peak recreational boating use of the reservoir is assumed to be 40 vessels per day. However, on a typical weekday in summer, recreational boating use would be generally less than 10 vessels per day (RHDHV, 2019).

4. MARINE TRANSPORT ASPECTS AND IMPACTS

An environmental aspect is an element of an organisation's activities, products, or services that has, or may have, an impact on the environment (ISO 14001 Environmental Management Systems). The relationship of aspects and impacts is one of cause and effect.

Key aspects of the project that could result in marine transport impacts are identified in Table 4-1. The extent of these impacts will depend on the nature, extent and magnitude of construction activities and their interaction with the natural environment (Column 2). This is further exacerbated by environmental factors (Column 3).

Key aspects of the project that may result in impacts to and from marine transport include:

- construction of a new barge launch area in Tantangara Reservoir;
- use of the existing unformed boat ramp at Tantangara Reservoir for initial mobilisation of barges prior to construction of the new launch area;
- mobilisation of marine vessels at construction site barge ramps within the Talbingo and Tantangara Reservoir;
- placement and use of vessel moorings;
- loading and unloading of marine vessels at barge ramps;
- ongoing geotechnical investigation in Talbingo and Tantangara Reservoirs including additional survey for subaqueous blasting as required;
- excavated rock management including subaqueous placement within Talbingo Reservoir;
- excavated rock management at Tantangara Reservoir between minimum operating level (MOL) and full supply level (FSL); and
- excavation of the intake channels, including dredging, and removal of the rock plugs at both Tantangara and Talbingo Reservoirs. The proposed method of excavation will include some subaqueous drill and blasting (D&B).

Table 4-1: Project aspects and impacts relevant to marine transport management

Environmental Aspects (Construction activities that may impact marine transport)	**Environmental Impacts**	**Environmental Factors** (Conditions)
Construction of new barge launch facility at Tantangara Reservoir Installation and use of vessel moorings. Operation of marine vessels on Talbingo and Tantangara Reservoir that directly interface with recreational vessels and the public.	Short-term limits/restrictions on public access to existing boat ramps. Reduced access for recreational vessels and public on Talbingo and Tantangara Reservoirs. Reduced access for recreational vessels in work exclusion / restricted access areas. Includes access to subaqueous rock disposal areas and intake and gate structures.	Existing maritime traffic numbers.

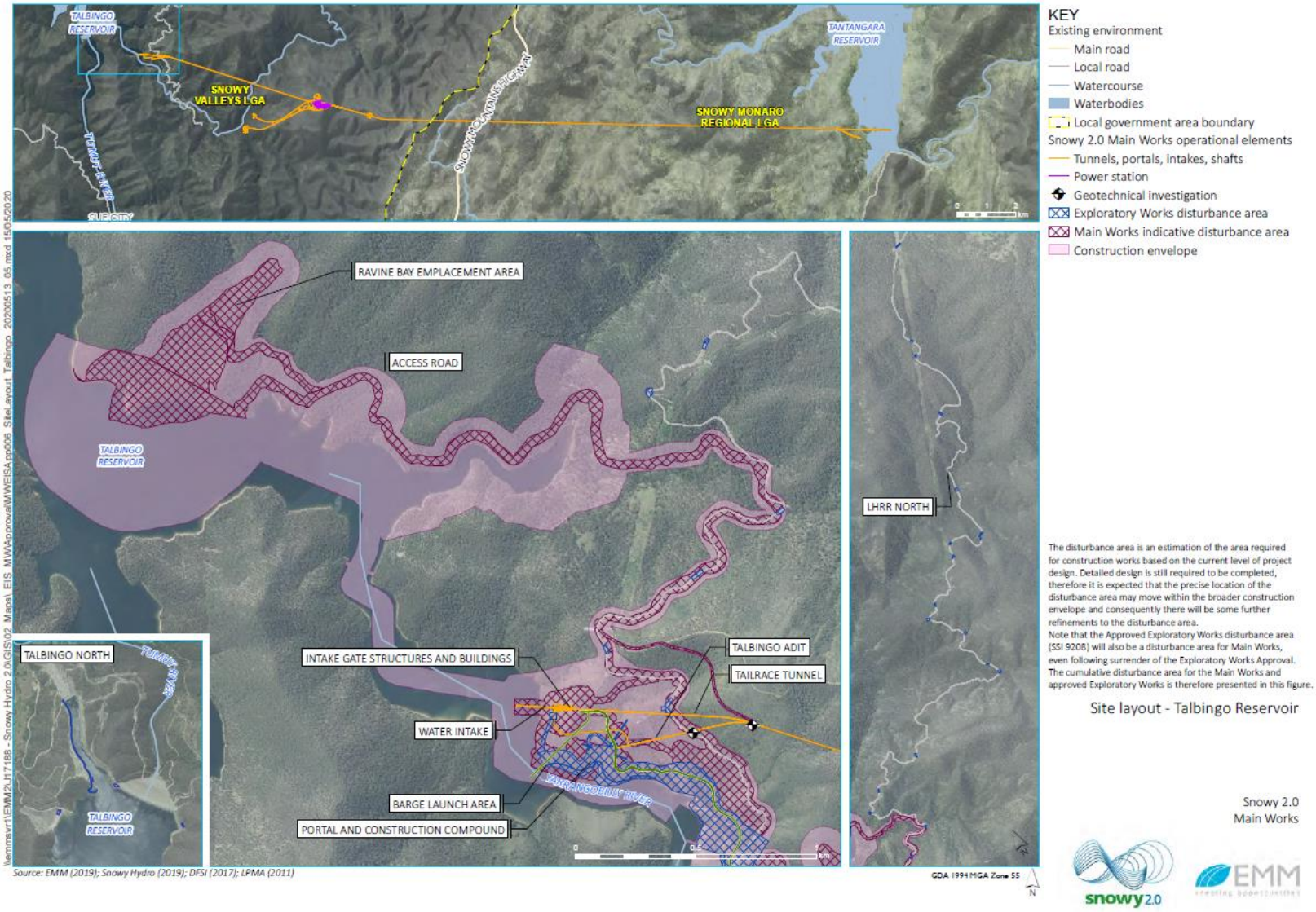

Figure 4-1: Talbingo Reservoir construction elements requiring marine operations

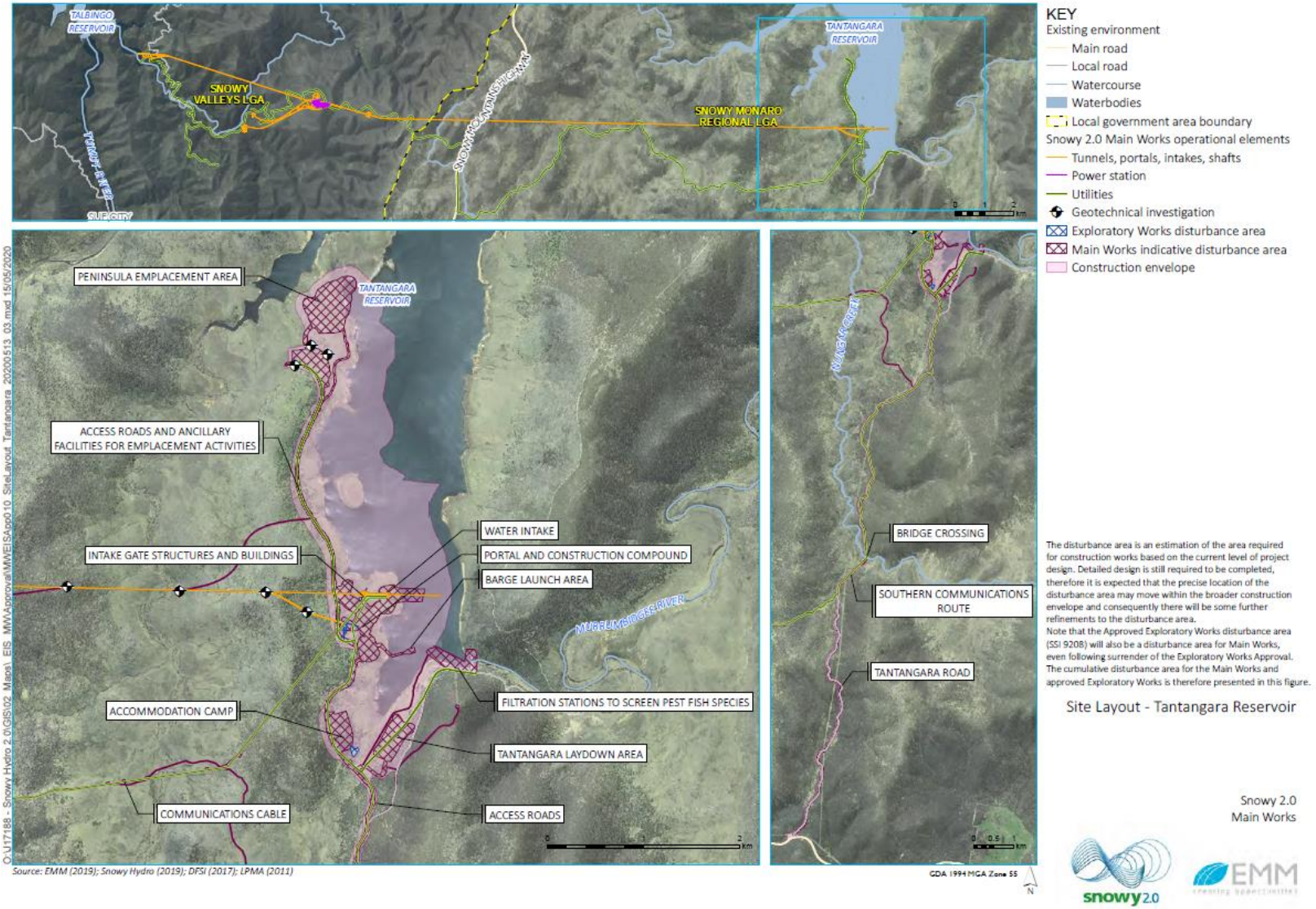

Figure 4-2: Tantangara Reservoir construction elements requiring marine operations

4.1. Marine Construction Traffic Volumes

Construction maritime traffic on both reservoirs has the potential to impact recreation vessels and activities and will be made up of a combination of the following:

- construction vessels being mobilised at existing boat ramp locations;
- vessel mooring within the reservoir;
- construction barges with mooring systems operating within the reservoir;
- construction barges assisting with management of placement of excavated material by subaqueous means;
- construction barges with mounted rigs for subaqueous drill and blast operations; and
- associated work boats, crew transport boats and tugs assisting with the above work as well as other work including survey and monitoring.

4.1.1. Talbingo

The main construction activities requiring marine transport at the Talbingo Reservoir will be:

- rock emplacement at Ravine Bay; and
- removal of the rock plug and construction of the water intake structure.

The rock emplacement at Ravine Bay will take place below FSL using land-based operations. Further details on this method will be included in the Spoil Management Plan when detailed design is completed. Support from marine vessels is anticipated for activities such as silt curtain installation.

Removal of the rock plug and construction of the water intake structure will require marine transport equipment for the sub aqueous construction component. This will include sub-aqueous drill and blasting to remove the rock plug and dredging to construct the water intake structure.

The methodology for the drill and blast activities will be further detailed in the Blast Management Plan. The disposal of blasted material will be included in the Spoil Management Plan on finalisation of detailed design.

Work on the intake structure and removal of the rock plug will take approximately 1.5 years to complete and is currently scheduled to commence in 2023.

Marine based equipment will be required for these works and will include barges and barge mounted equipment, tugs and other support work boats. These vessels will be launched and generally operated within the disturbance area shown in Figure 4-1 and Figure 4-2. As the work area is focused within Ravine Bay and the Yarrangobilly arm of Talbingo Reservoir the majority of Talbingo Reservoir will be unimpacted by works and will remain available to the public for normal recreational use.

Some vessel movement outside of this area may also be required for monitoring and associated investigation activities (e.g. water quality, biodiversity, seismic survey). Generally, this work will use one work boat. Marine survey work, to confirm the intake channel profile has been achieved, may require approximately three work boats.

Vessel movement between the Middle Bay barge ramp and the Talbingo Dam boat ramp may continue during the construction period. Routine use of the Talbingo Dam boat ramp is not anticipated however periodic use may be required for safety or logistics requirements. Use of the Talbingo Dam boat ramp may also be needed for any maintenance of the communications cable.

4.1.2. Tantangara

The main construction activities requiring marine transport activities at the Tantangara Reservoir will be:

- construction of a new barge launching area;
- rock emplacement works; and
- removal of the rock plug and construction of the water intake structure.

During construction of the new barge launching area marine construction vessels will use the existing public boat ramp near the Tantangara spillway for initial access to the reservoir.

Construction of the new barge launch area will require minor dredging and installation of a concrete ramp. Marine vessels would include a barge, tugs and support boats. Public access to the existing boat ramp will be temporarily closed during this work. Once construction of the new barge launch area is complete public access to the reservoir will be reinstated.

The rock emplacement area at Tantangara Reservoir is located between MOL and FSL and construction will therefore be done as 'dry' land-based operations, however marine support may be required. Further details on this method will be included in the Spoil Management Plan when detailed design is completed.

Removal of the rock plug and construction of the water intake structure will require marine transport equipment for the sub aqueous construction component. This will include sub-aqueous drill and blasting to remove the rock plug and dredging to construct the water intake structure.

The methodology for the drill and blast activities will be further detailed in the Blast Management Plan. The disposal of blasted material will be included in the Spoil Management Plan on finalisation of detailed design.

A filtration / screening unit will be installed at the Tantangara Dam spillway to screen for pest fish species. The design for the filtration station has not yet been finalised however this element will be constructed prior to operation of the project.

Marine based equipment will be required for these works and will include barges and barge mounted equipment, tugs and other support work boats. These vessels will be launched and generally operated within the disturbance area shown in Figure 4-2 above.

Some vessel movement outside of this area may also be required for monitoring and associated investigation activities (e.g. water quality, biodiversity, seismic survey). Generally, this work will use one work boat. Marine survey work, to confirm the intake channel profile has been achieved, may require approximately 3 work boats.

4.1.3. Hours of Operations

Marine construction operations may occur up to 24 hours per day, 7 days per week.

4.2. Environmental Risk Assessment

The environmental aspects and impacts for marine transport are further considered within Appendix A3 of the EMS. This includes a risk assessment process. The risk assessment is based on (1) the likelihood of an impact occurring as a result of the aspect; and (2) the consequences of the impact if the event occurred. These risks as well as any regulatory requirement form the basis for the mitigation measures committed to in this plan, Section 5.

5. MARINE TRANSPORT AND ACCESS MANAGEMENT MEASURES

Maritime transport impacts during Snowy 2.0 Main Works will be managed through the development and implementation of specific marine traffic management plans and up to date communication of marine traffic impacts to the community. Snowy Hydro and Future Generation aim to minimise adverse impacts during construction. Specific safeguards and management measures to address potential marine transport impacts of the project are identified in Table 5-1.

Regardless of the allocation of responsibilities within this plan, the responsible party is to be assigned in accordance with the Contract.

Table 5-1: Marine transport management measures

ID	Measure / Requirement	When to implement	Responsibility	Source document
General				
NAV01	The project shall establish 'Exclusion Zones' around marine construction works as declared by NSW Maritime to ensure the safety of vessel traffic and to establish safe working zone/s. An appropriate licence from TfNSW will be sought for the exclusion zones. Exclusion zones will change with activities being undertaken. Further detail provided in Section 5.2.1.	Construction	Future Generation	REMM NAV01 Schedule 3 Condition 45(k)
NAV02	The community will be notified of the marine construction works and any potential effects to recreation vessels. This will include public notices and signage at boat ramps and potential launch sites around Talbingo Reservoir (Talbingo Boat Ramp and O'Hares Boat Ramp) and Tantangara Reservoir (at Tantangara Boat Ramp and on access roads at the intersections of the Snowy Mountains Highway with Tantangara Road & Long Plain Road.	Construction	Future Generation	REMM NAV01 Schedule 3 Condition 45(k)
NAV03	Specific Maritime Traffic Control Plans (MTCPs) will be developed as part of the construction planning process for all construction activities that affect maritime traffic conditions and the safety of waterway users on the Talbingo Reservoir.	Construction	Future Generation	Good practice
NAV04	All work vessels will be fitted with an Automatic Identification System and comply with all licensing requirements of AMSA and RMS under the acts and regulations including specific requirements for Alpine Waters.	Construction	Future Generation	Good practice REMM NAV01
NAV05	All work vessels will be limited to existing posted (TfNSW speed) limit vessel speeds on Tantangara Reservoir and Talbingo Reservoir.	Construction	Future Generation	Schedule 3 Condition 44(c)
NAV06	Vessel and structures must display appropriate shapes and lights in accordance with the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012.*	Construction	Future Generation	Schedule 3 Condition 45(l) REMM NAV01
NAV07	All vessel will display an all-round white whilst at anchor light between the hours of sunset and sunrise	Construction	Future Generation	Schedule 3 Condition 45(l) REMM NAV01
NAV08	All mooring and anchor buoys will be lite in accordance with the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012.*	Construction	Future Generation	Schedule 3 Condition 45(l) REMM NAV01
NAV09	All operators and vessels used must comply with the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*, and that no agent shall be exempted from the provisions of the *Marine Safety Act 1998* and relevant subordinate legislation.	Construction	Future Generation	REMM NAV01

ID	Measure / Requirement	When to implement	Responsibility	Source document
NAV10	All water-related infrastructure will be maintained in a safe and serviceable condition.	Construction	Future Generation	Schedule 3 Condition 45(b)
NAV11	No recreational vessels owned by Future Generation workers will be authorised to operate within the declared exclusion zone.	Construction	Future Generation	Schedule 3 Condition 38(e)
NAV12	Any moorings established which are outside of the declared exclusion zone must be regulated in accordance with NSW marine legislation.	Construction	Future Generation	Good practice

5.1. Marine Traffic Control Plans

Specific Maritime Traffic Control Plans (MTCPs) will be developed as part of the construction planning process for all construction activities that affect marine traffic conditions and the safety of waterway users on the Talbingo and Tantangara Reservoir. They will be developed progressively during construction in accordance with this MTMP and the Roads and Maritime requirements. Drivers of marine vessels will be communicated MTCPs, including reservoir speed limits and other safety protocols.

Where required the MTCPs will be developed in consultation with TfNSW. The emergency services will be notified prior to the implementation of marine transport management to ensure that they are aware of the potential impacts that may affect emergency responses.

5.2. Access Management

5.2.1. Exclusion Zones

The project will establish Exclusion Zones around marine construction works to ensure the safety of vessel traffic and to establish safe working zone/s. Appropriate licences from NSW Maritime will be sought for the exclusion zones. Exclusion zones will change with activities being undertaken

NSW Maritime will be provided written notice of the intention to commence works within an Exclusion Zone or to undertake any works which will restrict or vary existing navigation conditions (safety, access, environment and amenity).

Future Generation will not commence works until notified by NSW Maritime of the declaration of the Exclusion Zone, and/or any appropriate conditions of use, activity, and/or operation within the Exclusion Zone.

Future Generation will provide NSW Maritime with notice of any intention to alter an Exclusion Zone and will not alter the Zone until approved by NSW Maritime.

Upon receipt of notification by NSW Maritime, and prior to undertaking any other works, Future Generation will establish the Exclusion Zone including supply and installation of all navigation marks, buoyage and signage required. Requirements may include:

- buoyage and signage for the Exclusion Zone;
- navigation channel lateral marks;
- channel blocked/closed signals;
- any other navigation marks or signage required by NSW Maritime to ensure the safe and efficient operation of the navigation channel or channels through or around the Exclusion Zone; and
- temporary removal or covering of any existing contradictory or superfluous signs, buoyage or marks.

When directed by NSW Maritime, Future Generation will relocate navigational marks, buoyage and signage to positions determined by NSW Maritime.

Future Generation will maintain all navigational marks, buoyage and signage until ‘the completion of relevant works, or until NSW Maritime agrees that the navigational marks, buoyage and signage are no longer required, where by they will be removed by Future Generation.

Exclusion Zone navigational markings may comprise lit buoys (or alternate lighting at the approval of NSW Maritime) delineating the upstream, downstream, and/or relevant side perimeter, detailing

the boundaries of the Exclusion Zone. Buoys would be placed at a maximum distance of 50 metres apart (or at the approval of NSW Maritime), be marked “Unauthorised Vessels Prohibited” and with the TfNSW Maritime logo, and be suited to the installation of lights, such as a Sealite SL70, and use in high wind environments, such as Sealite SLB700.

5.2.2. Reservoir Public Access

Marine recreational activities are undertaken in both Tantangara and Talbingo Reservoir and includes boating, fishing, water skiing, canoeing and swimming.

To ensure the safety of the public and an ongoing positive experience for reservoir users during construction the following will be implemented to manage marine access and waterway user impacts:

- providing advance notification of any changes to Talbingo and Tantangara reservoir through advance signage, flyers, community announcements and the project and national park websites;
- where possible peak periods for the use of Tantangara and Talbingo reservoirs will be avoided;
- providing updates as works progress and notification of any ongoing changes that impact users;
- providing clear directional signage to waterway users;
- providing park users the opportunity to give feedback during construction to enable ongoing improvements to be made; and
- informing the workforce of the likely presence of waterway users and actions to be taken in the event that they enter the project exclusion zones.

5.2.3. Talbingo Boat Ramp

It should be noted that construction works at and use of the Talbingo Boat Ramp will be for a limited duration and that routine use of the Talbingo Dam boat ramp is not anticipated however periodic use may be required for safety or logistics requirements.

To minimise disruption to the public use of Talbingo Boat Ramp, following temporary uses adjacent work areas will either be removed or made tidy and secure. Additionally, Future Generation will ensure that the boat ramp and any related infrastructure is in a safe and serviceable condition following use.

Where works are undertaken in proximity to the Talbingo Boat Ramp adequate safety exclusion, signage and work practices will be implemented.

The community will be notified of the marine construction works and any potential effects to recreation vessels. This will include public notices and signage at the boat ramp and on key access roads and intersections.

5.2.4. Peak Marine Activities Season

The peak marine activities season is summer. There is potential for greater impacts to marine traffic and waterway users due to the increase marine related traffic volumes. During these periods additional inspections will be undertaken to confirm that these impacts do not warrant further mitigation and maritime transport management. Additional maritime transport management measures will be implemented where required.

Access to the public boat ramps at Tantangara will be restricted during the initial construction works for the dedicated barge access within the work site. Controls will be in place during these periods to manage public vehicles, vessels and pedestrians and to delineate exclusion zones.

5.3. Marine Plant and Equipment

Outside daylight hours and at times of restricted visibility, Future Generation marine plant and equipment must be secured within the Exclusion Zone well clear of any navigation channels and marked by a fixed white light (anchor light).

Marine plant and equipment operating in the exclusion zone during daylight hours will be marked with rotating or flashing amber lights, where practical.

6. COMPLIANCE MANAGEMENT

6.1. Monitoring

Monitoring will be undertaken to confirm the satisfactory marine transport and access outcomes are achieved during construction. The parameters and frequency of monitoring is provided in Table 6-1.

Table 6-1: Construction monitoring locations parameters and frequency

Road	Site Location	Parameters	Type	Frequency	Responsibility
External	All	Waterway use	Review	Monthly review of marine transport related complaints	Traffic Manager
Internal/ External	All	Marine safety signage and lighting	Inspection	Monthly review of signage and lighting whilst in use	Traffic Manager

Inspection of maritime transport and access management measures will be undertaken regularly during construction with attention given to those areas that interface with the public and affecting public safety. For example, navigation channel access, signage, notices and navigation lighting.

During peak waterway use periods, the interface of project and public areas will be inspected weekly and randomly to monitor the efficacy of management measures.

Where inspections identify any issues, which could endanger the safety or waterway users as a result of the construction work the Contractor will rectify the non-conformance as soon as possible.

In addition, effectiveness of the implemented management measures will be monitored in through regular inspections by the traffic manager. These inspections are intended to:

- provide for surveillance to ensure that safeguards are being implemented;
- identify where problems might be occurring;
- identify where sound environmental practices are not being implemented; and
- facilitate the identification and early resolution of problems.

The use of marine IVMS or equivalent, for use in limiting and monitoring project vessel speeds will be investigated.

6.2. Training

All site personnel involved in marine works will undergo site induction training relating to marine transport and access management issues. The induction training will address elements related to maritime transport management including:

- existence and requirements of this MTMP;
- reservoir speed limits and other safety protocols;
- relevant legislation;
- roles and responsibilities for marine transport management;
- arrangements for marine transfer of workers to construction vessels;
- marine transport and access mitigation and management measures; and

- procedures to be implemented in the event of an incident (e.g. marine accidents).

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in marine transport and access management. Examples of training topics include:

- vessel movement plans – approved routes, personnel transfer locations;
- skipper behaviour and the skippers code of conduct for vessels;
- Australian Maritime Safety Authority (AMSA) incident notification procedures;
- compliance with *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*, the *Marine Safety Act 1998* and relevant subordinate legislation;
- specific vessel inductions;
- potential weather impacts on vessel use;
- spill response and notification; and
- skipper fatigue awareness training.

6.3. Maritime Transport Incidents

Marine incidents will be managed in accordance with the HSE Plan, Emergency Response Plan, Section 7 of the EMS and the Environmental Incident Procedure included within Appendix A5 of the EMS.

In the event of the occurrence of an incident, the Future Generation Environment Manager will immediately inform Snowy Hydro who will contact DPIE in accordance with the requirements of schedule 4, condition 6 of the Approval.

Safety related marine transport incidents within the bounds of the project area will be managed in accordance with the Safety Management Plan and the associated incident and emergency reporting procedures.

-All workers should be familiar with the AMSA incident notification procedures. It is important to note that all operators and vessels (including the barges and punts) used in this operation must comply with the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*, and that no agent shall be exempted from the provisions of the *Marine Safety Act 1998* and relevant subordinate legislation.

6.4. Auditing

Audits will be undertaken to assess the effectiveness of maritime transport and access management measures, compliance with this MTMP, the conditions of approval, EIS, Submissions Reports and other relevant approvals, licences and guidelines.

6.5. Reporting

Future Generation will report to Snowy Hydro and other agencies as required on marine transport management issues related to the project.

Reporting requirements and responsibilities are documented in Section 8.4 of the EMS

APPENDIX D – SNOW AND ICE TRAFFIC MANAGEMENT PLAN

S2-FGJV-LOG-PLN-0010

SNOWY 2.0 MAIN WORKS – SNOW AND ICE TRAFFIC MANAGEMENT PLAN

Approval Record			
Document preparation, review and approval		Name in print	Signature
Prepared by	Environmental consultant	V. Gillies	
	Environmental consultant	R. Walker-Edwards	
Reviewed by	Environmental Manager	L. Coetzee	
	Construction Manager	W. Binsted	
Verified by	HSSE Manager	J. Weir	
Approved by	Project Director	A. Betti	

Document Revision Table		
Rev.	Date	Description of modifications / revisions
A	27.05.2020	Revision A for Snowy Hydro review
B	3.06.2020	Updated to reflect Snowy Hydro comments. For consultation
C	10.07.2020	Updated to reflect agency comments. For submission to DPIE

CONTENTS

TABLE OF TABLES

1. INTRODUCTION

This Snow and Ice Traffic Management Plan (SITMP or plan) forms part of the Transport Management Plan and Environmental Management Strategy (EMS) for Snowy 2.0 – Main Works (Main Works).

This SITMP has been prepared to address the requirements of:

- the Infrastructure Approval (SSI 9687) issued for Snowy 2.0 Main Works;
- the *Main Works Snowy 2.0 - Environmental Impact Statement*; and
- the revised environmental management measures (REMMs) within the Submissions Report.

1.1. Purpose and Objective

The purpose of this plan is to describe how the interaction of project vehicles and inclement weather, especially snow and ice, will be managed in order to prevent harm to project staff, subcontractors and the public.

The key objective of the SITMP is to ensure that any potential traffic impacts during periods of snow and ice are minimised, and within the scope permitted by the conditions of Approval. To achieve this, Snowy Hydro and Future Generation will:

- ensure appropriate measures are implemented to avoid or minimise the impact of snow and ice on project vehicles; and
- ensure appropriate measures are implemented to comply with all relevant legislation and other requirements.

2. ENVIRONMENTAL REQUIREMENTS

2.1. Conditions of Approval

The conditions relevant to snow and ice traffic management are presented in Table 2-1.

Table 2-1: Conditions of approval relevant to snow and ice traffic management

Condition	Requirement	Where addressed
Transport Management Requirements		
Schedule 3, condition 45	The Proponent must: … (h) minimise the traffic safety risks of the development in snow and ice conditions; …	This plan
Transport Management Plan		
Schedule 3, condition 46	Prior to the commencement of construction, the Proponent must prepare a Transport Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: …. (d) • Snow & Ice Traffic Management Plan; …	This plan

3. SNOW AND ICE ASPECTS AND IMPACTS

3.1. Background

Snowy Hydro Limited (Snowy Hydro) is constructing a pumped hydro-electric expansion of the Snowy Mountains Hydro-electric Scheme, called Snowy 2.0. The Snowy 2.0 project area consists of an alpine climate that is characterised by cool summers and cold, damp, and snowy winters. During winter months across elevated areas of the plateau, precipitation falls as snow and settles as snow and ice on the roads. The presence of snow and ice on roads utilised by the project presents significant safety issues for project light and heavy vehicles.

The aspects and impacts relevant to snow and ice traffic management are summarised in Table 3-1.

Table 3-1: Project aspects and impacts relevant to snow and ice traffic management

Environmental Aspects	Environmental Impacts	Environmental Factors (Conditions)
Crash and / or breakdown of project vehicles on the road network due to snow and ice	Safety risks to project staff and subcontractors Risk to site plant and vehicles Reduced efficiency of the road network during salvage Safety risks to project staff, subcontractors and other road users during salvage Loss of traction due to snow and ice creating safety and traffic risks to the road network Safety risks to the public	Snow Ice Fog

3.2. Environmental Risk Assessment

The environmental aspects and impacts of snow and ice on traffic are further considered within Appendix A4 of the EMS. This includes a risk assessment process. The risk assessment is based on (1) the likelihood of an impact occurring as a result of the aspect; and (2) the consequences of the impact if the event occurred.

4. SNOW AND ICE MANAGEMENT MEASURES

Local climate and weather conditions in the project area such as fog, storms, snow and ice present potential safety concerns to road users during construction. All workers will be inducted and made aware of potential weather impacts on road use.

Traffic Control Plans (TCPs) and Transport Management Plans (required under Oversize overmass (OSOM) permits) will contain, where necessary details of adverse climatic conditions and measures for safe transit in adverse conditions. Management measures will include:

- speed reductions;
- best practice vehicle maintenance (tyres, lighting etc.);
- adherence to legal requirements for snow chains;
- use of fog lights during periods of low visibility;
- cessation of works; and

- grading and de-icing (by others) for snow removal; and
- advising suppliers of potential adverse weather and likely site shutdowns.

Relevant management measures will be included in the Drivers' Code of Conduct. Future Generation will ensure there is appropriate training for such conditions and that the potential for adverse weather is communicated in driver inductions and relevant procurement processes.

4.1. Weather Monitoring

Advanced warning of inclement weather will be provided through regular weather forecasting and monitoring in consultation with National Parks and Wildlife Service (NPWS), Transport for New South Wales (TfNSW) and Snowy Hydro as required. Risks will be assessed daily by monitoring weather forecasts. Where works planning identifies risks this will be communicated to all project drivers.

Where road authorities close or undertake snow and ice maintenance on road used by the project, project and subcontractor vehicles will be communicated to lay up at approved lay up areas (Polo Flat, Rock Forest, Link Road turn around and projects sites) where practicable to do so.

4.2. Snow Chains

In accordance with TfNSW and NPWS requirements, all project light two-wheel drive and heavy vehicles (including trailers) will be required to carry snow chains between the June and October long weekends when travelling to and from project sites. The use of chains will be at the discretion of drivers or the direction of TfNSW, NPWS officers (on NPWS roads) and NSW Police.

Project four-wheel drive vehicles are not required to carry snow chains, however drivers will be required to undertake snow and ice driver training (see Section 5.1). All project personnel required to carry snow chains, will be trained and competent in fitting and driving with snow chains.

4.3. Road Upgrades

External road and intersection upgrades required for the Snowy 2.0 project, are detailed in Section 5.1 of the Transport Management Plan. Where required, all road and intersection upgrades will be designed and constructed to comply with Ausroad and TfNSW specifications relevant to snow and ice management. These measures may include:

- installation of snow poles / guide posts;
- installation of additional warning sign for upcoming curves combined with advisory speeds;
- marking of centrelines where appropriate; and
- project specific snow chain fitting bays on internal project roads.

4.4. Maintenance

Table 4-1 lists the roads being used for Snowy 2.0 Main Works and the authority they are allocated to. During winter periods these authorities will be responsible for winter maintenance (ploughing, de-icing etc.).

Where winter maintenance is planned by relevant road authorities, notice will be given to Future Generation, through the TTLG and other avenues, in order to minimise interaction with project traffic through scheduling and laying up of project vehicles.

Monitoring for winter maintenance will be undertaken by the relevant road authority, and Future Generation within the project boundary, from the June long weekend to determine when de-icing is

required. De-icing may only occur within set temperature ranges and must be undertaken in daylight hours. Where necessary, vehicle scheduling will take into consideration these de-icing constraints.

In a snowfall event, maintenance of public roads will be undertaken by the relevant road authority to ensure there is no build-up of snow fall, except within the project boundary where maintenance works will be undertaken by Future Generation.

Table 4-1: Regional and local roads utilised for Main Works

Name	Location	Authority
Snowy Mountains Highway	Outside KNP	TfNSW
Monaro Highway	Outside KNP	TfNSW
Polo Flat Road	Outside KNP	Snowy Monaro Regional Council (SMRC)
Saleyards Road	Outside KNP	SMRC
Yareen Road	Outside KNP	SMRC
Link Road	Within KNP	NPWS
Elliott Way (if approved by the Planning Secretary)	Within KNP	NPWS
Tantangara Road	Within project boundary	Future Generation
Lobs Hole Ravine Road	Within project boundary	Future Generation
Lobs Hole Ravine Road North	Within project boundary	Future Generation
Marica Track	Within project boundary	Future Generation

5. COMPLIANCE MANAGEMENT

5.1. Training

The induction training will address elements related to snow and ice traffic management including:

- vehicle routes to and from site;
- driver behaviour and the Driver's Code of Conduct for heavy vehicles including permitted parking, lay-up areas and chain fitting bays (Appendix B); and
- procedures to be implemented in the event of an incident (e.g. traffic accidents).

Targeted training in the form of toolbox talks or specific training will also be provided to driving personnel. Examples of training topics include:

- vehicle movement plans – approved heavy vehicle haulage routes, safe entry and exit and other access restrictions;
- delivery driver's induction which will include safe protocols to be followed whilst travelling on internal and external roads. The briefing will reinforce posted speed limits, advisory speeds and historic high accident points on winding sections of road;
- driving in snow and during icy conditions; and
- driver fatigue awareness training.

Targeted training in the form of toolbox talks or pre-start briefs will also be provided to personnel with a key role in traffic, transport and access management. Further details regarding the staff induction and training are outlined in Section 5 of the EMS.

Where sub-contracted drivers are operating heavy and OSOM vehicles, procurement processes will require drivers to have had suitable experience and training driving in alpine conditions. Sub-contractors will be required to undertake their works in accordance with the TMP and its sub-plans, including this SITMP.

All Future Generation personnel who will be driving on site will be required to undertake an approved and accredited defensive driver training. All personnel required to drive in winter conditions will be required to complete additional approved Snow and Ice Driver training.

Emergency Preparedness and Response Awareness training will be provided and will address identified incident scenarios. This may include inductions, awareness and refresher training and emergency drills.

5.2. Inspections

Inspection of traffic management measures will be undertaken regularly by the Future Generation traffic and logistics team during construction with attention being made to safe transit in winter months and shoulder periods with the potential for snow and ice risk.

Inspections will be coordinated by Future Generation and will occur on a monthly basis as described in Table 5-1. Written inspection reports will be provided by Future Generation to Snowy Hydro generally on a monthly basis.

Table 5-1: Snow and ice traffic management inspections

Inspection	Frequency	Action	Reporting	Responsibility
Internal Roads	Monthly	Inspection of the road surfaces for signs of deterioration and maintenance requirements	Maintenance inspection report	Future Generation
Project Roads	As required	Inspection of roads for snow and ice risk	Maintenance inspection report	Future Generation

Where inspections identify actionable items, which could endanger project staff, subcontractors or the public, Future Generation will rectify the non-conformance as soon as possible and no later than 7 days after identification.

Snow and ice traffic management measures will be discussed and communicated at Traffic and Transport Liaison Group (TTLG) meetings. Discussion with the TTLG will enable the inclement weather scenarios to be workshopped by all relevant stakeholders, including NSW Police, NPWS, TfNSW and councils. Where testing identifies any defects, the TTLG will work to rectify the non-conformance as soon as possible.

Discussions for winter preparedness with Snowy Hydro, TfNSW, Police and NPWS will undertaken prior to the winter season, either through the TTLG or other forums.

5.3. Auditing

Audits will be undertaken to assess the effectiveness of snow and ice transport management measures, compliance with this SITMP, the conditions of approval, EIS, RTS and other relevant approvals, licences and guidelines.

Audit requirements are detailed in Section 8.3 of the EMS.

5.4. Reporting

Future Generation will report to Snowy Hydro and other agencies as required on snow and ice related traffic management issues related to the project. This includes notification in relation to road incidents which adversely impact on traffic associated with the project.

Reporting requirements and responsibilities are documented in Section 8.4 of the EMS. Reporting will include:

- reporting of non-compliances;
- notification of works commencement (including commencement and completion of the required road upgrades);
- Snowy Hydro and / or other agency environmental inspection reports; and
- website updates.

APPENDIX E – TRANSPORT COMMUNICATIONS STRATEGY

S2-FGJV-CCA-PLN-0003

SNOWY 2.0 MAIN WORKS – TRANSPORT COMMUNICATIONS STRATEGY

Approval Record			
Document preparation, review and approval		Name in print	Signature
Prepared by	Environment consultant	J. Bradford	
Reviewed by	Community Manager	M. McCabe	
Verified by	HSE Manager	J. Weir	
Approved by	Project Director	A. Betti	

Document Revision Table		
Rev.	Date	Description of modifications / revisions
A	27.05.2020	Revision A for Snowy Hydro review
B	3.06.2020	Updated to reflect Snowy Hydro comments. For consultation
C	10.07.2020	Updated to reflect agency comments. For submission to DPIE.

CONTENTS

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1 INTRODUCTION

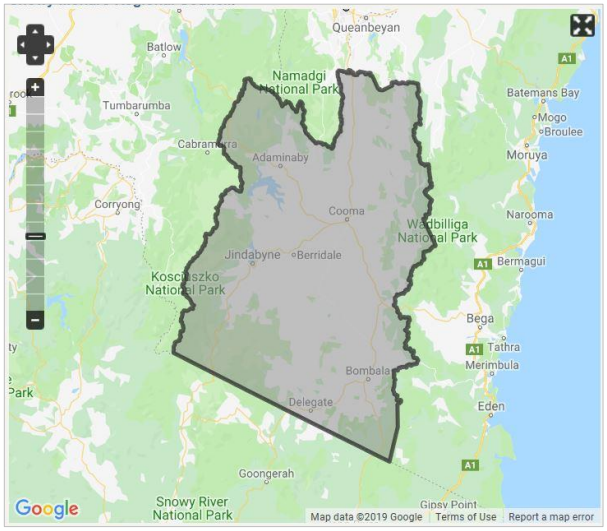
1.1 Purpose

This Transport Communication Strategy provides the approach to community and stakeholder communications to provide information about the transport impacts of Snowy 2.0 Main Works. This strategy forms part of Future Generation's wider communication and stakeholder management as described in the Community and Stakeholder Engagement Plan (CSEP).

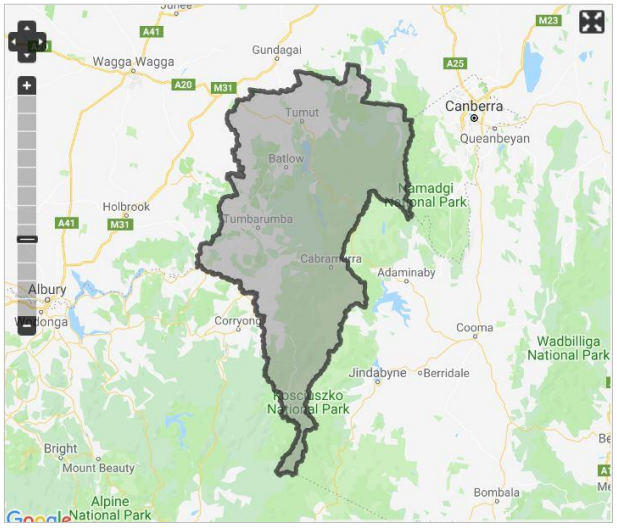
1.2 Community and Stakeholder Analysis

1.2.1 Local Area

The local area is defined as the Snowy Monaro Regional and Snowy Valleys Local Government Areas and includes the towns of Cooma, Tumut, Talbingo, Cabramurra, Providence Portal, Adaminaby, Batlow, Tumbarumba and Jindabyne. Due to the proximity of the Project to the NSW and ACT borders Wagga Wagga and Queanbeyan are also included in the local area and communications may be extended into these areas as required.



Snowy-Monaro Regional Local Government Area



Snowy Valleys Local Government Area

Figure 1-1: Local Government Areas

1.3 Stakeholder Analysis

Four key stakeholder groups have been identified for the project, including: Government, Community, Industry and Media.

Future Generation will lead local engagement with the community across the Snowy Mountains region in relation to the Snowy 2.0 project. Engagement with the government, industry and media will be primarily managed by Snowy Hydro, with support from the Future Generation Community and Stakeholder Engagement Team.

1.3.1 Government

Government stakeholder groups identified include:

- Federal and State Government Departments and agencies (within relevant policy areas such as energy, environment, climate change, planning, treasury, finance, industry & training, infrastructure and regional affairs);
- Federal and State regulatory agencies;
- Federal and State Ministers and Opposition spokespeople;
- Federal and State Members of Parliament and Senators; and
- State and Federal Parliamentary and policy committees.

Ongoing engagement will be undertaken with the following state government departments:

- Department of Planning, Industry and Environment (DPIE);
- Environment Protection Authority (EPA);
- National Parks and Wildlife Service (NPWS);
- Transport for New South Wales (TfNSW);
- NSW Police;
- the Office of Environment and Heritage (OEH));
- Department of Primary Industries (specifically matters relating to fishing and water);
- Department of Regional NSW;
- Department of Education; and
- the two regional councils, Snowy Monaro and Snowy Valleys.

Snowy Hydro will lead engagement across all levels of government including departments, agencies, committees and parliamentarians across all parties and jurisdictions. Specific consultation with government and agency stakeholders is also required for the development and review of management plans as detailed within the Approval.

1.3.2 Community

Community groups or stakeholders identified in the Snowy Mountains region include:

- Chambers of Commerce and community groups;
- Destination NSW;
- Local businesses;
- Registered Aboriginal Parties;
- Townships / communities (as required Cooma, Tumut, Batlow, Tumbarumba, Talbingo, Corryong Cabramurra, Providence Portal, Adaminaby, Berridale and Jindabyne);
- Training and education providers;
- Snowy Hydro staff;
- Service Level Providers;
- Selwyn Snow Resort, Perisher and Thredbo ski resorts;
- Recreational users of Kosciusko National Park (hiking, camping, fishing, boating / water sports, and horse-riding).
- Motorists – locals, tourists, freight operators;

- Other local groups; and
- General public.

Future Generation will maximise the reach of communications through use of existing communication networks and platforms. This may include NPWS information centres, Destination NSW networks and local Council. Future Generation will lead local engagement across the local area.

1.3.3 Media

Snowy Hydro's media strategy has a targeted and proactive approach, as well as being responsive to media requests and queries. All media in relation to the project, including transport-related communications is managed by Snowy Hydro.

1.4 Transport issues

Potential impacts on traffic and transport attributable to Snowy 2.0 Main Works activities may include:

- short term road closures and/or traffic restrictions during the transport of oversize loads, increasing congestion and interface with the public;
- short term road or lane closures and/or traffic restrictions during road upgrades, maintenance repairs and minor road improvements increasing congestion and interface with the public;
- increased traffic turning movements into and out of the site at the intersection of the Link Road with Lobs Hole Ravine Road and the intersection of the Link Road and the Snowy Mountain Highway;
- short term closure or part closure of public roads due to Heavy Vehicle breakdown and or salvage increasing congestion and interface with the public;
- increased heavy vehicle volumes and associated impacts including noise and road deterioration; and
- the closure of access roads to some recreational facilities within KNP.

Upgrades to the external road network and intersections, that will be undertaken are detailed in Section 5.1 of the Transport Management Plan.

Other road impacts may result from ancillary use of various local KNP roads and fire trails for activities such as laying of trunk services, erosion and sediment control, access for geotechnical works and emergency services. These locations are identified in detailed in Section 4 of the Transport Management Plan.

2 CONSULTATION APPROACH

A range of communication and engagement tools and techniques will be used throughout the delivery of the project and to communicate traffic impacts. These tools allow the project team to circulate information on construction progress, traffic management and other project impacts. They also provide the mechanisms to respond to enquiries and allow the community to discuss the project and provide feedback.

Given the scale of the project and the unique characteristics of local communities across the region, a variety of tools and techniques are essential to achieve the objectives of the engagement program. Most consultation and engagement is focused on the local government areas and the Snowy Mountains region.

Future Generation will work collaboratively with Snowy Hydro to assess the effectiveness of each community engagement tool, and to identify opportunities to incorporate new tools and techniques into the stakeholder and community engagement program.

2.1 Stakeholder engagement

The Community and Stakeholder Engagement Team will combine broad community engagement with targeted communications to meet the needs of the project. The stakeholder engagement approach for Snowy Hydro and Future Generation is summarised in Table 2-1 below.

Table 2-1: Stakeholder engagement approach

Level	Stakeholder	Stakeholder groups	Engagement goals	Commitment to community	Potential tools and methods
Inform	Government	MPs and Senators Parliamentary committees	Provide stakeholders with information to assist their understanding of the project and build advocacy. Provide a two-way communication between Snowy Hydro and stakeholder groups	Keep informed by providing information and updates as the project advances	Community information line and email Website Media releases / social media (Managed by Snowy Hydro) Newsletters Face to face meetings / briefings
	Community stakeholders	General public			
	Industry groups	Business groups Generators/retailers Regional/special interest groups			
	Media stakeholders	National media Regional media Local media Special interest and trade media			
Consult	Government	Policy/regulatory agencies Federal and State Departments Federal and State Ministers/Opposition spokespeople Local Councils	As per ‘Inform’ plus: Provide information and seek community stakeholder feedback	As per ‘Inform’ plus: Listen to, acknowledge concerns, and give feedback on how input has been actioned.	Meetings Community information sessions
	Community stakeholders	Townships/Communities Snowy Hydro staff			
Involve	Government	Shareholder governments	As per ‘Consult’ plus:	As per ‘Consult’ plus:	Face to face meetings / briefings

Level	Stakeholder	Stakeholder groups	Engagement goals	Commitment to community	Potential tools and methods
	Community stakeholders	Key individuals	Work with stakeholders throughout the project to understand and consider issues and expectations	Maintain a two-way dialogue to ensure concerns and aspirations are understood.	Presentations / workshops

2.2 Traffic and Transport Liaison Group

The Traffic and Transport Liaison Group (TTLG) will enable high-level notification to all stakeholders of project transport management, including but not limited to logistics planning for upcoming changes and revision of existing traffic arrangements. The Traffic and Transport Liaison Group will be held on a regular basis and will include:

- NSW Police;
- Snowy Monaro Regional Council (SMRC) and Snowy Valleys Council (SVC);
- National Parks and Wildlife Service (NPWS);
- Transport for NSW (TfNSW);
- Destination NSW; and
- other appropriate agency(s) as required.

2.3 Other Consultation Tools

In addition to regular TTLG meetings described above, a range of other communication tools and techniques will be used by the project to inform stakeholders and the community of periodic traffic related impacts. Indicative tools and tactics for communication of transport impacts are outlined in Table 2-2.

Table 2-2: Indicative communication tools and activities

Communications Tool	Description of Activity
Advertising	Advertising in local newspapers of significant construction activities, major disruptions and/or community consultation events such as info booths.
Community information line and email	The enquiry number (1800 SNOWY2 (1800 766 992)) will be published on all communication materials and is staffed by Future Generation. Snowy 2.0 enquiries may be directed to the relevant Future Generation contact to be resolved and updated in the complaints management database.
Community information sessions	Future Generation members from the project team available to answer questions about the project if required.
Emails	Containing reminders of works notification information, event or promotional information, and project updates
Door knocks	Provide timely notification to nearby residents or neighbouring businesses where required regarding upcoming construction works, expected impacts and proposed mitigation. Provide information about construction activities and Project Team contact details.
Community relations database	Interactions and feedback from stakeholders Community issues or complaints are to be recorded
Face to face meetings / briefings	Activities include meetings, briefings and information sessions to engage directly with key stakeholders, directly impacted residents and businesses and the wider community.

Communications Tool	Description of Activity
Fact sheets	Information sheets detailing particular aspects of project construction.
Media releases / social media (Managed by Snowy Hydro)	Contribute to Snowy Hydro media and social media activities to promote major project milestones and activities and generate broader community awareness. Snowy Hydro is responsible for all media and social media management supported by Future Generation.
Newsletters	Available in hard copy and electronic format providing updated information on project scope, benefits, construction progress, achievement of project milestones and other project related issues of interest.
Website (Snowy Hydro managed)	Support of the dedicated project page located on the Snowy Hydro website through the provision of planning documents relating to the project, updates about the works, stakeholder and community engagement activities or events, video and photography.
Works notifications	Provide specific information about construction activities - what will be happening, when, and what the impacts will be.
Social media	Use of digital marketing and social media platforms to publicise and share information about the project with the local community and targeted groups. TTLG, to provide assistance with existing networks and communication platforms to share, follow and like transport updates.

2.4 Consultation Activities

Effective communication of transport related impacts will rely on a coordinated approach using a combination of tools and tactics from Future Generation and external stakeholders. These are shown in Table 2-3 below.

Table 2-3: Indicative communication activities

Impact	Mitigation	Communication tools and tactics
National Park Public Access		
Recreational users general – reduced access (touring, picnicking, camping, walking, horse riding, cross country skiing, downhill skiing, snowboarding and snow play, cycling, climbing, caving, canoeing and rafting, boating and fishing). Local business and tourist operators.	• Clear and regular community updates about project footprint, progress and impacts • Communication targeting tourists to advise of access changes and alternatives • Communications targeting peak holiday periods • Timely responses to community enquiries • Timely notifications to tourist operators about project impacts	• Future Generation to communicate with tourism providers, ski resorts, recreational sporting bodies through local Councils and other industry groups as applicable. • Community information sessions • Letter box drops and media notifications • Future Generation Community information line and email • Updates to project website • Review feedback from park users during construction to enable ongoing improvements to be made • Implement traffic management plan including advance warning signs and virtual messaging signs (VMS) • TTLG with Destination NSW, NSW Police and TfNSW to provide assistance with existing networks and communication platforms • NPWS to lead required updates on existing NPWS platforms with requested content from Future Generation.
Road closures	• Timely responses to community enquiries • Clear communication about truck routes, transport schedules and respite periods	As above and • Providing clear signage of restricted access and alternative routes • Providing advance notification to NPWS and Snowy Hydro of any changes to park facilities

Impact	Mitigation	Communication tools and tactics
		including access roads, Lobs Hole campground, Talbingo spillway and works on Tantangara Reservoir
Water Public Access		
Recreational users (canoeing and rafting, boating and fishing etc). Reduced water access	• Clear and regular community updates about project footprint, progress and impacts • Communication targeting tourists to advise of access changes, closures and alternatives • Timely responses to community enquiries	• Future Generation to communicate with tourism providers, ski resorts, recreational sporting bodies through local Councils and other industry groups as applicable. • Future Generation Community information line and email • Updates to project website • TTLG with TfNSW (NSW Maritime) to provide assistance with existing networks and communication platforms including all required marine notices. • NPWS to lead required updates on existing NPWS platforms • providing clear signage on access roads advising any changes to reservoir access.
Local Road Work		
Road closures, construction noise and traffic impacts	• Clear and regular community updates about project footprint, progress and impacts • Communication targeting residents, business, industry to advise work • Timely responses to community enquiries	• Updates to project website • Print advertising and works notifications as required • Targeted door knocks if required for adjacent residents, business or industry • TTLG with TfNSW and Snowy Monaro Regional Council and Snowy Valley Council, to provide assistance with existing networks and communication platforms • Implement Traffic Management Plan / Traffic Control Plans including all required signage.
Pedestrian Safety		
Increased traffic numbers in Cooma town centre	• Clear and regular community updates about project impacts	• Future Generation Community information line and email • Community information sessions • Letter box drops and media notifications • Future Generation Community information line and email • Consultation with Snowy Monaro Regional Council on signage and notification of the presence of trucks and the use of safe pedestrian crossings
Traffic Incident or Breakdown		
Road closures and traffic impacts	• Clear and immediate communication via phone and UHF radio.	• Communication of staff and subcontractors to emergency services and Future Generation management. • Communication from Future Generation management of traffic incidents to emergency services, the relevant road authorities and Snowy Hydro. • Communication of road authorities and emergency services to road users and the local community.

2.4.1 Complaints Management

A complaints management system including a complaints register will be maintained by Snowy Hydro and Future Generation consistent with AS4269: Complaints Handling, in order to effectively manage traffic and noise related complaints.

The complaints management system will include a process to manage complaints including receiving, recording, tracking and responding to complaints within a defined timeframe. Details of the complaints and dispute resolution processes are provided in the Main Works EMS.

The key processes involved in recording complaints and enquiries are as follows:

- all enquiries / complaints will be recorded in a complaints register;
- complaints received for the duration of the project will be acknowledged verbally within 2 hours from the time of complaint unless the complainant agrees otherwise. Any received out of hours will be responded to on the next working day;
- complaints received via email will be acknowledged within 24 hours; and
- complaints received via letters will be acknowledged within 5 days of receipt. Where a phone number or email address is supplied, a response will be provided within 24 hours.

The community and stakeholder engagement staff will attend to enquiries and complaints received through the enquiries and complaints 1800 information line, project email address, from letters mailed to the project team, during community meetings or through construction / site staff.

The project enquiries and complaints 1800 number will be included on project communications, including notifications, advertisements, and on the Snowy Hydro website.

Future Generation is committed to providing a clear, effective and open Enquiries and Complaint Management Process for the Snowy 2.0 Project. Ideally, most stakeholder concerns will be resolved at first contact. However, should it become necessary to escalate a complaint, there is a clear process to support the management and escalation of complaints.

2.4.2 Dispute Resolution Process

Wherever possible, complaints will be resolved directly between Future Generation and the stakeholder.

If a complaints management process has been followed and the issue cannot be resolved, the complaint will be referred to Future Generation's Senior Management and Snowy Hydro's Representative for further review. The escalated review process will include an assessment of the details of the complaint received, any findings of the investigation undertaken in response to the complaint, and any further matters raised by the complainant.

If a complaint requires referral to senior management and Snowy Hydro, the complainant will be informed of this and the outcome of the review process.

2.5 Community contacts

The primary points of contact for stakeholders for enquiries and complaints are:

- direct contact with project or Future Generation staff;
- via Snowy 2.0 Community Information Line (1800 766 992);
- via community@futuregenerationjv.com.au; and
- project websites – www.futuregenerationjv.com.au.

All reasonable efforts will be made by Future Generation to resolve an issue with the complainant. In the event a complaint is unable to be resolved, Future Generation will raise the issue with Snowy Hydro or delegate to review and facilitate an outcome.

2.6 Recording feedback

Snowy Hydro has a community relations database, Darzin, to capture and record feedback from all communications and engagement activities. The database is used to register contact details so ongoing updates and information can be provided. The database is used to record contact with stakeholders and register comments, issues, enquiries and complaints received from the community. Stakeholder contact details will be regularly updated, and new stakeholders added to the database as they are identified.

2.6.1 Responsibility

The Future Generation Community and Stakeholder Engagement Manager (CSEM) will be responsible for all local community, industry and stakeholder communications. The CSEM will provide strategic support to SHL as required on media and key stakeholder communications.

2.7 Audit and review

Evaluation of the performance and effectiveness of communication activities will be undertaken every 12 months or as required. Key elements of the evaluation will include examining the adequacy of the strategy and its implementation in achieving its intent, as evidenced by the following:

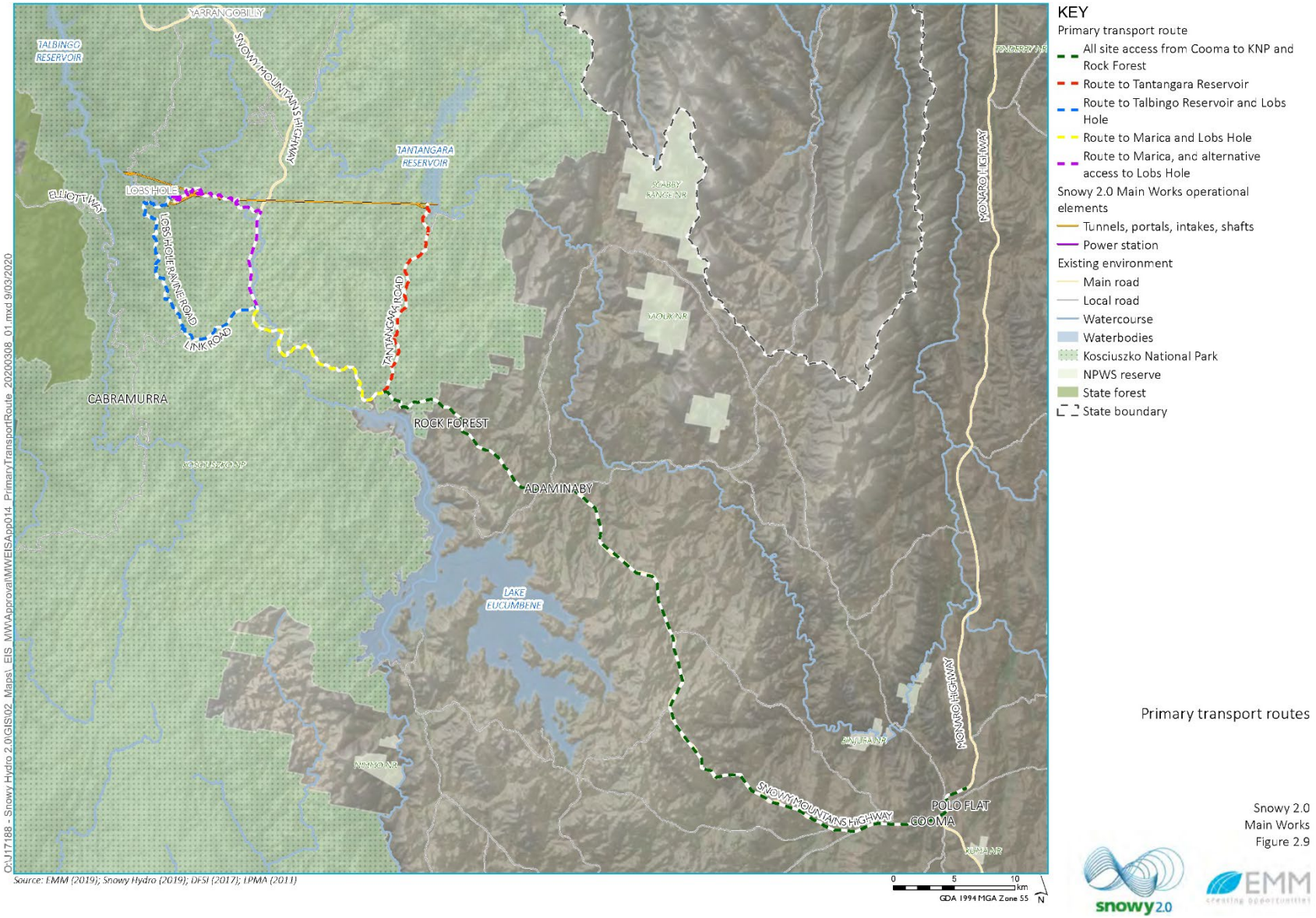
- availability, quality and distribution of information about the project to the local community and stakeholders;
- currency and accuracy of the enquiries and complaints management system;
- nature of issues/complaints raised, and level of responsiveness and appropriateness of action taken by the Future Generation team;
- response timeframes;
- quality of reporting; and
- feedback received on the value of updates and other public information, responsiveness of the construction team and attendance at quarterly community forums or meetings with stakeholders.

Future Generation will monitor the performance and effectiveness of the communication activities on a regular basis. Future Generation will modify processes and communication channels in light of any feedback or issues identified in the monitoring process.

2.8 Management reporting

A report detailing community involvement activities for the current and previous month will be included in the Future Generation monthly project report to Snowy Hydro. The report will identify emerging issues, track trends in enquiries and complaints, and describe measures to mitigate issues and trends identified.

APPENDIX F – PRIMARY TRANSPORT ROUTES



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Primary transport routes

Snowy 2.0
Main Works
Figure 2.9

APPENDIX G – EXPLORATORY WORKS CONDITONS OF APPROVAL

Table G-1: Exploratory Works conditions of approval relevant to traffic, transport and access

Condition	Requirement	Where addressed
Schedule 3, condition 36	The Proponent must implement Option 2 (Cut into existing face) in the EIS for upgrading the Lobs Hole Ravine Road adjacent to the fossiliferous beds. *Note: The layout of Option 2 is shown in Appendix 2.*	This scope of works is ongoing during Exploratory Works.
Schedule 3, condition 37	The Proponent must implement the Wide Cut Design Option for any excavation required on the upside slope side into the boulder streams for upgrading Lobs Hole Ravine Road. *Note: The layout of upgrade is shown in Appendix 2.*	
Schedule 3, condition 37A	Prior to carrying out the upgrades to Lobs Hole Ravine Road within the boulder streams, the Proponent must prepare detailed plans for the proposed upgrades in consultation with the NPWS, and to the satisfaction of the Secretary. These plans must: (a) avoid impacts on the downslope section of Block Stream B; (b) minimise the extent of excavation into the upslope block streams; (c) minimise moving or damaging blocks in areas beyond the excavation zone; (d) ensure the remaining sections of the boulder streams are safe and stable, using stabilisation measures that would maintain the landscape values of the streams to the greatest extent practicable and maximise their visibility for future viewing; (e) minimise the use of outside materials onto the block streams (such as soil or fill); (f) include suitable drainage controls to ensure water flow through the upslope block streams are not impeded; and (g) include a program to monitor the implementation of the plans; and if necessary, undertake corrective action to maintain the stability of the block streams. The Proponent must implement the approved plans for these road upgrades.	This scope of works is ongoing during Exploratory Works.
Schedule 3, condition 38	Within 3 months of completing the upgrade of Lobs Hole Road, unless the Planning Secretary agrees otherwise, the Proponent must close the sections of Lobs Hole Road that are no longer required and rehabilitate the land to the satisfaction of the NPWS. *Note: The sections to be closed and rehabilitated are shown in Appendix 2.*	Included as TRA12 in Table 5-1 of this plan. This work will be completed in accordance with Stage 1 management plans.
Schedule 3, condition 39	The Proponent must: (h) ensure the temporary bridges over Wallaces Creek and the Yarrangobilly River incorporate, to the greatest extent practicable, the requirements: • *Guidelines for Controlled activities on Waterfront Land (NRAR, 2018); and* • *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); (i) remove temporary bridges as soon as practicable after the construction of the permanent bridges, and rehabilitate the land to the satisfaction of the NPWS; consider scheduling to minimise in stream works between October to January, the migratory period of the Macquarie Perch (*Macquaria australasica*).	This scope of works is ongoing during Exploratory Works. Refer to the Water Management Plan for further detail.

Condition	Requirement	Where addressed
Schedule 3, condition 40	The Proponent must: (a) ensure that permanent bridges over Wallaces Creek and the Yarrangobilly River are designed and constructed to comply with the relevant requirements of the: • *Guidelines for Controlled activities on Waterfront Land* (NRAR, 2018); and • *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); (b) ensure that the permanent bridges over Wallace Creek and the Yarrangobilly River are designed and constructed to comply with the relevant requirements of the relevant Austroads Standards (such as elevating them above the 1% AEP flood level); minimise in stream works between October to January, the migratory period of the Macquarie Perch (*Macquaria australasica*).	This scope of works is ongoing during Exploratory Works.
Schedule 3, condition 40A	Prior to using Lobs Hole Ravine Road – North, unless the Planning Secretary agrees with otherwise, the Proponent must: (a) upgrade Lobs Hole Road – North in accordance with the approved plans (see the figures in Appendix 2) to the satisfaction of NPWS; and (b) seal the last 30 metres of Lobs Hole Road – North before its intersection with the Snowy Mountains Highway to the satisfaction of the TfNSW.	Exploratory Works road upgrades works included in Table 5-3 of this plan.
Schedule 3, condition 40B	Once Lobs Hole Ravine Road - North has been upgraded in accordance with Condition 40A above, the Proponent must restrict the use of the road by the development to: (a) access to and egress from the site during emergencies; and (b) light vehicles at all other times with: • a maximum of 120 vehicle movements allowed a day (60 each way); and • an annual average maximum of 60 vehicle movements allowed a day (30 each way).	Included as Main Works schedule 3, condition 44 (b). See Table 5-1, TRA09.
Schedule 3, condition 41	The Proponent must ensure the Miles Franklin Drive/Snowy Mountains Highway intersection complies with the relevant Austroads sight distance requirements for a reaction time of 2.5 seconds for the posted speed limit, as amended by any relevant supplements adopted by the RMS.	Revised scope of work does not require the upgrade of the Miles Franklin Drive / Snowy Mountains Highway Intersection.
Schedule 3, condition 42	Prior to using any OSOM vehicles to deliver the tunnel boring machine or concrete segments required to line the exploratory tunnel to the site, the Proponent must: (a) prepare detailed designs for the upgrade of the following intersections to the satisfaction of TfNSW and Snowy Monaro Regional Council: • Snowy Mountains Highway/Sharp Street and Bombala Street intersection; and • Snowy Mountains Highway/Sharp Street and Vale Street intersection; (b) ensure the designs comply with the relevant requirements in the Austroads Guide to Road Design (as amended by TfNSW supplements), and include works to the existing kerbs, signage and internal roundabout pavement to accommodate OSOM vehicle movements; and (c) carry out the approved upgrades to the satisfaction of TfNSW.	Exploratory Works road upgrades works included in Table 5-3 of this plan.

Condition	Requirement	Where addressed
Schedule 3, condition 43	The Proponent must: (a) prepare a dilapidation survey in accordance with guidelines and standards established by Austroads of the relevant section of Miles Franklin Drive, Link Road and Kings Cross Road: • prior to the commencement of any construction and/or decommissioning works; • within 2 months of the completion of any construction and/or decommissioning works; (b) rehabilitate and/or make good any development-related damage: • identified during the carrying out of the relevant construction and/or decommissioning works if it could endanger road safety, as soon as possible after the damage is identified, but within 7 days at the latest; and • identified during any dilapidation survey carried out following the completion of the relevant construction and/or decommissioning works within 2 months of the completion of the survey, unless the relevant roads authority agrees otherwise, • to the satisfaction of the relevant roads authorities. If there is a dispute about the scope of any remedial works or the implementation of these works, then either party may refer the matter to the Planning Secretary for resolution. *Note: For the purposes of this condition Snowy Valleys Council / Crown Lands is the relevant road authority for Miles Franklin Drive and the NPWS is the relevant road authority for Link Road and Kings Cross Road.*	Exploratory Works dilapidation survey requirements included in Section 5.5 of this plan.
Schedule 3, condition 44	During the development, the Proponent may close the following to the public: (a) Lobs Hole Ravine Road from the Blue Creek Trail intersection (in the north) to the Link Road (in the south); (b) Ravine campground; and (c) Middle Bay Boat Ramp. *Note: the roads to be closed to the public are shown in Appendix 2.*	Access restrictions will be ongoing during Exploratory and Main Works. See Section 5.11 – Access Management.
Schedule 3, condition 45	All OSOM and heavy vehicles associated with the development must travel to and from the site via the: (a) Snowy Mountains Highway, Miles Franklin Drive and Spillway Road; (b) Snowy Mountains Highway, Link Road, and Lobs Hole Ravine Road; (c) Snowy Mountains Highway, Coppermine Trail and Wallaces Creek Trail; or (d) Snowy Mountains Highway, Tantangara Road and Quarry Trail. *Note: The Proponent is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of OSOM vehicles on the road network.*	This plan, Section 5.6.4.
Schedule 3, condition 46	Prior to carrying out any development, unless the Planning Secretary agrees otherwise, the Proponent must prepare a Traffic Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: (a) be prepared in consultation with the NPWS, TfNSW, Snowy Valleys Council and Snowy Monaro Regional Council; (b) include a description of the measures that would be implemented to: • minimise the traffic safety impacts of the development on: – road users on Miles Franklin Drive and Link Road;	This plan, Section 1.6 This plan, Section 5.1 and 5.6.6

Condition	Requirement	Where addressed
	– road users on the Snowy Mountains Highway in proximity to the intersections with Link Road, Tantangara Road and Coppermine Trail during the borehole investigations at Tantangara and Marica;	This plan, Section 5.1
	– road users at the Snowy Mountains Highway/Lobs Hole Ravine Road – North intersection;	This plan, Section 5.1
	– recreational water users in the Talbingo Reservoir and Tantangara Reservoir;	Appendix C – Marine Transport Management Plan
	• notify the local community about development-related traffic impacts;	This plan, Section 7.4
	• restrict the following along the Upper Lobs Hole Ravine Road: – vehicle speeds to 40 km/h; – hours of operation to between sunrise and sunset;	Refer to Main Works schedule 3, condition 44 (a).
	• restrict vehicle speeds along Wallaces Creek Trail and access tracks in the Marica area to 20 km/h between sunrise and sunset;	
	• maintain suitable access to the site for NPWS vehicles required to carry out any park or emergency operations;	This plan, Section 5.11.8
	• schedule the use of heavy vehicles to minimise convoy length or congestion on the public road network;	This plan, Section 5.4
	• ensure loaded vehicles entering or leaving the site have their loads covered or contained;	This plan Section 5.6, 5.8, Appendix A
	• minimise dirt being tracked on the public road network from development-related traffic;	This plan, Table 5-1
	• minimise workers using private vehicles to get to and from the site;	This plan, Section 5.11.1
	• minimise light vehicles using routes to the site other than the Coppermine Trail, Wallaces Creek Trail, Tantangara Road, Quarry Trail, Miles Franklin Drive, Spillway Road, Link Road and Lobs Hole Ravine Road to get to and from the site;	This plan, Sections 5.3 and 5.6
	• provide sufficient parking on-site for all development-related traffic;	This plan, Table 5-1
	(c) include a detailed strategy for the use of OSOM vehicles and the repair of any damage caused by these vehicles;	This plan, Section 5.5 and 5.6
	(d) include a heavy vehicle salvage strategy for the development, covering the salvage of heavy vehicles on the road network in KNP and on the public road network;	Appendix B – Heavy Vehicle Salvage Plan
	(e) include a driver's code of conduct that addresses: • travelling speeds; • procedures to ensure that drivers adhere to the designated OSOM and heavy vehicle routes; • procedures to ensure drivers implement safe driving practices;	Appendix A – Drivers Code of Conduct
	(f) include a program to monitor and report on the effectiveness of these measures and the code of conduct. *Note: Sunrise and sunset times are to be taken from the nearest Bureau of Meteorology centre*	This plan, Section 6 and Section 7.7
Schedule 3, condition 47	The Proponent must implement the approved Traffic Management Plan for the development.	This plan.