

INDEPENDENT ENVIRONMENTAL AUDIT

SNOWY 2.0 MAIN WORKS

FINAL REPORT



Proponent:	Snowy Hydro Limited
Auditee:	Snowy Hydro Limited, Future Generation Joint Venture
Project:	Snowy 2.0 Main Works CSSI 9687
Scope:	Development Consent CSSI 9687 – Compliance to all conditions relevant to current phase (initial) of the development including the adequacy of the approved strategies, plans or programs for the development
Location(s)	Snowy Hydro Office – Monaro Highway, Cooma Project Sites: Ravine Road, Lobs Hole, Tantangara, Marica
Audit Dates:	18, 19 and 20 January 2021 (on-site)

Revision no.	Author / Auditor	Purpose / Change	Date
0.1	Julie Dickson	Draft for review/comment	5/03/2021
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1.0	Julie Dickson	Final Report for Issue	09/04/2021

CONTENTS

EXECUTIVE SUMMARY	1
1.1. Audit definitions and Abbreviations	2
1.0 INTRODUCTION.....	3
1.2. Purpose and Requirement for this Audit	3
1.3. Background of the Project.....	3
1.4. Auditor Credentials.....	4
1.5. Audit Objectives, Scope Development, Scope & Criteria	4
1.6. List of Approvals and documents audited	5
1.7. Period covered by the Audit	5
2.0 AUDIT PROCESS AND METHODOLOGY.....	6
2.1. Selection and Endorsement of Auditor.....	6
2.2. Site Inspections and Interviews.....	6
2.3. Consultation with Agencies	7
2.4. Compliance Status Descriptors.....	10
2.5. Explanation of Finding Classifications.....	10
2.6. Audit Attendees	11
2.7. Audit Disclaimer	11
3.0 AUDIT FINDINGS	12
3.1. Compliance Summary	12
3.2. Project Compliance – Findings, Actions and Recommendations	13
3.3. Summary of Environmental Performance	19
3.3.1. Internal/Contractor Audits and Corrective Action	19
3.3.2. Water Management, Erosion and Sediment Control	19
3.3.3. Spoil Management	20
3.3.4. Biodiversity	21
3.3.5. Heritage Management.....	22
3.3.6. Transport Management	22
3.3.7. Natural Hazard Management Plan (incorporating Bushfire Management Plan)	25
3.3.8. Site Inspection Photographs	26

3.4.	Proponent Review and Response.....	42
3.5.	Previous Audit Follow-up	42
3.6.	Complaints and Incidents.....	42
4.0	Appendix A - Audit Attendance Register	43
5.0	Appendix B – Independent Audit Declaration Form.....	44
6.0	Appendix C – Planning Secretary Audit Team Agreement.....	45
7.0	Appendix D – Audit Plan and Scope.....	46
8.0	Appendix E –Snowy 2.0 Independent Audit Tables	51
	TABLE A – Schedule 2 – Administrative Conditions.....	51
	TABLE B – Schedule 3 – Specific Environmental Conditions	57
	TABLE C – Schedule 4 – Environmental Management, Reporting and Auditing	118
	TABLE D –Environmental Management Strategy and Management Plan requirements	127

Document Information	
Title:	Independent Environmental Audit Report – Snowy 2.0 Main Works
Audit Organisation	Dickson Environmental Consulting and Audit
Auditor & Author	Julie Dickson (Lead Auditor)
Preliminary findings issued:	25 January 2020
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Final Report for issue:	09/04/2021

EXECUTIVE SUMMARY

An Independent Environmental Audit (IEA) was conducted of the Snowy 2.0 Main Works Project. The audit scope was in accordance with the Independent Audit Program (IAP) approved by the Planning Secretary of the Department of Planning, Industry and Environment (DPIE) on 28 September 2020.

Condition 9 of Schedule 4 of the Main Works approval requires that Independent Environmental Audits are undertaken within one year of the commencement of construction, and every 3 years thereafter. Given the sensitive location and scale of the Snowy 2.0 project Snowy Hydro Limited determined that a greater Independent Environmental Audit regime should be adopted than that outlined in the Conditions of Consent and as such prepared an IAP based on the Independent Audit Post Approval Requirements (PAR) (DPIE May 2020). The audit frequency defined in the IAP is initially, an audit within 12 weeks of commencement of construction and thence, every 26 weeks from the date of the initial independent audit.

This audit was undertaken as the initial “construction commencement” Independent Audit of the Snowy 2.0 Main Works Project, and was conducted approximately 12 weeks after construction formally commenced. Construction commenced on 22 October 2020.

The scope of the audit included the Conditions of Consent relevant to early construction works taking a risk-based approach and included areas identified by Agencies for inclusion in the scope as part of pre-audit consultation. The scope of the audit also included commitments made in the Environmental Management Strategy and Management Plans, and an assessment of overall environmental performance.

The audit was conducted over 3 days on site, the first day commencing at the Snowy Hydro offices and the subsequent two days at the key active construction sites – Ravine Road upgrade works, Lobs Hole, Tantangara and Marica camps sites.

Overall, the outcome of the Independent Environmental Audit (IEA) including the site inspections was positive. Snowy Hydro Limited (SHL) and their principal contractors Future Generation Joint Venture (FGJV) demonstrated significant commitment to compliance with the Conditions of Consent and the commitments made within the Environmental Management Strategy and relevant management plans within the scope of the audit. Key areas of strength included:

- Flora and fauna protection: - clearing tracking; pre- and post-clearing surveys/clearing permits implementation, fauna strike mitigation; unexpected finds - threatened flora protection; vehicle speed restrictions;
- Water, erosion and sediment management: stabilisation; clean and dirty water diversion and separation; use of “plant nappies”; appropriate refuelling practices; and
- Heritage management - Engagement of Heritage and archaeological specialists and implementation of no-go zones and salvage.

The audit identified a number of areas of non-compliance, and Observations and Opportunities for Improvement have also been raised for action and consideration. In summary:

Eight (8) findings were raised at this audit, comprising:

- Three (3) Non-Compliances (NC);
- Four (4) Observations (OBS); and
- Two (2) Opportunities for Improvement (OFI)

The Non-Compliances primarily related to inadequate minimisation of potential spills and leaks and notification of incidents to DPIE and NPWS.

The Observations related to weed mitigation, clarity of disturbance area delineation, internal audit process and unexpected find procedure – contamination training. Opportunities for Improvement were identified in relation to light spill and waste minimisation.

The Auditees were cooperative throughout the audit process. The Auditor would like to thank all participants for their cooperation and assistance.

1.1. Audit definitions and Abbreviations

Abbreviation	Explanation
APZ	Asset Protection Zone
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
CC	Construction Certificate
CCR	Construction Compliance Report
CoC	Conditions of Consent
CSSI	Critical State Significant Infrastructure
DAWE	Commonwealth Department of Agriculture Water and the Environment (formerly Department of the Environment and Energy)
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
ELIANZ	Environment Institute of Australia and New Zealand
EMS	Environmental Management Strategy
HMP	Heritage Management Plan
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
ECVT	Emergency, Cabling and Ventilation Tunnel
FGJV	Future Generation Joint Venture
GMP	Groundwater Management Plan
IAP	Independent Audit Program
IEA	Independent Environmental Audit
KNP	Kosciuszko National Park
MAT	Main Access Tunnel
NPWS	National Parks and Wildlife Service
NRAR	Natural Resources Access Regulator
OC	Occupation Certificate
PCCR	Pre-Construction Compliance Report
PESCP	Progressive Erosion and Sediment Control Plan
PIRMP	Pollution Incident Response Management Plan
Project, the	Snowy 2.0 Main Works
SAP	Sensitive Area Plans
SMP	Spoil Management Plan
SPAL	Special Purpose Access Licence
SWMP	Surface Water Management Plan
TCP	Traffic Control Plan
TMP	Transport Management Plan
RMS	Roads and Maritime Service
ROL	Road Occupancy Licence
ROP	Road Opening Permit
SDS	Safety Data Sheet
SSI	State Significant Infrastructure
SWMS	Safe Work Method Statement
TBM	Tunnel Boring Machine
WAL	Water Access Licence
WMP	Water Management Plan

1.0 INTRODUCTION

1.2. Purpose and Requirement for this Audit

This Independent Environmental Audit was conducted as the initial independent and objective assessment of the environmental performance and compliance status of the Snowy 2.0 Project with the Department of Planning and Industry and Environment (DPIE) Conditions of Consent. The Project has been assessed as Critical State Significant Development (SSI 9687) and as such, is required to undergo Independent Environmental Audits (IEAs).

Schedule 4 Condition 9 of the Consent requires that “within one year of the commencement of construction, and every 3 years thereafter unless the Planning Secretary agrees or directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the development”.

Snowy Hydro determined that given the sensitive location and scale of the Snowy 2.0 development, a greater IEA regime should be adopted than that outlined in the Conditions of Consent. Snowy Hydro believe this approach will ensure a planned and systemic independent review of environmental performance is completed and undertaken at appropriate intervals throughout the project and would complement the internal assurance tools and compliance checks that would be implemented by Snowy Hydro.

Snowy Hydro presented a proposed IEA program for the first 2 years to the Department on 14 September 2020, developed in accordance with the DPIE Post Approval Requirements (PAR) - Independent Audit document (May 2020). The IEA Program sets out the audit frequency, with the initial audit to be conducted within 12 weeks of the commencement of “Construction” with the scope “Targeted audit of Management Plans and associated systems and processes specific to initial construction activities”. Ongoing audits are subsequently scheduled at intervals of 26 weeks from the date of the initial audit. DPIE reviewed and approved the IEA Program on 28 September 2020.

This audit is the initial construction Independent Environmental Audit, which commenced on 18 January 2020.

1.3. Background of the Project

Snowy Hydro Limited (Snowy Hydro) is constructing a pumped hydro-electric expansion of the Snowy Mountains Hydro-electric Scheme, called Snowy 2.0. Snowy 2.0 will be built by the delivery of two projects: Exploratory Works and Snowy 2.0 Main Works (subject of this audit). Snowy 2.0 involves linking the existing Tantangara and Talbingo reservoirs through approximately 27 kilometres of new underground tunnels and a hydro-electric power station.

Snowy 2.0 would provide an additional 2,000 megawatts of electricity and provide up to 350 gigawatt hours of energy storage for the National Electricity Market (NEM). 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.

In July 2018, the Environmental Impact Statement for the Exploratory Works for Snowy 2.0 (Exploratory Work EIS) was submitted to the then Department of Planning and Environment. Following public exhibition, the response to submissions was prepared (Response to Submissions Exploratory Works for Snowy 2.0), and on 7 February 2019, approval of Snowy 2.0 Exploratory Works (Exploratory Works) was granted by the Minister for Planning.

The *Snowy 2.0 Main Works Environmental Impact Statement* (Main Works EIS) was submitted to the Department of Planning, Industry and Environment in September 2019 and publicly exhibited between 26 September 2019 and 6 November 2019. A total of 222 submissions were received and in February 2020, the response to submissions was prepared (*Snowy 2.0 Main Works – Response to Submissions*).

Following consideration of this document and the Main Works EIS, approval was granted by the Minister for Planning and Public Spaces (formerly Minister for Planning) on 20 May 2020. The approval for Snowy 2.0 Main Works incorporates the Exploratory Works and Main Works project elements and requires surrender of the Exploratory Works approval within six months of the commencement of construction. At the time of surrender, the conditions and requirements of the Main Works Infrastructure Approval would apply to any Exploratory Works activities required to be completed.

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*. The referral was approved by DAWE on 29 June 2020.

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

Construction works for Main Works commenced on 21 October 2020.

1.4. Auditor Credentials

Audit Organisation:	Dickson Environmental Consulting and Audit Pty Ltd
Auditor & Report Author:	Julie Dickson
Auditor Qualification:	Exemplar Global Lead Environmental Auditor Accreditation no. 13573 (exp June 2022)
Affiliations:	EIANZ Certified Environmental Practitioner, Reg. no. 221

1.5. Audit Objectives, Scope Development, Scope & Criteria

The objective of this Independent Environmental Audit is to assess the environmental performance of the development and whether it is complying with the requirements in this approval (including the requirements of any approved strategy, plan or program), review the adequacy of the approved strategies, plans and programs and to recommend any appropriate measures to improve environmental performance of the development in accordance with Condition 9 of Schedule 4 of the Conditions of Consent.

The scope was developed by the Auditor in consultation with Snowy Hydro, based on the approved IEA program, and information provided on the expected activities that would be in progress at the time of the audit.

In accordance with the approved IEA program the audit scope and criteria therefore included:

- Management Plans and associated systems and processes specific to initial construction activities; and
- Conditions relevant to the current phase of the development (initial construction activities);

The audit scope also included areas of focus identified by key stakeholders during the pre-audit consultation process. The areas of additional scope requested are documented within Section 2.3 – Consultation with Agencies and Table 1 - Agency Consultation Summary Table.

The scope of the audit is also reflected within the Audit Plan and Scope in Appendix D.

The audit criteria are also reflected within the Compliance Requirements column of the Audit Tables in Appendix E.

1.6. List of Approvals and documents audited

- Main Works Approval CSSI 9687 Schedules 1 to 4 and relevant appendices;
- Snowy 2.0 Main Works - Spoil Management Plan Rev G 11/08/2020 (FGJV);
- Snowy 2.0 Main Works Biodiversity Management Plan Rev I 12/10/2020 (FGJV);
- Snowy 2.0 Main Works Water Management Plan Rev G 15/10/2020 (FGJV);
- Snowy 2.0 Main Works Surface Water Management Plan Rev G 15/10/2020 (FGJV);
- Snowy 2.0 Main Works Groundwater Water Management Plan Rev G 15/10/2020 (FGJV).
- Snowy 2.0 Main Works Heritage Management Plan Rev G 13/08/2020 (FGJV);
- Snowy 2.0 Main Works Transport Management Plan Rev G 13/08/2020 (FGJV);
- Snowy 2.0 Main Works Natural Hazards Management Plan Rev C 04/08/2020 (FGJV);
- Snowy 2.0 Main Works Environmental Management Strategy Rev I 11/08/2020 (FGJV);
- Snowy 2.0 Exploratory Works Rehabilitation Management Plan Rev C 19/10/2020.

Evidence sighted to verify compliance to requirements is documented within the Audit Tables in Appendix F.

1.7. Period covered by the Audit

This audit commenced with a pre-audit of relevant documents during the week 11 to 15 January 2021, with the on-site component commencing Monday 18 January 2021 at the Snowy Hydro Limited offices in Cooma. Site inspections were undertaken on Tuesday 19 and Wednesday 20 January 2021 and a debrief was held on site on 20 January prior to the auditor leaving site. The closing meeting was held remotely a few days later on 22 January 2021. Various follow up activities were undertaken during the following weeks including the issue of a clarifications document, evidence requests, and issue of revised findings.

The first Draft Independent Environmental Audit Report was issued to the proponent via email on 7 March 2021, and a response to the findings document was received via email from SHL on 24 March 2021. Further opportunities were provided to the Proponent to provide comments on the Draft report on 25 March 2021, and 31 March 2021.

The second Draft Independent Environmental Audit Report was issued on 6 April 2021, and following receipt and consideration of feedback, the Final Report was issued on 9 April 2021.

2.0 AUDIT PROCESS AND METHODOLOGY

This Independent Environmental Audit was conducted as the initial Independent Environmental Audit of the Snowy 2.0 Project in accordance with the Schedule 4 Condition 9 of the Conditions of Consent and the Post Approval Requirements May 2020.

Audit Tables were developed for the audit, based on the conditions of consent requirements and key commitments made in the approved Project Management Plans relevant to the early works.

An Audit Plan and Scope was prepared in consultation with the auditees which defined the audit objectives, audit scope, audit methodology, proposed/required attendees and timeframes for interviews and document reviews. Additional scope was added to the Audit Plan and Scope following consultation with DPIE, NPWS and EPA in late December 2020. Key project documentation including all relevant approved management plans was reviewed by the Auditor prior to the audit.

The audit commenced with an on-site opening meeting at the Snowy Hydro office in Cooma to provide the Proponent and auditees with an overview of the objectives, scope and methodology. The audit consisted of:

- A pre-audit review of DPIE-approved management plans and NPWS approved management plans, and the development of the Audit Tables;
- A review of documented evidence both during and following the audit, including plans, records, and photos to evaluate compliance against all relevant Conditions of Consent (CoC), key commitments made in the Environment Management Strategy / as well as management plans and additional areas of focus identified during pre-audit consultation with the agencies; and
- Site inspections at three main sites, interviews with key project personnel and review of key records.

The audit concluded on site with a debrief, with a discussion on any identified issues to date, with a closing meeting remotely via Google Meets a few days later.

Post-audit activities included provision of an interim findings table, follow-ups on areas requiring further evidence, clarification, and communications with the auditees to address audit findings prior to issuing of draft and final Audit reports.

The audit was conducted generally in accordance with the Audit Plan and Scope (Appendix E) and in accordance with AS / NZS / ISO 19011:2018 – Guidelines for Auditing Management Systems.

2.1. Selection and Endorsement of Auditor

Snowy Hydro requested the approval of a suitably qualified person to prepare the IEAs for the Snowy 2.0 Main Works (the Project) SSI 9687 (the Approval) on 30 September 2020. The Secretary agreed to Julie Dickson and Larry Weiss of Dickson Environmental Consulting and Audit as the audit team for the project in a letter dated 1 October 2020. A copy of the letter endorsing the auditors is contained within Appendix C of this report. Julie Dickson conducted this initial Independent Environmental Audit.

2.2. Site Inspections and Interviews

Site inspections were conducted at the three sites over 2 days:

- 19 January at Lobs Hole and Lobs Hole Ravine Road including interviews with Snowy Hydro and FGJV personnel;
- 20 January at Tantangara site (am) including interviews with FGJV personnel and Archaeologist Julie Dibden;

- 20 January at Marica site (pm) including interviews with FGJV personnel and GHD Ecologist.

2.3. Consultation with Agencies

Department of Planning, Industry and Environment:

An initial email was sent by the Auditor to DPIE via compliance@planning.nsw.gov.au on 24 November 2020 requesting input to the scope of the audit and also requesting the provision of information on other parties or Agencies that should be consulted to obtain their input to the scope of the audit. No response had been received by the Auditor by mid-December, so a follow-up email was sent on 15 December 2020 noting that no response had yet been received, and expressing concern that with the upcoming Christmas break, other stakeholders not yet contacted may not have time to respond.

A response was received from DPIE on Friday 18 December at 3.35pm, requesting that National Parks and Wildlife Service and EPA be consulted, together with a request to focus on various key areas as listed below:

- Erosion and sediment management;
- Ground water and surface water management;
- Flora and fauna protection/management;
- Vegetation clearing and management;
- Heritage salvage/management;
- Road upgrades;
- Boulder Stream management (Ravine Road);
- Traffic management including vehicle movements from Polo Flat Segment Factory;
- Accommodation facility;
- Appropriate other approvals have been obtained where required such as construction/occupation certificates; and
- Compliance reporting, tracking and management.

Following the receipt of feedback from DPIE, representatives from National Parks and Wildlife Services and NSW Environment Protection Authority were contacted as documented below:

National Parks and Wildlife Service:

An initial phone call was made to Glenn Stroud of NPWS on 18 December 2020, followed up by an email inviting NPWS to request any additional scope input to that already requested by DPIE. The following additional scope was requested by NPWS:

- Biodiversity Management Plan implementation including preclearing and clearing procedures, unexpected finds, weed/pest/pathogen control, Fauna strike mitigation strategy;
- Transport Management Plan – implementation of measures to reduce congestion on the public road network;
- Water Management Plan - implementation of the Groundwater Monitoring Plan and compliance with preclearing procedures and rehabilitation of sites;
- Rehabilitation Management Plan – implementation of temporary and progressively permanent rehabilitation and maximising reuse of cleared material for seed collection and rehabilitation;
- Transport Management Plan – implementation of Condition 41 for road upgrades, Traffic Control Plans on publicly accessible roads, review of traffic incidents and implementation of vehicle restrictions;

- Heritage Management Plan – implementation of Aboriginal Heritage salvage and measures to mitigate impacts to geodiversity features;
- Public and Agency reporting on all Management Plan commitments.

Environment Protection Authority:

An initial phone call was made to Nigel Sargent of NSW EPA, on 18 December 2020, followed up by an email inviting the EPA to request any required additional scope input to that already requested by DPIE. An email response was provided by Carlie Armstrong from the EPA requesting two areas of additional scope as listed below. A follow-up phone call was also made to Carlie to clarify the detail and intent of the additional scope.

- Sewage Treatment Plant – progress on installation and detailed design;
- Process Water Treatment Plant – progress on installation and detailed design.

General:

It should be noted that due to the late notification of additional scope, it was not possible to fully address all elements of the requested scope extension within the time allocated for the on-site audit. Further additional evidence was therefore requested from the auditees after the completion of the on-site component to facilitate the additional scope, however some of the additional scope items were not yet fully assessed. The degree to which the additional scope requested by the above agencies was addressed in this audit is documented within Table 1 below.

As the audits are to be conducted on a six-monthly basis, which is a higher frequency than required by the conditions of consent, it was considered that the areas not yet fully assessed at this audit can be satisfactorily covered at future audits. The agencies would be consulted prior to each 6-monthly audit as an ongoing process.

Table 1 - Agency Consultation Summary Table

Agency consultation and scope input requests	Degree of scope assessed, comments
DPIE scope requests	
Erosion and sediment management.	Addressed as part of established audit scope, part of site inspections.
Ground water and surface water management.	Addressed as part of established audit scope, part of site inspections.
Flora and fauna protection/management.	Addressed as part of established audit scope, part of site inspections.
Vegetation clearing and management.	Addressed as part of established audit scope, part of site inspections.
Heritage salvage/management.	Addressed as part of established audit scope, part of site inspections.
Road upgrades including appropriate design and drainage (Ravine road/lobs road).	Road upgrade works assessed visually; detailed design not included.
Boulder Stream management (Ravine road).	Addressed as part of established audit scope, part of site inspections.

Agency consultation and scope input requests	Degree of scope assessed, comments
Traffic management including vehicle movements from Polo Flat Segment Factory.	Traffic management partially assessed; Polo Flat Segment Factory not operational – minimal traffic impacts to date.
Accommodation facility	Lobs Hole accommodation facility assessed as part of site inspection.
Appropriate other approvals have been obtained where required such as construction/ occupation certificates.	Construction and Occupation Certificates not triggered by Main Works Approval to date and under discussion with SHL. Polo Flat Segment factory is under separate approval.
Compliance reporting, tracking and management.	Incident notification covered, compliance reporting not yet triggered.
National Parks and Wildlife Service scope requests	
Biodiversity Management Plan implementation including preclearing and clearing procedures, unexpected finds, weed/pest / pathogen control, fauna strike mitigation strategy.	Addressed as part of established audit scope, part of site inspections.
Transport Management Plan – implementation of measures to reduce congestion on the public road network.	Traffic and transport management partially assessed. Further assessment planned for future audits.
Water Management Plan - implementation of the groundwater monitoring plan and compliance with preclearing procedures and rehabilitation of sites.	Addressed as part of established audit scope, part of site inspections.
Rehabilitation Management Plan – implementation of temporary and progressively permanent rehabilitation and maximising reuse of cleared material for seed collection and rehabilitation	Components of rehabilitation assessed as part of site inspection and biodiversity requirements. Temporary rehabilitation limited to stabilisation at this early stage, permanent rehabilitation not triggered.
Transport Management Plan – Implementation of Condition 41 for road upgrades, Traffic Control Plans on publicly accessible roads, review of traffic incidents and implementation of vehicle restrictions.	<ul style="list-style-type: none"> – Condition 41 assessed; – TCPs on publicly accessible roads not assessed due to time restrictions; – Traffic incidents including measures to minimise incidents partially reviewed; – Implementation of vehicle restrictions assessed.
Heritage Management Plan – implementation of Aboriginal Heritage salvage and measures to mitigate impacts to geodiversity features.	Aboriginal Heritage salvage and measures to mitigate impacts to geodiversity features assessed.
Public and Agency reporting on all Management Plan commitments.	Incident and non-compliance reporting, notification of dates as per Conditions of Consent were assessed. Performance reporting on website (at 12 weeks since project commencement) was not yet triggered.

Agency consultation and scope input requests	Degree of scope assessed, comments
NSW EPA	
Sewage Treatment Plant – progress on installation, and detailed design.	Installation was in progress – not triggered. Detailed design still under review following EPA feedback.
Process Water Treatment Plant – progress on installation and detailed design.	Installation in early stages, not assessed. To be included in future audits.

2.4. Compliance Status Descriptors

Table 2: Compliance status descriptors (as per DPIE Independent Audit Post Approval Requirements)

Status	Description
Compliant	The auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirement have been complied with within the scope of the audit.
Non-compliant	The auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
Not triggered	A requirement has an activation or timing trigger that has not been met during the temporal scope of the audit being undertaken (may be a retrospective or future requirement), therefore and assessment of compliance is not relevant).

* Note: where SHL were unable to provide sufficient verifiable evidence to fully demonstrate compliance or non-compliance, a determination was made by the auditor based on available information. Limitations on completeness of evidence are documented in the Audit Tables.

2.5. Explanation of Finding Classifications

Table 3 - Audit Findings classifications (within “compliant” status descriptors)

Status	Explanation
Observation (OBS)	Documented requirement and/or implementation issue which may not strictly affect required performance or compliance outcomes. Also termed a non-conformance (as opposed to non-compliance) in the industry, observations could be an early indication of potential non-compliance and/or an adverse performance outcome.
Opportunity for Improvement (OFI)	A suggestion or opportunity to implement a good or better practice to improve effectiveness, further reduce exposure to risk or improve information management. When specifically stated as a Recommendation, a formal response and action plan are required.

2.6. Audit Attendees

Refer to Appendix A for Audit Attendance Register

2.7. Audit Disclaimer

This report is based on the scope provided in the project audit Program and does not assert to be a definitive confirmation of compliance or otherwise to all Conditions of Approval or conformance obligations contained within the Project documents. The audit was conducted on a sampling basis in accordance with the principles of ISO 19011:2018. Whilst all due care, diligence and professional judgment were exercised, it cannot be guaranteed that all areas of non-compliance, or non-conformance have been detected or identified.

3.0 AUDIT FINDINGS

3.1. Compliance Summary

Table 4 – Summary of compliance against audit criteria and areas of focus

Focus Area	Key Criteria	No. of conditions / items audited	STATUS		
			Compliant		Non-Compliant
			OFI	OBS	NC
Approvals, notifications, compliance reporting,	Incident notification, terms of approval, Sch 2, Access to information, offset payments	23			2
Management Plan adequacy	All DPIE approved management plans - adequacy	9			
Internal management processes	Internal audit, corrective actions, IEA communication and evidence provision, training / awareness	10		2	
Clearing, biodiversity Management,	Clearing protocols cleared material salvage and reuse, flora and fauna protection and monitoring, rehabilitation, weed management, light spill	12	1	2	
Heritage management	Aboriginal and historic heritage, geodiversity, salvage	9			
Water and soil management,	Erosion and sediment control, temporary stabilisation, surface water and groundwater spoil management, fuel and chemical management, spill prevention	36			1
Transport management	Road upgrades, congestion minimisation, vehicle restrictions, traffic incident prevention / minimisation.	9			
Emergency and Bushfire management	Implementation of the Natural Hazards Management Plan	9			
Waste management	Waste minimisation	1	1		
TOTALS		118	2	4	3

* Note – some conditions are listed more than once due to multiple requirements, however total does not double count.

3.2. Project Compliance – Findings, Actions and Recommendations

Table 5 - Independent Audit Findings – Snowy Hydro 2.0 CSSI No 9687

	Cond / req't Ref.	Requirement	Audit Finding	Proposed / Agreed Actions / Recommendations	Finding rating (NC, OBS / OFI)	Compliance Status
1.	Sch 2 Cond 2 (b)	The Proponent must carry out the development: a) generally, in accordance with the Exploratory Works and Main Works; and b) in accordance with the conditions of this approval.	Terms of Approval Non compliances have been raised against conditions of consent at this audit, and as such a non-compliance is triggered against part (b) of this condition.	No action required	NC 1	Non-compliant (closed)
2.	Schedule 3, Cond 30 (n) & (p) Water Management Plan Surface Water Management Plan	30 (n): minimise the risk of spills or leaks on site, and clean up any spills or leaks as quickly as possible 30 (p): store chemicals and hydrocarbon products in bunded areas in accordance with the relevant Australian Standards"	Risk of spill or leaks The site inspection at, and en-route to Lobs Hole identified three (3) instances of inadequate controls to prevent leaks or spills. Refer to report for photos. a) Storage of liquid substances The site inspection found that a bunded pallet containing "Class A Foam Liquid Concentrate" at Lobs Hole was overloaded and stored outside without shelter. The end row of containers was overhanging the edge of the pallet increasing the risk of spillage. The pallet was also positioned where it could be struck by reversing vehicles. (Refer to photo LH45).	Completed/Agreed Actions: <ul style="list-style-type: none">Remove overhanging containers (complete);Re-position pallet away from areas of vehicle movement;Complete a targeted Chemical Handling and Management audit and implement specific actions accordingly. (draft Audit Report issued to FGJV 1/4/21, final Audit Report to be issued by end April 2021); (in progress)Provide specific direction to site supervisors that all chemicals need to be stored in a bunded location in accordance with approved Management Plans and Australian Standards	NC 2	Non-compliant (Open)

	Cond / req't Ref.	Requirement	Audit Finding	Proposed / Agreed Actions / Recommendations	Finding rating (NC, OBS / OFI)	Compliance Status
				Responsibility: Snowy Hydro / Future Generation JV Proposed completion date: 01/05/21		
			b) Storage of chemicals (Ad Blue) without bunding Ad Blue containers (mostly empty, however some contained product) were stored on a timber (non-bunded) pallet at a Ravine Road site office/stockpile area (refer to Photo LH12).	Agreed Actions: <ul style="list-style-type: none"> Ad Blue containers are now stored in a bunded container at R5. Responsibility: Snowy Hydro / Future Generation JV Proposed completion date: 01/05/21		
			c) Spill prevention / portable bunding The portable bund around the generator on the shore of Talbingo Reservoir at Lobs Hole was not adequately supported (sides falling down) leading to reduced capacity to contain a leak or spill (refer to Photo LH29).	Agreed Actions: As above Responsibility: Snowy Hydro / Future Generation JV Proposed completion date: 01/05/21		
3.	Sch 4 Cond 6	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.	Incident Reporting The following incidents were not notified to the Department or NPWS within the required timeframes in accordance to Condition 6 of Schedule 4: <ul style="list-style-type: none"> Incident on 1 January 2021 in relation to the stonewall discharge at Kelly Plain, Tantangara was notified to the Department on 20 January 2021 Incident on 13 January in relation of a spill at the Ravine Road Communication Tower was notified to the Department on 27 January 2021 In a letter from the Department dated 8 February 2021, the proponent was reminded	Agreed Actions: SHL to implement a system to ensure that all incidents are reported to DPIE via the Major Projects Portal within the required time frames. Responsibility: Snowy Hydro Proposed completion date: 01/05/21	NC 3	Non-compliant (Open)

	Cond / req't Ref.	Requirement	Audit Finding	Proposed / Agreed Actions / Recommendations	Finding rating (NC, OBS / OFI)	Compliance Status
			to ensure all incidents and non-compliances are reported to all relevant agencies within required timeframes.			
4.	Sch 2, Cond 13(c) Sch 3, Cond 17 (i) Biodiversity Management Plan Section 5.1	The Proponent must ensure that all plant and equipment used on site, or in connection with the development, is: (c) kept free of weeds, seeds and pathogens when entering or leaving the site	Weed mitigation – light vehicles and plant Whilst weed mitigation measures are generally implemented in accordance with the Biodiversity Management Plan, it is considered that improvements to the effectiveness of the controls for the movement of vehicles are required. At the Tantangara site, the prevalence of Ox-eye Daisy (see photo TM 15) is a key issue of concern and strict hygiene protocols are required to avoid spreading this highly invasive species during construction activities. Current practices for light vehicle washing involved drivers washing down the vehicle with a high-pressure spray in accordance with instructions, and completing a Hygiene checklist / declaration form when leaving site. If persons undertaking the washdown are inadequately trained or not knowledgeable enough regarding technique or the reason for the cleaning process, there is some potential for cleaning to be inadequate (refer to Photos TM17 to TM19). It is recognised that a permanent wash-down facility will be installed in future, however it should be noted that the early clearance activities pose a higher level of risk regarding weed spread than later stages due to a higher likelihood of encountering uncleared/ partially cleared land infested with weed seeds.	Proposed action (SHL response): – Snowy/ FGJV to review the existing method of vehicle washdown specifically at Tantangara (by 1/06/21) Auditor Recommendations: – Given the issue was identified and discussed in January 2021, the timeframe proposed by SHL for action is considered to be inappropriate. Specific risk-based actions need to be determined, documented and implemented urgently. Actions to be considered include (but are not limited to): <ul style="list-style-type: none">○ Appoint dedicated, trained and competent wash-down person / inspector (potentially gatehouse staff);○ Implement more robust process to review hygiene declarations;○ Consider risk profile of different vehicle / plant types and their related activities (e.g. - heavy plant located in one place for duration vs light vehicles frequently moving to other sites);○ Install permanent wash-down / wheel wash facilities ASAP.	OBS 1	Compliant (Open)

	Cond / req't Ref.	Requirement	Audit Finding	Proposed / Agreed Actions / Recommendations	Finding rating (NC, OBS / OFI)	Compliance Status
			It was also noted that a sample hygiene declaration (to minimise spread of weeds) was not adequately completed, with part of the "Body and Engine Bay" section not completed.	Responsibility: Snowy Hydro / Future Generation JV Proposed completion date: 01/05/21		
5.	Biodiversity Management Plan Table 5-1 BM08	Clearing limits/ disturbance footprint will be delineated using highly visible, durable, continuous barrier such as safety flagging, UV stabilised rope, or other similarly robust and durable material. Delineation will be installed consistently where possible to reduce the risk of error or misinterpretation of boundaries.	Clearing limit / disturbance footprint delineation Various types / colours of flagging / fencing delineating no-go areas were installed at Lobs Hole, particularly in relation to exploratory works and main works the flagging colours are different.	Agreed Actions: Review of colouring and type of flagging / boundary delineation to ensure there is consistency wherever possible. This will minimise potential for misunderstanding on-site. Responsibility: Future Generation JV Proposed completion date: 01/05/21	OBS 2	Compliant (Open)
6.	Management System (ISO 14001) Non-Conformity and Corrective Action.	ISO 14001 cl. 10.2 When a non-conformity occurs, the organisation shall: a) react to the non-conformity and, as applicable: 1) take action to control and correct it; 2) deal with the consequences, including mitigating adverse environmental impacts;	Internal / Contractor audits Whilst it was positive that the internal / Contractor audits had been conducted by Snowy Hydro early in the construction process, there was limited evidence provided to demonstrate that the findings from the following three audits conducted to date were formally communicated to the Contractors, FGJV: – (Bushfire Preparedness (Lobs Hole) documenting 21 negative findings; – Biodiversity Management Plan - Clearing and Grubbing (at ECVT – Lobs Hole) documenting one negative finding; and – Spoil Management Plan - Topsoil Management (Tantangara) documenting	Agreed Actions: <ul style="list-style-type: none"> Implement a formal corrective action process for items raised in internal and Contractor Environmental Audits; Provide training / instruction to SHL audit team on the correct processes for raising corrective actions out of internal and contractor audits; Monitor the effectiveness of the process and ensure corrective actions taken by SHL and the Contractors are appropriate, effective and prevent or minimise potential for recurrence. 	OBS 3	Compliant (Open)

	Cond / req't Ref.	Requirement	Audit Finding	Proposed / Agreed Actions / Recommendations	Finding rating (NC, OBS / OFI)	Compliance Status
		b) evaluate the need for action to eliminate the causes.... c) implement any action needed.	fourteen (14) "Actions" and nine (9) "Recommendations" Limited evidence was provided to demonstrate that a formal corrective action system had been implemented to ensure appropriate corrective actions had been implemented and closed out. It was noted that a "Site Instruction" was sent to FGJV regarding the Biodiversity Management Plan, however no evidence of a response from FGJV was provided.	Responsibility: Snowy Hydro Limited Proposed completion date: 01/07/21		
7.	REMM CONTAM-08 EMS Sect 33 EMS Table 3-2	An unexpected finds procedure will be included in the CEMP. Workers will be trained to identify potential contamination that may be encountered during construction	Unexpected Finds Procedure – Contamination Whilst the induction training material refers to "signs of contamination" and a brief summary of what to do if contamination is encountered, there was no reference to the Unexpected Finds Procedure – Contamination. At the time of the audit, a copy of the Unexpected Finds Procedure – Contamination could not initially be located.	Proposed Actions: <ul style="list-style-type: none"> • Induction training material to be revised and updated to include reference to the Unexpected Finds Procedure • Copies of the Unexpected Finds Procedure - Contamination to be made available to all relevant workers (examples could include: display on Notice Boards, handouts, discussed at toolbox talks, as Appendix or attachment to training material). Responsibility: FGJV Proposed Completion Date: 01/06/21	OBS 4	Compliant (Open)

	Cond / req't Ref.	Requirement	Audit Finding	Proposed / Agreed Actions / Recommendations	Finding rating (NC, OBS / OFI)	Compliance Status
8.	Schedule 3 Condition 17 (k)	The Proponent must: (k) Minimise the light spill from night works, including directional and LED lighting	<p>Light spill mitigation</p> <p>Whilst evidence was provided that measures are in place to minimise light spill at the “long term” work sites such as the Tantangara Adit and TBM site, the inspection checklist used for nightworks lighting (individual sites such as pipeline road) only partially addresses the implementation requirements documented in BM 23 from the Biodiversity Management Plan.</p> <p>Questions that partially address the requirement are: Question 12 - “Lighting is adjusted so as not to be a hazard to others?” and; Question 13 - “White lights are not in use or directed towards marine environments?”</p>	<p>Recommendation:</p> <p>It is recommended that the nightworks lighting checklist (or other tools) be revised to include reference to the requirements of this condition and the commitments in the Biodiversity Management Plan (i.e. - lighting directed downwards and away from known locations of sensitive habitat).</p> <p>Responsibility: Future Generation JV</p> <p>Proposed completion date: 01/06/21</p>	OFI 1	Compliant (Open)
9.	Sch 3 Cond 52 EMS Section 5.8	The proponent must: (a) minimise the waste generated by the development	<p>Resource wastage / plastic pollution</p> <p>It was observed that plastic water bottles are provided extensively to workers due to lack of bulk water supplies at work sites.</p>	<p>Recommendation:</p> <p>Consideration should be given to providing bulk water supplies / water coolers / reusable bottles as an alternative to single use water bottles in the future.</p> <p>Responsibility: Future Generation JV</p> <p>Proposed completion date: 01/07/21</p>	OFI 2	Compliant (Open)

3.3. Summary of Environmental Performance

3.3.1. Internal/Contractor Audits and Corrective Action

It was noteworthy that Snowy Hydro Limited had conducted at least three internal / contractor audits relevant to environmental management on the Main Works project to date including Bushfire Preparedness (Lobs Hole); Biodiversity Management Plan - Clearing and Grubbing (at ECVT – Lobs Hole); and Spoil Management Plan - Topsoil Management (Tantangara). The audit criteria consisted of a number of questions or statements derived from the Management Plans, and responses were recorded as observations and commentary on level of compliance, and actions/recommendations were documented.

Whilst it is positive that the internal audits had been conducted by Snowy Hydro early in the construction process, there was limited evidence provided that a formal corrective action system has been systematically implemented to ensure appropriate responses to audit findings are provided and that corrective actions had been appropriately implemented. **Refer to Observation #3.**

As an example, one “Site Instruction” issued to FGJV as an output from the Biodiversity Management Plan – Clearing and Grubbing audit was provided as initial evidence of a formal corrective action process, however no responses appear to have been received from FGJV by Snowy Hydro Ltd. In another example, fourteen (14) “Actions” and nine (9) “Recommendations” were documented in the Topsoil Management Audit, however no evidence of a Site Instruction or any other formal findings issued to the contractor were provided.

Twenty-one (21) items were highlighted as negative observations in the Bushfire Preparedness Internal Audit report from October 2020, however the report did not include formal findings or recommendations. A Non-Conformance was however raised by the SHL Safety Manager on 1 December 2020, noting that numerous non-conformances had been identified as part of inspections and an audit in October 2020 (refer to section 3.3.7 – Natural Hazard Management Plan (incorporating Bushfire Management Plan) for further detail).

The above Non-Conformance had not yet been resolved or closed at the time of the audit, and was being managed by the SHL Safety department.

3.3.2. Water Management, Erosion and Sediment Control

Overall, adequate evidence was provided during and following the audit, to confirm that appropriate erosion and sediment controls had been implemented and appropriate measures were in place to manage groundwater and surface water in accordance with the conditions of consent and the commitments made in the Water Management Plan and associated appendices – the Groundwater and Surface Water Management Plans. However, one non-compliance was raised in relation to spills minimisation and chemical storage. The Water Management Plan, Groundwater Management Plan and the Surface Water Management Plan were reviewed as part of the audit, and generally found to meet the requirements of the conditions of consent.

The following commentary provides an overview of performance in relation to water management, erosion and sediment control:

- The site inspection confirmed (at the sites/locations visited) that erosion and sediment controls were appropriately installed (or in the process of being installed) to maximise the

diversion of clean water around the disturbance area, channel dirty water to sediment basins and other controls and minimise scour through installation of rock check dams;

- Appropriate checking mechanisms were in place including regular inspections by the construction contractor environmental team, and the engagement of specialist soil conservation consultants (TREES) to undertake periodic inspections and review of erosion and sediment controls;
- Waste water and process water treatment plants were still under construction at the time of the audit and were not operational. At the time of the audit, the *Detailed Design Report – Exploratory and Fly Camp Sewage Treatment Plant* was undergoing review to address comments by the EPA, and will not be commissioned until the issues are resolved;
- Wastewater was required to be pumped out and disposed of by a licenced waste contractor at Lobs Hole accommodation camp as an interim measure until the sewage treatment plant becomes operational. No process water has yet been generated;
- Groundwater quality impacts from spoil emplacement have been mitigated to date by minimal storage of temporary spoil (used in construction of the site pads) and lack of permanent spoil emplacement at this stage of the development;
- The site inspection found that fuels and chemicals were generally stored appropriately in bunded areas, however examples of inadequate storage and bunding of operating stationary plant were identified. As such, a non-compliance has been raised against Condition 30 (p) of Schedule 3 – minimisation of the risk of spills or leaks. **Refer to Non-Compliance #2.**

3.3.3. Spoil Management

At the time of the independent audit, no spoil had been removed from site for disposal, no spoil had been generated from tunnel boring machines, and spoil generated to date has primarily been used to construct pads, level working areas and in construction of erosion and sediment controls. As such, the focus of the audit relating to spoil was on the minimisation of ground and surface water impacts, the segregation of topsoil from other spoil and the adequacy of the Spoil Management Plan. The following commentary provides an overview of performance to date relating to spoil management:

- As noted above in the Water Management, Erosion and Sediment Control section, erosion and sediment controls were appropriately installed, and the site inspection did not identify any specific areas in which spoil stockpiles were inadequately managed;
- The Spoil Management Plan was reviewed as part of the audit, and was found to be adequate for the current stage of the development. The proponent has chosen to stage the preparation of the Spoil Management Plan as allowed by Condition 7(f) of Schedule 3, with only the Lobs Hole Detailed Plans developed to date.

3.3.4. Biodiversity

Overall, adequate evidence was provided during and following the audit, to confirm that appropriate measures were in place to manage biodiversity in accordance with the conditions of consent and the commitments made in the Biodiversity Management Plan. The Biodiversity Management Plan was reviewed as part of the audit, and generally found to meet the requirements of the conditions of consent.

The following commentary provides an overview of performance in key areas:

- The approved disturbance area was appropriately delineated and the site inspection did not identify any clearance or disturbance outside of the defined areas;
- Clearing (Land Disturbance) Permits are used as a key tool by the construction contractors to manage and ensure compliance with land clearing requirements. The Permits define the geographical area to be cleared, identify the plant community / threatened species / flora and fauna habitat types and their respective area (in ha) to be cleared, signage and delineation required, ecologist inspection and clearance information, environmental team checks and sign-off, approval to clear and post disturbance activities;
- Clearing limits/ disturbance footprint were be delineated with durable, visible flagging and fencing, however various colours and types of flagging were used at Lobs Hole in particular, potentially causing misunderstanding of boundaries on site. **Refer to Observation #2;**
- Pre-clearing survey reports prepared by ecologists prior to clearing provided detailed information for input to the clearing permits to ensure required protocols are followed;
- Post-clearing survey reports by ecologists reported on the actual outcomes of the clearing, including salvage, seed collection and other actions taken to maximise salvage of resources;
- A Clearing and Grubbing Register tracks the area cleared (to date) of each flora and fauna habitat versus the limits (in ha), providing a cumulative percentage of limit total to date for each habitat;
- Evidence was provided to establish that salvage of resources within the disturbance area for reuse in the restoration of vegetation and habitat on site was being maximised to the extent possible. Key evidence to support this included a review of pre-clearing surveys and post clearing surveys prepared by ecologists.
- FGJV have employed a specialist as a “go-between”, liaising between design and construction / environmental team to ensure optimal outcomes including minimisation of clearing to meet objective and conditions of approval;
- Actions to minimise the impacts of the development on threatened flora included moving the disturbance boundary in the vicinity of the Tintangara Adit portal to avoid impacting a stand of threatened species Pimelea Bracteata following the discovery thereof during a Pre-clearing survey;
- Appropriate measures were in place to minimise potential for fauna strike in sensitive habitat areas including the installation of an In-Vehicle Management System (IVMS) on Project vehicles, requiring vehicles using Lobs Hole Ravine Road to travel at less than 30km/hr at all times and installation of a trial underpass on Lobs Hole Ravine Road (4 more planned);
- Weed mitigation measures were in place, particularly in Tintangara where the prevalence of Ox-eye Daisy is a key issue of concern, however it is considered that improvements to the weed hygiene process could be made, and as such, an observation was raised at this audit (**Refer to Observation #1**);

- Appropriate evidence was provided that measures are in place to minimise light spill at the “long term” work sites (e.g. – Adit, TBM sites) through the Adit Lighting Plan, however an opportunity for improvement was identified to improve the tools to control light spill at temporary sites;
- Adequate evidence was provided to demonstrate that bushfire risk is being managed, recognising that internal audits and inspections by Snowy Hydro have identified issues requiring follow-up and close-out.

3.3.5. Heritage Management

Overall, adequate evidence was provided during the audit, to confirm that appropriate measures were in place to manage Aboriginal, historic and natural heritage in accordance with the conditions of consent and the commitments made in the Heritage Management Plan at this early phase of the development. It was noted that due to the bushfires in 2020, there is a recognised need to reassess some of the sites. The Heritage Management Plan was reviewed as part of the audit, and generally found to meet the requirements of the conditions of consent. The following commentary provides an overview of performance in key areas:

- Aboriginal heritage salvage and archive work was being undertaken by Julie Dibden of NSW Archaeology Pty Ltd and a completed Heritage Site Clearance Form for RSU12 – Aboriginal Survey Unit Lobs Hole was sighted;
- Salvage of items at Lobs Hole as part of Exploratory Works was complete, with items held by the Archaeologist (not sighted). An interim report for early works was in progress at the time of the audit.
- Excavation and salvage of historic items were in progress at Tantangara and Marica (clearance certificates not yet completed at time of the audit) in accordance with the requirements of the Heritage Management Plan;
- Interviews with Snowy Hydro and the Project Archaeologist provided verbal assurances that heritage items outside the construction envelope, and the Ravine Cemetery located inside the construction envelope had not been affected by the development as required by the conditions of consent;
- The site inspection confirmed that the Washington Hotel heritage item had been delineated by no-go zone flagging and signage at Lobs Hole as required;
- The archival record of the history of settlement was in progress at the time of the audit, however was not sighted; and
- The site inspection and the outcomes of the Exploratory Works Independent Environmental Audit provided evidence that the impacts of the development on the boulder streams and fossiliferous beds along Lobs Hole Ravine Road had been minimised as far as practicable, taking the stability of the embankment and safety of road users into account.

3.3.6. Transport Management

Overall, adequate evidence was sighted to confirm that the transport management requirements assessed within the scope of this audit have been generally satisfied at this early phase of the development. A review of certain aspects of transport management were specifically requested to be included in the scope of the audit by DPIE and NPWS. The specific areas of focus and the outcomes of each area are detailed below:

DPIE:

- Road upgrades including appropriate design and drainage (Lobs Hole/Ravine Road);
 - The Exploratory Works Independent Environmental Audit identified that the upgrade to the Lobs Hole Ravine Road within the boulder streams were implemented in accordance with the Wide Cut Design Option to the satisfaction of NPWS
 - Road upgrades of Lobs Hole Ravine Road and Tantangara Road were in progress at the time of the audit. A full review of design plans was not sighted as part of the audit, however the site inspection provided evidence of generally appropriate drainage and upgrade works to facilitate the passage of large trucks to the construction site.
 - Intersection upgrades were completed prior to the Independent Audit. No complaints had been recorded in regards to road and intersection upgrades.
- Traffic management including vehicle movements from Polo Flat segment factory
 - Traffic management at Lobs Hole Ravine Road was appropriately managed, as the road was closed to the public at the time of the audit. Due to the narrow road, construction traffic was one-way only, and therefore trip times were scheduled for entry and exit to the site. No queuing was evident on Link Road. A site office was established at the top of Lobs Hole Road to manage construction traffic. Refer to photos LH2 and LH4.
 - A closure and access notice were posted on Tantangara Road approximately 100m from the Snowy Mountains Hwy turn-off noting that there will be some temporary access disruptions to the Tantangara Reservoir boat ramp, and that there will be an increase in construction traffic, which will be speed limited to 60 km /hr. Refer to Photo TM3. UHF radios were used to advise locations of vehicles at each Call-up point (Refer to Photo TM4)
 - Vehicle movements were minimal from the Polo Flat segment factory at the time of the audit as the factory was not operational. The site inspection included several visits to the segment factory and surrounding road network, and no specific issues relating to traffic management were identified.

NPWS:

- Implementation of measures to reduce congestion on the public road network;
 - Three complaints were recorded in November 2020 relating to delays to motorists on Snowy Mountain Hwy during escorted deliveries of oversize over-mass (OSOM) loads. Since the complaints, the road permit authorities have now allowed night deliveries;
 - Slow vehicle turnouts have been created along the Snowy Mountains Highway so that trucks can pull in and provide cars with an opportunity to safely overtake;
 - The journey to the construction sites as part of the site inspection did not identify any congestion issues.
- Implementation of Condition 41 for road upgrades to the satisfaction of the road authority;
 - At the time of the audit, Snowy Hydro and NPWS had not yet come to any agreement on how the sign-off mechanism for road upgrades will work. No road upgrade works had been completed in the NP to date and therefore no formal sign off has yet been required where NPWS is the designated roads authority;
 - TfNSW was engaged to design and construct the intersection improvement works at the intersections identified in Table 5-2 of the approval. The intersections completed have therefore been “self-signed off” to the satisfaction of the Roads Authority.
- Implementation of Traffic Control Plans on publicly accessible roads to meet MP and legal requirements;

- Implementation of TCPs was not assessed due to limited audit time. This will be assessed at future audits.
- Review of traffic incidents and what systems have been put in place to address any issues;
 - Discussions were held with Snowy Hydro regarding traffic incidents and strategies implemented to minimise potential for serious incidents. It was stated that approval had been obtained for Snowy Hydro to pay for a Highway Patrol Police team to patrol between Cooma and Tumut to combat dangerous driving by other trucking organisations;
 - In-Vehicle Management System (IVMS) has been installed in project vehicles to ensure the speed limit is observed at all times.
- Implementation of vehicle restrictions and other MP requirements
 - Interviews with Snowy Hydro indicated that there are limited options to access sites, and that drivers are provided with the Drivers Code of Conduct, however it could not be verified that all drivers comply with the approved routes at all times. No complaints or instances of non-compliance raised to the vehicle restrictions were identified.

The Transport Management Plan was reviewed as part of the audit, and was generally found to meet the requirements of the conditions of consent. The following commentary provides an overview of performance in key areas not addressed above relating to DPIE and NPWS focus areas:

- A dilapidation survey of Link Road between the Snowy Mountains Highway and Goat Ridge Road was prepared as required by Condition 42 of Schedule 3, however a dilapidation survey was not prepared for Tantangara Road as per the same Condition. A written statement was provided to justify the lack of dilapidation survey noting that initial video footage was collected in 2019, and *“As Tantangara Road is being reconstructed by the project it does not appear necessary to carry out a more detailed investigation as the existing infrastructure will be rehabilitated or replaced during construction.”* From the evidence sighted and explanations provided, it appears that the intent of this Condition is satisfied;
- It was observed that heavy vehicles were entering and leaving the sites in a forward direction and their loads were covered as required;
- Limiting the use of engine braking is included in the Drivers Code of Conduct and there had been no specific complaints regarding engine noise at the time of the audit;
- The Project website included a roads and access site with details of roads currently open and closed to the public, traffic updates, planned heavy vehicle loads and planned intersection upgrade notices.

3.3.7. Natural Hazard Management Plan (incorporating Bushfire Management Plan)

NPWS requested that the emergency management plan be audited to ensure that all measures to prepare for, prevent and mitigate natural hazards are being met. Due to time constraints, the audit of the requirements of emergency management was limited to observations made during the site inspection, a review of the induction material relating to emergency management and a review of the outcomes of a Bushfire Preparedness internal audit undertaken by Snowy Hydro against the Bushfire Management Plan in October 2020.

Twenty-one (21) items were highlighted as negative observations in the Bushfire Preparedness Internal Audit report from October 2020. A Non-Conformance was raised by the SHL Safety Manager on 1 December 2020, noting that numerous non-conformances had been identified as part of inspections and an audit in October 2020:

1. Failure to have the correct firefighting equipment on site as required in the approved Bushfire Management Plan; failure to have robust systems in place to ensure firefighting equipment is being appropriately maintained and tested;
2. Failure to maintain Asset Protection Zones (APZs) on site as required in the approved Bushfire Management Plan;
3. Failure to effectively communicate bushfire daily fire danger ratings to the workgroups (e.g., failure to have fire danger rating boards in place; rating boards not being updated on a daily basis; pre-start meetings relaying the incorrect fire danger rating);
4. Failure to provide evidence of a consequence management guide for bushfire.

The issues raised in the non-conformance by the Safety Department above generally align with the notes in the Bushfire Preparedness Internal Audit report dated October 2020, however did not provide all the specific findings.

A response by FGJV dated 13 January 2021 was included on the non-conformance form noting that: the SafeWork Improvement Notice and ongoing site maintenance contract had been closed out; that the bushfire danger ratings were correct, communicated and boards were in place; and the Consequence Management Guide is defined in the Bushfire Management Plan.

The Audit site inspection found that some of the shortcomings identified in the non-conformance report appear to have been resolved, and the balance of issues were in the process of being resolved between FGJV and SHL. Therefore, at this stage issues identified in the internal audit did not trigger a non-compliance at this independent audit.

Key items noted during the Audit site inspection included erection of bushfire rating boards, daily briefings, issue of daily notifications and alerts, provision of fire extinguishers, fire fighting backpacks and mini water carts located at active sites. Interviews with site personnel showed a high level of awareness of current bushfire ratings and equipment required.

The induction material was reviewed for content regarding emergency management, and it was found to be generally adequate for initial induction. Specific training material and records were not assessed at this audit, and will be included in future audits.

3.3.8. Site Inspection Photographs

Site inspections were held on the 19th and 20th of January 2021. The January 19th visit encompassed Lobs Hole Ravine Road, Lobs Hole construction site incorporating the MAT Portal, the ECVT portal area, Pipeline road, Exploratory Camp, and construction compound. These photos are sequentially numbered with prefix LH.

The January 20th visit encompassed Tantangara Road, Tantangara construction site incorporating the Tantangara Adit, future area for the Tantangara camp site and construction compound, and the Marica site. These photos are sequentially numbered with prefix TM.

Other areas inspected including the routes to each site via the Snowy Mountain Hwy and Link Roads as well as the Polo Flat segment factory site and surrounding roads. These photos are sequentially numbered with prefix PFR.

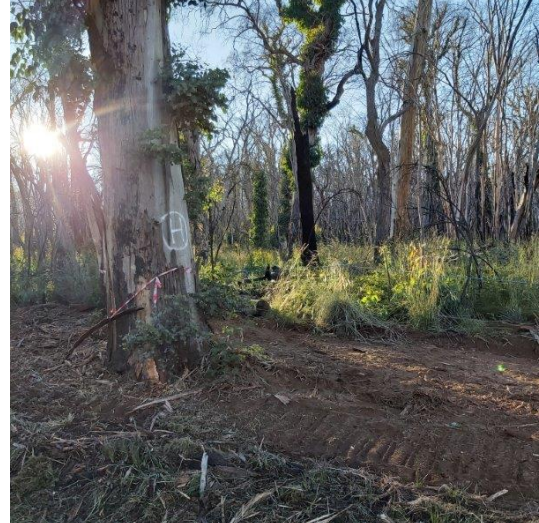
Commentary is provided with each photograph, and outcomes of the audit site inspections are incorporated within various sections of this report including the “Summary of Environmental Performance” section and in Table 5– Independent Audit Findings.

Photographs from site inspection – Lobs Hole Ravine Road on 19 January 2021	
	
LH1: Escorted oversized load on route to Lobs Hole on Link Road. Road has been upgraded and is closed to the public	LH2: Site office at top of Lobs Hole Ravine Road. Number of vehicles checked and hygiene declaration form requested
	
LH3: Top of Lobs Hole Road near Link Road – showing project signage and fire risk boards	LH4: View at top of Lobs Hole Ravine Road – awaiting go-ahead to travel to the Lobs Hole site according to schedule

Photographs from site inspection – Lobs Hole Ravine Road on 19 January 2021



LH5: Cleared area adjacent to Lobs Hole Ravine Road, covered with mulch, which will be removed and reused at the next phase of road widening.



LH6: Marked habitat tree for later removal and potential resource salvage (to be supervised by ecologist)



LH7: Trial fauna underpass No #1



LH8: Close up view of entry site to fauna underpass. Debris placed near entry to provide cover for Smoky Mouse



LH9: View of Lobs Hole Ravine Road with blue boundary marker rope delineating the limits of clearing



LH10: Temporary mulch stockpile at subcontractor compound - Lobs Hole Ravine Rd for later stabilisation use

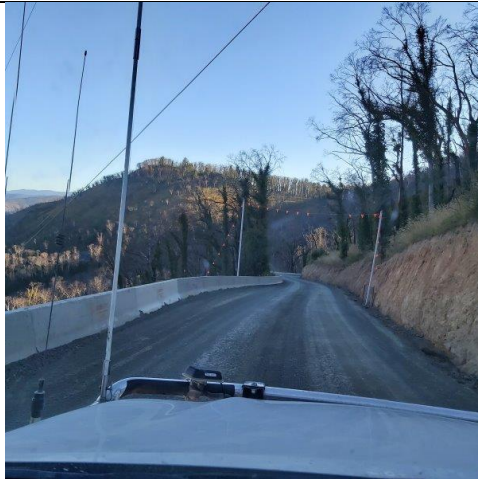
Photographs from site inspection – Lobs Hole Ravine Road on 19 January 2021



LH11: Storage of boulders from boulder stream – for later re-use



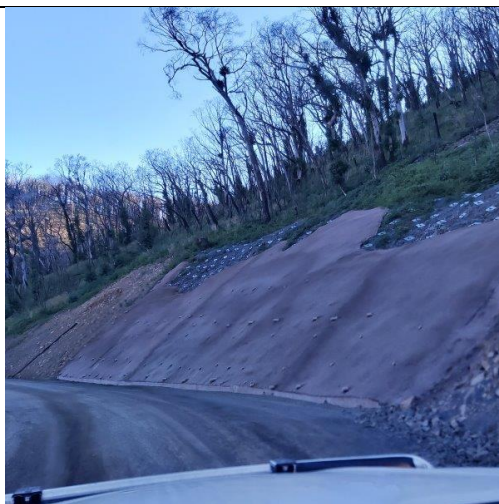
LH12: Ad Blue containers (mostly empty, however some containing product) stored on a timber (non-banded) pallet at a Ravine Road site office/stockpile area



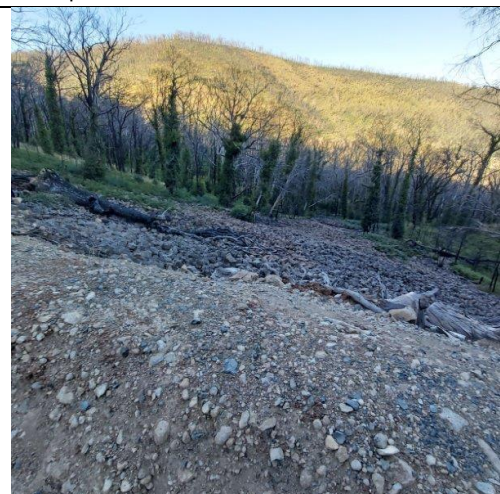
LH13: View of upgraded portion of Lobs Hole Ravine Road



LH14: Signage on Lobs Hole Ravine Road showing 30km/hr speed limit



LH15: Boulder stream “upstream” stabilisation using wire, rock bolts, and tinted shotcreting (colour agreed to by NPWS)



LH16: “Downstream” view of one of the boulder streams, with berm on the roadside edge

Photographs from site inspection – Lobs Hole Ravine Road on 19 January 2021



LH17: Fossil bed preserved and visible - as required by condition of approval (also assessed in Exploratory Works)



LH18: Close up view of fossil beds

Photos from site inspection – Lobs Hole on 19 January 2021



LH19: General view of Lobs Hole site from Ravine Road



LH20: View of newly constructed bridge, with heritage site – Washington Hotel in the foreground behind the fence.

Photos from site inspection – Lobs Hole on 19 January 2021



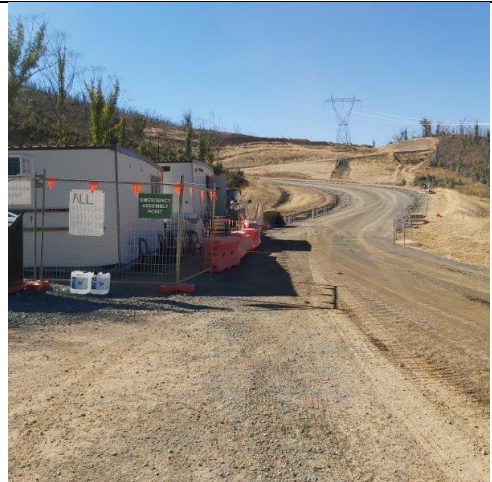
LH21: View of Washington Hotel heritage site from near bridge with no-go flagging



LH22: No-go zone signage and flagging at Washington Hotel site



LH23: Works along Pipeline Road, adjacent to Talbingo Reservoir



LH24: Subcontractor compound near Talbingo Reservoir



LH25: Light vehicle just refuelled. "Plant nappies" placed at refuelling point to capture minor spills



LH26: Refuelling truck. Driver interviewed – had a spill kit on-board, and was aware of appropriate locations to undertake refuelling.

Photos from site inspection – Lobs Hole on 19 January 2021



LH27: Water extraction apparatus – Talbingo Reservoir



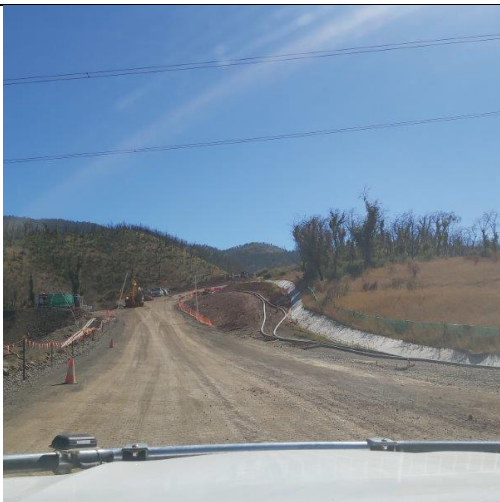
LH28: Water flow meter attached to inlet



LH29: The portable bund around the generator not adequately supported (sides falling down) - reduced capacity to contain a leak or spill



LH30: Water intake point – Talbingo Reservoir (floating)



LH31: View of haul road with clean water diversion channel



LH32: View of road verge stabilised with spray-on Stonewall treatment

Photos from site inspection – Lobs Hole on 19 January 2021



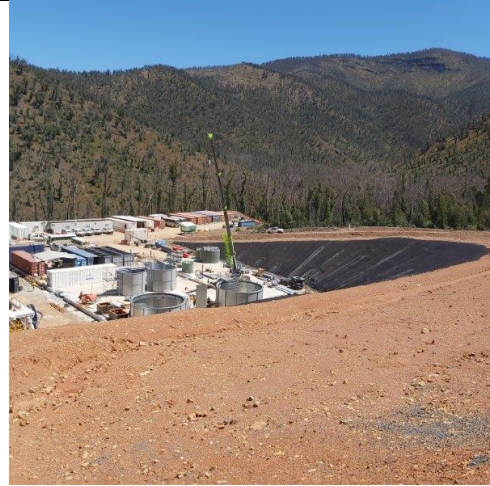
LH33: Exploratory Camp – batter on right was to be stabilised with hydromulch in the near future



LH34: Diversion drains under construction near the Exploratory Camp



LH35: Wastewater tank for Exploratory Camp – pumped out regularly. It was stated that at 85% capacity, water supply cuts out to ensure no overflow occurs



LH36: Water treatment plant under construction – viewed from ECVT portal



LH37: View towards Yard 4, showing sediment basin on the right, mulch bund, and retained topsoil stockpile in rear grassy area (all undertaken during exploratory works)

Photos from site inspection – Lobs Hole on 19 January 2021



LH38: Diversion channel with rock check dams for water velocity control



LH39: Heritage area – old adit from historic copper mine – fenced off during exploratory works, no-go flagging



LH40: Area near historic adit site – no-go zone flagging



LH41: Sediment basin with pump – clean and dirty water rock channels (location of incident resulting in dirty water flow to river from damaged flat pipe)



LH42: View of new setup with flat hose - replaced with poly pipe

Photos from site inspection – Lobs Hole on 19 January 2021



LH43: Amenities block at Office pad – bunded. Water meter (incoming) in foreground



LH44: Bunded generator in Office pad area



LH45: "Class A Foam Liquid Concentrate" at Lobs Hole was overloaded and stored outside (no shelter). (- see NC)

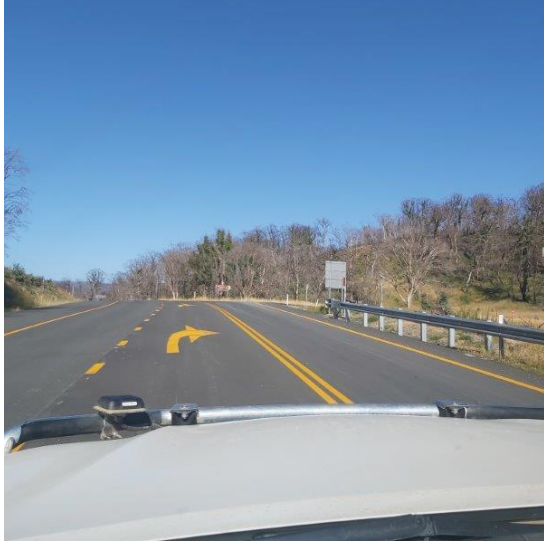


LH46: EPL water quality monitoring point No 16



LH47: View of Tunnel boring machine (TBM) being constructed on the cradle at the Main Access Tunnel (MAT) portal

Photos from site inspection – Tantangara Road and Tantangara site on 20 January 2021



TM1: Snowy Mountains Highway turnoff to Tantangara Road – intersection recently upgraded



TM2: View from Tantangara Road back to Snowy Mountains Highway



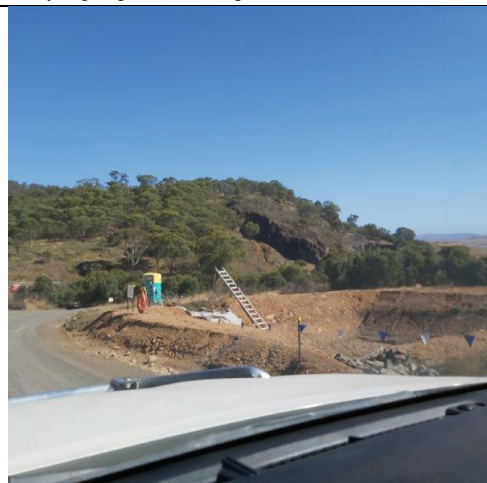
TM3: Signage at Tantangara Road near Snowy Mountains Hwy warning the public of closure and access



TM4: Project vehicle speed limit, location and radio frequency signage – Tantangara Road



TM5: Tantangara Road with view to Tantangara Reservoir towards construction area



TM6: Sediment basin construction on road towards main construction area

Photos from site inspection – Tantangara Road and Tantangara site on 20 January 2021



TM7: Water supply for water carts – for dust suppression



TM8: Erosion and Sediment controls, stabilised batter (Stonewall application) on Tantangara Road



TM9: View of Tantangara office pad area



TM10: Flagged off area – stand of critically endangered flora species *Pimelea Brachteata*. Clearing boundary was moved to retain flora



TM11: View to Lake Tantangara. Natural spring in the foreground, and further retained *Pimelea Brachteata* beyond the spring



TM12: Current main excavation area – construction of Tantangara Adit

Photos from site inspection – Tantangara Road and Tantangara site on 20 January 2021



TM13: View of future Tantangara camp site



TM14: View of future campsite with invasive weed Ox-eye Daisy



TM15: Close-up view of Ox-eye Daisy



TM16: Fauna monitoring camera in the future camp area – recently installed



TM17: Signage posted at Tantangara washdown bay



TM18: Close up of signage posted at washdown bay

Photos from site inspection – Tantangara Road and Tantangara site on 20 January 2021



TM19: Wash down of light vehicle (LV) in progress in washdown area



TM20: Spill kit and water supply at LV washdown area



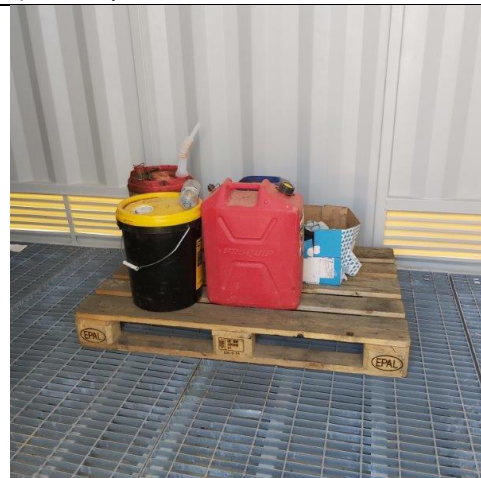
TM21: Alpine She-Oak skink monitoring area – flagged as no-go zone



TM22: New double skinned diesel tank at the Tantangara office pad– not yet commissioned



TM23: Dangerous goods and hazardous substances banded, ventilated container



TM24: Minor storage to date in the storage container.

Photos from site inspection - Marica on 20 January 2021



TM25: Overall view of Marica site from boundary – ground is covered in mulch from the cleared vegetation



TM26: View of Marica disturbance boundary – clearing limits delineated with blue rope



TM27: Further view of Marica site showing mulch



TM28: Works vehicle on site with attached water trailer for firefighting purposes



TM29: Fire fighting backpack on works vehicle



TM30: Excavator with cutting attachment on Marica site – cutting of cleared vegetation.

Photos from site inspection - Marica on 20 January 2021



TM31: Heritage clearance area – salvage complete – MSU 5



TM32: Washdown area and Coppermine laydown area – for entry and exit from Marica site.

Photos from site inspection – Segment Factory and local roads on 20 January 2021



PFR1: Panoramic view of the Segment factory from local road. It was not operational at the time of the audit



PFR1: View of the segment factory from a nearby hill



PFR1: View of upgraded intersection at Polo Flat Road

3.4. Proponent Review and Response

Overall, the post-audit communications and provision of post-audit evidence by the Proponent, Snowy Hydro Limited to the Auditor requires improvement in subsequent audits. In particular, it should be noted that the finalisation of this IEA Report was delayed due to the slow and sometimes incomplete response to requests for further evidence and clarifications following the on-site component of the audit, and a lack of response following request for comments on the first Draft IEA Report.

The first Draft Independent Environmental Audit Report was issued to the proponent via email on 7 March 2021 providing the proponent with the opportunity to review and comment on it prior to finalisation. The email also requested responses to the findings, and requests for clarification and further evidence. A response to the findings was received via email from SHL on 24 March 2021, with proposed actions and dates populated in the Findings Table. The Auditor responded on 25 March 2021 noting that the response to the finding regarding weeds mitigation measures was inadequate and required review and a revised due date, and again provided an opportunity for comments to be provided on the Draft Independent Audit Report itself.

A further request for comments on the first Draft IEA Report and a request for an updated response to findings was sent to SHL via email on 31 March 2021, however no response was received.

A second Draft IEA Report was issued on 6 April 2021, requesting feedback prior to finalisation of the Report. A response from SHL was provided to the Auditor on 6 April 2021, and relevant feedback was incorporated into this Final IEA Report.

3.5. Previous Audit Follow-up

This is the first Independent Audit of the Snowy 2.0 Main Works and as such, no follow-up of previous findings was required.

3.6. Complaints and Incidents

The Complaints Register was sighted in the project website dated Dec 2020. There had been three recorded complaints since commencement of Main Works.

The complaints related to delays to motorists on Snowy Mountain Hwy during escorted deliveries of oversize over-mass (OSOM) loads. Since the complaints, the road permit authorities have now allowed night deliveries.

Three environmental incidents had been reported since the commencement of Main Works, and the following incident reports were sighted and reviewed:

- Discharge of sediment laden water to Yarrangobilly River on side of Mine Trail Road 11 December 2020 (notification to EPA and Snowy Hydro Limited - SHL)
- Stonewall application leak – Quarry Trail at Tantangara, Kelly Plain Creek culvert crossing 1 January 2021
- Diesel spill incident at the “Sat Cow” generator off Lobs Hole Ravine Road – 13 January 2021

Two of the environmental incidents were required to be notified to the Department and NPWS (Stonewall discharge at Kelly Plain and diesel spill at “Sat Cow” generator off Lobs Hole Ravine Road), in accordance with Schedule 4, Condition 6 (a) however were not notified within the required timeframes. **Refer to Non-Compliance #3.**

4.0 Appendix A - Audit Attendance Register

NAME	ORGANISATION	POSITION	ENTRY	EXIT
Chris Buscall	Snowy Hydro	Environment Lead	✓	✓
Ben Croome	Snowy Hydro	Environment Coordinator	✓	
Kobus Meulenbroeks	FGJV	Environment Coordinator – Lobs Hole	✓	
Kieran Cusack	Snowy Hydro	Project Director	✓	
Other audit participants				✓
Emily Martin	Snowy Hydro	Environmental Engineer		✓
Kelly Palmer	Snowy Hydro	Safety Manager		✓
Nathan Jones	FGJV	Environmental Coordinator Marica / Lobs Hole / Tantangara		✓
Mahlea Ryan	FGJV	Environmental Advisor - Tantangara		✓

5.0 Appendix B – Independent Audit Declaration Form

Project Name: Snowy 2.0

Consent Number: CSSI 9687

Description of Project: Development of the Snowy 2.0 and Transmission Project as described in Clause 9 of Schedule 5 of State Environmental Planning Policy (State and Regional Development 2011)

Project Address: Various locations within Kosciuszko National Park – Lobs Hole, Tantangara, Marica (as per Appendix 1 of the Main Works Approval of CSSI 9687)

Proponent: Snowy Hydro Limited

Title of Audit Independent Environmental Audit: –

Date: February 2021


I declare that I have undertaken the Independent Audit and prepared the contents of the attached Independent Audit Report and to the best of my knowledge:

- the audit has been undertaken in accordance with relevant condition(s) of consent and the Independent Audit Post Approval Requirements (Department 2018);
- the findings of the audit are reported truthfully, accurately and completely;
- I have exercised due diligence and professional judgement in conducting the audit;
- I have acted professionally, objectively and in an unbiased manner;
- I am not related to any proponent, owner or operator of the project neither as an employer, business partner, employee, or by sharing a common employer, having a contractual arrangement outside the audit, or by relationship as spouse, partner, sibling, parent, or child;
- I do not have any pecuniary interest in the audited project, including where there is a reasonable likelihood or expectation of financial gain or loss to me or spouse, partner, sibling, parent, or child;
- neither I nor my employer have provided consultancy services for the audited project that were subject to this audit except as otherwise declared to the Department prior to the audit; and
- I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from payment for auditing services) from any proponent, owner or operator of the project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.

Notes:

- a. Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and
- b. The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both)

Name of Auditor: Julie Dickson

Signature: 

Qualification: Exemplar Global Lead Environmental Auditor – Registration No 13573

Company: Dickson Environmental Consulting and Audit Pty Ltd

Company Address: 1113 Pacific Hwy, Cowan, NSW 2081

6.0 Appendix C – Planning Secretary Audit Team Agreement



Planning,
Industry &
Environment

Mr Chris Buscall
Environmental Compliance Lead
Snowy 2.0 Project
Snowy Hydro Limited
PO Box 332
Cooma NSW 2630
1 October 2020

Dear Chris

Snowy 2.0 Main Works SSI 9687 Auditor Approval

I refer to your request SSI-9687-PA-17 and email dated 30 September 2020 for the Secretary's approval of suitably qualified persons to prepare the Independent Environment Audits for the Snowy 2.0 Main Works (the project) SSI 9687 (the approval).

In accordance with Schedule 4 Condition 9 of SSI 9687 and the Independent Audit Post Approval Requirements, the Secretary has agreed to the following audit team of Dickson Environmental Consulting and Audit Pty Ltd:

- Ms Julie Dickson (Lead Auditor) and
- Mr Larry Weiss (Senior Auditor).

Please ensure this correspondence is appended to the Independent Audit Report.

The Independent Audit must be prepared, undertaken and finalised in accordance with the Independent Audit Post Approval Requirements. Failure to meet these requirements will require revision and resubmission.

The Department reserves the right to request an alternate auditor or audit team for future audits.

Notwithstanding the agreement for the above listed audit team for this Project, each respective project approval or consent requires a request for the agreement to the auditor or audit team be submitted to the Department, for consideration of the Secretary. Each request is reviewed and depending on the complexity of future projects, the suitability of a proposed auditor or audit team will be considered.

If you wish to discuss the matter further, please contact me on 0429400261 or at katrina.oreilly@planning.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'K. O'Reilly', enclosed in a rectangular box.

Katrina O'Reilly
Team Leader - Compliance
Compliance
As nominee of the Planning Secretary

7.0 Appendix D – Audit Plan and Scope

Audit Plan and Scope - Snowy Hydro 2.0

Project:	Snowy Hydro 2.0		
Audit Title:	Independent Environmental Audit – Environmental Compliance		
Auditor:	Julie Dickson DECA Pty Ltd		
Date (s) of Audit:	Pre-audit 14 & 15/01/2021, On-site – 18, 19, 20/01/2020		
Time:	08.30 – 17.00		
Location (s):	Cooma Snowy Hydro Office Site visits to: Lobs Hole, Talbingo Reservoir, Marica camp, Tantangara,		
Audit Objective:	The objective of this Independent Environmental Audit is to assess the environmental performance of the development and whether it is complying with the requirements in this approval (including the requirements of any approved strategy, plan or program) and to recommend any appropriate measures to improve environment performance of the development and approved strategies, plans, programs.		
Audit Scope:	Development Consent CSSI 9687 – Compliance to all conditions relevant to current phase of the development including the adequacy of the approved strategies, plans or programs for the development		
Audit Methodology	Audit will be undertaken in accordance with ISO 19011:2018 and will include document and record reviews, interviews, and site inspection.		
Areas of focus (from pre-audit consultation)	DPIE – Erosion & Sediment Mgmt; Ground and surface water Mgmt; Flora & fauna protection/Mgmt; Heritage salvage / Mgmt; Road upgrades incl. design and drainage (Ravine/Lobs Roads); Boulder Stream Mgmt (Ravine Rd); Traffic Mgmt incl vehicle movements from Polo Flat segment factory; Accommodation facility; other approvals obtained (construction/occupation), compliance reporting, tracking, mgmt. NPWS – Biodiversity, Transport Mgmt Plan, Rehabilitation Mgmt Plan, Heritage Mgmt Plan, agency and public reporting. NSW EPA – Sewage Treatment Plant and Process Water Treatment Plant.		
Audit Invitees (Required)	Name:	Organisation	Role
	Chris Buscall	Snowy Hydro	Environment Lead
	Ben Croome	Snowy Hydro	Environment Co-Ordinator
	Ron Billyard	Snowy Hydro	Environment Co-Ordinator
	Lachlan Bollen	Snowy Hydro	Environment Scientist
	Emily Martin	Snowy Hydro	Environment Engineer
	Kelly Palmer	Snowy Hydro	Safety Manager
	John Weir	FGJV	Project HSSE Manager
	Laurenne Coetzee	FGJV	Environment Manager
	Kobus Meulenbroeks	FGJV	Environment Co-Ordinator
	Nicholas Hannaford	FGJV	Environment Co-Ordinator
Invitees (Optional)	Kieran Cusack	Snowy Hydro	Project Director

AUDIT PLAN – Pre-audit (off-site)

Pre-audit – 14, 15 January 2021		
Indicative time	Agenda item / Areas for review	Attendees
	Pre-audit component: – Sch 3 Cond 1 – Consolidate information – Exploratory, Main works – Sch 3 Cond 7 - Spoil Management Plan - adequacy – Sch 3 Cond 18 - Biodiversity Management Plan – adequacy – Sch 3 Cond 31 – Water Management Plan – adequacy – Sch 3 Cond 31 – Surface Water Management Plan – Sch 3 Cond 31 – Groundwater Water Management Plan – Sch 3 Cond 35 – Heritage Management Plan – adequacy – Sch 3 Cond 42 – Dilapidation survey – Sch 3 Cond 46 - Transport Management Plan – Sch 3 Cond 61 - Natural Hazards Management Plan - NPWS approved – Sch 4 Cond 1 - Environmental Management Strategy – Sch 4 Cond 12 - Access to information	Auditor

AUDIT PLAN - Day 1

DAY 1 – Monday 18 January 2021			
Indicative time	Agenda item / Areas for review	Proposed attendees	Location
8.00 – 8.30 am	Opening meeting <ul style="list-style-type: none"> • Introductions, confirmation of scope, criteria, arrangements, methodology, logistics • Overview of project issues / progress / background 	All Snowy Hydro FGJV	Snowy Hydro Cooma Office Lobs Hole meeting Room
08.30 – 12.30	General relevant conditions of approval: <ul style="list-style-type: none"> – Sch 2 – Cond 5, Restrictions on disturbance area – Sch 3 – Cond 12(a), 14 – Biodiversity offsets payment – Sch 3 Cond 37 - Recreation NPWS Offset payment – Sch 4 Cond 3, 4 – Staging & updating strategies, plans – Sch 4 Cond 5 – monitoring (biodiversity) – Sch 4 Cond 6 – notification of dates – Sch 4 Cond 6, 7 – Incident & non-compliance reporting – Sch 4 Cond 8 Environmental compliance reporting 	Chris Buscall - SHL	
12.30 – 13.15	Break		
13.15 – 16.00	Schedule 3 Relevant conditions of approval – continued	Snowy Hydro	Snowy Hydro Cooma Office
	Sch 3 – Cond 28 – Water supply	Chris Buscall / Lachlan Bollen	Ravine meeting Room
	Sch 3 - Cond 30 – Water management requirements		
	Sch 3 Cond 60 – Bushfire requirements	Chris Buscall / Kelly Palmer	
	Sch 3 Cond 41 – Road upgrades	Chris Buscall	
	Sch 3 Cond 33, 34 – Heritage protection & mgmt	Chris Buscall	
	Sch 3 – Cond 17 – Biodiversity Mgmt requirements	Chris Buscall	
	Sch 3 – Cond 4, 6 – Spoil management, design for permanent spoil emplacement	Chris Buscall	
	Sch 3 Cond 43, 44, 45, 49 – Vehicle restrictions, transport impact minimisation	TBC	
	Sch 3 Cond 53 – Waste management	TBC	
	Sch 3 Cond 59 – Air emission minimisation	TBC	
16.00 – 16.30	Auditor consolidation of notes		
16.30 – 16.45	End of Day 1 debrief audit progress and outcomes to date (if required).		
17.00 to 18.00	Travel to Cabramurra – overnight stay(s)		

AUDIT PLAN - Day 2

DAY 2 – Tuesday 18 January 2021		
Indicative time	Agenda item / Areas for review	Proposed attendees
06.30 – 07:30	Travel time to site	Travel with Chris Buscall
07.30 – 16.00	Site Inspection – Lobs Hole and Talbingo Reservoir considering following conditions. <ul style="list-style-type: none"> – Sch 2 – Condition 13 (Operation of plant and equipment) – Sch 3 – Cond 4 Spoil management – Lobs Hole – Sch 3 – Cond 29 Water pollution – Sec 120 POEO – Sch 3 – Cond 30, 32 – Water management requirements implementation – Sch 3 Cond 36 - Heritage plan implementation – Sch 3 Cond 38 – Impact on recreation – e.g. – dust, noise – Sch 3 Cond 43, 44, 45 – Vehicle restrictions – Sch 3 Cond 68 – Noise minimisation (general) 	Chris Buscall - SHL Ben Croome – SHL Laurene / Steve - TBC Kobus Meulenbroeks - FGJV
16.00 – 17:30	Travel Lobs Hole to Cooma. Overnight Cooma	

AUDIT PLAN - Day 3

DAY 3 – Wednesday 19 January 2021		
Indicative time	Agenda item / Areas for review	Proposed attendees
07.30 – 09.00	Travel Cooma to Tantangara	
09.00 – 11.30	Site Inspection – Tantangara Scope – as above <ul style="list-style-type: none"> – Complete any site inspection items as necessary – Follow-up any audit trails 	Chris Buscall - SHL Ben Croome – SHL Laurene / Steve - TBC Nicholas Hannaford FGJV
12.00 – 13.00	Travel Tantangara to Marica	
13.00 – 16:00	Site Inspection – sites Marica surge tank/ camp, considering the following conditions <ul style="list-style-type: none"> – Sch 2 – Condition 13 (Operation of Plant and Equipment) – Sch 3 – Cond 4 Spoil management – Sch 3 – Cond 29 Water pollution – Sec 120 POEO – Sch 3 – Cond 30, 32 – Water management requirements implementation – Sch 3 Cond 36 - Heritage plan implementation – Sch 3 Cond 38 – impact on recreation – e.g. – dust, noise – Sch 3 Cond 43, 44, 45 – Vehicle restrictions Sch 3 Cond 68 – Noise minimisation (general) 	Chris Buscall - SHL Ben Croome – SHL Laurene / Steve - TBC Nathan Jones - FGJV
16.00 – 17:30	Travel Marica to Cooma. Overnight Cooma	

Friday 21 January 2021 (off-site)		
Indicative time	Agenda item / Areas for review	Proposed attendees
11.30 – 12.30	– Closing meeting, presentation of full findings	All relevant participants

APPENDIX E – AUDIT TABLES

TABLE A – SCHEDULE 2 – ADMINISTRATIVE CONDITIONS

TABLE B – SCHEDULE 3 – SPECIFIC ENVIRONMENTAL CONDITIONS

TABLE C – SCHEDULE 4 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

TABLE D – ENVIRONMENTAL MANAGEMENT STRATEGY and MANAGEMENT PLANS

8.0 Appendix E –Snowy 2.0 Independent Audit Tables

TABLE A – Schedule 2 – Administrative Conditions

ID	S2 CoA No.	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		SCHEDULE 2 - ADMINISTRATIVE CONDITIONS				
1.	1	OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT In meeting the conditions of this approval, the Proponent must implement all feasible and reasonable measures to prevent, and if prevention is not feasible or reasonable, minimise any material harm to the environment that may result from the construction, operation, decommissioning or rehabilitation of the development.		Overall outcome – review of project wide evidence	The audit found that feasible and reasonable measures have been implemented to prevent material harm to the environment. As noted within the Audit Report, some incidents involving spills and release of sediment laden water have occurred, material harm was minimised through incident response, clean-up and implementing actions to prevent or minimise the potential for recurrence.	Compliant
2.	2	TERMS OF APPROVAL The Proponent must carry out the development: c) generally, in accordance with the Exploratory Works and Main Works; and d) in accordance with the conditions of this approval. <i>Notes</i> <i>Notes:</i> <ul style="list-style-type: none"> The key documents for the Exploratory Works and Main Works are identified in the definitions of this approval. The general layout of the development is shown in Appendix 2. 		Non-compliances #2 and #3 against conditions: Schedule 3, Cond 30 (n) & (p); and Sch 4 Cond 6	Non compliances have been raised against conditions of consent at this audit, and as such a non-compliance is triggered against part (b) of this condition.	Non-compliant

ID	S2 CoA No.	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status																
			= not in scope of this audit																			
3.	3	TERMS OF APPROVAL If there is any inconsistency between the above documents, the most recent document will prevail to the extent of the inconsistency. However, the conditions of this approval must prevail to the extent of any inconsistency			Noted	Not triggered																
4.	4	TERMS OF APPROVAL The Proponent must comply with any requirement/s of the Planning Secretary arising from the Department's assessment of: a) any strategies, plans or correspondence submitted in accordance with this approval; b) any reports, reviews or audits commissioned by the Department regarding compliance with this approval; and c) the implementation of any actions or measures contained in these documents.				Not triggered																
5.	5	LIMITS ON APPROVAL Restrictions on Disturbance Area and Native Vegetation Clearing The Proponent must comply with the restrictions in Table 1 below <table><tr><td colspan="4">Table 1: Restrictions on Approval¶</td></tr><tr><td>Matter¶</td><td>Exploratory Works¶</td><td>Main Works¶</td><td>Total¶</td></tr><tr><td>Maximum Disturbance Area¶</td><td>126 ha¶</td><td>504 ha¶</td><td>630 ha¶</td></tr><tr><td>Maximum Native Vegetation Clearing¶</td><td>107 ha¶</td><td>425 ha¶</td><td>532 ha¶</td></tr></table> <small>Note: The areas in Table 1 relate to direct disturbance and clearing and do not include the indirect impacts of this disturbance and clearing.¶</small>	Table 1: Restrictions on Approval¶				Matter¶	Exploratory Works¶	Main Works¶	Total¶	Maximum Disturbance Area¶	126 ha¶	504 ha¶	630 ha¶	Maximum Native Vegetation Clearing¶	107 ha¶	425 ha¶	532 ha¶		Monthly Report S2-FGJV-PCO-MPR-0021 December 2020 Clearing and Grubbing Clearing Register	The construction contractor has established a Clearing and Grubbing Clearing Register which tracks the area cleared (to date (in ha), providing a cumulative % of limit total to date. The outcomes for Exploratory Works and Main Works were reported in the FGJV December 2020 Monthly Report to SHL. At the time of reporting, cleared native vegetation percentages for Main Works were low due to early stage of the project (approximately 2%).	Compliant
Table 1: Restrictions on Approval¶																						
Matter¶	Exploratory Works¶	Main Works¶	Total¶																			
Maximum Disturbance Area¶	126 ha¶	504 ha¶	630 ha¶																			
Maximum Native Vegetation Clearing¶	107 ha¶	425 ha¶	532 ha¶																			

ID	S2 CoA No.	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
					For Exploratory Works, 72.82 ha of native vegetation was reported as cleared with a limit of 107 (68%). Data is sourced from Clearing Permits.	
6.	6	Staging The Proponent may construct, operate, and decommission the development in stages. When staging occurs, the Proponent is only required to comply with the conditions of this approval that are relevant to the specific stage/s			No staging	Not triggered
7.	7	LAPSE OF APPROVAL This approval will lapse if the Proponent does not physically commence the development within 5 years of the date on which it is granted			The physical commencement of the project was within 5 years of the date it was granted. Approval was granted on 20 May 2020, and construction commenced on 21 October 2020.	Not triggered
8.	8	SURRENDER OF APPROVAL Within 6 months of the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must surrender the infrastructure approval (CSSI 9208) for the Exploratory Works in accordance with Clause 197 of the EP&A Regulation.			This audit was conducted 12 weeks after commencement of Main Works Construction, and therefore this condition was not triggered.	Not triggered
9.	9	SURRENDER OF APPROVAL Prior to surrendering the infrastructure approval (CSSI 9208) for the Exploratory Works, the Proponent must update the approved management plans for the development to incorporate the approved management plans for the Exploratory Works to the satisfaction of the Planning Secretary.		<ul style="list-style-type: none"> Main Works Approval CSSI 9687 Schedules 1 to 4 and relevant appendices Snowy 2.0 Main Works - Spoil Management Plan Rev G 11/08/2020 (FGJV) Snowy 2.0 Main Works Biodiversity Management Plan Rev I 12/10/2020 (FGJV) Snowy 2.0 Main Works Water Management Plan Rev G 15/10/2020 (FGJV) 	<p>The Main Works management plans listed have been updated to incorporate the and approved management plans for the Exploratory Works.</p> <p>At the time of the audit, the Infrastructure Approval for Exploratory Works had not yet been surrendered</p>	Compliant

ID	S2 CoA No.	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
				<ul style="list-style-type: none"> Snowy 2.0 Main Works Surface Water Management Plan Rev G 15/10/2020 (FGJV) Snowy 2.0 Main Works Groundwater Water Management Plan Rev G 15/10/2020(FGJV) Snowy 2.0 Main Works Heritage Management Plan Rev G 13/08/2020 (FGJV) Snowy 2.0 Main Works Transport Management Plan Rev G 13/08/2020 (FGJV) Snowy 2.0 Main Works Natural Hazards Management Plan Rev C 04/08/2020 (FGJV) Snowy 2.0 Main Works Environmental Management Strategy Rev I 11/08/2020 (FGJV) Snowy 2.0 Road Condition Survey 29 April 2019 Rev 01 		
10.	10	DEMOLITION The Proponent must ensure that all demolition work on site is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.			No demolition works have yet been undertaken.	Not triggered
11.	11	STRUCTURAL ADEQUACY The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA; and where the BCA is not applicable, the relevant Australian Standard. Notes:		Interview	The segment factory in Polo Flat, Cooma is subject to a separate approval SSI-10034 and is therefore not assessed as part of this audit. It was noted that Snowy Hydro Limited were engaged in discussions with the Department in relation to the	Not triggered

ID	S2 CoA No.	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		<ul style="list-style-type: none"> Under Part 6 of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the development. Part 8 of the EP&A Regulation sets out the requirements for the certification of the development 			<p>applicability of construction and occupation certificates at Polo Flat and were ongoing at the time of the audit.</p> <p>This will be re-visited as part of the next scheduled audit. This was identified as an area of focus by DPIE during pre-audit consultation.</p> <p>No permanent buildings structures had yet been constructed at the time of the audit requiring construction or occupation certificates.</p>	
12.	12	PROTECTION OF INFRASTRUCTURE Unless the Proponent and the applicable authority agree otherwise, the Proponent must: (a) repair, or pay the full cost associated with repairing, any public infrastructure that is damaged by the development; and				Not triggered
		(b) relocate, or pay the full cost associated with relocating, any public infrastructure that needs to be relocated as a result of the development. <i>Note: This condition does not apply to any damage to roads caused by the development</i>				Not triggered
13.	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		Field observation Incident reports Generator Maintenance – Diesel Generator 15kva– G15-17 Exception Reports – history from 6	Whilst there have been two Incidents that have occurred on the project involving failure of a hose fitting and a diesel spill. These have been reported to the EPA and DPIE.	Compliant

ID	S2 CoA No.	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
				<p>July 2020 (hours 20) to 5 Jan 2021 (hours 1590)</p> <p>Email from Viking Industrial (diesel generator rental organisation) noting generator manufactured 2020, fuel tank in 2016, and provision of service records.</p>	<p>Actions have since been taken to address the hose issue (replaced lay-flat hose with poly pipe, using appropriate fittings across the project). Refer to Incident Reporting section.</p> <p>At the time of the audit, the diesel spill was under investigation by the EPA. A review of the service records of the Diesel generator that was involved in the spill found that it had been serviced 8 days prior to the spill, and therefore maintenance does not appear to be a factor (pending EPA investigation outcomes).</p> <p>A full review of plant and equipment maintenance process was not undertaken at this audit – this will be included in the scope of Audit #2.</p>	
		(c) kept free of weeds, seeds and pathogens when entering or leaving the site.		<p>Weed, pest and pathogen management plan (App F to Biodiversity Management Plan)</p> <p>Hygiene Declaration Form – Annexure AF App F Biodiversity MP available?</p>	<p>Whilst weed mitigation measures are generally implemented in accordance with the Biodiversity Management Plan, it is considered that improvements to the effectiveness of the controls for the movement of light vehicles are required.</p> <p>For detail, refer to findings table and Sch 2 Condition 17(i)</p>	<p>Compliant</p> <p>OBS</p>

TABLE B – Schedule 3 – Specific Environmental Conditions

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		SCHEDULE 3 – SPECIFIC ENVIRONMENTAL CONDITIONS				
14.	1	The Proponent must:			Main Works Documents including the Environmental Management Strategy (EMS) associated Management Plans and appendices have been revised and updated from the Exploratory Works phase. Exploratory and Main Works documents are provided on the project website.	Compliant
		(a) consolidate all the information presented in the documents prepared for the Exploratory Works and Main Works (see definitions) in a single, open source database;				
		(b) supplement this information over time with the information that must be gathered and made public under the conditions of this approval;			Audit was undertaken within 12 weeks of commencement, and supplementary information was not yet required.	Compliant
		(c) prepare a detailed archival record of all phases of the development; and			No archive yet.	Not triggered
		(d) make this information publicly available.			Exploratory and Main Works documents are provided on the project website.	Compliant
15.	2	Within 6 months of the commencement of construction, the Proponent must prepare a Digital Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:			Digital Strategy in early development.	Not triggered
		(a) be prepared in consultation with the NPWS;				
		(b) identify innovative ways to give effect to the requirements in condition 1 above; and				

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		(c) include a program to develop a digital application for users of the Kosciuszko National Park to bring key information to life in an interactive way and enhance the enjoyment of the park.				
16.	3	The Proponent must implement the approved Digital Strategy for the development.				
17.	4	SPOIL MANAGEMENT Spoil Management Requirements The Proponent must:			Cut and fill for the Emergency Cabling and Ventilation Tunnel – ECVT was in progress at the time of the audit. The material from the excavations were being used for the construction of the pads and working areas.	
		(a) minimise the spoil generated by the development;		Addressed in Section 6 of this plan	The Spoil Management Plan notes that spoil generation will be reduced through design optimisation, and that material will only be excavated where required to construct the project. Main works were at an early stage, and as such, the volume of spoil generated was quite low. This will be further assessed at subsequent audits. There is only one area where significant volumes of spoil have been generated – Lobs Hole	Compliant
		(b) test and classify the relevant physical and chemical characteristics of the spoil;		Addressed in Section 5 and Appendix A of this plan	No test and classification to date – no tunnel material Copper mine site at Lobs Hole has been fenced off, no excavations have been undertaken in the vicinity.	Not triggered
		(c) manage, use or dispose of the spoil in accordance with its classification;		Addressed in Section 6 and Appendix D and E of this plan	At the time of the audit, no spoil had been removed from site for disposal. Spoil has been used to construct	Compliant

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
					pads, level working areas and in construction of erosion and sediment controls.	
		(d) develop and implement suitable procedures for handling, storing and disposing of any: <ul style="list-style-type: none"> potentially acid forming material; asbestiform mineral fibres; contaminated material; 		Addressed in Section 6 and Appendix D and E of this plan	Procedures developed, however implementation not yet triggered.	Not triggered
		(e) only place non-reactive spoil, which has a low geochemical risk and is suitable for reuse, in the western emplacement area;			No reactive spoil generated to date.	Not triggered
		(f) maximise the reuse of non-reactive spoil on site and in other parts of the Kosciuszko National Park;				Not triggered
		(g) maximise the use of the permanent spoil emplacement areas;				Not triggered
		(h) minimise the spoil left at Lobs Hole and Marica for incorporation into the final landform;				Not triggered
		(i) minimise the water quality impacts of the temporary and permanent emplacement areas;			Site inspection did not identify instances where temporary spoil was negatively impacting on water quality.	Compliant
		(j) not place any spoil from the tunnel boring machines in the active storages or below the full supply level of either the Talbingo Reservoir or Tantangara Reservoir without the approval of the Planning Secretary; and			Tunnel boring machines had not commenced operation at the time of the audit.	Not triggered
		(k) not place any spoil from dredging, channel excavation or underwater blasting in the eastern and western emplacement areas, or in the active storages or below the full supply level of either the Talbingo Reservoir or Tantangara Reservoir without the approval of the Planning Secretary.			No dredging has been undertaken to date (activities involving dredging are likely to be undertaken in more than 6 months' time)	Not triggered

ID	S3 - CoA No	Description		= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
				= not in scope of this audit			
		Water-management ^α	<ul style="list-style-type: none">• → Integrate the drainage of the emplacement area with the surrounding drainage network, including any upstream flows and residual run-on water¶• → Minimise downstream water flows and velocities with any changes to be quantified and addressed through suitable design¶• → Minimise valley infill¶• → Create natural drainage lines that are long-term sustainable having regard to the selection of suitable underlying materials, including rock sizing and grading¶• → Minimise the use of large rocks in drainage lines¶• → Minimise the concentration of water on landforms unless this is consistent with accepted drainage density and geomorphic design practices¶• → Minimise the generation and dispersion of sediment in the Talbingo Reservoir, Tantangara Reservoir or other waterways^α			<p>A kick off meeting was held for GF01 and Tantangara in January 2021 with internal designers and consultants to prepare the detailed location specific Spoil Management Plans.</p> <p>Whilst the current Spoil Management Plan was reviewed and assessed, as they are still in early development stage, and no permanent spoil emplacement has yet occurred, this condition is not yet effectively triggered.</p>	
		Erosional stability ^α	<ul style="list-style-type: none">• → Minimise steep slopes, particularly slopes that will be difficult to access and maintain (such as slopes over 18° or 1V:3H)¶• → The final surface of the landform must be long-term sustainable with sufficient topsoil (or some other suitable growth medium) to maintain a soil water profile and sustain vegetation¶• → Maximise the revegetation of the final surface¶• → Ensure areas subject to wave action are suitably protected or the slopes are flattened to limit wave action^α				
		Land Use ^α	<ul style="list-style-type: none">• → Native vegetation and habitat must comply with the approved Rehabilitation Management Plan¶• → Recreational facilities and use must comply with the approved Recreation Management Plan^α				
		Constructability ^α	<ul style="list-style-type: none">• → The emplacement area must be constructible having regard to the:¶<ul style="list-style-type: none">→ availability of suitable material, including topsoil¶→ erosion and sediment control;¶→ access;¶→ initial shaping of natural ground;¶→ progressive rehabilitation;¶→ shapes and benching; and¶→ safety around water^α				

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
20.	7	Spoil Management Plan Prior to the commencement of construction, the Proponent must prepare a Spoil Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:		Spoil Management Plan Rev G dated 11/08/2020	The Spoil Management Plan will be updated as further development occurs. Detailed Plans are only in place for Lobs Hole to date (Appendix F)	Compliant
		(a) be prepared by a suitably qualified and experienced person in consultation with the NPWS, EPA, Water Group, NRAR, NSW DPI and TfNSW;			Addressed in Section 1.6 and Section 1.7 of this plan. The Spoil Management Plan was prepared by Derek Low, who has over 13 years' experience in infrastructure and remediation	
		(b) provide an overarching framework for the management of all spoil generated on site - including the testing, classification, handling, temporary storage and disposal of spoil – that complies with the spoil management requirements in condition 4 above			Addressed in Sections 5 – 9 and Appendix A – F of this plan Overarching framework provided in various sections of the Plan	
		(c) include a detailed plan for managing the temporary spoil stockpiles of the development, which includes suitable triggers for remedial measures (if necessary) and describes the contingency measures that would be implemented to address any water quality risks			Addressed in Section 6.5 and Section 9 and Appendix C of this plan	
		(d) include a detailed plan for managing all the reactive or contaminated spoil generated on site, including the contingency measures that would be implemented if the volumes of this spoil are greater than expected and unsuitable for land disposal;			Addressed in Section 6 and Appendix D and E of this plan and in Contaminated Land Management Plan Waste Management Plan	
		(e) detailed plans for each of the permanent spoil emplacement areas that have been prepared using both analogue and erosional-based methods, these plans must: <ul style="list-style-type: none"> describe how the development of each emplacement area would be co-ordinated with the rehabilitation of the site in accordance with the approved Rehabilitation Management Plan; describe the measures that would be implemented to comply with the spoil management requirements in condition 4 above and the design objectives in Table 2; include a topsoil strategy, outlining the measures that would be 			Detailed Plans documented in Appendix F of the Spoil Management Plan. (Only Lobs Hole to date)	

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		<p>implemented to ensure the surface of the emplacement area will be suitable to sustain the target PCTs in the long term, having regard to the approved strategy in the Rehabilitation Management Plan;</p> <ul style="list-style-type: none"> identify the key risks for the successful completion of each emplacement area and the contingency measures that would be implemented to address these risks; and include detailed completion criteria and performance indicators for each emplacement area, including criteria for triggering remedial action (if necessary); 				
		<p>(f) include a program to monitor and publicly report on:</p> <ul style="list-style-type: none"> the management of spoil on site; the implementation of each of the detailed plans, including the effectiveness of the proposed mitigation and contingency measures; and progress against the detailed completion criteria and performance indicators of each permanent spoil emplacement area. <p><i>Note: The Proponent may stage the preparation of the Spoil Management Plan, including the preparation of detailed plans for each permanent spoil emplacement area. However, the detailed plans must be approved prior to any construction occurring in the relevant emplacement area</i></p>		Spoil Management Plan Rev G dated 11/08/2020	<p>Addressed in Section 9 of this plan</p> <p>Spoil reporting addressed in Table 9-4 – commits to 6 monthly reporting on volume from tunnelling, volume placed at each emplacement area, volume disposed off-site and reused elsewhere, AMD material treated and volume of NOA excavated and place in encapsulation (if any).</p> <p>The proponent has chosen to stage the preparation of the Spoil Management Plan, with only the Lobs Hole Detailed Plans developed to date.</p>	Compliant
21.	8	The Proponent must implement the approved Spoil Management Plan for the development		Site inspection	The audit was conducted within 12 weeks of project commencement, and the majority of spoil generated was being used for constructing the pads, haul roads and work areas. Minimal temporary spoil stockpiling had been undertaken, and no permanent stockpiling had commenced at the time of the audit.	Compliant

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
					Stockpiles sighted during the site inspection were appropriately managed.	
22.	9	REHABILITATION				Not triggered
		Rehabilitation Requirements				
		The Proponent must:				
		(a) rehabilitate all parts of the site within the Kosciuszko National Park to comply with the rehabilitation objectives in Table 3 and the ecological rehabilitation objectives in Table 4;				
		(b) rehabilitate the Rock Forest site to comply with the rehabilitation objectives in Table 5;				
		(c) complete the initial rehabilitation of the site - including the removal of all temporary infrastructure, creation of landforms, narrowing of roads - within 3 years of completing construction;				
		(d) complete the ecological rehabilitation of the site, apart from the areas used for operations, within 20 years of completing construction;				
		(e) complete the final rehabilitation of the site, including the removal of all remaining infrastructure, within 3 years of decommissioning the development; and				
		(f) complete the ecological rehabilitation of the areas used for operations within 20 years of decommissioning the development.				

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status										
			= not in scope of this audit													
		<div>Table 3: Rehabilitation Objectives – Kosciuszko National Park¶</div> <table><tr><th>Feature¶</th><th>Objective¶</th></tr><tr><td>Land use¶</td><td><ul style="list-style-type: none">→ Enhance the recreational use of the site in accordance with the approved Recreation Management Plan¶</td></tr><tr><td>Land¶</td><td><ul style="list-style-type: none">→ Safe, stable and non-polluting¶→ Ensure the creation of all new landforms complies with the design criteria in Table 2¶→ Minimise surface disturbance of site during construction¶→ Progressively rehabilitate the site as soon as possible following disturbance¶→ Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation,¶ erosion, uncontrolled discharges of sediment, and the spread of weeds to other parts of the Kosciuszko National Park¶</td></tr><tr><td>Infrastructure¶</td><td><ul style="list-style-type: none">→ Decommission and remove infrastructure, unless NPWS agrees otherwise¶→ Restore all roads on site in accordance with the Long-Term Road Strategy¶</td></tr><tr><td>Community¶</td><td><ul style="list-style-type: none">→ Ensure public safety¶</td></tr></table>	Feature¶	Objective¶	Land use¶	<ul style="list-style-type: none">→ Enhance the recreational use of the site in accordance with the approved Recreation Management Plan¶	Land¶	<ul style="list-style-type: none">→ Safe, stable and non-polluting¶→ Ensure the creation of all new landforms complies with the design criteria in Table 2¶→ Minimise surface disturbance of site during construction¶→ Progressively rehabilitate the site as soon as possible following disturbance¶→ Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation,¶ erosion, uncontrolled discharges of sediment, and the spread of weeds to other parts of the Kosciuszko National Park¶	Infrastructure¶	<ul style="list-style-type: none">→ Decommission and remove infrastructure, unless NPWS agrees otherwise¶→ Restore all roads on site in accordance with the Long-Term Road Strategy¶	Community¶	<ul style="list-style-type: none">→ Ensure public safety¶				Not triggered
Feature¶	Objective¶															
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	9 cont'd	<table><tr><th>Ecological rehabilitation objective¶</th><th>Completion criteria¶</th><th>Performance indicators¶</th></tr><tr><td>Objective 1: The vegetation composition of the rehabilitation is recognisable as a plant community type (PCT) contained within the BioNet Vegetation Classification and which was present on site prior to the project's temporary disturbance.¶</td><td>(a) » Native plant species composition is characteristic of the target PCT based on suitable analysis against a reference data set using the PCT Assignment Tool¶ (b) » The target PCT-BAM composition score is within or greater than the inter-quartile range of local reference site values for the assigned PCT. ¶</td><td>All native vascular plant species are monitored to species level from fixed 0.04 ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary.¶ Monitoring should include appropriate reference sites outside the disturbance area, ideally capturing the range of variation of the 2003 and 2019/20 fires. ¶</td></tr></table>	Ecological rehabilitation objective¶	Completion criteria¶	Performance indicators¶	Objective 1: The vegetation composition of the rehabilitation is recognisable as a plant community type (PCT) contained within the BioNet Vegetation Classification and which was present on site prior to the project's temporary disturbance.¶	(a) » Native plant species composition is characteristic of the target PCT based on suitable analysis against a reference data set using the PCT Assignment Tool¶ (b) » The target PCT-BAM composition score is within or greater than the inter-quartile range of local reference site values for the assigned PCT. ¶	All native vascular plant species are monitored to species level from fixed 0.04 ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary.¶ Monitoring should include appropriate reference sites outside the disturbance area, ideally capturing the range of variation of the 2003 and 2019/20 fires. ¶				Not triggered				
Ecological rehabilitation objective¶	Completion criteria¶	Performance indicators¶														
Objective 1: The vegetation composition of the rehabilitation is recognisable as a plant community type (PCT) contained within the BioNet Vegetation Classification and which was present on site prior to the project's temporary disturbance.¶	(a) » Native plant species composition is characteristic of the target PCT based on suitable analysis against a reference data set using the PCT Assignment Tool¶ (b) » The target PCT-BAM composition score is within or greater than the inter-quartile range of local reference site values for the assigned PCT. ¶	All native vascular plant species are monitored to species level from fixed 0.04 ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary.¶ Monitoring should include appropriate reference sites outside the disturbance area, ideally capturing the range of variation of the 2003 and 2019/20 fires. ¶														
	9 cont'd	<table><tr><td>Objective 2: The vegetation structure of the rehabilitation is recognisable as, or shows a substantial trend towards, a PCT contained within the BioNet Vegetation Classification and which was present on site prior to the project's temporary disturbance. ¶</td><td>Cover, abundance and height range of native plant growth forms are characteristic of the target PCTs and within or greater than the inter-quartile range of local reference site values for the assigned PCT. ¶</td><td>The cover, abundance and height range of all native vascular plant species are monitored from fixed 0.04 ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary. ¶</td></tr></table>	Objective 2: The vegetation structure of the rehabilitation is recognisable as, or shows a substantial trend towards, a PCT contained within the BioNet Vegetation Classification and which was present on site prior to the project's temporary disturbance. ¶	Cover, abundance and height range of native plant growth forms are characteristic of the target PCTs and within or greater than the inter-quartile range of local reference site values for the assigned PCT. ¶	The cover, abundance and height range of all native vascular plant species are monitored from fixed 0.04 ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary. ¶											
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ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
9 cont'd		Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable or shows a substantial trend towards a self-sustaining state. ^α	Growth medium, including topsoil, is suitable for target PCTs establishment, and indicators of nutrient cycling are suitable for sustaining the target PCTs. [¶] All priority attributes of nutrient cycling, soil processes and both subsoil and topsoil properties should be within or greater than the interquartile range of local reference site values for the assigned PCT. ^α	Growth medium, covering both subsoil and topsoil properties, and soil processes are monitored using methods approved by the Planning Secretary. ^α		Not triggered
		^α	Rehabilitation vegetation communities are maturing, and natural recruitment is occurring for species within each growth form at rates within or greater than the interquartile range of local reference site values for the assigned PCT. ^α	All species are monitored for establishment of second-generation juveniles/immatures and capacity for recruitment from fixed 0.04-ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary ^α		
		^α	The number and ground cover of weed species is comparable to, or less than, the interquartile range of local reference site values for the assigned PCT. ^α	Number and ground cover of weed species are monitored from fixed [¶] 0.04-ha monitoring plots in accordance with the BAM, transect intercept method, and/or other method approved by the Planning Secretary. ^α		
		^α	Fauna habitat features and resources (food and shelter characteristics) within the rehabilitation vegetation communities are present and within or greater than the interquartile range of local reference site values for the assigned PCT. ^α	Presence/absence of some fauna habitat features (e.g. flowering plant, decorticated bark, stags with hollows and/or nest boxes) and quantitative assessment of other features (e.g. leaf litter cover, bare ground, wood debris) are monitored from fixed 0.04-ha monitoring plots in accordance with the BAM, transect intercept method and/or other method approved by the Planning Secretary. ^α		

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status								
			= not in scope of this audit											
		<div><p><i>Table 5: Rehabilitation Objectives – Rock Forest Site¶</i></p><table><tr><th>Feature¶</th><th>Objective¶</th></tr><tr><td>Land-use¶</td><td>• → Return the site to its previous use in consultation with the landowner¶</td></tr><tr><td>Land¶</td><td>• → Safe, stable and non-polluting¶ • → Ensure the creation of all new landforms complies with the design criteria in Table 2¶ • → Minimise surface disturbance on site during construction¶ • → Progressively rehabilitate the site as soon as possible following disturbance¶ • → Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation,¶ erosion, uncontrolled discharges of sediment, and the spread of weeds¶</td></tr><tr><td>Infrastructure¶</td><td>• → Decommission and remove development-related infrastructure, unless the Planning Secretary agrees otherwise¶</td></tr></table></div>	Feature¶	Objective¶	Land-use¶	• → Return the site to its previous use in consultation with the landowner¶	Land¶	• → Safe, stable and non-polluting¶ • → Ensure the creation of all new landforms complies with the design criteria in Table 2¶ • → Minimise surface disturbance on site during construction¶ • → Progressively rehabilitate the site as soon as possible following disturbance¶ • → Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation,¶ erosion, uncontrolled discharges of sediment, and the spread of weeds¶	Infrastructure¶	• → Decommission and remove development-related infrastructure, unless the Planning Secretary agrees otherwise¶			Rock Forest site has not yet been utilised.	Not triggered
Feature¶	Objective¶													
Land-use¶	• → Return the site to its previous use in consultation with the landowner¶													
Land¶	• → Safe, stable and non-polluting¶ • → Ensure the creation of all new landforms complies with the design criteria in Table 2¶ • → Minimise surface disturbance on site during construction¶ • → Progressively rehabilitate the site as soon as possible following disturbance¶ • → Employ interim rehabilitation strategies to areas that can't be permanently rehabilitated yet to minimise dust generation,¶ erosion, uncontrolled discharges of sediment, and the spread of weeds¶													
Infrastructure¶	• → Decommission and remove development-related infrastructure, unless the Planning Secretary agrees otherwise¶													
23.	10	Rehabilitation Management Plan Within 18 months of the commencement of construction, the Proponent must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:			The preparation of the Main Works Rehabilitation Management Plan has not been triggered, however, the Exploratory works Rehabilitation Management Plan S2-FGJV-ENV-PLN-0101-C remains applicable until it is superseded by the Main Works RMP. Refer to Sch 3 Condition 11 – Implementation of the Rehabilitation Management Plan.	Not Triggered (due April 2022)								
		(a) be prepared by a suitably qualified and experienced person in consultation with the NPWS, BCD, EPA, NSW DPI and TfNSW;												

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
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		(b) be consistent with the Spoil Management Plan, Recreation Management Plan, Long-Term Road Strategy and Visual Mitigation Management Plan;				
		(c) include a conceptual plan for the rehabilitation of the whole site;				
		(d) include the detailed program for the rehabilitation of roads in the Kosciuszko National Park in accordance with the approved Long-Term Road Strategy;				
		(e) include a topsoil balance for the site, which includes a strategy for: <ul style="list-style-type: none"> maximising the reuse of topsoil on site (provided it is suitable for reuse); using other suitable growth media; and importing additional topsoil to the site (if necessary); 				Not triggered
		(f) include a native seed collection and propagation program in accordance with Florabank (www.florabank.org.au) and/or NPWS guidelines for the site, which includes a strategy for: <ul style="list-style-type: none"> maximising the collection and use of native seed resources from the site prior to disturbance; collecting seed from the surrounding area, including other parts of the Kosciuszko National Park (with the approval of the NPWS); and prioritising the use of local sources of seed for the ecological rehabilitation of the site; 				
		(g) include detailed plans for the rehabilitation of the disturbance area at each of the following sites, describing the measures that would be implemented to comply with the rehabilitation objectives in Table 3 or 5: <ul style="list-style-type: none"> Talbingo Reservoir; Lobs Hole; Marica; Plateau; Tantangara Reservoir; and Rock Forest; 				

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			= not in scope of this audit			
		(h) include a detailed ecological rehabilitation management plan for the development that: <ul style="list-style-type: none"> provides an overarching description of the proposed ecological rehabilitation works, identifying the: <ul style="list-style-type: none"> plant community types to be established; and area of land to be established for each plant community type; provides maps showing the proposed location of each plant community type; describes the detailed measures that would be implemented to comply with the ecological rehabilitation objectives in Table 4; 				
		(i) identify the key risks to the successful completion of the rehabilitation and describe the contingency measures that would be implemented to address these risks;				
		(j) include detailed completion criteria and performance indicators for the rehabilitation of the development (having regard) to the criteria and indicators in Table 4, including criteria for triggering remedial action (if necessary); and				
		(k) include a program to monitor and publicly report on: <ul style="list-style-type: none"> the rehabilitation of the site; the implementation of the each of the detailed plans, including the effectiveness of the proposed mitigation and contingency measures; and progress against the detailed completion criteria and performance indicators. 				
24.	11	The Proponent must implement the approved Rehabilitation Management Plan for the development.		Exploratory works Rehabilitation Management Plan S2-FGJV-ENV-PLN-0101-C Snowy 2.0 Rehabilitation Trials dated 20 December 2020 by Alpine Flora consultant Liz MacPhee.	As noted in Condition 10, the Exploratory works Rehabilitation Management Plan S2-FGJV-ENV-PLN-0101-C remains applicable until it is superseded by the Main Works RMP. Section 5.2.5 – Early Rehabilitation trials in the Exploratory Works RMP	Compliant

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				Email from Snowy Hydro to NPWS dated 13 January 2021 requesting review. Snowy 2.0 Rehabilitation Trials dated 20 December 2020 by Liz MacPhee, review comments by NPWS dated 13 January 2021	notes that " <i>The few areas that can be rehabilitated will be restored as small-scale trials before further rehabilitation works which will be detailed in the Main Works RMP</i> ". At the time of the audit, a Rehabilitation trials document had been prepared by Alpine Flora consultant Liz McPhee, which was provided to NPWS for review. Comments by NPWS were made in track changes dated 13 January 2020).	
25.	12	FLORA AND FAUNA Biodiversity Offset Payments The Proponent must make the following payments to the NPWS to offset the residual biodiversity impacts of the Main Works: (a) \$14.76 million prior to the commencement of construction;		Tax invoice – Snowy 2.0 Main Works Biodiversity Payment (prior to construction) – Paid \$14,760,000 on 08/10/2020	Biodiversity payment was made prior to construction	Compliant
		(b) \$14.76 million within 1 year of the commencement of construction;				Not triggered
		(c) \$14.76 million within 2 years of the commencement of construction; and				Not triggered
		(d) \$14.76 million within 3 years of the commencement of construction. <ul style="list-style-type: none"> <i>This payment represents 80% of the Proponent's liability to offset the residual biodiversity impacts of the Main Works. These funds will augment the \$8,492,909 already paid to the NPWS to offset the residual biodiversity impacts of the Exploratory Works.</i> <i>The NPWS will use these funds and any interest generated by these funds to enhance the biodiversity values of the Kosciuszko National Park. However, in the limited circumstances where it is not possible to address all of the residual biodiversity impacts of</i> 				Not triggered

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		<p><i>the development within the Kosciuszko National Park, the NPWS may use some of these funds to ensure suitable conservation actions are carried out outside the park.</i></p> <ul style="list-style-type: none"> • <i>To ensure accountability, the NPWS will:</i> <ul style="list-style-type: none"> – <i>develop and implement a detailed program for the allocation of these funds to specific projects, focusing on the ecosystems and species affected by the development; and</i> – <i>monitor, evaluate and publicly report on the progress of the implementation of the detailed program and the effectiveness of the specific projects;</i> • <i>The NPWS will develop and implement a specific program in consultation with DAWE to carry out conservation actions to address the residual biodiversity impacts of the development on the following Commonwealth-listed species and communities:</i> <ul style="list-style-type: none"> – <i>Alpine Sphagnum Bogs and Associated Fens;</i> – <i>Broad-toothed Rat;</i> – <i>Smoky Mouse;</i> – <i>Alpine Tree Frog; and</i> – <i>Alpine She-oak Skink.</i> 				
	13	<p>Additional Biodiversity Offset Payment</p> <p>Within 3 years of the commencement of construction, the Proponent must submit a report via the Major Projects Portal that:</p> <p>(a) identifies the final disturbance area of the Main Works;</p>				Not Triggered
		(b) calculates the difference between the maximum disturbance area and the final disturbance area of the Main Works; and				
		(c) calculates the value of the outstanding biodiversity offset payment on a proportionate basis.				
26.	14	<p>Within 6 months of the Planning Secretary setting the value of the outstanding biodiversity offset payment, the Proponent must pay the funds to the NPWS.</p> <p><i>Notes:</i></p>				Not triggered

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		<ul style="list-style-type: none"> • These conditions relate to the remaining 20% of the Proponent's liability to offset the residual biodiversity impacts of the development. • They are intended to create an incentive for the Proponent to reduce the biodiversity impacts of the development by reducing the final disturbance area of the development during the final design of the project. • For instance, if the final disturbance area of the Main Works is only 87% of the maximum disturbance area of the Main Works then the Proponent will only have to pay 35% of the outstanding liability of \$14.76 million. • These funds will be added to the funds paid under condition 12 and managed in accordance with the notes under that condition. 				
27.	15	<p>Potential Additional Offsets – Alpine Sphagnum Bogs and Associated Fens</p> <p>The Proponent must ensure that the development does not cause any exceedances of the following performance measures in the Alpine Sphagnum Bogs and Associated Fens above the Gooandra Volcanics and Kellys Plains Volcanics (see the figures in Appendix 2):</p> <p>(a) negligible change to the shallow groundwater regime supporting the bogs and associated fens when compared to a suitable control site; and</p> <p>(b) negligible change in the ecosystem functionality of the bogs and associated fens.</p>				Not triggered

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28.	16	<p>If the Planning Secretary determines that the development has caused exceedances of the performance measures in condition 15 above, the Proponent must pay additional funds to the NPWS within 3 months of the determination to offset the groundwater-related impacts of the development on these Alpine Sphagnum Bogs and Associated Fens. The Planning Secretary will determine the amount of funds the Proponent must pay following consultation with the NPWS, DAWE and the Proponent; and having regard to:</p> <p>(a) the significance of the impacts on the bogs and associated fens;</p> <p>(b) the relevant values from the Biodiversity Offsets Payment Calculator; and</p> <p>(c) the likely cost of carrying out the conservation actions required to offset these impacts on the bogs and associated fens.</p> <p><i>Note: These funds will be added to the funds paid under condition 12 and managed in accordance with the notes under that condition.</i></p>				Not triggered
	17	<p>Biodiversity Management Requirements</p> <p>17. The Proponent must:</p> <p>(a) ensure the development does not adversely affect the native vegetation and habitat outside the disturbance area;</p>		<p>Site inspection.</p> <p>Electronic Mapping system (Web ARC GIS) showing clearing boundaries viewed live (snip of main camp Lobs Hole provided as sample).</p> <p>Clearing (Land Disturbance) Permit S2-FGJV-ENV-PER-008-0028 dated 26/10/2020 to clear Tantangara Pioneering Road (70,096m²) – closed out 18/01/2021 (final stage = Clearing Register updated to capture as-built disturbance data)</p> <p>Clearing (Land Disturbance) Permit S2-FGJV-ENV-PER-008-0025 dated 22/10/2020 to clear ECVT (39,700 m²) (Lobs Hole) Closed out 18/12/2020</p>	<p>Site inspection – the disturbance area was observed as flagged off and signage posted for no-go zones.</p> <p>SH witness that the Clearing Permits are signed off by FG.</p>	Compliant

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		(b) minimise the clearing of native vegetation and habitat within the disturbance area;		Interview – Luke Jenkins FGJV	FGJV have employed a person (Luke) as a go-between, between design and construction / environmental team to ensure optimal outcomes – minimisation of clearing is one of the objectives. Clearing and Grubbing Clearing Register tracks the area cleared (to date) of each flora and fauna habitat versus the limits (in ha), providing a cumulative % of limit total to date for each habitat.	Compliant
		(c) minimise the trimming of trees required for safety purposes along the approved road network within the Kosciuszko National Park and adjoining the disturbance area;		Interviews with SHL.	It was advised during the audit that trimming of trees has not been required to date.	Not triggered
		(d) minimise the impacts of the development on threatened flora and fauna species or ecological communities within the disturbance area and its surrounds, including the: <ul style="list-style-type: none"> • Alpine Sphagnum Bogs and Associated Fens; • Alpine She-oak Skink; • Alpine Tree Frog; • Booroolong Frog; • Broad - toothed Rat; • Caladenia montana; • Clover Glycine; • Eastern Pygmy - possum; • Gang - gang Cockatoo; 		Letter dated 30/11/2020 From FGJV S2-FGJV-ENV-LET- 0291 – Unexpected find of new endangered species (newly listed under the BC Act (NSW)). Found during a pre-clearance survey by EMM. Letter dated 12/01/2021 from EMM to SHL Re: Further unexpected finds of Pimelea bracteata and Glycine latrobeana at Tantangara Spoil Access Road and Spoil Disposal Ground. Letter from FGJV dated 15/01/2021 to Employers Representative (SHL) “Discovery of a Critically Endangered Flora Species – Tantangara Camp” identifying 159 plants within the proposed camp area Clearing and Grubbing Register.	The construction contractor has established a Clearing and Grubbing Clearing Register which tracks the area cleared (to date) of each flora and fauna habitats versus the limits (in ha), providing a cumulative % of limit total to date for each habitat. The outcomes were reported in the FGJV December 2020 Monthly Report to SHL. At the time of reporting, cleared habitat percentages were low due to the early stage of the project. Pre-clearing surveys identified individual threatened species Pimelea Bracteata in the vicinity of the	Compliant

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		<ul style="list-style-type: none"> • Hoary Sunray; • Kiandra Leek Orchid; • Leafy Anchor Plant; • Mauve Burr - daisy; • Max Mueller's Burr - daisy; • Raleigh Sedge; • Slender Greenhood; • Smoky Mouse; • Spotted tailed Quoll; • Southern Myotis; • Thelymitra alpicola; • White-bellied Sea-eagle; 		<p>FGJV Monthly Report S2-FGJV-PCO-MPR-0021 December 2020</p> <p>Monthly look-ahead – December 2021 – monitoring programs</p>	<p>Tantangara Adit portal — listed in May 2020 as Critically Endangered.</p> <p>As assessment of significance was requested by SHL (not strictly required under the Unexpected Finds Procedure as the species is not listed under the EPBC Act) and was prepared under the NSW Biodiversity Conservation Act.</p> <p>In the Adit area, the disturbance boundary was moved to allow the preservation of the majority of the plants in the area.</p> <p>Pre-clearing surveys for the Tantangara Camp carried out on 12 January 2021 identified a further 159 Pimelea Bracteata plants. FGJV concluded that it was not possible to avoid or mitigate impacts to the plants, and proposed to proceed with the clearance in the area of the proposed camp unless otherwise instructed.</p> <p>Management strategies relating to Pimelea Brachteata are planned to be added to the Biodiversity Plan at the next revision.</p>	
		(e) minimise potential fauna strike in sensitive habitat areas on the road network within the site, including reducing speed limits between sunset and sunrise and constructing suitable underpasses;		<p>App G of Biodiversity Management Plan – Fauna Strike Mitigation Strategy.</p> <p>Site inspection – noted the use of the IVMS in SHL and FGJV vehicles on various roads</p>	A trial underpass has been installed at R4 Ravine Road, with a further five (5) planned to be installed. SHL has been working with NPWS on the	Compliant

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				used for project access, alerting driver when reaching project mandated speed limit. FGJV Daily Notification and Alert dated 19 January 2021 – includes 30 klm/hr limit on Ravine Road	siting of these. (see photos LH7 and LH8) In-Vehicle Management System (IVMS) has been installed on project vehicles, requiring vehicles using Lobs Hole Ravine Road to travel at less than 30km/hr at all times. Speed limit signs have also been posted along project roads. Limit for project vehicles along Tantangara Road is 60klm/hr (however up to 100 klm/hr allowed generally)	
		(f) undertake pre-clearance surveys;		Pre-clearing Survey Report – Snowy 2.0 Main Works – ECVT December 2020 – by Narla Environmental. Pre-clearing Survey Report – Snowy 2.0 Main Works – Adit Portal Final v1.0 11/01/2021 by Narla Environmental. (Focus area by NPWS)	Pre-clearing inspections were conducted 8 and 22 October 2020 for the ECVT. 252 habitat trees were identified. The pre-clearing inspections were conducted on 9 and 29 October 2020 for the Adit Portal (Tantangara). No habitat trees were identified in the area.	Compliant
		(g) maximise the salvage of resources within the disturbance area for reuse in the restoration of vegetation and habitat on site, including native vegetative material, hollows logs, ground timber, and topsoil containing vegetative matter and native seed bank;		<ul style="list-style-type: none"> Post Clearing Report – Snowy 2.0 Main Works – ECVT Final v1 14 December 2020 – by Narla Environmental Post Clearing Report – Snowy 2.0 Main Works – ADIT Portal Final V1.0 Jan 2021 Results of Spoil Road post-clearing from clearance of 43 habitat trees between 10 and 20 Feb 2021 (Narla) FGJV Seed Register Narla - Draft v 0.1 (March 2020 to Dec) Hollow bearing tree and microhabitat salvage spreadsheet for Exploratory 	<p>The Post clearing report for ECVT (Lobs Hole) identified 3 items suitable as microhabitat of the 252 habitat trees identified in the pre-clearing report. The remaining hollows could not be salvaged as they were low quality due to the Jan 2020 bushfires. Native seeds collected.</p> <p>The Post clearing report for the Tantangara Adit identified that 1 item of microhabitat was removed on 17 Sept 2020 and 47 burrows had</p>	Compliant

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				<p>and Main Works showing around 15 microhabitat items and 7 hollows retained or relocated outside clearing boundary</p> <ul style="list-style-type: none"> Information from Narla (ecologists) in email dated 16 Feb 2021 noting that between CH0 and CH 700, on Ravine Road, Narla has salvaged 47 large hollows, 86 medium hollows and 26 small hollows, which were placed outside the clearing boundary – data will be included in the post clearing report Internal SHL Clearing and Grubbing audit (31 October 2020) identified that only 2 of 252 habitat trees that were cleared for works were salvaged Internal SHL Audit – Topsoil Management 29 November 2020 noting general methodology was being followed and included recommendations for improvement. Site Instruction (SHL-SI-000033) issued to all FGJV team following internal audit to ensure that they were aware of requirement to salvage the hollows. Site Inspection – noted that vegetation unsuitable for salvage has been mulched and used in various applications across the project. 	<p>wombat doors installed to exclude wombats (monitored over 5 days prior to blocking entrance). No native seed could be collected (no viable seed at the time of the clearing)</p> <p>Spoil Road post-clearing results from clearance of 43 habitat trees indicated that 23 hollows were salvaged.</p> <p>Mulch used as resources across the project.</p> <p>Site Instruction (SHL-SI-000033) was issued by SHL to FGJV to ensure that all FGJV team were aware of requirement to salvage the hollows. Finding also noted “all parties must agree on a location where this portion of tree hollows can be stockpiled and later used in rehabilitation</p> <p>No formal response to site instruction was provided (refer to Observation – Internal Audit)</p> <p>A topsoil audit was also conducted at Tantangara in Nov 2020, identifying 21 negative observations, however, as above, formal response from FGJV was not sighted (refer to observation #3 – Internal audit.</p>	

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		(h) collect seeds for use in the ecological rehabilitation of the site;		<ul style="list-style-type: none"> – FGJV Seed Register Narla - Draft v 0.1 (March 2020 to Dec 2020) – Email from FGJV dated 10/01/2021 – attaching seed register, noting includes all seeds collected to date for pre-clearing at ECVT and Tantangara – Email from SHL to Auditor dated 19/01/2021 noting that seed is also being collected through a third party in non-project areas with the same vegetation community type 	Seed collection has commenced.	Compliant
		(i) minimise the spread of weeds, pathogens and feral pests on site, and import or export of these matters to or from the site, including the Phytophthora, Chytrid Fungus, African Lovegrass and Ox-eye Daisy;		<p>Site Inspection at Tantangara – sighted vehicle wash-down station and conducted interviews with FGJV and SHL on the washdown process</p> <p>Completed Hygiene Declaration form for light vehicle (SHL)</p> <p>Completed Hygiene Declaration Form for a Padfoot roller dated 07/01/2021 – delivered to Tantangara –</p> <p>Hygiene declaration form folder – showing > 45 declarations</p>	<p>Whilst weed mitigation measures are generally implemented in accordance with the Biodiversity Management Plan, it is considered that improvements to the effectiveness of the controls for the movement of light vehicles are required.</p> <p>At the Tantangara site, the prevalence of Ox-eye Daisy is a key issue of concern and strict hygiene protocols are required to avoid spreading this highly invasive species during construction activities.</p> <p>Current practices for light vehicle washing involved drivers washing down the vehicle with a high-pressure spray in accordance with instructions, and completing a Hygiene checklist / declaration form when leaving site. If persons undertaking the washdown are inadequately trained or knowledgeable regarding technique or the reason for the cleaning</p>	Compliant Observation

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					<p>process, there is some potential that the cleaning would be inadequate.</p> <p>It is recognised that a permanent wash-down facility will be installed in future, however the early clearance activities pose a higher level of risk or weed spread than later stages.</p> <p>No issues have been identified with Phytophthora to date – some testing has been undertaken, however there have been no results to date.</p>	
		(j) minimise the generation and dispersion of sediment to watercourses, particularly Yarrangobilly River and Wallace Creek;		Site inspection	Erosion and sediment controls, including clean water diversions, and diversion of dirty water to sediment basins was satisfactory at the sites visited (see photos LH 32, LH32, LH44, LH37, LH 38, TM6, and TM8)	Compliant
		(k) minimise the light spill from night works, including using directional and LED lighting; and		Site inspection, interview <ul style="list-style-type: none"> – The Biodiversity Management Plan Table 5-1 – BM 23 requires that “where possible and safe to do so, construction lighting and resulting glare will be minimised. All lighting will be directed downwards towards work activities, away from the night sky, and away from known locations of light sensitive habitat” – HRT Adit Lighting Plan – Tantangara – showing areas to be lit with location of lighting towers, limits if direct and ambient light and notes on actions / equipment to reduce light spill. 	<p>Night works had commenced at top of Ravine Road and TBM sites.</p> <p>The Adit Lighting Plan provides appropriate evidence that measures are in place to minimise light spill at the “long term” work sites (e.g. – Adit, TBM sites).</p> <p>The FGJV loss prevention inspection checklist used for nightworks lighting focuses on adequate light being provided for workplace safety purposes, however only partially address the implementation requirements documented in BM 23</p>	Compliant Opportunity for Improvement

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				<ul style="list-style-type: none"> FGJV Loss prevention inspection checklist – Nightworks lighting LPI- WEE-006 – Pipeline Road - MZ (conducted 14/12/2020 @ 19.45). <ul style="list-style-type: none"> Qu.12 - "Lighting is adjusted so as not to be a hazard to others?" Qu.13 - "White lights are not in use or directed towards marine environments?" 	<p>of the Biodiversity Management Plan through questions 12 and 13.</p> <p>Recommendation:</p> <p>It is recommended that the nightworks lighting checklist (or other tools be revised to include reference to the requirements of this condition and the commitments in the Biodiversity Management Plan (i.e. - lighting directed downwards and away from known locations of sensitive habitat).</p>	
		(l) minimise bushfire risk.		<p>Bushfire preparedness internal audit conducted by SHL on 10/10/2020 at Lobs Hole.</p> <p>Non-conformance Report S2-SHL-HSA-NCR-0004_P1 dated 12/01/2020 (typo?), responded to 13/01/2021</p>	<p>Also refer to Sch 3 Cond 60.</p> <p>An internal audit conducted by SHL in October 2020 identified some issues in relation to bushfire preparedness management (refer to Observation regarding internal audit).</p> <p>SHL and FGJV were working to have these issues resolved through their non-conformance process at the time of the audit.</p> <p>The site inspection found that a number of the shortcomings identified in the non-conformance report had been resolved. Key items noted during the inspections included erection of bushfire rating signage, daily briefings, provision of fire extinguishers, fire fighting backpacks and mini water carts at active sites. Interviews with site personnel showed a high level of awareness of current</p>	Compliant

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					bushfire ratings and equipment required.	
29.	18	Biodiversity Management Plan Prior to carrying out any construction, unless the Planning Secretary agrees otherwise, the Proponent must prepare a Biodiversity Management Plan for the development to the satisfaction of the Planning Secretary. This plan must: (a) be prepared by a suitably qualified and experienced biodiversity expert/s in consultation with the NPWS, BCD and DAWE;		Biodiversity Management Plan Rev I 12/10/2020 (FGJV)	Addressed in Sections 1.7, 1.8 Authors Included: • Alexander Graham • Adam Costenoble; and • Nathan Garvey (who did Appendix B – Biodiversity Monitoring Program).	Compliant
		(b) describe the detailed measures that would be implemented to comply with the biodiversity mitigation requirements in condition 17 above;			Refer to schedule 3 condition 17 above	Compliant
		(c) include a strategy to address the requirements in condition 17(e), including: • a detailed risk assessment to identify the locations where underpasses would be built during the upgrade of the road network; and • a trigger, action and response plan for reducing speed limits on the road network on site to minimise fauna strike;			Addressed in: Table 5-1 BM02, BM03, Appendix G	Compliant
		(d) include a program to monitor, evaluate and publicly report on: • the effectiveness of these measures; and • compliance against the performance measures in condition 15 above, including: o establishing a suitable control site;			Section 6.2 Appendix B Table 5-1 BM20 Appendix B Reporting outlined in Section 6.5	Compliant

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		<ul style="list-style-type: none"> o baseline monitoring of the condition of the relevant Alpine Sphagnum Bogs and Associated Fens; o detailed criteria for determining the impact of the development on the performance measures; and o a program to monitor the impacts of the development against the detailed criteria. 				
30.	19	Proponent must implement the approved Biodiversity Management Plan for the development		Site Inspection Interviews	Refer to Sch 3 Cond 17 and Biodiversity Management Plan section of these Audit Tables	Compliant Observation and OFI
31.	20	Biosecurity and Fish Management Requirements The Proponent must: <ul style="list-style-type: none"> (a) minimise the biosecurity risks associated the development, including the movement and/or spread of weeds, fish and pathogens; (b) minimise the impact of the development on threatened fish species and their habitat, particularly the Macquarie Perch, Stocky Galaxias and Murray Crayfish; and (c) minimise the impact of the development on recreational fishing in Tantangara Reservoir and Lake Eucumbene. 			This Condition will not be triggered until the operational phase of the Project.	Not triggered
32.	21	Fish Screens and Barrier Prior to the commencement of commissioning, the Proponent must install: <ul style="list-style-type: none"> (a) a fish barrier on Tantangara Creek to prevent so far as is reasonably practicable Climbing Galaxias reaching the existing population of Stocky Galaxias in the upper reaches of the creek; and (b) fish screens at the southern end of the Tantangara Reservoir to prevent so far as is reasonably practicable the movement of pest fish (in all its forms: eggs, larvae, juveniles and adults) and spread of disease to the mid-Murrumbidgee River and Lake Eucumbene. 				Not triggered

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33.	22	<p>Biosecurity Risk Management Plan</p> <p>Within 2 years of the commencement of construction, the Proponent must prepare a Biosecurity Risk Management Plan for the development to the satisfaction of the Director-General of NSW DPI. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person in consultation with DPIE, NPWS and DAWE;</p> <p>(b) include a detailed biosecurity risk management framework for minimising the ongoing biosecurity risks of the development required in condition 20(a) above, including:</p> <ul style="list-style-type: none"> • developing systems to prevent spills from the Tantangara Reservoir so far as is reasonably practicable; and • pest fish and disease surveillance and eradication/management measures to protect the Macquarie Perch and Stocky Galaxias in the Mid to Upper Murrumbidgee catchment and the salmonid fishery in Lake Eucumbene; <p>(c) include detailed plans for the installation and use of the fish screens and barriers required in condition 21 above, including:</p> <ul style="list-style-type: none"> • minimising the environmental impacts associated with installing the screens, • testing the effectiveness of the screens before they are used; and • maintaining and improving the effectiveness of the screens and barriers over time; <p>(d) include a program to monitor, evaluate and publicly report on these plans, including:</p> <ul style="list-style-type: none"> • carrying out monitoring using epidemiologically designed surveys; and • conducting fish, disease and eDNA surveys. 				Not triggered

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34.	23	The Proponent must implement the approved Biosecurity Risk Management Plan for the development.				Not triggered
35.		<p>Threatened Fish Management Plan</p> <p>Within 12 months of the commencement of construction, the Proponent must prepare a Threatened Fish Management Plan for the development to the satisfaction of the Director-General of NSW DPI.</p> <p>This plan must:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced person in consultation with DPIE and DAWE; (b) include the establishment and use of an expert advisory committee to provide advice to the proponent on the implementation of the plan; (c) describe the detailed measures that would be implemented to comply with condition 20(b) above; (d) include a detailed captive breeding program for the Macquarie Perch and Stocky Galaxias involving the spending of \$5 million over 5 years from the commencement of the program that provides for: <ul style="list-style-type: none"> • population monitoring, surveillance and research on the Macquarie Perch and Stocky Galaxias in the Mid to Upper Murrumbidgee catchment; • habitat surveys to identify suitable receiving sites for stocking insurance populations of Stocky Galaxias and Macquarie Perch; • captive breeding, stocking and monitoring of Macquarie Perch and Stocky Galaxias with the aim of achieving self-sustaining populations of these species; • habitat enhancement for the Macquarie Perch in the mid-Murrumbidgee catchment in accordance with the National Recovery Plan to increase the existing population's resilience to the potential biosecurity risks from the development 				Not triggered – triggered for Oct 2021

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		<p>(e) include a review after 5 years of the commencement of the captive breeding program in (d) above and detail the trigger, action and response plan for the extension of the program;</p> <p>(f) include a program to minimise the impacts of the development on the Murray Crayfish in Talbingo Reservoir, including:</p> <ul style="list-style-type: none"> • population monitoring and surveillance for Murray Crayfish; • relocating any Murray Crayfish from the disturbance area of the development prior to disturbing the relevant area; and • habitat enhancement for the Murray Crayfish habitat in the vicinity of the disturbance area at the Talbingo Reservoir, including the use of woody debris salvaged during construction; and <p>(g) include a program to monitor and publicly report on the progress of each program/plan and the effectiveness of these measures.</p>				
36.	25	The Proponent must implement the approved Threatened Fish Management Plan for the development				Not triggered
37.	26	<p>Recreational Fishing Management Plan</p> <p>Within 12 months of the commencement of construction, the Proponent must prepare a Recreational Fishing Management Plan for the development to the satisfaction of the Director-General of NSW DPI.</p> <p>This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person in consultation with DPIE, NPWS and relevant recreational fishing groups;</p> <p>(b) describe the detailed measures that would be implemented to comply with condition 20(c) above, including:</p> <ul style="list-style-type: none"> • a program involving the spending of \$5 million over 5 years from the commencement of the program to develop the capability to restock, and to restock, the Tantangara Reservoir and Lake Eucumbene with salmonid fish; 				Not triggered – triggered for Oct 2021

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		<ul style="list-style-type: none"> • a program to monitor the impacts of the development on recreational fishing in Tantangara Reservoir and Lake Eucumbene; • a review after 5 years of the commencement of the restocking program and detail the trigger, action, and response plan for the continuation of the restocking of Tantangara Reservoir and/or Lake Eucumbene salmonid fish; <p>(c) include a program to monitor and publicly report on the effectiveness of these measures.</p>				
38.	27	The Proponent must implement the approved Recreational Fishing Management Plan for the development.				Not triggered
39.	28	<p>WATER</p> <p>Water Supply</p> <p>The Proponent must ensure it has sufficient water for each stage of the development; and if necessary, adjust the scale of development on site to match its available water supply.</p> <p><i>Note: Under the Water Management Act 2000, the Proponent must obtain the necessary water licences for the development.</i></p>		<p>WAL 42407 Certificate of Title – Special Purpose Access Licence (SPAL) – Talbingo under the <i>Water Management Act 2000</i>.</p> <p>WAL 42407 Conditions – Talbingo (includes required to be accurately metered as per AS474).</p> <p>WAL 42544 – Notice of decision – dated 19/11/2020 – includes Terms and conditions (includes required to be accurately metered as per AS474).</p> <p>WAL 43544 Certificate of Title – Special Purpose Access Licence (SPAL) – Tantangara Water Source under section s87B of the <i>Water Management Act 2000</i>.</p> <p>Letter from Natural Resources Access Regulator (NRAR) – “<i>Granting of application for a new water access licence – specific purpose (s. 61) in the Tantangara Water Source</i>”</p>	<p>SHL applied for Special Purpose Access Licences at Talbingo (Lobs Hole) and Tantangara. The Licence has been granted for Talbingo, and the Tantangara licence application was granted during the period of the audit.</p> <p>Bores were in place at Lobs hole and Tantangara (flow monitors sighted – refer to photo LH28)</p>	Compliant

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40.	29	Water Pollution 29. Unless an environment protection licence authorises otherwise, the Proponent must comply with Section 120 of the POEO Act. <i>Note: Section 120 of the POEO Act makes it an offence to pollute any waters.</i>		1 Incident in relation to Section 120. Another incident Dec 2020 – broken pump pipe for dewatering broken pipe – dirty water to creek instead of to irrigation area. See letter from EPA dated 11 Jan 2021 sent via email. Basin overtopped – report (not breach but notified – not S 120)	Whilst some incidents have occurred that have been notifiable to the EPA, there had been no specific breaches to Section 120 of the POEO Act at the time of the audit.	Compliant
41.	30 (a)	Water Management Requirements 30. The Proponent must: (a) maximise the recycling and reuse of water on site;		Site inspection	The Main Works project is in the early stages of development, and the significant opportunities to maximise the recycling and re-use of water on site are not yet available (re-use of process water for tunnelling). However, during the early phases of the project, sediment basin water is being reused for dust suppression.	Compliant
	30 (b)	(b) maximise the diversion of clean water runoff around the disturbance areas;		Erosion and Sediment Control Report dated 11 Nov 2020 (by TREES – Soil Conservation & Environmental Consultants) Progressive Erosion and Sediment Control Plan (PESCP) (attached to clearing permits) S2-FGJV-ENV-PLN-0161 – approved by Soil Conservationist Audit Site inspections – various photos at Lobs Hole and Tantangara	Site inspection indicated that this was generally being achieved. At Lobs Hole, and Tantangara diversion channels were operational and appeared to be effective (see photos LH 32, LH32, LH44, LH37, LH 38, TM6, and TM8). A soil conservationist (TREES) is engaged to undertake inspections and provide reports on effectiveness of controls. Sighted inspection reports and recommendations to FGJV. Report includes comments on good practices and recommendations for	Compliant

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					improvements with priority levels assigned.	
	30 (c)	(c) minimise the flow rates and velocities of any clean water runoff diversions to adjoining watercourses;		Erosion and Sediment Control Report dated 11 Nov 2020 (by TREES – Soil Conservation & Environmental Consultants)	Clean water diversions are designed to minimise scouring. PESCP drawings show various means for flow rate reduction (e.g. vegetated diversion drains with rocks in gravel base, rock spillways exiting sediment basins, rock check dams) Inspection checklists ask “ <i>Are clean water diversions installed and working as intended? (e.g. no obstruction, no overflow, no scouring, no material flow increase in receiving waterway)?</i> ” Specific examples of devices to reduce velocities of clean water were sighted during the site inspection (rock check dams – see photos).	Compliant
	30 (d)	(d) minimise the flooding impacts of the development;			Not assessed at this audit	Not triggered
	30 (e)	(e) minimise groundwater take from the Gooandra Volcanics and Kellys Plain Volcanics using pre and post grouting of the tunnel, to minimise the loss of stream flows in the waterways above these geological formations, including Gooandra Creek and the headwaters of the Eucumbene River;				Not triggered
	30 (f)	(f) minimise erosion and the generation and dispersion of sediment using suitable controls in accordance with the relevant requirements in the <i>Managing Urban Stormwater: Soils and Construction</i> guidance series;		Progressive Erosion and Sediment Control Plan (PESCP) and ESCPs	Site inspection found that controls were in place, and those sighted were generally in accordance with the <i>Managing Urban Stormwater: Soils</i>	Compliant

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					and Construction (Blue Book) guidance series. Drawings on ESCPs / PESCPs are from the "Blue Book" and include design to minimise scour and erosion.	
	30 (g)	(g) design all instream works, particularly the inlet and outlet works, to minimise scour and erosion;		Site inspection	Major instream works have not yet commenced. Drawings on ESCPs / PESCPs are from the "Blue Book" and include design to minimise scour and erosion.	Compliant
	30 (h)	(h) unless permitted by this approval, avoid carrying out of any development within 40 metres of any watercourse;		Interview	It was stated that works have not taken place within 40 m of a water course except where water crossings are required.	Not triggered
	30 (i)	(i) carry out all instream works or development within 40 metres of any watercourse generally in accordance with the requirements in the <i>Guidelines for Controlled Activities on Waterfront Land</i> ;		Interview	It was stated that no NRAR approvals are required on the project to date	Not triggered
	30	(j) treat all wastewater and surplus process water prior to discharging it at the approved discharge points at the Talbingo Reservoir or Tantangara Reservoir;		This issue was identified as an area of focus by the EPA during pre-audit consultation. Letter from EPA to Snowy Hydro Limited: <i>Snowy Hydro Limited – EPL 21266 Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara Sewage Treatment Plant Design Report – Lobs Hole</i> dated 15 December 2020	Waste water and process water treatment plants were still under construction at the time of the audit and were not operational. Waste water continued to be pumped out and disposed of by waste contractor SUEZ at Lobs Hole accommodation camp as an interim measure until the sewage treatment plant becomes operational. The EPA letter dated 15 Dec 2020 noted that the <i>Detailed Design Report – Exploratory and Fly Camp Sewage Treatment Plant</i> generally satisfies the requirements of Licence Condition	Not triggered

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					<p>E1.1, however further clarification is required on various aspects of the report (detailed in the letter) including:</p> <ul style="list-style-type: none"> – Amended discharge criteria and mixing zone assessment; – Amended volumes of discharge; – Revised number of dilutions; and – Operational Environmental Management Plan (OEMP) <p>At the time of the audit, Snowy Hydro Limited were in the process of addressing the issues raised in the letter.</p>	
	30	(k) reduce the number of diffuser points for low velocity discharges to the Talbingo Reservoir or Tantangara Reservoir;			Not assessed at this audit – as noted above, detailed design was still in progress.	Not triggered
	30	(l) not discharge any surplus process water to the stormwater basins on site;			No process water has yet been generated.	Not triggered
	30	<p>(m) minimise the surface water quality impacts of the development, including:</p> <ul style="list-style-type: none"> • the development carried out in the vicinity of waterways, particularly the Talbingo Reservoir, Tantangara Reservoir and Yarrangobilly River; • all instream works, including dredging, channel excavations, underwater blasting, barge infrastructure, fish barriers and screens, culverts and bridges, and service crossings; • the temporary and permanent spoil emplacement areas; • development at the Marica, Plateau and Rock Forest sites; • road works; 		<p>Site inspection</p> <p>Erosion and Sediment Control Report dated 11 Nov 2020 (by TREES – Soil Conservation & Environmental Consultants)</p>	<p>Surface water quality appears to be adequately controlled and minimised through installation of clean water diversions, sediment basins and sediment and erosion controls as identified during the audit site inspection of Lobs Hole, Tantangara and Lobs Hole Ravine Road works. Clearing at Marica had only just commenced, and therefore minimal erosion and sediment controls had been installed at the time of the audit.</p> <p>Instream works (except waterway crossings) have not yet commenced.</p>	Compliant

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		<ul style="list-style-type: none"> the operation of the power station and associated infrastructure, including the operation of the inlets and outlets to minimise sediment disturbance risks and the dewatering of the tailrace tunnel; 			<p>No permanent spoil emplacement areas yet established.</p> <p>Operation of power station is not yet triggered.</p>	Not triggered
	30	(n) minimise the risk of spills or leaks on site, and clean up any spills or leaks as quickly as possible;		Site inspection	<p>The site inspection at, and en route to Lobs Hole identified three (3) instances of inadequate controls to prevent leaks or spills.</p> <ol style="list-style-type: none"> The site inspection found that a bundled pallet containing "Class A Foam Liquid Concentrate" at Lobs Hole was overloaded and stored outside (no shelter). The end row of containers was overhanging the edge of the pallet increasing the risk of spillage. The pallet is also positioned where it could be struck by reversing vehicles; The portable bund around the generator on the shore of Talbingo Reservoir at Lobs Hole was not adequately supported (sides falling down) leading to reduced capacity to contain a leak or spill (refer to photo LH29); See condition 30 (p) below for third instance. 	Non-compliant
	30	(o) minimise the groundwater quality impacts of the development, particularly through the design of the temporary and permanent spoil emplacement areas and all water storages on site;			Temporary spoil was either being used in the construction of the work site pads or was being stored appropriately at the time of the audit.	Compliant

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	30	(p) store chemicals and hydrocarbon products in bunded areas in accordance with the relevant Australian Standards.		(p) Spill management audits and chemical management scheduled in the next month – Ben to send schedule)	The site inspection found that Ad Blue containers (mostly empty, however some contained product) were stored on a timber (non-bunded) pallet at a Ravine Road site office/stockpile area.	Non-compliant
42.	31	Water Management Plan Prior to the commencement of construction, the Proponent must prepare a Water Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:		S2-FGJV-ENV-PLN-0010[G]-Main Works - Water Management Plan (WMP)		Compliant
		(a) be prepared by a suitably qualified and experienced person in consultation with the EPA, NPWS, the Water Group, NRAR and NSW DPI;		WMP Section 1.9	Water Management Plan prepared by Dr Rick Van Dam, Water Quality Advice and Dr Richard Cresswell, Eco Logical Australia. Surface Water Management prepared by Dr Rick Van Dam. Groundwater Management Plan prepared by Dr Richard Cresswell, Eco Logical Australia. All 3 Plans provide information on the agencies consulted during Plan preparation – including all agencies listed in this Condition.	
		(b) include a Site Water Balance for the development with a program to review and update this water balance each calendar year;		Section 5 WMP	Addressed in Section 5 of the WMP.	Compliant

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		<p>(c) include a Surface Water Management Plan, containing detailed plans for the Talbingo Reservoir, Lobs Hole, Marica, Plateau, Tantangara Reservoir, and Rock Forest sites, with:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the watercourses that could be affected by the development, and a program to augment this baseline data over time; • detailed criteria for determining the surface water impacts of the development (flows, quality and flooding), including criteria for triggering remedial action (if necessary); • a description of the measures that would be implemented to minimise the surface water impacts of the development and comply with the relevant water management requirements in conditions 4, 6 and 30 above, including specific plans covering: <ul style="list-style-type: none"> - the temporary or permanent emplacement of spoil; - dredging, channel extraction and underwater blasting in the Talbingo Reservoir and Tantangara Reservoir; - operation of the discharge points; - the design of the inlets and outlets; and - dewatering of the tailrace tunnel during operations; • identify the key risks to the successful implementation of these measures, and describe the contingency measures that would be implemented to address these risks; • a program to monitor and publicly report on the surface water impacts of the development; 		Surface Water Management Plan Rev G 15/10/2020 (FGJV) SWMP – Annexure A	<p>The SWMP notes that this Plan will be updated prior to major sub-surface water works in Talbingo Reservoir and Tantangara Reservoir and in-reservoir emplacement.</p> <p>A separate document or framework will be prepared prior to operations.</p> <p>Specific items addressed in Annexure A, Attachment B, Section 1.2, Section 2, Section 5, Table 5-3, Section 5.14, Section 6.7. Annexure A Section 3 and Annexure Section 7.</p>	Compliant

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		<p>(d) include a Groundwater Management Plan with:</p> <ul style="list-style-type: none"> • detailed baseline data of groundwater levels, yield and quality on the aquifers that could be affected by the development, and a program to augment this baseline data over time; • a program to validate and calibrate the groundwater model for the development as new information is collected; • detailed criteria for determining the groundwater impacts of the development, including criteria for triggering remedial action (if necessary); • a description of the measures that would be implemented to comply with the water management requirements in condition 30 above; • a program to monitor and publicly report on: <ul style="list-style-type: none"> - groundwater inflows to the tunnel; - water take from the groundwater bores and connected water sources; - the impacts of the development on: <ul style="list-style-type: none"> o regional and local (including alluvial) aquifers; o base flow to surface water sources. <p><i>Note: The Proponent may stage the preparation of the Water Management Plan, including the preparation of each of the detailed plans required under the Surface Water Management Plan. However, the detailed plans must be approved prior to any construction occurring on the relevant site.</i></p>		<p>GMP</p> <p>GMP – Annexure A</p> <p>Attachment A</p> <p>GMP – Section 8.2 and</p> <p>Table 5-1: GW12</p> <p>GMP – Section 6.4</p> <p>GMP – Section 5 and Table 5-1</p> <p>GMP – Section 6.8 and</p> <p>Annexure A Section 2</p> <p>WMP - Section 6.3.1</p>	It was noted in the Groundwater Management Plan, that the Plan will be updated prior to commencement of dredging, channel extraction or underwater blasting; in-reservoir emplacement works; construction works in the third year....; and Snowy 2.0 operations.	Compliant
43.	32	The Proponent must implement the approved Water Management Plan for the development.			Refer to Water Management Plan section of this checklist.	Compliant

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44.	33	HERITAGE Protection of Heritage Items The Proponent must ensure that the development does not affect: (a) any Aboriginal heritage items outside the construction envelope (see Appendix 3);		Site inspection	The Heritage Management Plan states that all known heritage located outside the construction envelope will be protected from direct impact by project boundary delineation and site induction training in relation to heritage. Known heritage items will be marked on sensitive area plans. The site inspection confirmed that delineation of the boundary was in place at sites visited, is included in induction and that heritage items are marked on Sensitive Area Plans (SAPs). The envelope is delineated with a blue rope, and disturbance area with flagging. Disturbance of areas is managed through the implementation of the Clearing Permit system	Compliant
		(b) the rock shelter (AHIMS 57-4-276) to the west of the Tantangara site (see Appendix 3);		Interview	It was stated that the rock shelter has not been affected. To be included in the scope of a future audit.	Not triggered
		(c) any of the historic heritage items outside the construction envelope (see Appendix 3);		Interview	It was stated that historic items outside the construction envelope had not been affected. Heritage items outside the construction envelope were not visited as part of this audit. To be included in the scope of a future audit.	Not triggered

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		(d) the heritage items listed in Table 4-2 and Table 4-4 in Appendix 4; and		Site Inspection Interview	Two heritage items are listed in Table 4-2 – R20 Washington Hotel and R118 Ravine Cemetery. The Washington Hotel was sighted – it is a dedicated exclusion zone and roped off and is signaged as a no-go zone. (refer to photos LH20 – LH22) It was stated that the Ravine Cemetery has been roped off and has not been impacted (not sighted during site inspection)	Compliant
		(e) the tufa deposits outside the construction envelope (see the figures in Appendix 3).		Site visit	Tufa deposits were sighted from a distance during the site inspection, and there was no evidence of any works that could affect the deposits. This was also assessed as compliant as part of Exploratory Works Independent Audit. It was stated that there has been no change since then.	Compliant
45.	34	Heritage Management Requirements The Proponent must: (a) undertake archival recording, test excavation and/or salvage of the Aboriginal heritage items listed in Table 4-3 in Appendix 4 if these items will be affected by the development;		Heritage Site Clearance Form (FGJV) completed for RSU12 – Aboriginal Survey Unit Lobs Hole – Excavation: test/salvage 09/09/2020 – signed by Julie Dibden on 13/09/2020 (Archaeologist)	Aboriginal heritage salvage and archive work was being undertaken by Julie Dibden of NSW Archaeology Pty Ltd.	Compliant
		(b) undertake archival recording, test excavation and/or salvage of the historic items listed in Table 4-1 in Appendix 4 if these items are to be affected by the development;		Heritage clearance certificate RSU12 Lobs Hole (Excavation: test/salvage signed by Julie Dibden 13/09/2020. Heritage clearance certificates – Lobs Hole, Tantangara, Marica (1 at the camp - test	Excavation and salvage were in progress at Tantangara and Marica (clearance certificates not yet completed at time of the audit) See	Compliant

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				excavation underway but not yet clearance certificate). Discussed on site with Archaeologist.	photo TM31 – heritage clearance area Marica. Salvage was being managed by Julie Dibden of NSW Archaeology, including storage of the salvaged items.	
		(c) prepare a detailed archival record of the history of settlement and mining in the Lobs Hole Ravine area; and		c) in progress	The archival record of the history of settlement was in progress at the time of the audit (not sighted)	Not triggered
		(d) minimise the impacts of the development on the boulder streams and fossiliferous beds along Lobs Hole Ravine Road (see the figures in Appendix 3).		The Exploratory Works Independent Environmental Audit (dated July 2020) Site inspection	The Exploratory Works Independent Environmental Audit (dated July 2020) confirmed that a Rapid Condition Assessment Boulder Stream report provided an archival photographic record of the block streams, that the location of the boulder streams was marked on the Ravine Road Construction Drawings and limited impact was observed on the down-hill embankments. The site inspection at this audit confirmed that the impact on the down-hill embankments remained minimal, and that the rock anchors on the uphill embankments had been stabilised with rock bolts and tinted shotcrete (refer to photos LH15 and LH16). The Exploratory Works Independent Environmental Audit also noted that the recommendations of an assessment prepared by Dr Ian	Compliant

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					Percival were implemented and that the reprofiling of the fossiliferous embankment was complete. Site observations during this audit found the fossiliferous beds to be in the same condition as observed at the Exploratory Works audit (refer to photos LH17 and LH18).	
46.	35	Heritage Management Plan Prior to carrying out any development for the Main Works that could affect the heritage items listed in Appendix 3 and 4, the Proponent must prepare a Heritage Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:				
		(a) be prepared by a suitably qualified and experienced person in consultation with the NPWS, BCD, Heritage Council, RAPs, Yala Ngurumbang Yindymarra Executive Advisory Committee and Southern Snowy Mountains Aboriginal Community MOU Group;		Section 5 of the Main Works EIS	Authors Dr Julie Dibden, Dr Rebecca Parkes, Dr Leah Moore (Heritage Consultants) Consultation addressed in Section 1.9 and Table 1-4 of the Heritage Management Plan	Compliant
		(b) describe the measures that would be implemented to:		(Detailed maps provided in Appendix G)	Measures to be implemented are addressed in the following sections of the Plan (adjacent column)	Compliant
		• protect the heritage items identified in condition 33 above;		Section 5.1.1		
		• comply with the heritage management requirements in condition 34 above, including the display of removable heritage items in consultation with the NPWS and BCD;		Section 5, Section 1.9.3		
		• relocate moveable historic heritage items within the disturbance area;		Section 5.3.8		
		• manage the discovery of human remains or previously unidentified heritage items;		Appendix E Section 5.3.2?		

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
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		<ul style="list-style-type: none"> provide for ongoing consultation with key stakeholders during the implementation of the plan; 		Section 1.9.3		
		<ul style="list-style-type: none"> involve key stakeholders in the management of heritage items on site; 		Section 1.9.3		
		<ul style="list-style-type: none"> allow Aboriginal stakeholders to visit significant cultural heritage sites on site, provided this can be carried out safely without compromising the construction of the development; and 		Section 1.9.3		
		<ul style="list-style-type: none"> ensure workers receive suitable training and inductions on the heritage management requirements on site; 		Section 6.2		
		(c) include a program to monitor and report on the effectiveness of these measures; and		Section 6.1		Compliant
		(d) include a program to publish: <ul style="list-style-type: none"> any detailed archival records required under the conditions of this approval; and the findings of any excavations and salvage works. 		Section 6.5		Compliant
47.	36	The Proponent must implement the approved Heritage Management Plan for the development.		Interview with Archaeologist – Julie Dibden Heritage Clearance Certificate – RSU 12 (Aboriginal) Site visit – clearance areas in progress – RSU 5	Archival recording and salvage of moveable material was in progress at the time of the audit. Salvage of items at Lobs Hole as part of exploratory works was complete, with items held by the Archaeologist (not sighted). An interim report for early works was in progress at the time of the audit. It was noted that due to the bushfires in 2020, there is a recognised need to reassess some of the sites. This will be reassessed at future audit(s).	Compliant

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48.	37	<p>RECREATION</p> <p>Offset</p> <p>Prior to the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must pay the NPWS \$1,995,000 to offset the recreational impacts of the Main Works on the Kosciuszko National Park.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • These funds will augment the \$4,962,777 already paid to the NPWS to offset the conservation and recreational impacts of the Exploratory Works on the Kosciuszko National Park. • The NPWS will use these funds and any interest generated by these funds to enhance the recreational facilities in the Kosciuszko National Park, particularly in the areas surrounding the Talbingo Reservoir, Lobs Hole and Tantangara Reservoir sites. • To ensure accountability, the NPWS will: <ul style="list-style-type: none"> - develop a detailed program for the allocation of these funds to specific projects; and - monitor, evaluate an 		<p>Tax invoice – Snowy 2.0 Main Works Biodiversity Payment (prior to construction)</p> <p>– Paid \$1,995,000 on 08/10/2020</p>	<p>Recreation Offset payment was made prior to commencement of construction.</p>	Compliant
49.	38	<p>Recreation Management Requirements</p> <p>The Proponent must:</p> <p>(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;</p> <p>(b) minimise the impacts of the development on users of the Kosciuszko National Park both within and in the vicinity of the construction envelope;</p> <p>(c) minimise any disruption to the use of the Talbingo Boat Ramp;</p>				Not triggered

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		<p>(d) minimise the dust and noise impacts of the development on the Wares Yards campground;</p> <p>(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;</p> <p>(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;</p> <p>(g) keep the community informed about the temporary closure of areas or any recreational facilities within the Kosciuszko National Park.</p>			<p>(e) – Sighted sign at Lobs Hole FGJV Office “All Workers are reminded that there is to be no fishing or swimming on site at any time”.</p> <p>If anyone is caught in the exclusion zone without a permit, disciplinary action will be taken.</p> <p>Most of the requirements of this condition had not been triggered except (e) as above.</p>	
50.	39	<p>Recreation Management Plan</p> <p>39. Within 12 months of the commencement of construction, the Proponent must prepare a Recreation Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person in consultation with the NPWS, NSW DPI and TfNSW;</p> <p>(b) include a conceptual recreation strategy for the site, identifying the recreational facilities that would be provided during the rehabilitation of the site;</p> <p>(c) describe how the implementation of this strategy would be co-ordinated with the implementation of the Rehabilitation Management Plan;</p> <p>(d) include detailed plans for the provision of recreational facilities at, and future recreational use of, the following sites:</p> <ul style="list-style-type: none"> • Talbingo Reservoir; • Lobs Hole; • Tantangara Reservoir; 				Not triggered. Triggered by Oct 2021

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		(e) describe the measures that would be implemented to comply with the recreation mitigation requirements in condition 38 above; and (f) monitor and publicly report on the implementation of these plans and measures.				
51.	40	The Proponent must implement the approved Recreation Management Plan for the development				Not triggered
52.	41	TRANSPORT 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.		Focus area for NPWS (NPWS is the road Authority) Meeting Minutes – Asset outcomes within KNP Engagement Group meeting – 15 December 2020 Email from Paul Smith (SHL) dated 21 January 2021 describing the TfNSW sign-off process.	Marica and Rock forest upgrades were undertaken by TfNSW. Monthly Asset outcomes meetings are held with NPWS. Action Register of meeting minutes include item – SHL and NPWS to continue discussion on how the sign-off mechanism will work. As at 15/12/2020, NPWS had requested SHL to propose a sign-off mechanism and share with NPWS for review (not yet resolved) No formal sign-off has yet been required where NPWS is the designated roads authority. No works had been completed in the NP to date. For TfNSW roads (previously RMS), TfNSW was engaged to design and construct the intersection improvement works at the intersections identified in Table 5-2 of the approval. The intersections completed have therefore been “self	Compliant (TfNSW) Not triggered (NPWS)

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
					signed off" to the satisfaction of the Roads Authority.	
53.	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: <ul style="list-style-type: none"> • 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; 		Snowy 2.0 Road Condition Survey – Issue A S2-6160-REP-000004-A dated 29 April 2019 (This Survey includes Link road between the Snowy Mountains Highway and Goat Ridge Road, Transport of Various Loads along Link Road, Kosciuszko National Park Assessments of Culverts for FGJV dated 14 July 2020 by Tasman Associates. Email dated 01/03/2021 from SHL Principal Engineer Roads Infrastructure – reasons for the Dilapidation survey not being undertaken for Tantangara Road	Section 2.2 of the Road Condition Survey (Link Road) notes that the Austroads Guide to Pavement Technology was reviewed and the appropriate document is Part 5: Pavement Evaluation and Treatment Design. In accordance with this guide a visual survey of the pavement condition was instigated, comprising of a drive through video data collection and manual mapping of key pavement features and defects. A dilapidation survey report was not prepared for Tantangara Road. In the email dated 1/3/2021, the following explanation was provided: <i>"Tantangara Road was part of the initial video data collection undertaken in January 2019. The intention of this video pick up was to provide the project with a baseline record of the road to allow a comparison of road condition to be made during and post construction. As Tantangara Road is being reconstructed by the project it does not appear necessary to carry out a more detailed investigation as the existing infrastructure will be rehabilitated or replaced during construction."</i> It was further noted by	Compliant

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			= not in scope of this audit			
					<p>SHL that the road is to be upgraded so that the pavement has a 25-year design life after construction activities.</p> <p>Evidence of video footage in project files was sighted (screen shot of files).</p> <p>From the evidence sighted and explanations provided, it appears that the intent of this condition is satisfied.</p>	
54.		<p>(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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>		Section 5.5	<p>No occurrences of road safety issues or damage to date.</p> <p>It is planned that Tantangara Road is to be upgraded so that the pavement has a 25-year design life once construction activities have ceased.</p>	Not triggered
55.	43	<p>Vehicle Restrictions</p> <p>All heavy vehicles associated with the development must travel to and from the site via the:</p> <p>(a) Snowy Mountains Highway, Miles Franklin Drive and Spillway Road;</p> <p>(b) Snowy Mountains Highway, Link Road and Lobs Hole Ravine Road;</p>		<p>Snowy 2.0 Main Works Transport Management Plan Rev G 03/08/2020. Requirements are addressed in Section 5.6 and Appendix F.</p> <p>Interview</p>	<p>The routes are addressed in the Transport Management Plan. Elliot Way was still closed due to the January 2020 bushfires at the time of the audit.</p> <p>Interviews with Snowy Hydro Limited indicated that there are limited options to access sites, and that drivers are</p>	Compliant

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		(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). <i>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.</i>			provided with the Drivers Code of Conduct. It could not be verified that all drivers comply with the approved routes at all times, however there have been no complaints or instances of non-compliance raised. It was stated that heavy vehicles would be accompanied by an escort vehicle (LV) and hold permits, however this was not verified during this audit.	
56.	44	The Proponent must:		Section 5 Table 5-1	(a) Also addressed in Biodiversity Management Plan – refer to Biodiversity section.	Compliant
		b) restrict the use of Lobs Hole Ravine Road – North 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); and		Table 5-1 Section 6.1	It was verbally stated that the Lobs Hole North Rd was not used much at the time of the audit. The Lobs Hole Ravine Road North was not visited during the audit and was therefore not fully assessed. The number of vehicles using Lobs Hole Ravine Road south was being monitored.	Not triggered
		(c) restrict vessel speeds on Tantangara Reservoir and Talbingo Reservoir to current TfNSW speed limits.		Appendix C	No vessels were yet operating.	Not triggered

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
57.	45	Transport Management Requirements The Proponent must:		Transport Management Plan Section 5.1	Intersection upgrades were completed prior to the Independent Audit. No complaints have been recorded in regards to road and intersection upgrades. Not fully assessed at this audit.	Not triggered
		(a) minimise the impacts of the road and intersection upgrades of the development;				
		(b) maintain all roads and water-related infrastructure on site in a safe and serviceable condition;		Transport Management Plan Section 5.5 Site inspection	Site inspection noted that roads were in a safe and serviceable condition at the time of the audit. Water infrastructure was not sighted or assessed.	Compliant Not triggered
		(c) allow NPWS officers to access the site at all times, including during the upgrade of Tantangara Road;		Transport Management Plan Section 5.11.8	It was stated by SHL that there have been no cases where NPWS have been denied access.	Compliant
		(d) provide sufficient parking on site for all vehicles and ensure vehicles associated with the development do not park on the public road network;		Site inspection	The site inspections at Lobs Hole, Tantangara and Marica sites confirmed that there was sufficient parking on site and no parking occurred on the public road networks.	Compliant
		(e) ensure heavy vehicles entering and leaving the site have loads covered or contained and enter and leave the site in a forward direction;		Transport Management Plan Appendix A - Drivers Code of Conduct	These requirements were included in the Site rules, and the Drivers Code of Conduct. Site inspection confirmed that heavy vehicles sighted had their loads covered, and entered / left the site in a forward direction.	Compliant
		(f) minimise dust and/or sediment being tracked onto Link Road and the public road network;		Site inspection	Minor tracking of sediment onto roads was noted during the site inspection, however appeared to be adequately managed at the time of the audit.	Compliant

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			= not in scope of this audit			
		(g) minimise the traffic impacts of the development on the public road network, including: <ul style="list-style-type: none"> • 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; 		IVMS system – speed control https://www.futuregenerationjv.com.au/traffic	Website stated that “....the largest loads – which may be oversize, over mass and/or over dimension – will mostly be transported at night and early mornings to reduce traffic impacts”. The Drivers Code of Conduct obligations included the requirement: “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”.	Compliant
		(h) minimise the traffic safety risks of the development in snow and ice conditions;		Site inspection	The site Inspection as part of this audit was conducted during the summer months (January 2021)	Not triggered
		(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;			Not assessed at this audit	Not triggered
		(j) minimise the traffic noise impacts of the development, particularly in Cooma and Adaminaby, including: <ul style="list-style-type: none"> • limiting the use of truck engine braking on the Snowy Mountains Highway; 		Appendix A of Transport Management Plan - Drivers Code of Conduct https://www.futuregenerationjv.com.au/traffic	Limiting the use of engine braking is included in the Drivers Code of Conduct. There had been no specific complaints regarding engine noise at the time of the audit	Compliant

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			= not in scope of this audit			
		<ul style="list-style-type: none"> notifying the local community about development-related traffic impacts; 				
		(k) minimise the development-related traffic safety impacts of the development for the public: <ul style="list-style-type: none"> 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; 			Water related infrastructure was not assessed at this audit The speed limit for Tantangara Road has been reduced to 60km/hr for project related vehicles and is signposted as such on project placards (not standard speed limit signage - See photo TM4).	Not triggered Compliant
		(l) ensure any vessel or structure occupying waters must display appropriate shapes and lights in accordance with the <i>Marine Safety (Domestic Commercial Vessel) National Law Act 2012</i> ;			Water related structures or vessels not assessed at this audit.	Not triggered
		(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.		Website: https://www.futuregenerationjv.com.au/traffic	The Snowy 2.0 Website includes information on current activities affecting traffic	Compliant
58.	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:		S2-FGJV-LOG-PLN-0008[G]-Main Works-Transport Management Plan	Addressed in the following sections: Table 1-2 Section 1.5 Section 7.3	Compliant
		(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;			Table 1-2 Section 7.3	

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		(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: <ul style="list-style-type: none"> 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 			TMP addresses these points in: <ul style="list-style-type: none"> Appendix B Appendix A Appendix C Appendix D Appendix E 	
		(e) include a program to: <ul style="list-style-type: none"> record and track vehicle movements; and monitor and publicly report on the effectiveness of these measures 			Section 6.1 Section 7.7	
59.	49	The Proponent must implement the approved Transport Management Plan for the development			The implementation of the Transport Management Plan was not assessed at this audit. Only elements relating to contents of the Management Plan were assessed. Implementation will be assessed as part of the scope of a subsequent audit(s). This will be more fully assessed at (a) subsequent audit(s).	Not triggered
60.	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 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;				Not triggered. Triggered by Oct 2022

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		(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.				
61.	51	The Proponent must implement the approved Long-Term Road Strategy for the development.				Not triggered
62.	52	WASTE 52. Excluding the spoil generated by the development, the Proponent must: (a) minimise the waste generated by the development; (b) maximise the reuse and recycling of any waste; (c) classify all waste generated on site in accordance with the <i>Waste Classification Guidelines</i> (NSW EPA 2014), or its latest version; (d) store and handle all waste generated on site in accordance with its classification; and (e) ensure all waste is disposed of off-site at facilities that are lawfully permitted to accept such waste.		Site inspection	It was observed that plastic water bottles are provided extensively to workers due to lack of bulk water supplies at work sites. Consideration could be given to providing bulk water supplies / reusable bottles as an alternative to single use water bottles in the future. Waste contractors were engaged to remove waste (SUEZ and Burchills)	Compliant Opportunity for improvement
63.	53	VISUAL Visual Impact Management Requirements 53. The Proponent must:				Not triggered

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		<p>(a) minimise the visual impacts of the long-term temporary and permanent infrastructure of the development on the Kosciuszko National Park, including:</p> <ul style="list-style-type: none"> • having regard to the <i>NPWS Park Facilities Manual</i>; • complying with the requirements in approved management plan under the conditions of this approval; • using suitable planting and screening; • ensuring the visual appearance of the infrastructure blends into the surrounding landscape as much as possible, including: <ul style="list-style-type: none"> - using appropriate colours and non-reflective paints on permanent buildings to reduce glare; - incorporating textures on large surfaces and using dark aggregates and oxides for exposed concrete surfaces; - using locally sourced stone to clad buildings or portals, such the Lobs Hole substation building façade; • incorporating textured surfaces along the shoreline of the Ravine Bay and Talbingo spoil emplacement areas; • installing landscaping and/or suitable screening as soon as practicable along the Snowy Mountains Highway boundary of the Rock Forest site to screen the development on site from road users and nearby residences; <p>(b) minimising the visual impacts of the development on the Rock Forest site on nearby residences during construction;</p> <p>(c) not mount any advertising signs or logos on site, except where this is required for identification or safety purposes;</p> <p>(d) minimise the lighting impacts of the development, including ensuring that all external lighting associated with the development:</p> <ul style="list-style-type: none"> • is consistent with the good lighting design principles in the <i>Dark Sky Planning Guideline</i>, (DPE 2016), or its latest version; and 				

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			= not in scope of this audit			
		<ul style="list-style-type: none"> complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version. 				
64.	54	<p>Visual Impact Management Plan</p> <p>54. Within 12 months of the commencement of construction, the Proponent must prepare a Visual Impact Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</p> <p>(a) be prepared in consultation with the NPWS;</p> <p>(b) describe the measures that would be implemented to comply with condition 53 above; and</p> <p>(c) include detailed plans for minimising the visual impacts of the following permanent infrastructure:</p> <ul style="list-style-type: none"> Lobs Hole substation; cable yard; water intakes and associated infrastructure at the Talbingo Reservoir and Tantangara Reservoir; Middle Bay barge ramp; headrace surge shaft and ventilation shaft; and fish screens and barrier. 				Not triggered – triggered by Oct 2021
65.	55	The Proponent must implement the approved Visual Impact Management Plan for the development.				Not triggered

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
66.	56	NOISE Minimise Noise The Proponent must minimise the noise generated by the construction, operation, and decommissioning of the development.			Not assessed as part of the scope of this audit.	Not triggered
67.	57	Construction Noise Management Plan – Rock Forest 57. Prior to the commencement of construction on the Rock Forest site, the Proponent must prepare a Construction Noise Management Plan for the development on site to the satisfaction of the Planning Secretary. This plan must: (a) be prepared by a suitably qualified and experienced person in consultation with the landowners of the nearby properties; (b) describe the measures that would be implemented to minimise the construction noise impacts of the development on the Rock Forest site, including: <ul style="list-style-type: none"> • minimising the use of the site during the evening and night-time periods • implementing the best practice noise mitigation measures outlined in the <i>Interim Construction Noise Guideline</i> (DECC, 2009), or its latest version; and, • potentially, the use of voluntary noise mitigation agreements with landowners to allow higher construction noise levels or longer construction hours (c) include a program to monitor and publicly report on the effectiveness of these measures				Not triggered
68.	58	The Proponent must implement the approved Construction Noise Management Plan for the Rock Forest site				Not triggered

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
69.	59	AIR 59. The Proponent must: (a) minimise the dust, odour, fume, and blast emissions of the development; and (b) minimise the surface disturbance of the site.			Excessive dust was not observed during the site visit. There did not appear to be any unnecessary disturbance of the surface at the time of the audit. Not fully assessed at this audit.	Compliant
70.	60	EMERGENCY MANAGEMENT Bushfire Requirements 60. The Proponent must:				Compliant
		(a) include suitable asset protection measures into the final design of the development in accordance with the <i>Planning for Bushfire Protection</i> (RFS 2018) guidelines, or its latest version;		No final design at the time of the audit.		Not triggered
		(b) ensure all buildings developed on site comply with the relevant requirements of the BAL-29 construction standards of <i>Australian Standard AS 3959-2018: Construction of buildings in bushfire prone areas</i> or the NASH Standard (1.7.14 updated) in <i>National Standard Steel Framed Construction in Bushfire Areas – 2014</i> ; and		Interview	SHL identified that there were some issues with compliance with BAL 29, and buildings were later retrofitted. This was not independently verified – and therefore not fully assessed. This will be included in the scope of future scheduled audits.	Compliant
		(c) ensure any fire trails or asset protection zones associated with the development are wholly contained within the approved disturbance area.		Interview	It was stated that the Project is not creating any fire trails. It was stated that the APZs are within the approved disturbance area, however this was not fully assessed or verified. The APZ at Pad 2 was wholly within the disturbance area.	Compliant

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
71.	61	Emergency Management Plan (renamed Natural Hazard Management Plan) 61. Prior to the commencement of construction, the Proponent must prepare an Emergency Management Plan for the development to the satisfaction of the NPWS. This plan must:		Natural Hazard Management Plan – Main Works S2-FGJV-ENV-PLN-0090 dated 04/08/2020. Incorporates Bushfire Management Plan Letter from NPWS Snowy 2.0 Team dated 21/08/2020 – Snowy 2.0 Main Works CSSI 9687 – Emergency Management Plan (referred to as the Natural Hazard Management Plan) - Approved	The Natural Hazard Management Plan –incorporating the Bushfire Management Plan was approved by NPWS.	Compliant
		(a) be prepared by a suitably qualified and experienced person/s whose appointment has been endorsed by the NPWS;		Section 1.7 of the Natural Hazard Management Plan (NHMP) and Section 1.7 of the Bushfire Management Plan	The NHMP was prepared by Dominic Adshead of Eco Logical Australia whose appointment, on behalf of Future Generation, has been endorsed by NPWS on 30 May 2019. Updates to the plan made by Future Generation were then reviewed by Nathan Kearnes of Eco Logical Australia whose appointment, on behalf of Future Generation, has been endorsed by NPWS on 28 October 2019. Nathan Kearnes of Eco Logical Australia has been re-endorsed as the bushfire specialist for this revised Main Works plan as required under schedule 3 condition 64(a) of the Main Works Infrastructure Approval.	Compliant
		(b) be consistent with the <i>Kosciuszko National Park Fire Management Strategy 2008-2013</i> (NPWS 2008), or its latest version;			Addressed in NHMP Table 2-2	Compliant
		(c) include evacuation protocols for the site;			Addressed in: Section 5.2.3 of the NHMP	Compliant

ID	S3 - CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
					Sections 4.2 and 8.6 of the Bushfire Management Plan	
		(d) describe the measures that would be implemented to: <ul style="list-style-type: none"> • minimise the risk of bushfires on site; • protect the assets on site from bushfires; • respond to any bushfires on or in the vicinity of the site; • minimise flood risks on site, including flooding response procedures; • minimise the risk of landslips on site, including landslip response procedures; and • evacuate the site in an emergency; and 		Measures are described in following sections <ul style="list-style-type: none"> • Section 5.5, 6 & 7 Bushfire MP • Section 5 Bushfire MP • Sections 4 & 8 Bushfire MP • Section 3.2 NHMP • Section 3.3 NHMP • Section 8.6 Bushfire MP 	Implementation assessment: Key bushfire prevention strategies outlined in the project induction material includes: <ul style="list-style-type: none"> – No smoking or vaping on site or in KNP – Hot Work Permit Process Daily Notifications and alerts are provided to key project personnel which includes the Fire Danger Index. Sighted Notification / Alert dated Tues 19 January 2021 – Lobs Hole – Ravine Road. The Supervisor at Marica was interviewed and he was well aware of the bushfire danger rating – discussed as part of pre-starts when relevant. Supervisor also had the Fires Near Me app installed on his phone. Water trailers were available at Marica and other sites visited. Fire fighting backpacks and extinguishers are kept in work vehicles ready for deployment.	Compliant
72.		(e) monitor and review the effectiveness of these measures.		Interview	It was stated that RFS have come to site on a few occasions to discuss bushfire risk measures.	Compliant

TABLE C – Schedule 4 – Environmental Management, Reporting and Auditing

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		ENVIRONMENTAL MANAGEMENT				
73.	1	Environmental Management Strategy 1. Prior to the commencement of the development of the Main Works, the Proponent must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:		Environmental Management Strategy Rev I, 11/08/2020	Addressed in Section 1.6 and Section 1.7	Compliant
		(a) provide the strategic framework for the environmental management of the development;			Addressed in Sections 4, 4.1.3, and 4.1.4	Compliant
		(b) identify the statutory approvals that apply to the development;			Addressed in Sections 3.1, 3.4, Table 3-5 Appendix A2 – Legal and other requirements	Compliant
		(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; and			Addressed in Sections 4.2, 4.2.2, Table 4-6	Compliant
		(d) describe the procedures that would be implemented to: <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the progress of the development; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the development; • respond to incidents and/or non-compliances; and • respond to any emergency. 			Addressed in Sections 6.1.2 6.2, 6.2.1, 7, 7.2.4, 7.3 and 8.4.1.	Compliant

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
74.	2	The Proponent must implement the approved Environmental Management Strategy.			Refer to Table 4 – EMS – key elements only assessed.	Compliant
75.	4	<p>Update of Strategies, Plans or Programs</p> <p>Within 3 months of the following, unless the Planning Secretary agrees otherwise, the Proponent must review and (if necessary) update the approved strategies, plans and programs for the development to the satisfaction of the Planning Secretary:</p> <p>(a) the submission of an incident report under condition 6 below;</p> <p>(b) the submission of an independent environmental audit report under condition 10 below; and</p> <p>(c) any modification to the conditions of this approval; or</p> <p>(d) a direction of the Planning Secretary under condition 4 of schedule 2.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i></p>			Project commenced 12 weeks prior to this audit.	Not triggered
76.	5	<p>Monitoring</p> <p>5. The Proponent may undertake monitoring outside the construction envelope of the development provided this monitoring is required under the conditions of this approval and authorised under an approved management plan.</p>		Interview	Biodiversity monitoring has been conducted outside the construction envelope	Compliant
77.	6	<p>REPORTING</p> <p>Notification of Dates</p>		Letter from FGJV to Team Leader, Energy Assessments, DPIE: <i>Infrastructure Approval (CSSI 9687) - Snowy 2.0 Main Works -</i>	The correspondence provided notification to the Department, NPWS and NSW DPI that the development of Snowy 2.0 Main Works is proposed to commence on the day following	Compliant

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		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:		<i>commencement of development</i> dated 10 August 2020	approval of the Snowy 2.0 Main Works Environmental Management Strategy and Snowy 2.0 Main Works Heritage Management Plan.	
		(a) commencement of the development of the Main Works;				
		(b) commencement of development on the following sites under this approval: <ul style="list-style-type: none">• Marica site;• Plateau site;• Tantangara site; and• Rock Forest site;		Letter from FGJV to DPIE as above	The letter above includes the development of Main Works as defined by condition 6 (a) and the development of Marica, the Plateau, Tantangara and Rock Forest as defined by Condition 6 (b).	Compliant
		(c) commencement and completion of the required road upgrades;		Letter from FGJV to Team Leader, Energy Assessments, DPIE: <i>Snowy 2.0 Main Works - notification of commencement of construction and road upgrades</i> dated 23 September 2020	The correspondence provides notification to the Department, NPWS and NSW DPI that the construction of Snowy 2.0 Main Works and the required road upgrades are proposed to commence on the day following approval of the construction-related management plans.	Compliant
		(d) commencement and completion of construction;		Letter from FGJV to Team Leader, Energy Assessments, DPIE: <i>Snowy 2.0 Main Works - notification of commencement of construction and road upgrades</i> dated 23 September 2020	As above – condition 6 (d)	Compliant

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		(e) commencement of commissioning and testing the power station; (f) completion of the initial rehabilitation of the site following construction; (g) completion of the ecological rehabilitation of the site, apart from the areas used for operations; (h) commencement and completion of operations; (i) commencement of decommissioning the development; (j) completion of the final rehabilitation of the site; and (k) completion of the ecological rehabilitation of the areas used for operations.			Sch 4 Condition 6 (d) to (k) have not yet commenced and are therefore not triggered.	Not triggered
78.	6 (a)	Incident Reporting 6. 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.		<ul style="list-style-type: none"> Incident Report Form – discharge of sediment laden water to Yarrangobilly River – Sediment basin F5A on side of Mine Trail Road 11 December 2020 (notification to EPA and Snowy Hydro Limited - SHL) Letter from NSW EPA to SHL dated 11 January 2021 regarding incident on 11 December 2020 (discharge of sediment to Yarrangobilly River (response to SHL written report) – no further action Environment Incident Notification Form (Snowy Hydro form) – Stonewall application leak – Quarry Trail at Tantangara, Kelly Plain Creek culvert crossing – date of incident 01/01/2021 Initial Incident Notification form (FGJV) dated 01/01/2020 – Chemical spill to waterway - Stonewall application leak – 8 litre loss of product (rated low consequence) 	The following incidents were not notified to the Department or NPWS within the required timeframes in according to Condition 6 of Schedule 4: <ul style="list-style-type: none"> Incident on 1 January 2021 in relation to the stonewall discharge at Kelly Plain, Tantangara was notified to the Department on 20 January 2021 Incident on 13 January in relation of a spill at the Ravine Road Communication Tower was notified to the Department on 27 January 2021 In a letter from the Department dated 8 February 2021, the proponent was reminded to ensure all incidents and non-compliances are reported to all	Non-compliant

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
				<ul style="list-style-type: none"> – Post Approval submission CSSI9687 Incident Notification under Schedule 4, Condition 6 11 – Email from FGJV to EPA dated 13 January 2021 confirming verbal notification of diesel spill incident at the “Sat Cow” generator off Lobs Hole Ravine Road – Letter from DPIE dated 08/02/2021: Snowy – Main Works (CSSI-9687) - see adjacent column for detail. 	relevant agencies within required timeframes.	
79.	7	Reporting Non-compliances 7. Within 7 days of becoming aware of any non-compliance with the conditions of this approval, the Proponent must notify the Department via the Major Projects portal of the non-compliance. This notice must set out the non-compliance, the reasons for the non-compliance (if known) and what actions have been taken, or will be taken, to address the non-compliance.			No non-compliances to this approval had been reported at the time of the audit.	Not triggered
80.	8	Reporting on Environmental Performance 8. The Proponent must provide regular reporting on the environmental performance of the development on its website in accordance with the requirements in any approved strategies, plans or programs.		Snowy 2.0 Exploratory Works Compliance Report (under SSI 9208) – Lobs Hole, Kosciuszko National Park. Talbingo Reservoir.	This audit was conducted 12 weeks after commencement of construction; therefore reporting was not triggered for Main Works. Exploratory Works Compliance Report published to date. Main Works Compliance Report will be due at 6 months.	Not triggered for Main Works SSI 9687. Compliant – Exploratory Works SSI 9608
81.	9	INDEPENDENT ENVIRONMENTAL AUDIT Within one year of the commencement of construction, and every 3 years thereafter unless the Planning Secretary agrees or directs otherwise, the Proponent must commission and pay the full cost of an		This Independent Environmental Audit Report. Letter from Department of Planning, Industry & Environment dated 1 October 2020 “Snowy 2.0 Main Works SSI 9687 - Auditor Approval”	This initial audit was conducted approximately 12 weeks from commencement of construction, and is therefore well within required timeframes.	Compliant

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		Independent Environmental Audit of the development. This audit must: (a) be conducted by a suitably qualified, experienced and independent team of experts, including a lead auditor, whose appointment has been endorsed by the Planning Secretary;		approving audit team of Dickson Environmental Consulting and Audit – Julie Dickson (Lead Auditor), and Larry Weiss (Senior Auditor).	a) The audit was conducted by Julie Dickson, an Exemplar Global qualified Lead Auditor. DECA audit team was endorsed by the Planning Secretary	
		(b) include consultation with the relevant agencies;		<ul style="list-style-type: none"> – Email from DECA dated 24/11/20 - "Independent Environmental Audit of Snowy 2.0 Main Works CSSI 9687 - request for scope input" to compliance@planning.nsw.gov.au – Email from DECA dated 15/12/20 – "Independent Environmental Audit of Snowy 2.0 Main Works CSSI 9687 - request for scope input" to compliance@planning.nsw.gov.au – resent/reminder – Email response from DPIE – Team Leader, Compliance dated 18/12/20 – include consultation with NPWS and EPA, with list of focus areas – Email response from NPWS dated 18/12/20 – listing areas of focus – Email response from EPA dated 18/12/20 – scoping items listed – Phone discussions/consultation with DPIE, NPWS and EPA. 	Consultation undertaken with DPIE, NPWS and EPA. Details and outcomes are documented within this report. (Self-assessed by Auditor as compliant)	Compliant
		(c) assess the environmental performance of the development and whether it is complying with the requirements in this approval (including the requirements of any approved strategy, plan or program);		c) This report – including findings table with actions and recommendations.	Environmental performance is reflected in the audit findings, recommendations and various sections of this report. (Self-assessed by Auditor as compliant)	Compliant

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		(d) review the adequacy of the approved strategies, plans or programs for the development; and		d) This Audit Table and report.	The adequacy of the approved strategies, plans and programs was assessed pre-audit. No specific deficiencies were identified. (Self-assessed by Auditor as compliant)	Compliant
		(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any approved strategies, plans or programs.		e) This report – findings table with actions and recommendations	Environmental performance is reflected in the audit findings, recommendations and various sections of this report. (Self-assessed by Auditor as compliant)	Compliant
82.	10	10. Within 12 weeks of commissioning this audit, unless the Planning Secretary agrees otherwise, the Proponent must submit the following via the Major Projects Portal: (a) a copy of the audit report; (b) its response to the recommendations in the audit report; and (c) a copy of the proposed audit action plan to address the recommendations				Not triggered
83.	11	The Proponent must implement any approved audit action plan for the development.				Not triggered
84.	12	ACCESS TO INFORMATION From the commencement of the development of the Main Works until the completion of the ecological rehabilitation of the areas used for operations, the Proponent must: (a) make copies of the following information publicly available on its website:		https://www.snowhydro.com.au/snowy-20/documents/		

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		• the documents referred to in the definition of the Exploratory Works and Main Works;			The documents referred to in the Definitions are included within the Approvals.	Compliant
		• current statutory approvals for the development;			Current approvals were sighted on the website.	Compliant
		• approved strategies, plans or programs;			Approved Management Plans were available on the website.	Compliant
		• a comprehensive summary of the monitoring results of the development, reported in accordance with the requirements in the conditions of this approval, or any approved strategies, plans and programs;			Not triggered – audit conducted at 12 week – comprehensive monitoring results are not yet available.	Not triggered
		• a monthly summary of complaints;			The Complaints Register was sighted in the project website dated Dec 2020. There have been three recorded complaints since commencement of Main Works. The complaints related to delays to motorists on Snowy Mountain Hwy during escorted deliveries of oversize over-mass (OSOM) loads. Since the complaints, the road permit authorities have now allowed night deliveries	Compliant
		• a record of all incidents and non-compliances;			Incidents had not yet been uploaded to the website as they had been recently raised. It would be expected that the incidents recently notified to DPIE, EPA and NPWS would be uploaded in the near future.	Not triggered

ID	S4 CoA No	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
					No non-compliances had been raised at the time of the audit.	
		• any independent environmental audit, and the Proponent's response to the recommendations in any audit;			This is the first Independent Environmental Audit, and therefore this requirement is not triggered.	Not triggered
		• any approved audit action plan;			As above.	Not triggered
		• any other matter required by the Planning Secretary;			No other matters required by the Secretary have been triggered	Not triggered
		(b) keep this information up to date.			The information on the website was up to date at the time of the audit	Compliant

TABLE D –Environmental Management Strategy and Management Plan requirements

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status												
			= not in scope of this audit															
		Environmental Management Strategy																
85.	2.8	<p>Works within the Construction Envelope</p> <p>The precise location of the disturbance area will be fixed within the construction envelope following final design. All vegetation clearing which occurs on the project will be monitored regularly to record the extent of clearing which has occurred, and to ensure that the clearing limits are not exceeded.</p> <p>Table 2-3: Maximum disturbance area and native vegetation clearing</p> <table><tr><th>Matter</th><th>Exploratory Works</th><th>Main Works</th><th>Total</th></tr><tr><td>Maximum Disturbance Area</td><td>126 ha</td><td>504 ha</td><td>630 ha</td></tr><tr><td>Maximum Native Vegetation Clearing</td><td>107 ha</td><td>425 ha</td><td>532 ha</td></tr></table>	Matter	Exploratory Works	Main Works	Total	Maximum Disturbance Area	126 ha	504 ha	630 ha	Maximum Native Vegetation Clearing	107 ha	425 ha	532 ha		<p>Monthly Report – FGJV December 2020 – Table 1 Clearing Summary Report.</p> <p>Clearing Permits.</p>	<p>As at December 2020, the following clearing vs limits were reported:</p> <p>Exploratory Works:</p> <p>Max disturbance limit: 126 ha.</p> <p>Max disturbance actual: 73.83 ha.</p> <p>Max Native veg clearing limit: 107 ha.</p> <p>Max native veg clearing actual: 72.82 ha.</p> <p>Main Works:</p> <p>Max disturbance limit: 504 ha.</p> <p>Max disturbance actual: 9.11 ha.</p> <p>Max Native veg clearing limit: 425 ha.</p> <p>Max native veg clearing actual: 8.41 ha.</p>	Compliant
Matter	Exploratory Works	Main Works	Total															
Maximum Disturbance Area	126 ha	504 ha	630 ha															
Maximum Native Vegetation Clearing	107 ha	425 ha	532 ha															
86.	3.3 Table 3-2	Protocols for the management of contaminated soil during construction will be included in the CEMP or EMS.		Contaminated Land Management Plan (Internal FGJV document) Rev C dated 10/09/2020.	Protocols for contaminated land are included in the Contaminated Land Management Plan.	Compliant												
87.	3.3 Table 3-2	An unexpected finds procedure will be included in the CEMP. Workers will be trained to identify potential contamination that may be encountered during construction		Contaminated Land Management Plan (Internal FGJV document) Rev C dated 10/09/2020.	An Unexpected Finds Procedure – Contamination is included in the Contaminated Management Plan (internal FGJV document).	Observation												

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
	REMM CONTAM 08			<p>Table 3-2 of the Environmental Management Strategy references that the Unexpected Finds Procedure is included in the Contaminated Land Management Plan</p> <p>FGJV Snowy 2.0 Project HSE Induction Rev 9 PowerPoint presentation</p> <p>Environmental Training and Awareness Register S2-FGJV-ENV- REG-019</p>	<p>The Induction material refers to "signs of contamination" and a brief summary of what to do if contamination is encountered, however there is no reference to the Unexpected Finds Procedure – Contamination.</p> <p>The training and awareness register includes a general reference to unexpected finds encounters during Main Works (presented Nov 2020).</p>	
88.	4.1.7	<p>Sensitive Area Plans</p> <p>To aid in the identification and protection of significant environmental features associated with the project, a set of Sensitive Area Plans (SAPs) will be prepared. The SAPs identify environmental constraints and 'no go' zones and will be included in the project Work Packs.</p> <p>A copy of each of the worksite SAPs will be available for Future Generation personnel and subcontractors and at each of the worksite locations.</p>		<p>Electronic "live" versions of maps showing various layers of information – heritage, plant communities, habitats etc for Lobs Hole and Tantangara were sighted.</p> <p>SAP Snowy 2.0 – Ravine Road Expansion within Clearing (Land Disturbance) Permit No S2-FGJV-ENV-PER-0008-0033 (as sample).</p>	<p>Sensitive Area Plans are prepared for specific areas from the map database with the relevant overlays showing key features and constraints. Legends are included on the maps.</p> <p>Sensitive Area Plans are referenced on clearing permits.</p>	Compliant
89.	4.1.8	<p>Progressive Erosion and Sediment Control Plans</p> <p>Progressive erosion and sediment control plans (ESCPs) are to be developed and will show the site layout and approximate location of erosion and sediment control structures on site. They will be developed for all work areas prior to commencing activities and will be updated as changes occur on site.</p> <p>ESCPs will be regularly reviewed as site conditions change and flow paths are altered.</p>			<p>Progressive ESCPs were sighted as part of Clearing Permits and electronically on the GIS mapping</p>	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
90.	4.2.2	All subcontractors will work under this EMS, sub-plans and relevant procedures in the BMS. All subcontractor personnel are required to attend a project induction, which includes an environmental component and task-specific training (if relevant) before they commence any work on site.			Project Induction sighted, verified inclusion of environmental requirements Task specific training is generally provided within Environmental Toolbox talks.	Compliant
91.	5.1	Site Induction All personnel (including sub-contractors) will be required to attend a compulsory site induction that includes an environmental component prior to commencement on-site. The Future Generation Environmental Manager (or delegate) will prepare the environmental component of the site induction. The environmental component will include an overview of the following elements: i. relevant details of the EMS; ii. relevant conditions of environmental licences, permits and approvals; iii. key environmental issues, i.e. protection of Kosciuszko National Park, heritage sites and water management; iv. information relating to the location of environmental constraints; v. relevant environmental management requirements and responsibilities; vi. management measures for the control of environmental issues; vii. notification and response requirements in the event of unexpected finds (i.e. for heritage, contaminated land or threatened species); viii. regulatory penalties and consequences of non-compliance; ix. incident response and reporting; and x. • emergency response and evacuation (fire and flooding).		FGJV Snowy 2.0 Project HSE Induction Rev 9 – (93 slide PowerPoint presentation) i. – referenced ii. Yes – slide 66 iii. Yes – slide 65 and others iv. Yes – slide 68 no-go zones, Sensitive area plans v. Yes – various slides vi. Yes – in slides 64 – 84 vii. Yes – slides – 69, 70, 82, 72 viii. Yes – slide 67 ix. Slide 80, 81 (spill response damaged controls) x. Yes – Slide 80, 58, 35	Environmental slides – 64 to 84.	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
92.	5.3	<p>Toolbox Talks and Environmental Awareness</p> <p>Toolbox talks, environmental awareness training and construction methodology briefings will be delivered by Future Generation as necessary to achieve a suitable level of workforce awareness and competence appropriate to the activities.</p> <p>Toolbox talks will be tailored to specific environmental issues relevant to upcoming works or previous incidents and will include general and specific discussion of the key environmental aspects of the project.</p> <p>Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact.</p>		<ul style="list-style-type: none"> – Toolbox talk – Use of Spill Kits 02/08/2020 (PowerPoint). – Toolbox talk 17/01/2021 – Spill prevention and response – Toolbox talk 19/06/21 – Clearing and grubbing procedure – Screenshot of toolbox talk file showing 19 toolbox talks – Environmental Training and Awareness Register 2019 to 17 January 2020 	<p>Toolbox talks are conducted weekly - Environmental components are presented as required.</p> <p>Toolbox topics have included:</p> <ul style="list-style-type: none"> – clearing and grubbing procedure; – environmental flagging; – environmental inspections; – environmental requirements post bushfire; – erosion and sedimentation; – fauna strike; – Ox-eye Daisy; – Refuelling; – topsoil stockpile management; – use of spill kits; – waste segregation; – weeds, unexpected finds. <p>Environmental Training and awareness register – (FGJV) – toolbox or pre-start.</p> <p>Environmental training register included various topics. Since Oct 2020, key topics included:</p> <ul style="list-style-type: none"> – fauna strike; – unexpected finds – borehole incident and no-go zones – weed management; – clearing permits; – no-go zone areas breach and permit process; – snake sighting procedure; – spill prevention and clean-up 	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
93.	6.1.2	<p>Complaint Management</p> <p>A complaints management system including the complaints register will be maintained by Snowy Hydro and Future Generation.</p> <p>The complaints management system will include a process to manage complaints including receiving, recording, tracking and responding to complaints within a defined timeframe. If a complaint cannot be responded to immediately, a follow up phone call or verbal response will be made to the complainant in accordance with the timeframes detailed below.</p> <p>The key processes involved in recording complaints and enquiries are as follows:</p> <ul style="list-style-type: none"> • 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; • 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. 			Not assessed at this audit. To be included in scope of future audits	Not triggered
94.	7.2.1	<p>Incident Reporting in accordance with the Infrastructure Approval</p> <p>Future Generation will immediately notify Snowy Hydro of an incident which arises through the Infrastructure Approval. The notification will set out the location and nature of the incident. Snowy Hydro will then notify DPIE and NPWS, via the NSW Major Projects portal, immediately after becoming aware of an incident on site.</p> <p>Incidents are defined in the Infrastructure Approval as being '<i>An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.</i>'</p>			Environmental incidents were reported to SHL as required. Refer to Incident Reporting section of Conditions for detail	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status																		
			= not in scope of this audit																					
95.	8.1	<p>Environmental Inspections</p> <p>The effectiveness of environmental protection measures described in this EMS and management plans will be inspected and assessed on a weekly basis through the use of a weekly checklist.</p> <p>The findings of inspections will be discussed at toolbox meetings and concerns raised will be considered by the Future Generation project management team for review or improvement of the environment procedures.</p> <p>In addition to the weekly inspections, the Future Generation environmental staff and Snowy Hydro environment staff will jointly undertake regular inspections of work sites, and in particular critical activities throughout construction of the project. Stakeholders such as DPIE, NPWS and EPA will be invited to attend relevant inspections.</p>		<p>Weekly Environmental Inspection Checklist dated 07/01/2021.</p> <p>Pre-rainfall inspection checklist – completed 15/12/2020 – various locations Lobs Hole.</p> <p>During / Post Rainfall Inspection Checklist dated 18/01/2021.</p> <p>Erosion and Sediment Control Report dated 11/11/2020 by T.R.E.E.S</p> <p>Post rainfall photos by FGJV 19/12/2020.</p>	<p>Inspection checklist includes sections for general; soil and water; hazardous substances; excavated material; waste; contamination; heritage and biodiversity; noise and vibration; air quality; Traffic; worker recreation.</p> <p>Blackberry bushes were observed across most sites – weed contractor was being mobilised to site around the time of the audit.</p>	Compliant																		
		<p>Spoil Management Plan</p> <p>Notes for Initial audit (Table 1-2 – Stage 1 involves placement of spoil in the Lobs Hole emplacement area for the purposes of constructing the Main Yard site. Filling will be limited to that required to progressively construct the Main Yard pads on which facilities (plant, workshop, material handling and so forth) would operate for the duration of the construction program. Permanent placement of spoil at Lobs Hole will commence progressively following removal of the facilities and is not expected to occur until late in the construction program. This SMP will be updated to address design requirements for the Lobs Hole emplacement area prior to commencing final placement at that location</p>			<p>Note- no reactive soil to date (not included in below scope)</p>																			
96.	1.6 Fig 1-6	<p>Construction not to commence until the detailed plan for the emplacement area (Lobs Hole) is consulted on with the relevant agencies and approved by the Planning Secretary</p> <table><tr><th colspan="3">Document Revision Table</th></tr><tr><th>Rev.</th><th>Date</th><th>Description of modifications / revisions</th></tr><tr><td>A</td><td>29.05.2020</td><td>Initial draft for Snowy Hydro review</td></tr><tr><td>B</td><td>12.06.2020</td><td>For agency consultation</td></tr><tr><td>C</td><td>15.07.2020</td><td>Revised to address agency comments.</td></tr><tr><td>D</td><td>21.07.2020</td><td>Revised to address NPWS comments from meeting. For DPIE</td></tr></table>	Document Revision Table			Rev.	Date	Description of modifications / revisions	A	29.05.2020	Initial draft for Snowy Hydro review	B	12.06.2020	For agency consultation	C	15.07.2020	Revised to address agency comments.	D	21.07.2020	Revised to address NPWS comments from meeting. For DPIE		<p>Appendix F - Lobs Hole Main Yard Spoil Management Plan 21/07/2020</p> <p>S 1.7.1 SMP Table 1-3 – Consultation on SMP</p>	<p>The Document revision table on Appendix F shows that the Plan was revised to address agency comments. The Plan itself does not list the agencies consulted</p>	Compliant
Document Revision Table																								
Rev.	Date	Description of modifications / revisions																						
A	29.05.2020	Initial draft for Snowy Hydro review																						
B	12.06.2020	For agency consultation																						
C	15.07.2020	Revised to address agency comments.																						
D	21.07.2020	Revised to address NPWS comments from meeting. For DPIE																						

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			= not in scope of this audit			
97.	App F Table 3-1	Clean waters are to be diverted and dirty water is designed to flow to sediment basins – Lobs Hole.		Site inspection	Site visit confirmed that clean water was diverted and dirty water is diverted to sediment basins. Refer to other sections of this checklist.	Compliant
		Water Management Plan				
98.	5	Water extraction (i.e. from groundwater bores, reservoirs and tunnel inflows) and water discharge (i.e. surplus treated process and wastewater) metering will comply with the Australian Standard AS 4747: 'Meters for non-urban supply'. The metering equipment will be installed at water source extraction points and prior to discharge points. Readings will be undertaken on an ongoing basis throughout construction (i.e. weekly) and recorded in a project water usage register		Site Inspection	Water meters were observed to be installed on water extraction points.(see photos LH 28 and LH43 in report). A full review of water extraction and discharge was not conducted at this audit – to be scheduled for future audits.	Compliant
99.	6.6	Reporting requirements: Future Generation will report to Snowy Hydro and other agencies as detailed in Table 6-2 on water management aspects related to the Project <ul style="list-style-type: none"> Weekly inspection (internal) Incidents relating to water EPL monitoring reports (Lic 21266) (frequency?) Water Access Licence report (annual) Environmental Water Report (every 3 months) – publicly available 		Weekly environmental inspections by FG – 12 Jan – latest. Pre-rainfall and post rainfall inspection 15 Dec 2020 Post rainfall inspection report – 17 Dec 2020 Erosion and Sed control inspections by John Wright – aim for fortnightly. Corrective actions register for items that require action.	Environmental Water Report and Water Access Licence Report not triggered. Inspection reports were sampled and incident reports to SHL were reviewed as part of the audit. EPL monitoring reports were not assessed at this audit and will be scheduled for review at a future audit.	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		Surface Water Management Plan				
100.	5.1	<p>Potential erosion and sedimentation impact will be predicted and in-turn managed through the development of Erosion and Sediment Control Plans (ESCP). ESCPs will be developed per specific location.</p> <p>These plans will be designed by a suitably qualified person in consultation with construction personnel and the Project Soil Conservationist to guide staff on the appropriate controls for specific work stages. The ESCPs will be updated as required based on the progression of new areas of ground disturbance and changing site conditions.</p> <p>The Environment team, through site inspections and consultation with construction personnel, will manage updates of the ESCPs.</p>		<p>Progressive ESCPs were sighted electronically and as attachments to clearing permits – they are updated electronically as required.</p> <p>Interview with FGJV Environmental Coordinator</p>	<p>TREES – (Soil Conservation & Environmental Consultants) are consulted in the development and implementation of the ESCPs and in the inspection of controls.</p>	Compliant
101.	5.1	<p>The Project will implement the following stormwater control and treatment options;</p> <ul style="list-style-type: none">controls be designed and bench-marked against Main Works RTS predicted stormwater discharge characteristics, as identified in the Surface Water Monitoring Program (Annexure A)erosion and sediment controls will be installed and maintained to manage impacts to receiving environments including areas that do and do not trigger the need for sediment basins in compliance with the Blue Book (Landcom 2004);<ul style="list-style-type: none">clean water diversions will be installed around disturbance areas and designed and inspected to convey water and minimise scour impacts to adjoining watercourses;sediment basins will be installed with a design rainfall depth of 85th percentile 5-day rainfall event with consideration given to increasing basin size at locations where sufficient space is available and / or topography does not constrain the basin size (i.e. construction pads, accommodation camps) (see section 5.1.1);some work areas will be stabilised between the initial disturbance / works and prior to decommissioning to		Site Inspection	<p>The overall installation, implementation and maintenance of the erosion and sediment controls was assessed through a physical review of controls.</p> <p>The erosion and sediment controls in place were appropriate and satisfactory at the sites sighted / visited.</p> <p>Sprinkler systems were in place at the basins observed in detail (as opposed to a simple “drive past”.</p> <p>At Tantangara, a number of the sediment basins and controls were under construction at the time of the audit. Channels were in place to divert dirty water to basins, and clean water around the disturbed areas.</p>	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		<p>remove the reliance on sediment basins during this period;</p> <ul style="list-style-type: none"> additional controls will be applied for both erosion control and sediment control to reduce reliance on the sediment basins standpipes will be considered at operational (wetland) basins; at long-term (>12 months) sediment basins; and at high-risk short-term sediment basins.; sprinkler irrigation systems will be installed at each basin, on the spoil emplacement pads, in areas of rehabilitation and at the crushing and screening plant. 			At Lobs Hole, sediment basins were operational and channels were in place to divert dirty water to basins, and clean water around the disturbed areas.	
102.	Table 5-3 SW15	Sprinkler irrigation systems shall be installed at each basin, on the spoil emplacement pads, in areas of rehabilitation and at the crushing and screening plant.		Site inspection	Sprinkler systems were observed to be in place at the basins visited.	Compliant
103.	5.3.1	<p>Process water treatment plant</p> <p>The process water WTPs will be connected to a drainage system comprised of sumps and pipelines from the tunnel to the WTP at the portal surface. This process water will be treated to the water quality discharge criteria in the Project's EPL and be re - used on site either in the tunnel or on the surface (refer to WMP Section 4.2). Excess treated water that cannot be utilised on site will be discharged via pipe into either Talbingo or Tantangara reservoirs</p>			Water Treatment Plant at Lobs Hole was under construction at the time of the audit and was therefore not operational (see photo LH36)	Not triggered
104.	5.3.1	<p>The process water WTP systems have been designed for emergency scenarios and include the following contingency measures:</p> <p>the plants will be designed to minimise the risk of failure. For example:</p> <ul style="list-style-type: none"> the plants will be designed to work in stages. Therefore, if a stage of the plant fails, the treatment plant will continue to work in reduced capacity conditions without stopping the entire operation of the treatment plant; treatment plants will have a contingency period during which the plant is able to hold process waters. The holding capacity is dependent on the size of the plant; 		Letter from EPA to Snowy Hydro Limited: <i>Snowy Hydro Limited – EPL 21266 Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara Sewage Treatment Plant Design Report – Lobs Hole</i> dated 15 December 2020	See Sch 3 Cond 30 for details.	Not triggered

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		<ul style="list-style-type: none"> process waters can be transferred to nearby plant (i.e. the MAT portal treatment plant can transfer waters to the ECVT treatment plant); water supply can be reduced decreasing the volume of process water which requires treatment; if the problem is occurring after the process water treatment plant, process water can be directed to the mainstream line for reuse in the tunnel boring machines. The main line will operate with three pumps (two working and one standby) to ensure continued operation of the main line; using the clean water storage tanks – there will be tanks distributed within the tunnel. In a time of emergency, these tanks would be emptied of clean water and used as the emergency storage; and discharging back into the tunnel so that the water can be recollected in sumps and treated again once the plant is operational. <p>Process water treatment plants will be located at tunnel portals. Hence, only treated water will be discharged to reservoirs. Any ruptures or leaks upstream of the water treatment plants will be captured in the tunnel portal water management system.</p>				
105.	5.3.2 Table 5-3 SW35	<p>Wastewater treatment plans</p> <p>Multiple wastewater treatment plants are proposed. These will be located at the Main camp, Marica camp, Tantangara camp and Exploratory works camp.</p> <p>The sanitary sewer system will collect wastewater from showers, kitchens, laundries and toilets. The collected sewage will then be treated at the sewage treatment plants before being pumped into the combined surplus treated process water and wastewater trunk services main which will discharge via a diffuser outlet into the reservoirs.</p> <p>Low velocity discharges will be avoided. Discharges to watercourses will be avoided.</p>		<p>Area of focus for EPA.</p> <p>Letter from EPA to Snowy Hydro Limited: <i>Snowy Hydro Limited – EPL 21266 Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara Sewage Treatment Plant Design Report – Lobs Hole</i> dated 15 December 2020</p>	<p>Detailed Design Report – Exploratory & Fly Camp Sewage Treatment Plant is referenced in the EPA Letter.</p> <p>See Sch 3 Cond 30 for detail.</p>	Not triggered

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106.	Table 5-3 SW3	Detailed design report and a commissioning report for the wastewater treatment plant will be submitted to the EPA.		Letter from EPA to Snowy Hydro Limited: <i>Snowy Hydro Limited – EPL 21266 Snowy 2.0 Pumped Hydro Power Station Talbingo and Tantangara Sewage Treatment Plant Design Report – Lobs Hole</i> dated 15 December 2020.	Detailed Design Report – Exploratory & Fly Camp Sewage Treatment Plant is referenced in the EPA Letter.	Compliant
107.	5.3.4	<p>Operation of the discharge points</p> <p>A combined water stream of surplus treated process water and treated wastewater will discharge to the Talbingo Reservoir and Tantangara Reservoir at licenced discharge points. Surplus process water will be reused onsite, either in the tunnel or on the surface in the first instance, and where it cannot be reused, discharged to the reservoirs. No surplus process water will be discharged to stormwater basins.</p> <p>A specific plan for the operation of the discharge points is included in Annexure F. All measures are included in Table 5-3 of the SWMP.</p>			Discharge points had not been established at the time of the audit	Not triggered
108.	Table 5-3	<p>Chemical control and spill management</p> <p>Emergency response to spills of oils and fuel etc will be managed in accordance with the Spill Response Procedure included in Annexure C of this plan.</p> <ul style="list-style-type: none"> training in use of spill containment materials, their locations and spill response will be undertaken proactively as required particularly for personnel who are working within or near to aquatic environments such as dredging works minimising vehicle and plant accessibility to waterways by maintaining the 50-metre exclusion zone around Yarrangobilly River (excluding some areas such as required water crossings where possible, refuelling, washing and maintenance of vehicles and mechanical plant will occur at least 50 metres from waterbodies chemicals including fuels and oils will be stored when not in use in bunded areas; 		Site Inspection (primarily)	Management of chemicals was identified as an area requiring improvement. Refer to Sch 3 Cond 30	Non-compliant

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			= not in scope of this audit			
		Groundwater Management Plan (including Groundwater Monitoring Program – Annexure A)				
109.	2.3 Table 2-3 (WAT01)	<p>Revised Environmental Management Measures</p> <p>Leaching / running into groundwater / creeks</p> <p>Management measures will be implemented to minimise potential environmental impacts to water and soil from hydrocarbon and chemical spills and leaks including:</p> <ul style="list-style-type: none">• minimising direct access to the river by construction vehicles and mechanical plant;• regular inspection of construction vehicles and mechanical plant for leakage of fuel and /or oils;• establishing a bunded area for storage of fuel and oils;• refuelling and maintenance of vehicles and mechanical plant at least 50 m from watercourses;• avoiding as far as possible re-fuelling, washing and maintenance of land-based vehicles and plant within 50 m of watercourses;• reporting spillages to the appropriate officer and immediately deploying spill containment and / or absorption kits as required to restrict its spread;• vehicles, vessels and plant would be properly maintained and regularly inspected for fluid leaks;• emergency spill kits will be kept onsite, at refuelling areas and on all vessels at all times during the Exploratory Works. The spill kit will be appropriately sized for the volume of substances on the vessel. All staff would be made aware of the location of the spill kit and trained in its use;• if any hydrocarbon spills were to occur during soil stripping, the impact will be isolated and clean-up procedures implemented;• areas to be used for long-term storage and handling of hydrocarbons and chemicals will be enclosed with concrete bunds;• chemicals will be handled and stored as per manufacturer's instructions; and• below ground, refuelling will be undertaken in dry, enclosed, bunded areas;		<p>Site inspection</p> <p>Interviews</p>	<p>Site inspections were undertaken at Lobs Hole, Tantangara and Marica sites. The following outcomes were noted:</p> <ul style="list-style-type: none">– At all sites, construction vehicles were generally confined to the roads and tracks– Inspection of vehicles and plant was not fully assessed at this audit – to be scheduled for future audits– Bunded areas were established at all sites for storage of fuels and oils (there were some issues identified – refer to Non-Compliance)– Refuelling was undertaken on pads. Some of the areas where refuelling occurred were close to Talbingo Reservoir, however were likely to be outside the 50m distance (not measured)– Emergency spill kits were observed to be held on site at appropriate locations.	Compliant

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			= not in scope of this audit			
110.	Annexure A 3.7	Future Generation will report to Snowy Hydro and other agencies on ground water monitoring aspects related to the Project. During construction, ground water monitoring data will be collected, tabulated and assessed against thresholds			Not assessed at this audit. To be included in the scope of future audits	Not triggered
		Biodiversity Management Plan				
111.	Table 5-1 BM04	In the event that threatened species, active breeding habitat of threatened species or endangered ecological communities are unexpectedly identified during construction, the Unexpected Threatened Species Finds Procedure included in Appendix D will be followed		<p>Letter from EMM dated 4 December 2020 "Re: Potential unexpected threatened species find at Tantangara - <i>Pimelea bracteata</i>" regarding unexpected find of this species during preclearing surveys in the Tantangara Adit Portal Area.</p> <p>Letter from EMM dated 12 January 2021 "Further unexpected finds of <i>Pimelea bracteata</i> and <i>Glycine latrobeana</i> at Tantangara Spoil Access Road and Spoil Disposal Ground".</p>	The letter from EMM referenced the Unexpected Threatened Species Finds Procedure, noting that it must be followed for all activities that have the potential to impact on the species which have not already been assessed and approved. The appropriate process appears to have been followed.	Compliant
112.	Table 5-1 BM06	Exclusion zones will be established around areas of retained vegetation prior to clearing that particular area. Where required, these areas will be fenced using appropriate fencing materials and designated and signed as no-go zones or environmentally sensitive area.		Site inspection	An area containing the critically endangered flora species <i>Pimelea Bracteata</i> was found by ecologists during a pre-clearing survey, and the movement of a site boundary allowed for it to be retained. The area was visited during the site inspection and was observed to be fenced, and signed as a no-go zone – environmentally sensitive area (see photo TM10)	Compliant

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113.	Table 5-1 BM08	<p>Clearing limits/disturbance footprint will be delineated using highly visible, durable, continuous barrier such as safety flagging, UV stabilised rope, or other similarly robust and durable material.</p> <p>Delineation will be installed consistently where possible to reduce the risk of error or misinterpretation of boundaries. Where a continuous rope is impractical due to terrain and vegetation density, highly visible flagging will be placed on vegetation to maintain line of sight of the clearing boundary.</p> <p>"Environmental Protection Area" signs (or similar wording) will be placed in prominent positions along the exclusion fencing.</p>		Site inspection	<p>The site inspection found that blue UV stabilised rope had been used to delineate the project boundary along Ravine Road, at Tantangara and Marica. Different flagging was used at Lobs hole, varying with Exploratory Works and Main Works.</p> <p>Various types / colours of flagging / fencing delineating no-go areas have been used and may be confusing, particularly at Lobs Hole where exploratory works and main works flagging are coloured differently.</p>	Opportunity for improvement
114.	Table 5-1 BM12	Fauna detected during pre-clearing surveys shall be relocated into areas of retained vegetation in accordance with the Preclearing and Clearing Procedure (Appendix C) and Fauna Handling and Rescue Procedure (Appendix E).		Pre-clearing survey/report Clearing Permits	<p>Fauna relocation areas are shown on map in clearing permits There is a checkbox of whether fauna relocated in pre-clearing surveys is in pre-clearing permits</p> <p>A "Fauna handling record sheet" is required to be filled out when fauna is relocated and was sighted.</p>	Compliant
115.	Table 5-1 BM13	Where manual relocation of frogs is required, the hygiene requirements outlined in the Fauna Handling and Rescue Procedure (Appendix E) will be implemented to prevent the spread of Chytrid fungus.		Internal audit report – Biodiversity Management Plan	Internal audit by SHL noted that a frog was said to have been found by the ecologist just outside the ECVT work area. Ecologist relocated the frog using disposable gloves. The internal audit reported noted that the details were filled into a "Fauna handling record sheet.".	Compliant

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116.	Table 5-1 BM14	Habitat trees within areas to be cleared will be marked during the pre-clearing inspection by the Ecologist. GPS coordinates for all habitat trees identified will be recorded during the pre-clearing survey.		Pre-clearing survey Site Inspection	Marked habitat trees were sighted during the audit site inspection on Lobs Hole Ravine Road and at Marica. GPS coordinates are included in the pre-clearing survey.	Compliant
117.	Table 5-1 BM15	Where a HBT is felled, the tree hollows will be salvaged, and the salvaged sections reused as hollow replacements for the rehabilitation of the site.		The pre-clearing report for ECVT by Narla (dated Oct 2020 – draft and 14 Dec 2020 – final). <ul style="list-style-type: none"> – Post Clearing Report – Snowy 2.0 Main Works – ECVT Final v1 14 December 2020 – by Narla Environmental – Post Clearing Report – Snowy 2.0 Main Works – ADIT Portal Final V1.0 Jan 2021 – Results of Spoil Road post-clearing from clearance of 43 habitat trees between 10 and 20 Feb 2021 (Narla) 	The Post clearing report for ECVT (Lobs Hole) identified 3 items suitable as microhabitat of the 252 habitat trees identified in the pre-clearing report. The remaining hollows could not be salvaged as they were low quality due to the Jan 2020 bushfires. Native seed collected.	Compliant
118.	Table 5-1 BM17	HBTs marked for removal will be checked by the Ecologist prior to felling/ disturbance and any animals found will be relocated to adjacent habitat. Ecologists should capture and/or remove fauna that have the potential to be disturbed as a result of clearing activities. To prevent injury and mortality of fauna, an ecologist will be present at the time of felling HBTs. Further details are provided in the Fauna Handling and Rescue Procedure included in Appendix E.		Interview with Ecologist at Marica Site Inspection – Marica Internal Audit Report “Clearing and Grubbing Audit – FGJV – ECVT)	Habitat trees are located during the pre-clearing inspection and included in the Pre-clearing Reports. Habitat trees that are found during clearing are added to the Post clearing Report, and details of the fauna relocation is added to the "Fauna handling record sheets." During the site inspection at Marica, a number of habitat trees were marked with an “H” and an interview with the attending ecologist confirmed an understanding of the requirements.	Compliant

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					<p>Examples were provided in the internal audit report (Oct 2020) on nest of birds found in habitat tree, noting that:</p> <ul style="list-style-type: none"> – Tree had been felled but nest was at the top (out of site) – Ecologist notified FGJV Environmental coordinator immediately. – Went through the Fauna Handling and Rescue Procedure. – Taken to WIRES carer in Talbingo. – Details recorded in "Fauna Handling Record Sheet" for Striated Pardalote 30/10/20. 	
119.	Table 5-1 BM20	The clearing of native vegetation will be monitored so that impacts to mapped plant community types and threatened species habitats do not exceed those defined in the assessment reports and project approvals. Further detail included in section 5.2.2.		<p>Clearing Permits:</p> <p>Clearing Permit 0028 – Tantangara Pioneering Road</p> <p>Clearing Permit 0048 – Proposed Tantangara Camp</p> <p>Clearing and Grubbing Clearing Register</p>	<p>Post-clearing, Part G of the Clearing Permit "Disturbance / Clearing Close Out" includes a section "has clearing (Land disturbance) Register been updated to capture as-built disturbance data?".</p> <p>The construction contractor has established a Clearing and Grubbing Clearing Register which tracks the area cleared (to date (in ha), providing a cumulative % of limit total to date. The outcomes for Exploratory Works and Main Works were reported in the FGJV December 2020 Monthly Report to SHL.</p>	Compliant

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120.	App B 3.2 Table 3-1	Biodiversity Monitoring Plan Timing and frequency of monitoring in Table 3-1 <ul style="list-style-type: none"> Threatened Flora Monitoring – biannually Dec to Jan Small Mammal Presence/Absence Monitoring – 4/year Small Mammal Habitat Characteristics Monitoring 1/year Frog Occupancy Monitoring – 1/year Frog Habitat Characteristics Monitoring – 1/ year Alpine She-oak Skink Monitoring – Monthly between Oct & March Feral Animal Occupancy Monitoring 4/year Feral Animal Presence/Absence Monitoring 4/year Weed Monitoring – 1/year in early summer Pathogen Monitoring - Annual Phytophthora soil tests 		<ul style="list-style-type: none"> Sample Biodiversity Monitoring Schedule – December 2020 Email from EMM to SHL – EMM BMP field work daily update 15 Jan 2021 – setting remote cameras, checking tile grids and broad -toothed rat fecal pellet searches – Tantangara Road FGJV Daily Notification and Alerts – 18 January 2021 – includes biodiversity monitoring activities Site visit – sighted Alpine She-Oak skink monitoring – tiles placed on ground and checked (<p>Monitoring to be undertaken by suitably qualified ecologist(s).</p>	Evidence of biodiversity monitoring was discussed / sighted: December biodiversity monitoring included; outstanding targeted flora surveys for the Main Works Approval, threatened flora monitoring at Tantangara, weed mapping at Tantangara and Marica Booralong frog surveys at Lobs Hole and Alpine Tree frog surveys at Tantangara, Bullocks Hill fire trail and other locations. Sniffer dog trials for the presence of small mammals (Smoky Mouse) had commenced and were in progress on the 18 th and 21 st Jan 2021. Camera traps were scheduled to be installed along Mine Trail Road and Ravine Road by EMM on 21 st January 2021. A camera trap was sighted installed along Quarry Trail Road at Tantangara. Clearing Permit 0028 dated 19/11/2020 comments by the ecologist identified that threatened frog, small terrestrial mammal, alpine she-oak skink and feral animal monitoring is being undertaken along Kelly's Plain Creek. One way doors have been installed on wombat	Compliant

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					burrows, five days prior to clearing works.	
121.	App C	<p>Pre-clearing and Clearing Procedure - Compliance to Appendix C</p> <ul style="list-style-type: none"> • Clearing Land Disturbance Permit approved prior to clearing? • Clearing and grubbing work pack? • Clearing limits / exclusion zones established? • Inspection by project ecologist? • GPS coordinates for all threatened flora recorded during survey? 		<p>Pre-clearing Survey Report ECVT dated December 2020 final v1.0. Pre-clearing inspections conducted 8 and 22 October 2020.</p> <p>Clearing (Land Disturbance) Permit S2-FGJV-ENV-PER-0008-0025 dated 22/10/2020 for ECVT signed 25/10/2020, closed out 19/12/2020 – referenced Pre-clearing report listed above and signed by project Ecologist, FGJV Environmental coordinator / Manager.</p> <p>Clearing (Land Disturbance) Permit S2-FGJV-ENV-PER-0008-0033 dated 09/12/2020 for Ravine Road South Chainage 0 to 250 and Pad area – clearing of 12,346 sq/m. of Alpine Ash plant community - Includes Progressive ESCP</p>	Post disturbance / clearing close out noted on form for ECVT as completed 23/11/2020, referencing Post-clearing Report – ECVT 14/11/2020.	Compliant
122.	2.3 Table 2-2	<p>Compliance with Commonwealth Conditions of Approval – Terrestrial Biodiversity – Part A, condition 5 of approval:</p> <p>Within the construction envelope, the approval holder must not clear more than:</p> <p>a. 425 ha of native vegetation;</p> <p>b. 84.29 ha of habitat for the Smoky Mouse;</p> <p>c. 22.87 ha of habitat for the Alpine Tree Frog;</p>		<p>Clearing (Land Disturbance) Permits (various – see Sch 3 Condition 17)</p> <p>Clearing and Grubbing Clearing Register</p>	Clearing and Grubbing Clearing Register tracks the area cleared (to date) of each flora and fauna habitat versus the limits (in ha) (see Sch 3 Condition 17).	Compliant

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		d. 61.47 ha of habitat for the Broad-toothed Rat; e. 80.83 ha of habitat for the Alpine She-oak Skink; f. 197.95 ha of habitat for the Eastern Pygmy-possum; g. 81.86 ha of habitat for the Latham's Snipe; and h. 1.03 ha of the Alpine Bogs and Fens.				
123.	2.4 Table 2-3 (ECO1)	Fauna Strike to Smoky Mouse and Eastern Pygmy Possum Management measures to mitigate the potential impacts of fauna strike are currently being considered. These measures may include: <ul style="list-style-type: none"> reduced speed limit along Lobs Hole Ravine Road and Marica Trail at night, when fauna species are likely to be most active; fencing of these roads to prevent access to the road surface; and construction of fauna underpasses. The adopted measures will be agreed in consultation with DPIE		Site Inspection, including travel along Lobs Hole Ravine Road Interviews	At the time of the audit, the speed limit along Lobs Hole Ravine Road was 30 klm/hour at all times of the day. The In-Vehicle Management System (IVMS) was installed in the Snowy Hydro work vehicle that was travelled in by the Auditor during the audit and was said to be installed in all SHL and FGJV vehicles. One fauna underpass had been installed (sighted - see photos) as a trial at the time of the audit, and further underpasses are to be installed pending the outcomes of the monitoring and assessment of its success. No fences had been installed at the time of the audit (subject to further consideration and consultation with NPWS).	Compliant

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124.	App G 3.1.1 3.1.2	<p>Fauna Strike Mitigation Strategy - Initial</p> <ul style="list-style-type: none"> Initially the night-time speed limit will be set at 30km/hr (Level 1 in Table 3-1). This speed limit may be further reduced in specific areas along the access road based on reported incidents of fauna strike, near misses or if results of the threatened species monitoring program identifies the need for further restriction (Level 2). In-Vehicle Management System (IVMS) implementation Speed limits will be sign-posted Drivers will receive training on the fauna strike hazard, the requirement to comply with those speed limits, and the necessity to report observations of fauna on the project access roads In Summer 2020/21 six dedicated fauna underpasses will be installed on Lobs Hole Ravine Road as a part of road optimisation works 		<p>Site inspection,</p> <p>Interviews,</p> <p>Review of the IVMS system</p>	<p>The first 2 dot points are addressed above.</p> <p>Speed limits were observed to be posted on Lobs Hole Ravine Road (30km/hr) and at Tantangara Road (60km/hr for project vehicles)</p> <p>Fauna strike hazard is included in induction material</p> <p>At the time of the audit, one underpass had been recently installed and was being monitored for effectiveness.</p>	Compliant
125.	2.4 Table 2-3 (ECO2)	<p>Spread of weeds</p> <p>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 pathogen <i>Phytophthora.cinnamomi</i>.</p>			<p>The Main Works were in an early stage, with clearing and road widening activities in progress, and as such, the weed monitoring program was not assessed. To be assessed next audit.</p> <p>Other aspects of weed management detailed below.</p>	Not triggered
126.	5.1 Table 5-1 BM34	<p>Appendix F – Weed, Pest and Pathogen Management Plan</p> <p>Future Generation will implement the following measures to prevent the introduction or spread of weeds/pathogens on site:</p> <ul style="list-style-type: none"> Hygiene inspections of plant and equipment being transported to site (inc. Hygiene Declaration Form – Annexure A App F Biodiversity MP available in vehicles?;) Washdown stations at access points to site; and Restricted access to areas of known weed/pathogen infestation. 		<p>Site inspection</p> <p>Interviews with FGJV Environmental Coordinator</p> <p>Hygiene Declaration Forms (light vehicles)</p> <p>Completed Hygiene Declaration Form for a Padfoot roller dated 07/01/2021 – delivered to Tantangara</p>	<p>Hygiene</p> <p>Whilst weed mitigation measures are generally implemented in accordance with the Biodiversity Management Plan, it is considered that improvements to the effectiveness of the controls for the movement of light vehicles are required.</p> <p>For detail, refer to findings table and Sch 2 Condition 17(i).</p>	Compliant Observation

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		Future Generation will establish a checkpoint to carry out visual inspections of plant and equipment. Checkpoints will be located at or prior to the main access points to site				
127.	2.4 Table 2-3 (ECO3)	A Groundwater Dependent Ecosystems (GDE) monitoring program will be implemented to assess actual impacts against predicted. If actual impacts are greater than predicted, adaptive management will be implemented.			Not assessed at this audit. To be included in the scope of future audits.	Not triggered
		Heritage Management Plan				
128.	5.1.4	Discovery of Human Skeletal Remains If a burial site or human skeletal material is exposed during works, all relevant procedures for excavation and removal will be undertaken (refer to Plan if skeletal remains discovered)		None to date		Not triggered
129.	5.3.1	Post Bushfire Inspections it is recognised that the management of historical heritage during Snowy 2.0 Main Works will need to address everything from documenting heritage damage from the fires through to implementing appropriate management strategies for newly identified items. The strategies outlined below: • review of site/item condition, extent and composition as a matter of priority for the purposes of confirming and mapping fencing requirements and updating management actions where necessary; • use the exercise of site review as an opportunity to undertake base level archival recording of items where possible (e.g. moveable heritage and/or locations of any destroyed items) as well as broad level landscape archival recording, and identify any additional items and/or areas of sensitivity that may require further investigation; and • update management plan tables and mapping as required.		Interview Julie Dibden - Archaeologist	The interview with Julie Dibden confirmed that post bushfire inspections are being undertaken, noting that some heritage sites may have been destroyed, and some more may potentially be revealed.	Compliant

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130.	5.3.2	<p>Exclusion zones</p> <p>Exclusion zones shall be installed:</p> <ul style="list-style-type: none"> • around the Washington Hotel ruin (R20) with a minimum 20m avoidance buffer; • around the cadastral boundary of the Ravine town cemetery (R118); and • for historical heritage items inside the disturbance area that require salvage or archival recording. Flagging will remain in place until such time as the relevant mitigation measures have been implemented and heritage clearance certificate issued. In the event that salvage works are only to be conducted across a portion of the site, and other sections are to be conserved, the relevant no-go areas will be flagged upon completion of salvage works and remain in place. <p>All construction plans will be marked with relevant heritage no-go areas and all contractors working in those areas will be informed of the no-go areas through inductions, toolbox talks and pre-start meetings.</p>		<p>Site inspection</p> <p>FG – review SAPs</p>	<p>The Washington Hotel was sighted – it is a dedicated exclusion zone and roped off and is signaged as a no-go zone. (refer to photos LH20 – LH22)</p> <p>It was stated that the Ravine Cemetery has been roped off and has not been impacted (not sighted during site inspection).</p>	Compliant
131.	5.4 5.4.1	<p>Natural Heritage Management Measures</p> <p>Ravine Block Streams</p> <p>Rocks and boulders that are removed from the block streams during the road widening works should be stockpiled separately from other surplus soil and rubble to enable their potential use at a later date by NPWS in off-site interpretations.</p>		Block streams have been stabilised (site inspection)	Rocks and boulders were observed to be stored at R5 on Lobs Hole Ravine Road compound (refer to photo LH11).	Compliant
132.	5.4.5	<p>Kelly's Plains Volcanics – agglomerate porphyry unit</p> <p>Agglomeratic porphyry outcrops are exposed on the western shore of Tantangara Reservoir due east of the confluence of Nungar Creek with</p>		Construction activities not yet commenced in this area		No triggered

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		the reservoir. The outcrops are adjacent to (and northwest and southwest of) the Tantangara excavated rock emplacement area. Prior to construction, the geoheritage specialist will identify the outcrops and ensure that the best examples are not covered by the excavated rock emplacement. Following identification, the following measures above (5.4.4) will be implemented.				
133.	5.4.6	Unexpected Finds – Natural Heritage Unexpected heritage finds will be managed in accordance with Appendix E		Interview	It was stated by FGJV that there have been no unexpected natural heritage finds	Not triggered
134.	Table 5-1 HER05	Exclusion Zone A riparian exclusion zone adjacent to the Yarrangobilly River measuring 50 m wide (except for nominated river and creek crossings and areas approved as part of the Snowy 2.0 Main Works Approval) will be established and appropriately demarcated prior to construction. The exclusion zone will be: <ul style="list-style-type: none"> • designated as an exclusion zone and identified on the Sensitive Area Plans; and • marked in the field with temporary barriers and signage denoting a “no-go” area 		Site inspection Sensitive Area Plans	Exclusion Zones were identified on Sensitive Area Plans sighted Flagging and no-go signage was in place to delineate exclusion zones at the sites / locations visited	Compliant
		Transport Management Plan				
135.	5 Table 5-1 TRA02	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.		Snowy 2.0 website https://www.snowyhydro.com.au/snowy-20/roads-and-access/	The Snowy Hydro 2.0 website provides updates on traffic and restrictions. Specific activities are listed in the Traffic Schedule section of the website.	Compliant

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					The full suite of platforms was not assessed at this audit, and will be included in future audits.	
136.	5 Table 5-1 TRA04	<p>IMVS</p> <p>To internally monitor compliance, In-Vehicle Monitoring Systems (IVMS) will be installed in project light vehicles to monitor vehicle usage and speed.</p> <p>IVMS performance will be internally monitored on a monthly basis.</p>		<p>Site Inspection</p> <p>Interviews</p>	<p>IVMS was said to be installed in all light FG and SHL vehicles as well as a requirement for subcontractors to have IVMS installed.</p> <p>IVMS was installed in the 3 vehicles travelled in during the audit, and interviews suggested it is installed in all company vehicles. There may be some subcontractor vehicles in which IVMS had not been installed, and FGJV were working towards ensuring all vehicles installed with IVMS.</p> <p>IVMS performance was not fully assessed at this audit – it will be included in the scope of future audits.</p>	Compliant
137.	5 Table 5-1 TRA09	<p>Vehicle Restrictions</p> <p>The use of Lobs Hole Ravine Road – North will be restricted to:</p> <ul style="list-style-type: none"> • access to and from the site during emergencies; • light vehicles at all other times with: <ul style="list-style-type: none"> – 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) 		<p>Daily Site Notification 18 January 2021</p> <p>Interview (Jess) at Lobs Hole Ravine Road site office – Vehicles were being counted daily.</p>	<p>Emails were sent out daily to all persons who would be going to site.</p> <p>Interview with Jess suggested that the vehicle movements had not exceeded the maximum movements allowed.</p>	Compliant

ID	Plan / Section	Description	= in scope	Evidence Assessed	Outcomes, Findings, Recommendations	Compliance Status
			= not in scope of this audit			
		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.				
138.		Natural Hazards Management Plan				
139.	5.2.1	<p>Extreme Weather Monitoring</p> <p>Future Generation will monitor and interpret local conditions onsite, via the BOM Warning Centre website (http://www.bom.gov.au/australia/flood/) and via more accurate, local forecasting provided by Snowy Hydro Monitoring information will be used to allow appropriate planning for work tasks to be undertaken for the day.</p>		Daily Site Notifications	<p>Daily Notifications and alerts were provided to key project personnel which includes the fire Danger Index. Sighted Notification / Alert dated Tues 19 January 2021 – Lobs Hole – Ravine Road.</p> <p>Supervisor at Marica was interviewed and he was well aware of the bushfire danger rating – discussed as part of pre-starts when relevant. Supervisor also had the Fires Near Me app installed on his phone.</p>	Compliant
140.	5.2.2	If a flood event is forecast work activities will be reviewed and the event management guide within Appendix C will be implemented				Not triggered
141.	5.2.2.1	Where it is considered safe to do so, any plant, equipment and potentially contaminating materials located within potential flood zones would be moved to flood free locations on site as instructed by the Site Supervisor				Not triggered
142.	5.3	Site inspections will occur following adverse conditions (e.g. including bushfire, heavy rain, flood) to check for natural hazards.		Post rainfall inspection report – 17 Dec 2020	Post rain inspections have been conducted to date. There have been no bushfires or floods since commencement of main works.	Compliant

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143.	App A	Bushfire Management Plan Implementation - overall		<p>Bushfire preparedness internal audit conducted by SHL on 10/10/2020 at Lobs Hole.</p> <p>Non-conformance Report S2-SHL-HSA-NCR-0004_P1 dated 12/01/2020 (typo?), responded to 13/01/2021</p>	<p>A Bushfire preparedness internal audit was conducted by SHL on 10/10/2020 at Lobs Hole against the S2-FGJV-ENV-PLN-0050 BUSHFIRE MANAGEMENT PLAN SNOWY 2.0 – MAIN WORKS (Rev D).</p> <p>A number of observations were raised. A formal non-conformance was raised internally by SHL in January 2021 as a result of lack of response to previous requests including:</p> <ul style="list-style-type: none"> – failure to have the correct fire fighting equipment on site, – failure to maintain asset protection zones, – failure to effectively communicate bushfire daily fire ratings; and – failure to provide evidence of a consequence management guide for bushfire. <p>FGJV had responded to the non-conformance report, to address the issues raised. Actions documented included:</p> <ul style="list-style-type: none"> – Boards are in place and updated 06:30am daily. FDR are correct and the information given to the workforce at prestart is also correct; – This (<i>assumed by auditor to mean consequence management guide</i>) is clearly defined in the Bushfire Management Plan Section 7 which scales up the actions and controls required 	Compliant

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					<p>dependent on the FDR and is supported by SWMS, JHA and the Emergency Response in Section 8 which is supported by the ERP.</p> <p>It was determined that SHL were currently managing the issues identified in the internal audit, and have not yet closed out the non-conformance, as it is a work in progress.</p> <p>Therefore, at this stage issues identified in the internal audit did not trigger a non-compliance at this Independent Audit.</p> <p>Bushfire preparedness will be further assessed at future Independent Audits.</p>	
144.	App A 4.6	<p>Bushfire Management Plan</p> <p>The following resources will be available on the project site:</p> <ul style="list-style-type: none"> • Dedicated 20kL firefighting static water supply tanks (steel-shielded or concrete water tanks) will be located at the following locations: • near the shed building at the Ravine Refuge Assembly Area (exploratory camp); • Additional locations of fire fighting water supplies will be detailed here in future revisions of the plan as this infrastructure is installed during Main Works. The water supply tanks will have 65mm Storz coupling to suit bushfire tankers; • Light-pumper Category 9 fire units (utility vehicle or dedicated fire trailer with slip-on tank of 300-400L capacity, hose reel and 65mm Storz 		<p>Site inspection</p> <p>Bushfire preparedness internal audit conducted by SHL on 10/10/2020 at Lobs Hole.</p> <p>Non-conformance Report S2-SHL-HSA-NCR-0004_P1 dated 12/01/2020, responded to 13/01/2021</p>	<p>Water trailers were available at Marica and other sites visited. Fire fighting backpacks and extinguishers are kept in work. vehicles ready for deployment</p> <p>Balance of these requirements were audited as part of the internal audit report as discussed above.</p>	Compliant

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		couplings) are required at each discrete worksite to put out spot fires, as per the preparedness requirements Section 7.2. In addition, water can be directly sourced from the Talbingo Reservoir or Tantangara Reservoir.				
145.	Bushfire MP 6.1	Site Induction and Training requirements The PIC or delegate is responsible for the induction of new staff members, contractors, visitors and site users The induction is to include: <ul style="list-style-type: none"> • Information about the site context as detailed in Section 3; • Fire weather awareness and preparedness requirements – in response to forecast FFDI and FDR, see Section 7.2; Section 7.3; • Permissible activities based on works preparedness code, see Table 7-1; • Familiarisation and training in the safe and effective use of the provided fire safety equipment, see Table 7-1; • Response to an emergency warning being issued by fire authorities, see Section 8.3; • Fire reporting and response actions to a smoke sighting or fire starting, see Section 8.4; • Onsite and offsite emergency arrangements, including but not limited to evacuation procedures and assembly area locations, see Section 4 and Section 8. 		Induction material	Key bushfire prevention strategies outlined in the project induction material included: <ul style="list-style-type: none"> – No smoking or vaping on site or in KNP; – Hot Work Permit Process; – Evacuation procedures and Muster points; – Useful Mobile apps – NSW Fires Near Me and Emergency Plus; – Emergency reporting protocols; – Bushfire danger period dates; – Fire extinguisher use; – Explanation of Fire Danger Rating (including photo of board). Full training records in relation to natural hazard management were not assessed at this audit.	Compliant
146.		Maintenance of Asset Protection Zones and Vegetation Management From the commencement of the works and for every bushfire season throughout the project duration, the PIC or delegate must maintain the following asset protection zones (APZ):		Site inspection Bushfire preparedness internal audit conducted by SHL on 10/10/2020 at Lobs Hole.	Site inspection indicated general compliance with this requirement, however a detailed analysis was not undertaken due to audit time constraints.	Compliant

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		<ul style="list-style-type: none"> • A 20m radius APZ from the external wall and/or part of the Refuge Assembly Area buildings (once constructed) and occupied accommodation buildings; • A 10m APZ around: • The external side of each Refuge Assembly Area perimeter Colorbond fence; • All diesel generators; • Non-accommodation buildings; • All other site infrastructure. • A 25m radius APZ around any buildings in the vicinity of high voltage transmission lines. Buildings at these areas are to be located > 25m from the nearest transmission line due to potential electrical hazards (see section 6). <p>The siting of liquid fuel and explosive storage areas will maximise the distance from bushfire prone vegetation and will not be located within a 20m radius of retained vegetation or within the nominated asset protection zones for other infrastructure as detailed above.</p> <p>Fuel levels within all APZs are to be maintained in accordance with NSW RFS Standards (NSWRFS 2018, Appendix 4), within an overall fuel hazard of low to moderate range (based on Hines et al 2010).</p>			<p>The non-conformance raised at the internal audit identified that APZs were not being adequately maintained. This is being resolved internally by SHL and FGJV.</p> <p>It was noted that no explosives are held on site – they are brought to site on the day of the blast.</p> <p>Not fully assessed at this audit – to be included in the scope of future audits.</p>	