

Failures in environmental compliance of the Snowy 2.0 project 12 April 2024

Introduction

The massive Snowy 2.0 pumped hydro project is being constructed in Kosciuszko National Park (KNP), an alpine landscape of international conservation significance and one that is extremely sensitive to environmental damage.

The project was approved by the NSW and Commonwealth Governments in 2020. Snowy Hydro Limited and its contractors are required to ensure that the project's environmental impacts do not exceed the scope of the planning approvals issued by the NSW Minister for Planning, under the *Environmental Planning and Assessment Act*, and the Commonwealth Minister for the Environment, under the *Environmental Protection and Biodiversity Conservation (EPBC) Act*. These include 122 Conditions of Approval and pollution licenses.

Oversight of compliance involves routine site inspections by officers of the Department of Planning, Housing and Infrastructure (DPHI), the Environmental Protection Authority (EPA) and the National Parks and Wildlife Service (NPWS) as well as a series of Independent Environmental Audits (IEA). There is no public access to the construction sites and therefore no opportunity for the community to observe the impacts on the National Park.

Nonetheless, there is now abundant evidence that Snowy Hydro and its contractors are falling short of the Conditions of Approval and community expectations for construction in such an environmentally sensitive location. This information has been obtained from:

1. the results of the most recent IEA, revealing an increasing number of findings;
2. the failure to complete mandatory site management plans within the specified timeframes, up to three years late; and
3. the continuing occurrence of environmental breaches resulting in formal enforcement actions.

This report demonstrates that Snowy Hydro and its contractors are not meeting expectations for a construction project in a highly significant and sensitive location. The failure of enforcement actions to curb repeated non-compliances suggests that a more rigorous regulatory approach is required from DPHI, EPA and NPWS.

NPA recommends that any future incidents be subject to full investigation and that deterrence measures be escalated to formal prosecution.

A draft copy of this review was provided to Snowy Hydro, DPHI and EPA for comment.

In response Snowy Hydro asserted:

"Snowy Hydro is cognisant that the Kosciuszko National Park is a sensitive environment with high conservation values that require protection. Snowy Hydro takes its environmental compliance obligations very seriously and is committed to ensuring that the construction and operation of the

Snowy 2.0 Project proceeds in a manner that is compliant with all applicable laws and approvals so that the sensitive environment of the Kosciuszko National Park is protected.”

Both DPHI and the EPA advised NPA that they expect Snowy Hydro and its contractors to meet all aspects of the Conditions of Approval and License conditions.

1 The Fourth Independent Environmental Audit

A key element of the DPHI compliance program is regular audits of environmental performance.

The [fourth IEA of Snowy 2.0](#) is published on the Snowy 2.0 website, together with [Snowy Hydro’s Response](#). This latest IEA was undertaken in July 2023 and covers the 18-month period January 2022 to June 2023. The Report was completed on 8 September 2023, but wasn’t posted on the website till the end of 2023.

The latest IEA findings are summarised in the following terms:

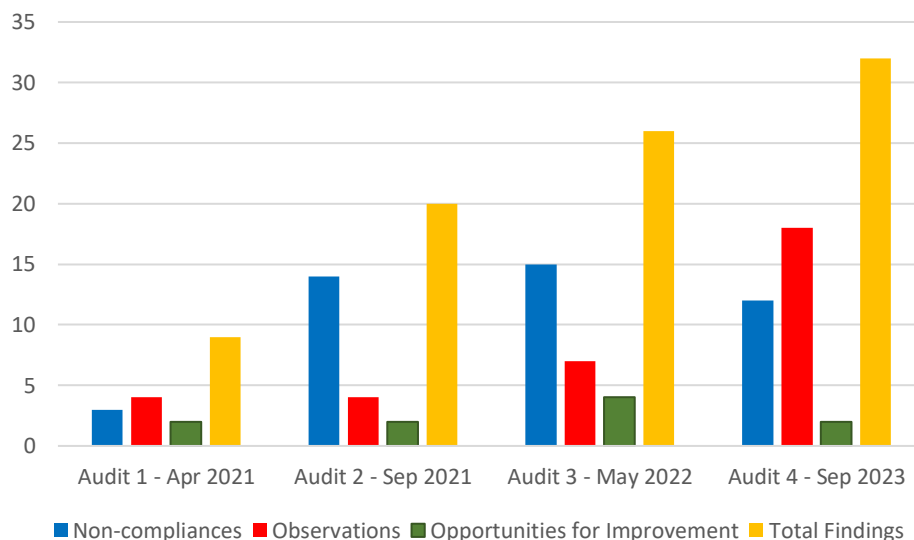
“This audit [IEA#4] identified several areas of Non-Compliance (NCs). Observations (OBSs) and Opportunities for Improvement OFIs) have also been raised for action and consideration. In summary: Thirty two (32) findings were raised at this audit, comprising:

- *Twelve (12) non-compliances;*
- *Eighteen (18) Observations; and*
- *Two (2) Opportunities”*

“The previous audit [IEA#3] identified fifteen (15) Non-compliances (NC), seven (7) Observations (OBSs) and four Opportunities for Improvement (OFIs). Of those:

- *Six (6) NCs and one (1) OBS remains open;*
- *Twelve (12) NCs were closed (from NCs 2021 & 2022);*
- *Six (6) OBS, one (1) OFI was addressed and closed, and one remains open;*
- *OBS escalated to NCs;*
- *NCs downgraded to OBS.”*

The auditor’s assessment of Snowy Hydro’s performance over the four audits is shown below (NPA):



In summary:

- Total findings (yellow bars) continue to increase, up from 26 in IEA#3 to 32 in IEA#4
- Non-compliances (blue bars) decreased from fifteen to twelve. Eight of the twelve non-compliances are overdue Management Plans (see below)
- Observations (red bars) more than doubled (seven to eighteen)

Snowy Hydro commented on the draft review:

“The number of non-compliances per IEA is not, of itself, a reliable indicator of any trend as it does not take into account the scope of the IEA or the number of individual elements assessed per IEA (which for IEA #4 was 372). For completeness and context, Snowy Hydro notes that IEA #4 did not identify any actual harm and identified many areas of strength including improved process for addressing previous audit findings, improved waste management practices and increased involvement of operational personnel in site environment inspections.”

Previously, in May 2023, NPA issued a detailed review of the 3rd IEA (Attachment A). Many of the issues identified in the earlier IEA were still unresolved at the time of the latest audit, especially those relating to the finalisation of management plans.

An example of a critical unresolved issue that has been raised in all four IEA’s and been evident since construction began (October 2020) relates to inadequate processes to avoid the transfer of weeds, seeds and pathogens (page 23):

“Requirement

Sch 2 Cond 13 (c): 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.

Audit Finding

Findings were raised at IEA#1, 2 & 3 regarding adequacy of processes to ensure plant, equipment and vehicles are free of weeds, seeds and pathogens when leaving site. Various actions had been agreed and documented in the Action Plan. Whilst some actions are now closed, other agreed actions still remain open.”

2 Failure to complete management plans

All four IEAs have highlighted Snowy Hydro’s failure to complete the Management Plans required under the Conditions of Approval. These management plans are essential to the proper management of the project and site, addressing issues such as hazardous waste, biodiversity and biosecurity risks. The plans are supposed to provide detailed explanation of how a range of issues that the original Environmental Impact Statement ‘kicked down the road’ are to be managed. In NPA’s view the continuing delays in completing these plans represent a serious threat to the conservation values of Kosciuszko National Park.

About half the plans were required to be approved prior to the commencement of construction (October 2020) and the remainder either 6, 12, 18 or 24 months afterwards. All completed plans must be posted on the [Snowy 2.0 website](#).

The latest IEA states:

“A significant issue at this audit was the number of management plans overdue for submission / approval, and this was identified as a pre-audit area of focus by various agencies.” (p2)

The table below provides a list of the Management Plans required and their current status. It was compiled from various sources, as no such summary document has been prepared by Snowy Hydro, DPHI or the Auditor. What is also clear is that the majority of plans are late by up to three years. Several plans that are essential for securing the conservation values of Kosciuszko National Park are years overdue, such as the Biosecurity Risk, Rehabilitation and Visual Impact Management Plans.

Plans required in Conditions of Approval	Due	Issued	Overdue	Completed IEA#3	Completed IEA#4	Completed since IEA#4	Plans on Snowy 2.0 webpage
Spoil Management Plan	Oct-20	Oct-20	on time	yes	yes		Spoil Management Plan
Rehabilitation Management Plan	Apr-22		>24 months	no	no		
Biodiversity Management Plan	Oct-20	Oct-20	on time	yes	yes		Biodiversity Management Plan
Biosecurity Risk Management Plan	Oct-22		>18 months	no	no		
Threatened Fish Management Plan	Oct-21	Oct-23	24 months	no	no	yes	Threatened Fish Management Plan
Recreational Fishing Management Plan	Oct-21	Oct-23	24 months	no	no	yes	Recreational Fishing Management Plan
Water Management Plan	Oct-20	Oct-20	on time	yes	yes		Water Management Plan
Heritage Management Plan	Oct-20	Aug-20	on time	yes	yes		Heritage Management Plan
Recreation Management Plan	Oct-21		>30 months	no	no		
Transport Management Plan	Oct-20	Aug-20	on time	yes	yes		Transport Management Plan
Long-term Road Strategy	Oct-22		>18 months	no	no		
Visual Impact Management Plan	Oct-21		>30 months	no	no		
Construction Noise Management Plan	Oct-20	Oct-20	on time	yes	yes		Noise Management Plan: Rock Forest
Emergency Management Plan	Oct-20	May-21	8 months	yes	yes		Emergency Response Management Plan
Environmental Management Strategy	Oct-20	Aug-20	on time	yes	yes		Environmental Management Strategy
Digital Strategy	Apr-21		>36 months	no	no		

Snowy Hydro’s performance in completing these plans has been abysmal:

- Only seven (7) plans (44%) were completed on time
- Three (3) of the overdue plans have since been completed, 8 – 24 months late
- Six (6) overdue plans (38%) have yet to be completed, 1.5 to 3 years late, and counting

The DPHI previously advised NPA that it *“has taken informal enforcement action (warning letter) against Snowy Hydro on 10 August 2022, for the failure at the time, to have a number of management plans approved within the required time frame. The department will assess the continued non-compliance, including Snowy Hydro’s efforts to progress the outstanding management plans, in accordance with its Compliance Policy”*. Two Plans have been completed in the ensuing 20 months, both 2 years late.

It is apparent that Warning Letters have had no impact, fully warranting the escalation of such ‘informal’ enforcement action to formal prosecution.

3 Breaches of Conditions of Approval

There have been multiple enforcement actions by the EPA and DPHI (see below). This information has been taken from the EPA compliance database <https://apps.epa.nsw.gov.au/prpoeoapp/>, and departmental or EPA media releases.

Both the EPA and DPHI employ an escalating hierarchy of enforcement actions, beginning with warning letters, then formal notifications, penalty infringements and finally prosecution. The pattern of enforcement actions below demonstrates that warnings and penalty notices are having no impact on Snowy Hydro and its contractors. This is hardly surprising in the context of a project that is running years late and with a ballooning budget, now \$12 billion plus.

The [EPA’s Media Release](#) on 3 April 2023, announcing fines for two pollution incidents, sums up Snowy Hydro’s abysmal environmental performance:

“These incidents simply should not have occurred. Every industry has a role to play in reducing their impact, but your role is even more critical when you’re based in one of our state’s most pristine environments.”

In NPA's view the only enforcement action that will guarantee an improvement in environmental performance will be prosecution or the potential loss of aspects of project approval.

3.1 Environment Protection Authority compliance actions

16 May 2022. Clean Up Notice [3502543](#) under S91 of the *Protection of the Environment Operations Act*
The notice is for inadequate management of sediment, rock and debris resulting in pollution of Middle Creek in Kosciuszko National Park.

21 October 2022. Prevention Notice [3503960](#) under Section 96 of the *Protection of the Environment Operations Act*

The notice is for inadequate pollution controls along and adjacent to Tantangara construction site, resulting in pollution of Tantangara reservoir, Nungar Creek and Gang Gang Creek in Kosciuszko National Park.

29 March 2023. Penalty Notice [3173531736](#) to WeBuild under Section 120(1) of the *Protection of the Environment Operations Act*. Offence short title: Pollute waters- other officer- Corporation. Fine \$15,000.

The notice is for discharge of polluted waters into the Yarrangobilly River.

29 March 2023. Penalty Notice [3173531671](#) under the *Protection of the Environment Operations Act* to WeBuild. Fine \$15,000

The notice is for water discharge at Tantangara Road Nungar Creek.

23 May 2023. Caution [3505349](#) to Snowy Hydro

The caution is for the discharge of diluted leachate water mixed with sediment laden water leak from spoil emplacement area at Lobs Hole on 30 January 2023.

6 June 2023. Caution [3505611](#) to Snowy Hydro

The caution is for the discharge of sediment laden water into Gooandra Creek 23 March 2023.

20 July 2023. Penalty Notice [3173540572](#) under the *Protection of the Environment Operations Act* to Snowy Hydro contractor WeBuild. WeBuild fined \$15,000. Fine relates to pollution incident resulting in '9000 litres of sediment-laden water entering the Yarrangobilly River' in Kosciuszko National Park.

31 August 2023. Prevention Notice [3506478](#) to Snowy Hydro.

Relates to 1 December Clean Up Notice. Monitoring data suggests spoil emplacement activities may be causing contamination of groundwater and surface water. Elevated nutrient levels in surface and groundwater monitoring locations were detected from February 2023. Report to be submitted by 30 November 2023.

1 December 2023. Clean Up Notice [3507331](#) to Snowy Hydro related to 31 August Prevention Notice. Snowy Hydro required to cease all further emplacement of waste sludge and filter cake material at permanent and temporary spoil emplacement areas within Kosciuszko National Park until a date approved in writing by the EPA.

23 January 2024. Penalty Notice [3173540857](#) under the *Protection of the Environment Operations Act* to Snowy Hydro contractor WeBuild fined [\\$15,000](#).

Offence occurred 7 April 2023. Fine relates to pollution incident resulting in sediment laden water discharging into Wallaces Creek and the Yarrangobilly River in Kosciuszko National Park.

3.2 Department of Planning, Housing and Infrastructure compliance actions

10 August 2022. Warning Letter

Warning Letter issued against Snowy Hydro for the failure to complete a number of management plans within the required time frame. Even though the department warned that it will assess the continued non-compliance, including Snowy Hydro's efforts to progress the outstanding management plans, in accordance with its Compliance Policy, no further action has been advised.

July 2023. Warning Letter

Members of the public reported environmental damage and pollution associated with the laying of a cable parallel to the Snowy Mountains Highway. The department undertook an investigation and issued a Warning Letter to Snowy Hydro. NPA remains of the view that this incident was of sufficient impact and scale to warrant a Penalty Notice or prosecution.

24 January 2024. [Enforceable Undertaking](#)

The Department announced that an enforceable undertaking for the payment of \$300,000 to NPWS had been agreed with Snowy Hydro relating to the damage inflicted on Kosciuszko National Park by the 'surface depression' caused by the Tunnel Boring Machine Florence. The compensatory payments are being used for the reconstruction of huts destroyed in the 2020 fires rather than environmental works around the Snowy 2.0 site, diverting attention away from the myriad of problems at the construction site.

**ATTACH A - NPA REVIEW OF THIRD INDEPENDENT ENVIRONMENTAL AUDIT
Snowy 2.0 Main Works - Failing to comply with Conditions of Approval
18 May 2023**



EXECUTIVE SUMMARY

Snowy 2.0 is a massive project spread over four major construction sites across thirty five kilometres of Kosciuszko National Park. Over 2,000 workers are housed within Kosciuszko. The environmental impacts on a national park are unprecedented.

The project was approved by the NSW and Commonwealth Governments in 2020 subject to supposedly 'strict' environmental Conditions of Approval (CoA).

Over the ensuing three years it is evident that Snowy Hydro has failed to comply with many of the one hundred and twenty five CoA and that monitoring of environmental performance has been inadequate. Ten of sixteen Management Plans required by the CoA are overdue, by up to 31 months. No progress has been made on critical biosecurity and threatened fish Management Plans.

Independent environmental audits (IEA) have revealed numerous concerns and non-compliances, the third and latest IEA containing many highly critical findings, including:

- *limited evidence to demonstrate that processes were implemented to address and prevent recurrence of non-compliances and observations raised in the last two audits*
- *provision of audit evidence by Future Generation Joint Venture (FGJV) was problematic*
- *reporting of environmental performance and monitoring outcomes continued to be an issue*
- *the majority of actions assigned to FGJV have not been closed*
- *biodiversity – weeds control, weeds hygiene processes, feral animal control*

It is clear that the CoA are not being complied with and that the environmental performance of Snowy Hydro and its contractor is unacceptable and declining.

A project of this magnitude in such an environmentally sensitive location requires rigorous scrutiny by a full-time audit team, especially given the abject performance of Snowy Hydro to date.

The recent comments by the NSW Environment Protection Authority when issuing Snowy Hydro and FGJV with penalty notices for two major pollution events sums up the current situation:

"These incidents simply should not have occurred.

Every industry has a role to play in reducing their impact, but your role is even more critical when you're based in one of our state's most pristine environments."



Works at Talbingo and Tantangara within Kosciuszko National Park

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Information Sources

- The [Planning Portal for the NSW Department of Planning](#), Industry and Environment (DPIE) provides information on the approval process for Snowy 2.0 and the conditions of approval. It also provides post approval documents and compliance inspection dates.
- The [Snowy 2.0 Documents website](#) provides links to environmental and planning documents, regulatory authority approvals, management plans, audits, and monitoring reports.
- The [Future Generation Joint Venture website](#) also provides links to approved management plans.

1 Conditions of Approval

1.1 NSW conditions

The former NSW Minister for Planning and Public Spaces, Hon Rob Stokes MP, granted [approval of the Snowy 2.0 Main Works](#) on 20 May 2020 under the *Environmental Planning and Assessment Act*, subject to eighty six Conditions of Approval (CoA) covering:

- administrative conditions (13)
- specific environmental conditions (61)
- environmental management, reporting and auditing (12)

The [joint announcement](#) by Minister Stokes and Deputy Premier Barilaro stated:

*“the project’s **approval includes strict conditions** [emphasis added] to minimise and offset environmental impacts”*

1.2 Commonwealth conditions

Subsequently on 29 June 2020 the former Commonwealth Minister for the Environment, The Hon Sussan Ley MP, granted [approval](#) under the *Environmental Protection and Biodiversity Conservation (EPBC) Act*, subject to thirty nine CoA. Some conditions simply duplicated NSW CoA, whilst others extended upon the NSW CoA.

The [joint announcement](#) by former Prime Minister Morrison, Minister for Energy and Emissions Reduction Taylor, and Minister Ley stated:

*“The final Commonwealth review resulted in **additional conditions** [emphasis added] around heritage, public transparency on data used to underpin mitigation strategies and the protection of native fish species.*

The approval process ensures the development is built and operated in a way that sensitively avoids, mitigates and rehabilitates environmental impacts while protecting the environment and its rich biodiversity as we move to a clean energy future.”

Construction of Snowy 2.0 main works formally commenced on 21 October 2020.



Works at Tantangara Reservoir

2 Management Plans

2.1 Overdue Plans

The NSW CoA require the preparation of Environment Management Plans and Strategies (Plans) “to the satisfaction of the Planning Secretary”. All completed Plans must be posted on the [Snowy 2.0 website](#).

About half the Plans were required to be approved prior to the commencement of construction (October 2020) and the remainder either 6, 12, 18 or 24 months afterwards.

In response to a query from NPA, DPIE advised that sixteen Plans are required, with seven yet to be approved (as at 11 May 2023).

However, as shown in Figure 1 only six of those Plans are currently posted on the Snowy 2.0 website, with the remaining ten Plans overdue by up to thirty one months. It is known that a number of Plans have yet to start to be prepared.

Plans required in Conditions of Approval	Due	Shown as completed on S2.0 Website	Overdue
Spoil Management Plan	Oct-20	yes	
Rehabilitation Management Plan	Apr-22	no	13 months
Biodiversity Management Plan	Oct-20	yes	
Biosecurity Risk Management Plan	Oct-22	no	7 months
Threatened Fish Management Plan	Oct-21	no	19 months
Recreational Fishing Management Plan	Oct-21	no	19 months
Water Management Plan	Oct-20	yes	
Heritage Management Plan	Oct-20	yes	
Recreation Management Plan	Oct-21	no	19 months
Transport Management Plan	Oct-20	yes	
Long-term Road Strategy	Oct-22	no	7 months
Visual Impact Management Plan	Oct-21	no	19 months
Construction Noise Management Plan	Oct-20	no	31 months
Emergency Management Plan	Oct-20	no	31 months
Environmental Management Strategy	Oct-20	yes	

Figure 1 – Snowy 2.0 Management Plans and Strategies

DPIE advised NPA that it “has taken informal enforcement action (warning letter) against Snowy Hydro on 10 August 2022, for the failure at the time, to have a number of management plans approved within the required time frame. The department will assess the continued non-compliance, including Snowy Hydro’s efforts to progress the outstanding management plans, in accordance with its Compliance Policy”.

2.2 Biosecurity and Threatened Fish Plans

Three of the Plans are critical to the minimisation of biosecurity risks from weeds, pest fish and pathogens:

- i) Biosecurity Risk Management Plan

- ii) Threatened Fish Management Plan
- iii) Recreational Fishing Management Plan

None of these Plans have been completed, and are now overdue by seven to nineteen months.

The delays are prejudicing the management of devastating impacts from the future spread of pest fish and pathogens in particular from Talbingo Reservoir up to Tantangara Reservoir and thence throughout the Snowy Mountains and beyond.

The objectives for these Plans are expressed in the Biosecurity and Fish Management Requirements (NSW CoA 20):

“20. The Proponent must:

- (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.*

The reason why these Plans are so important is that highly invasive Redfin Perch are likely to be transported from Talbingo Reservoir up to Tantangara Reservoir and then throughout the Snowy Mountains into the headwaters of the Murray, Snowy, Murrumbidgee and Tumut Rivers, despite the proposed fish screen. This will devastate native fish and trout.

In addition, Climbing Galaxias are also likely to be transferred to Tantangara Reservoir, and thereby destroy the last remaining colony of the critically endangered Stocky Galaxias.

Annexure B provides extracts from the CoA related to these three Plans. The purpose of each is summarised below.

2.2.1 Biosecurity Risk Management Plan

This Plan was to be prepared within 2 years of the commencement of construction (i.e. by October 2022 – seven months overdue).

The Plan must include a detailed biosecurity risk management framework for minimising the ongoing biosecurity risks of the development, including:

- “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”*

2.2.2 Threatened Fish Management Plan

This Plan was to be prepared within 12 months of the commencement of construction (i.e. by October 2021 – nineteen months overdue).

This Plan must:

- “be prepared by a suitably qualified and experienced person in consultation with DPIE and DAWE;*

- *include the establishment and use of an expert advisory committee to provide advice to the proponent on the implementation of the plan”.*

The first steps, appointment of an experienced person and expert advisory committee, are still awaited.

Critical elements of the Plan that should have been implemented over 1½ years ago have yet to be initiated, including:

- *“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*
- *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”*

2.2.3 Recreational Fishing Management Plan

This Plan was to be prepared within 12 months of the commencement of construction (i.e. by October 2021 – nineteen months overdue).

This plan must:

- “be prepared by a suitably qualified and experienced person in consultation with DPIE, NPWS and relevant recreational fishing groups;*
- describe the detailed measures ..., including:*
 - *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;*
 - *a program to monitor the impacts of the development on recreational fishing in Tantangara Reservoir and Lake Eucumbene”*

The experienced person has yet to be appointed.

2.2.4 Commonwealth CoA

The Commonwealth added further related CoA, which have also not been met (see Annexure B2), including:

- *“investigate reasonable measures, including the installation of secondary fish barriers, to protect tributaries identified as priority receiving sites for the establishment of stocking insurance populations of the Macquarie Perch and Stocky Galaxias;*
- *before undertaking ... to protect tributaries identified as priority receiving sites for the establishment of stocking insurance populations of the Macquarie Perch and Stocky Galaxias;*

- *the Biosecurity Risk Management Plan and the Threatened Fish Management Plan must be peer reviewed by an independent, suitably-qualified expert/s approved by the Department.”*

Reprehensibly, the entries in the Annual EPBC Compliance Report for CoA 14, 15 and 16 state that compliance is *“not applicable ... and not triggered in the reporting period”*. See Annexure C.

The reality is that neither the Biosecurity Risk Management Plan or the Threatened Fish Management Plan (nor the Recreational Fishing Management Plan) have been completed and that Snowy Hydro has not complied with CoA 14 to 16.



Entrances for two access tunnels to underground station

3 Independent Environmental Audits

3.1 Frequency of IEAs varied twice

Schedule 4 Condition 9 of the Main Works approval required Independent Environmental Audits (IEA) after one year and then every three years.

NPA considers these periods to be far too infrequent for a massive project with such extensive environmental impacts on a national park.

However, the frequency has been varied twice at the request of Snowy Hydro, first an increase and then a decrease.

Initially the frequency was increased to 12 weeks after the commencement of construction with a fresh IEA every 26 weeks thereafter:

“As noted in the previous IEA reports, due to the sensitive location and scale of the Snowy 2.0 project, Snowy Hydro Limited (SHL) determined that IEAs are to be undertaken at a greater frequency than provided by Schedule 4 Condition 9 of the Main Works approval (after one year, then every 3 years).

The agreed audit frequency is an initial audit within 12 weeks of commencement of construction and thence, every 26 weeks. This third audit was conducted just over 26 weeks after the second audit.”
(IEA No. 3)

Undertaking IEAs every six months is a far more appropriate frequency, commendably requested by Snowy Hydro and granted by DPIE on 28 September 2020.

However, after two years Snowy Hydro requested the frequency of IEAs to be increased to 18 month intervals, which DPIE granted on 19 September 2022. Snowy Hydro also committed to undertake internal audits within 6 months of the completion of the external 18 month IEAs.

No reason was provided for granting approval to reduce the frequency of audits three-fold from that adopted for the first two years of construction.

NPA considers a frequency of one and a half years is patently inappropriate, particularly given Snowy Hydro’s poor performance to date. The six-monthly period for IEAs ought to be re-instated.

3.2 Three IEAs completed

Three IEAs have been completed to date, roughly in accordance with the agreed frequency:

- [No. 1](#), dated 9 April 2021, covering the period from commencement of construction (October 2020) to January 2021
- [No. 2](#), dated 24 September 2021, covering the period February 2021 to July 2021
- [No. 3](#), dated 13 May 2022, covering the period July 2021 to January 2022

According to the initially revised frequency, two further six-monthly IEAs should have been completed in July 2022 and January 2023.

DPIE advised that in line with the latest frequency the next audit is due in July 2023 and the independent auditor has been selected.

3.3 Non-compliant findings of IEA No. 3

3.3.1 Increasing non-compliances

The three IEA completed to date have reported an ever-increasing number of ‘findings’, categorised as non-compliances, observations and opportunities for improvement, shown in Figure 2.

The latest IEA ([No. 3](#)) had twenty-six findings, comprising fifteen non-compliances, seven observations and four opportunities for improvement. About half of those findings were carried over from the previous IEA (No. 2) as they had not been adequately addressed.

There has been no public reporting of the resolution of those findings, but NPA has been advised by DPIE that as at 23 March 2023:

- *“10 actions are still outstanding with Snowy Hydro Ltd progressing closing out these remaining actions in accordance with the independent auditors’ recommendations*
- *6 of the non-compliances relate to ongoing consultation and communication with agencies, 3 are to be closed out by the end of April 2024 and one relates to waste management and introducing reusable water bottles on site to be closed out by end of June 2024*
- *the Department is monitoring implementation of the independent auditors’ recommendations*

- *the Department’s compliance team is currently investigating alleged non-compliances relating to the submission of management plans and seeking further information from the applicant”*

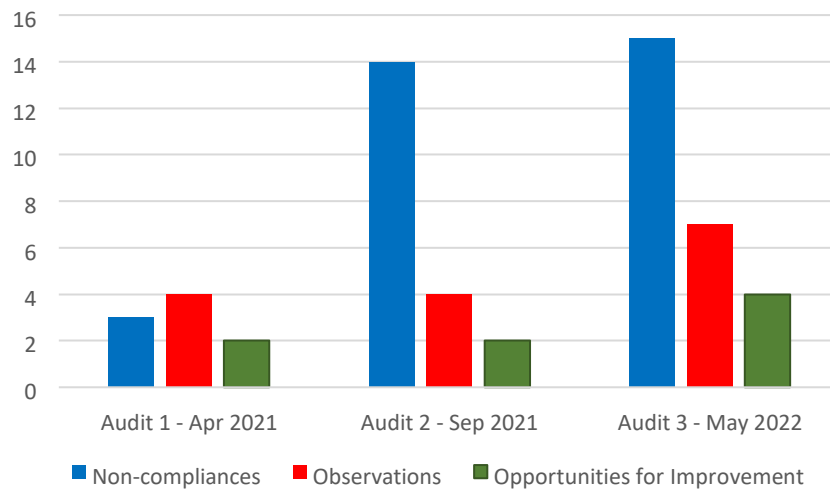


Figure 2 – Independent Environmental Audit non-compliance findings

It is concerning that a significant number of non-compliances remain outstanding more than fifteen months, or longer in some cases, after they were identified, with some not to be rectified for another year.

3.3.2 Multiple audit issues

Key criticisms of Snowy 2.0 project implementation in the latest IEA (see Annexure A) include:

- *The Non-Compliances and Observations from this audit and the findings that are still open from the previous audit can be grouped into the following main areas;*
 - *Failure to adequately address and close out previous IEA findings / corrective action processes;*
 - *Incident, non-compliance, traffic incident and event reporting / notification to authorities; ○ Biodiversity – Weeds control, weeds hygiene processes, feral animal control; ○ Submission of various Management Plans – NSW Approval and Commonwealth EPBC Approval; ○ Surrender of Exploratory Works Approval;*
 - *Commonwealth EPBC Approval - Annual Compliance Reporting and notification of biodiversity offset;*
 - *Environment Protection Licence (EPL) – publication of results of monitoring, submission of sixmonthly Environmental Monitoring Report and use of approved monitoring publication for monitoring the concentration of pollutants;*
 - *Provision of Natural Hazards Management Plan to agencies for annual review; ○ Waste minimisation, reuse and recycling maximisation (non-spoil related); ○ Chemicals Management – ongoing issue – 1 NC, 2 OBS; ○ Environmental Management, monitoring, reporting and access to information; ○ Transport and Traffic, public information relating to traffic, road upgrades.*
- *The provision of audit evidence by FGJV both during and after the on-site audit was problematic. During the audit, the availability of appropriate management and staff was less than anticipated due to their other commitments, and following the audit, clarifications and further evidence requested from the contractor were not provided in a timely manner.*

- *Public reporting of environmental performance and monitoring outcomes continued to be an issue.*
- *The Annual Compliance Report required by the Commonwealth EPBC Approval had not been prepared or submitted and is therefore non-compliant with the Commonwealth Conditions of Approval.*
- *The publication of the Environment Protection Licence monitoring data was significantly overdue.*
- *A number of Management Plans were required to be developed and submitted to the relevant authorities (DPIE / DPE and DAWE), however had yet not been submitted.*
- *During the site inspection at Tantangara, the Vehicle/Plant Hygiene Station (Wheel Wash Station to prevent the spread of Ox-eye daisy and other weeds) did not operate correctly.*
- *At this audit, a Traffic Incident Register had been developed and maintained, however the information captured and provided to the auditors is sparse and does not provide confidence that all relevant traffic incidents have been notified.*
- *The previous audit also identified that Quarterly Cumulative Summary Reports had not been prepared, submitted to SHL or uploaded to the project website. Whilst it appears that draft summary reports had been submitted to SHL, no summary reports had been uploaded to the project website. Traffic information on the project website was also substantially out of date at the time of the audit.*
- *The previous audit also identified that there was insufficient evidence to demonstrate that the roads and intersection upgrades had been carried out to the satisfaction of the roads authority (NPWS). The resolution of this issue was still a work in progress following the issue of a Show Cause letter from DPIE, providing SHL with an opportunity to make representations as to why the Department should not take formal enforcement action.*
- *Evidence was not provided to demonstrate that the program to monitor and publicly report on the surface water impacts of the development had been implemented.*
- *There was no evidence that the Natural Hazards Management Plan had been provided for comment to Local Emergency Management Committees, NSWRFES, NSWSES and NPWS in the last 12 months. The NHMP was last reviewed in Aug-20.*
- *The internal FGJV corrective action process is not effective to adequately address and satisfactorily close non-compliances and observations raised in the Independent Environmental Audits.*
- *Limited evidence could be provided to demonstrate that the processes described within the EMS were implemented to address and prevent recurrence of non-compliances and observations raised in the last two audits.*
- *The majority of actions assigned to FGJV have not been closed.*

Clearly, the CoA are not being complied with and the environmental performance of Snowy Hydro and its contractor is unacceptable.

4 Environmental monitoring

Snowy 2.0 is a massive project spread over four major construction sites across thirty five kilometres of Kosciuszko National Park. Two thousand workers are housed within three construction camps. Large tracts of the Park have been destroyed, with more to go. Hundreds of vehicle movements occur daily. Expenditure on the project is averaging around \$3 million per day. Industrial development of this scale in a National Park is unprecedented.

The scale and intensity of the development in a highly sensitive national park demands extremely careful monitoring by the NSW Government to ensure that environmental impacts are minimised to the greatest

possible extent. Unfortunately the repeated failures to comply with CoA and pollution incidents suggest that Government’s monitoring regime has been inadequate to protect Kosciuszko National Park.



Portion of accommodation at Lobs Hole –accommodation across Snowy 2.0 totals 2,000

4.1 NSW DPIE Monitoring

The Compliance tab of the [Planning Portal](#) lists the inspection dates by Department officers.

Eighteen on-site inspection dates are listed since June 2020, an average of a daily inspection every two months (i.e. six one-day visits a year). There is no record of the findings of the inspections.

4.2 NPWS Monitoring

We understand that the National Parks & Wildlife Service (NPWS) has two compliance staff located outside the Park who undertake inspections every week or so, and when called. Again, there is no record of the findings of the inspections.

4.3 EPA Monitoring

We are unaware of the extent of monitoring undertaken by the NSW Environment Protection Authority (EPA).

4.4 Two major pollution incidents

Though on 3 April 2023 the EPA issued a press release [‘Snowy Hydro & contractor fined \\$30,000 after two incidents in Kosciuszko National Park’](#), following the issue of a [Penalty Notice](#):

“The NSW EPA alleges inadequate sediment and erosion controls were established despite warnings by officers. As a result, a sediment plume stretched for more than two kilometres down Yarrangobilly River, and Nungar Creek was separately impacted by sediment laden water from roadworks at Tantangara.

The environment around these local waterways in the Kosciuszko National Park contains highly specialised plants, animals and micro-organisms and is home to a number of endangered species like the smoky mouse and the Alpine Tree Frog,” Ms Dwyer said.

“Actions like this can severely impact the environment not just now but for years to come and can be detrimental to many species.

These incidents simply should not have occurred. Every industry has a role to play in reducing their impact, but your role is even more critical when you're based in one of our state's most pristine environments."

It would appear that these incidents were the subject of a [Clean-up Notice](#) issued on 16 May 2022 for sediment into Middle Creek towards Talbingo Reservoir and a [Prevention Notice](#) issued on 21 October 2022 for inadequate pollution controls along roads near the Tantangara site, discharging sediment into Nungar Creek and other waterways.

What is even more damning about the first pollution incident is that the EPA became aware of the incident from a member of the public, not Snowy Hydro or FGJV, who are obliged under the CoA to provide such advice.

DPIE advised that Snowy Hydro is required to notify the department of incidents and non-compliances in accordance with the CoA and while there is no requirement for real time public reporting of such incidents, information relating to incidents and non-compliances are required to be published on the proponent's website as required by Schedule 4, Condition 12 of the approval.

No such information has been posted on the Snowy 2.0 website.

4.5 TBM Florence incident

One of three Snowy 2.0 tunnel boring machines (TBM), called Florence, is experiencing major problems with soft rock material, and has only excavated 150 metres since her commissioning fourteen months ago in March 2022. She is currently 'paused' under a nine metre deep 'surface depression' that occurred in December 2022.



'Surface depression' above Florence

The Snowy 2.0 Main Works EIS acknowledged that tunnelling would have surface and ground water impacts, but considered them to be insignificant even though streamflow drawdowns of up to 50 metres were predicted in some areas. There was no mention of the possibility of sinkholes or their potential for affecting Snowy catchments.

It is pleasing that NPWS and DPIE are taking this incident seriously, and putting tunnelling on hold until approval is given to continue, including an opportunity for community feedback:

“As you can imagine this is quite a fluid process of understanding how and why this occurred, what is to be done to rectify the issue and how we can be assured this will not occur in the future or that no further impacts occur on park.” (NPWS, 8 Jan 2023)

“Snowy Hydro must prepare a modification report that demonstrates how the project can safely progress without further environmental damage. Tunnel boring at the Tantangara location is on hold until the Department gives approval for operations to continue.” (DPIE, 11 May 2023)

It is understood that Snowy Hydro expects to submit its report [within a week](#).

4.6 Monitoring must be improved

The requirement for Snowy 2.0 to report on avoiding further environmental damage from tunnelling and the two EPA fines are the only evidence of a NSW authority taking action to ensure the CoA are being enforced. (Though a \$30,000 fine is insignificant for a \$10 billion project.)

A project of this magnitude and in such an environmentally sensitive location requires continuous, rigorous scrutiny against well-established performance benchmarks. Those benchmarks were meant to be set by the detailed environmental management plans required by the CoA. The failure to finalise most of those Plans severely undermines the NSW and Commonwealth Governments’ ability to regulate the environmental performance of Snowy Hydro and its contractors.

A well-resourced, full-time team of experienced team of compliance and audit is essential at all work sites. Their costs should be recompensed by the developer.

More rigorous monitoring is necessary given the poor environmental performance of Snowy Hydro and its contractor to date. The adverse findings of the IEA demonstrate that compliance inspection resourcing is insufficient.

Annexure A – Extracts from Independent Environmental Audit No.3, 13 May 2022

EXECUTIVE SUMMARY

A third (annual) Independent Environmental Audit (IEA) was conducted of the Snowy 2.0 Main Works Project in January / February 2022. 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.

As noted in the previous IEA reports, due to the sensitive location and scale of the Snowy 2.0 project, Snowy Hydro Limited (SHL) determined that IEAs are to be undertaken at a greater frequency than provided by Schedule 4 Condition 9 of the Main Works approval (after one year, then every 3 years). The agreed audit frequency is an initial audit within 12 weeks of commencement of construction and thence, every 26 weeks. This third audit was conducted just over 26 weeks after the second audit.

This IEA was conducted as an “Annual” audit, and as such, covered the full scope of the project in accordance with the IAP, including all relevant NSW Conditions of Consent, the project Environment Protection Licence (EPL) and all relevant Commonwealth conditions under the Environmental Protection and Biodiversity Conservation (EPBC) Act. The audit generally covered the period July 2021 to January 2022, with expanded timeframes for EPBC and EPL requirements.

The scope of the audit included site visits to all active areas of the project, a follow-up on noncompliances and other findings from Audit #2; management plans and associated systems and processes identified as priority areas; activities relevant to the current phase of the development; and areas of focus identified by the agencies / key stakeholders during the pre-audit consultation process.

Areas of strength identified during the audit included wildlife underpasses almost complete; improved retention of felled habitat trees; adequate erosion and sediment controls including stabilisation, clean and dirty water diversion and separation; installation of fish “windows” at watercourse crossings; and tunnel spoil management and tracking.

This audit identified a number of areas of Non-Compliance (NCs). Observations (OBSs) and Opportunities for Improvement (OFIs) have also been raised for action and consideration. In summary: Twenty-six (26) findings were raised at this audit, comprising:

- Fifteen (15) NCs;
- Seven (7) OBSs; and
- Four (4) OFIs

The **previous audit findings** were followed-up and it was found that **a significant number had not been adequately addressed**, and as such remain open and still require corrective action and closure.

It is noted that the responsibility for actioning the majority of open findings lies with the contractor, Future Generation Joint Venture (FGJV). In summary:

Fourteen (14) non-compliances (NC), four (4) Observations (OBS) and two (2) Opportunities for Improvement (OFI) were raised at the **previous audit**. Of those:

- Eight (8) NCs and three (3) OBSs remain open;
- Two (2) NCs were closed or partially closed, with new related non-compliance(s) raised; and
- Four (4) NCs, one (1) OBS and two (2) OFIs were addressed and closed;

As the FGJV corrective action process is ineffective to adequately respond to IEA findings, an Action Plan has been prepared by the audit team, detailing all open findings from IEA#2 and all findings from this audit (IEA#3) with agreed actions. It is expected that FGJV (and Snowy Hydro) will use this Action Plan to document all actions taken to address the findings.

Agreed FGJV actions include keeping the Action Plan up to date, providing regular updates on the progress to address the actions to SHL through monthly compliance meetings, and participation in an internal follow-up audit (by Snowy Hydro) by 30 July 2022 to monitor progress and close-out completed actions.

The Non-Compliances and Observations from this audit and the findings that are still open from the previous audit can be grouped into the following main areas;

- Failure to adequately address and close out previous IEA findings / corrective action processes;
- Incident, non-compliance, traffic incident and event reporting / notification to authorities;
- Biodiversity – Weeds control, weeds hygiene processes, feral animal control;
- Submission of various Management Plans – NSW Approval and Commonwealth EPBC Approval;
- Surrender of Exploratory Works Approval;
- Commonwealth EPBC Approval - Annual Compliance Reporting and notification of biodiversity offset;
- Environment Protection Licence (EPL) – publication of results of monitoring, submission of sixmonthly Environmental Monitoring Report and use of approved monitoring publication for monitoring the concentration of pollutants;
- Provision of Natural Hazards Management Plan to agencies for annual review;
- Waste minimisation, reuse and recycling maximisation (non-spoil related);
- Chemicals Management – ongoing issue – 1 NC, 2 OBS;
- Environmental Management, monitoring, reporting and access to information;
- Transport and Traffic, public information relating to traffic, road upgrades.

The Auditees were cooperative throughout the audit process, however non-timely provision of requested evidence by the construction contractor (FGJV) impacted on the timeliness of this IEA report. The Auditor would like to thank all participants for their cooperation and assistance.

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In September 2020, Snowy Hydro proposed to the Department, an IEA program for the first two years, setting out the audit frequency, with the initial audit to be conducted within 12 weeks of the commencement of “Construction”, and subsequent audits scheduled at intervals of 26 weeks from the date of the initial audit. DPIE reviewed and approved the IEA Program on 28 September 2020. The initial audit was conducted in January 2021, the second audit was conducted in July 2021. This audit is the third construction phase IEA and was conducted in January / February 2022.

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1.6. List of Approvals and Documents Audited

- Main Works Approval CSSI 9687 Schedules 1 to 4 and relevant appendices;
- Snowy 2.0 Min Works NSE (EPBC 2018/8322) Parts A & B and relevant appendices;
- Environment Protection Licence 21266;
- Snowy 2.0 Main Works – Environmental Management Strategy Rev I 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 – Surface Water Trigger Action Response Plan 2 19/09/2020 Rev F

- (Annexure B to Surface Water Management Plan);
- Snowy 2.0 Main Works – Groundwater Water Management Plan Rev G 15/10/2020 (FGJV);
- Snowy 2.0 Main Works – Aquatic Habitat Management Plan Rev F 16/02/2021 (FGJV);
- Snowy 2.0 Main Works – Spoil Management Plan Rev G 11/08/2020 (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 03/08/2020 (FGJV);
- Snowy 2.0 Main Works – Construction Noise Management Plan – Rock Forest Rev E, 02/12/2020 (FGJV);
- Snowy 2.0 Main Works – Natural Hazards Management Plan Rev C 04/08/2020 (FGJV);

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Approval was granted by the Minister for Planning and Public Spaces (formerly Minister for Planning) on 20 May 2020.

The Snowy 2.0 Main Works project was approved with Conditions of Approval by DAWE on 29 June 2020.

Construction works for Main Works commenced on 21 October 2020.

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AUDIT PROCESS AND METHODOLOGY

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

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National Parks and Wildlife Service:

An email was sent to NPWS on 13 December 2021 with the same list of proposed areas of scope that was sent to DPIE (see above) requesting input to the scope of the audit. NPWS responded with a phone call, noting that the Biodiversity Conservation division should be contacted regarding joint concerns on weed and pest control. The discussion was followed up by an email on 15 December 2021. Their concerns were as follows:

- The issue previously identified in relation to reporting of non-compliances and incidents appears to be unresolved. The interpretation of what an incident and or non-compliance by the project is not in accordance with expectation of NPWS as a major stakeholder and regulator;
- Reporting of overtopping of sediment basins as per the Surface Water MP continues to be inconsistent;
- There appears to be a missing link in the chain between commitments in various Management Plans and design and procedures. Issues relating to spoil management during Tantangara road works and water quality monitoring on Trunk services installation have not been incorporated and missed during execution of works;
- Public information on websites relating to traffic continues to be out of date or missing. The traffic information is currently for the beginning of October;
- Parking on the public road network has continued to be an issue and regularly raised with SHL and FGJV;
- NPWS request a review of all the agreed actions and due dates from previous audits be conducted.

In a follow-up email dated 7 January 2022, it was also requested that the Natural Hazard Management Plan be included in the review, particularly the annual review components as outlined in Section 7.3.

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The provision of audit evidence by FGJV both during and after the on-site audit was problematic. During the audit, the availability of appropriate management and staff was less than anticipated due to their other commitments, and following the audit, clarifications and further evidence requested from the contractor were not provided in a timely manner.

4.1.2. Environmental Management, Incidents, Monitoring, Reporting, Access to Information

Overall, the reporting and notification of incidents, non-compliances, overtopping events and traffic incidents was somewhat improved from the previous audit, however insufficient evidence was provided to give confidence that all required notifications and reports were provided to the appropriate regulatory authorities. Three (3) non-compliances were raised / remain open in this area.

Public reporting of environmental performance and monitoring outcomes continued to be an issue, with the Quarterly Environmental Water Reports and the Quarterly Cumulative Traffic Summary Reports required by the NSW Approval still not issued or made publicly available.

The Annual Compliance Report required by the Commonwealth EPBC Approval had not been prepared or submitted and is therefore non-compliant with the Commonwealth Conditions of Approval.

An Observation was raised regarding the submission of an Annual Report on biodiversity (refer to Biodiversity section).

The publication of the Environment Protection Licence monitoring data was significantly overdue. The POEO Act requires that monitoring data be uploaded within 14 days, and at the time of the audit, the latest data was current up to August 2021.

The Exploratory Works approval had not been surrendered within required timeframes as this is dependent on the submission of further Management Plans

A number of Management Plans were required to be developed and submitted to the relevant authorities (DPIE / DPE and DAWE), however had yet not been submitted. In summary, the Visual Impact Management Plan and the Recreation Management Plans had not been submitted within the required timeframes. The Digital Strategy had been submitted (prior to previous audit), however DPIE have indicated that further information is required to be included in the strategy before being accepted.

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At Tantangara in particular, it was noted that brumbies occasionally damage fences and ropes, and trample soil stockpiles and established boundary markers.

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4.1.6. Groundwater / Groundwater Dependent Ecosystems

Water Licences are in place for the project, and water take is monitored.

At the time of the audit, tunnelling was being undertaken only at the Main Access Tunnel (MAT) at Lobs Hole (approximately 1200m of tunnelling completed) and the ECVT (approximately 100 - 200m of tunnelling completed).

The areas of higher predicted inflows and drawdown areas had not yet been encountered, and groundwater level monitoring had not indicated any project related drawdown to date. It is expected

that drawdown would commence from the beginning of tunnelling at Tantangara - this could potentially commence by May 2022. It is also expected that the area under Nungar Creek may be encountered by around October 2022 (tunnelling from Tantangara). In summary, there has been no measured groundwater drawdown to date, and would be re-assessed at future audits.

It was advised that a probe is drilled at least 24m ahead of the cutter head to determine inflow rates, which is compared with trigger levels. Pre-grouting and post-grouting would be undertaken where triggers are exceeded. To date, there have been no triggers to undertake pre-or post-grouting.

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Non-Acid Forming (NAF) material goes into the Western Emplacement Area and for re-use on site (e.g. paths, road, pads, parking areas). Potentially Acid Forming (PAF) material is currently taken to the HOLCIM Pad and Stage 5. The intention is to treat all PAF as much as possible. A Contingency Plan (GF01) is still under review by DPIE.

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During the site inspection at Tantangara, the Vehicle/Plant Hygiene Station (Wheel Wash Station to prevent the spread of Ox-eye daisy and other weeds) did not operate correctly. It appears that the system had run out of water due to a pump malfunction (refer to Observation 2).

4.1.9. Transport and Traffic Management, Road Upgrades, Incidents

The previous IEA identified that insufficient evidence was provided to demonstrate that all traffic incidents that required notification were notified to the appropriate authorities. At this audit, a Traffic Incident Register had been developed and maintained, however the information captured and provided to the auditors is sparse and does not provide confidence that all relevant traffic incidents have been notified.

The previous audit also identified that Quarterly Cumulative Summary Reports had not been prepared, submitted to SHL or uploaded to the project website. Whilst it appears that draft summary reports had been submitted to SHL, no summary reports had been uploaded to the project website. Traffic information on the project website was also substantially out of date at the time of the audit.

The previous audit also identified that there was insufficient evidence to demonstrate that the roads and intersection upgrades had been carried out to the satisfaction of the roads authority (NPWS). The resolution of this issue was still a work in progress following the issue of a Show Cause letter from DPIE, providing SHL with an opportunity to make representations as to why the Department should not take formal enforcement action.

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At the time of the audit, public information on the FGJV website (link from Snowy Hydro website) relating to traffic was considerably out of date, and was updated around the time of commencement of the audit.

Page 132

Findings have been raised at the past two IEAs regarding management of weeds. Issues were initially raised as an Observation at IEA#1, and was escalated to non-compliance at IEA#2.

Page 148

Preparation and publication of plans

The Threatened Fish MP NSW Cond 24 had not been submitted within the 12 months from construction commencement timeframe as required. Whilst the NSW Department of Primary Industry (DPI) endorsed

a request to extend the timeframe for submission in their letter dated 15 September 2021, DPIE determined in their letter dated 6 December 2021 that the late submission of the Threatened Fish MP be recorded as a breach, and is therefore determined as non-compliant to this condition

Page 149

Annual compliance reporting

An EPBC Annual Compliance Report had not been prepared or published on the website within the required timeframe of this condition. Action required: Prepare and submit the EPBC Annual Compliance Report as required by this condition,

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Threatened Fish Management Plan

The letter from the DPI Director General (DG) noted that given the considerations outlined in the letter, the proposal to request an extension from the Department of Planning, Industry and Environment is endorsed.

The DPI DG noted that delaying the submission of these plans by a matter of months as proposed, will not increase the risk to the aquatic environment because the project is still in the early phase of construction and will not be completed for some years.

The letter from DPIE dated 6 December 2021 noted that the Department had assessed the noncompliances in accordance with the Compliance Policy and that **in this instance has determined to record the breaches in their system**. Due to DPIE determining the late submission of the Threatened Fish Management Plan as a breach, it is determined that the proponent is non-compliant with this condition.

Page 165

Evidence was not provided to demonstrate that the program to monitor and publicly report on the surface water impacts of the development had been implemented as required by Condition 31 (c). Specifically:

- Environmental Water Reports had not been prepared and reported to Snowy Hydro and other agencies on a quarterly basis as detailed in the Water Management plan; and
- Environmental Water Reports had not been made publicly available.

A non-compliance (NC 5) was raised at the last audit. Two of the outstanding draft Quarterly Environmental Water Reports had been completed by FGJV and issued to Snowy Hydro, however none have yet been finalised or uploaded to the project website. (remains open). Two further Quarterly Environmental Reports had not yet been completed or issued to Snowy Hydro (Quarter 3 and 4 2021).

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Recreation Management Plan

The Recreation MP had not been prepared or submitted to the relevant agencies (Relevant agency: NSW Planning Secretary - DPIE) within the nominated time frames. It is noted that an extension of time was requested by SHL to DPI and DPIE for submission of these Plans. A letter from DPIE dated 6/12/2021 noted that SHL has been liaising with the relevant agencies to progress these with a schedule to have them submitted by April 2022. DPIE assessed these non-compliances and determined that the breaches will be recorded in their system.

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Visual Impact Management Plan

At the time of the audit, the Visual Impact Management Plan (VIMP) was in "for review" status and had been updated based on SHL and NPWS comments. The VIMP had not yet been issued to the Planning Secretary. Construction commenced in October 2020, therefore the timeframe for the preparation and submission of the VIMP was not met.

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NATURAL HAZARDS MANAGEMENT PLAN

There was no evidence that the NHMP had been provided for comment to Local Emergency Management Committees, NSWRFSS, NSWSES and NPWS in the last 12 months. The NHMP was last reviewed in Aug-20.

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ENVIRONMENTAL MANAGEMENT STRATEGY

The internal FGJV corrective action process is not effective to adequately address and satisfactorily close non-compliances and observations raised in the Independent Environmental Audits.

Limited evidence could be provided to demonstrate that the processes described within the EMS were implemented to address and prevent recurrence of non-compliances and observations raised in the last two audits.

The follow-up of previous findings found that a significant number had not been adequately addressed. Fourteen (14) non-compliances (NC), four (4) Observations (OBS) and two (2) Opportunities for Improvement (OFI) were raised at the previous audit. Of those, eight (8) NCs and three (3) OBSs remain open and require further action to complete and close out

A review of the SHL Aconex corrective actions export document found that most issues raised at the last audit were still in open status (16) or "ready to inspect" (5 – partially addressed but not closed / verified). One finding had been formally closed.

The majority of actions assigned to FGJV have not been closed. Refer to the Follow-up of Audit Findings Table for full details of the status of non-compliances and other findings.

Annexure B – Conditions of Approval associated with Fish Management

B1 Extracts from NSW CoA

Biosecurity and Fish Management Requirements 20.

The Proponent must:

- 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.

Fish Screens and Barrier

21. Prior to the commencement of commissioning, the Proponent must install:

- 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.

Biosecurity Risk Management Plan

22. 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:

- a. be prepared by a suitably qualified and experienced person in consultation with DPIE, NPWS and DAWE;
- b. include a detailed biosecurity risk management framework for minimising the ongoing biosecurity risks of the development required in condition 20(a) above, including:
 - 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;
- c. include detailed plans for the installation and use of the fish screens and barriers required in condition 21 above, including:
 - 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; (d) include a program to monitor, evaluate and publicly report on these plans, including:
 - carrying out monitoring using epidemiologically designed surveys; and
 - conducting fish, disease and eDNA surveys.

23. The Proponent must implement the approved Biosecurity Risk Management Plan for the development.

Threatened Fish Management Plan

24. 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.

This plan must:

- 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:
 - 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
- 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;
- f. include a program to minimise the impacts of the development on the Murray Crayfish in Talbingo Reservoir, including:
 - 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
- g. include a program to monitor and publicly report on the progress of each program/plan and the effectiveness of these measures.

25. The Proponent must implement the approved Threatened Fish Management Plan for the development.

Recreational Fishing Management Plan

24. 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. This plan must:

- (a) be prepared by a suitably qualified and experienced person in consultation with DPIE, NPWS and relevant recreational fishing groups;
- (b) describe the detailed measures that would be implemented to comply with condition 20(c) above, including:
 - 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;
 - 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;

(c) include a program to monitor and publicly report on the effectiveness of these measures.

25. The Proponent must implement the approved Recreational Fishing Management Plan for the development.

B2 Extracts from Commonwealth CoA

Aquatic ecology and biosecurity

12. To minimise impacts to the aquatic environment, the **approval holder** must comply with conditions 20--25 of the **NSW approval** relating to biosecurity and fish management.

13. To minimise potential impacts of pest fish movement on **protected matters**, the **approval holder** must, in addition to conditions 22c and 24d of the **NSW approval**:

- a. investigate **reasonable** measures, including the installation of secondary fish barriers, to protect tributaries identified as priority receiving sites for the establishment of stocking insurance populations of the **Macquarie Perch** and **Stocky Galaxias**;
- b. include the findings of the investigation in the Biosecurity Risk Management Plan required by condition 22 of the **NSW approval**, and the Threatened Fish Management Plan required by condition 24 of the **NSW approval**; and
- c. before undertaking any stocking of insurance populations required by condition 24d of the **NSW approval**, implement those measures determined under condition 13a to protect tributaries identified as priority receiving sites for the establishment of stocking insurance populations of the **Macquarie Perch** and **Stocky Galaxias**.

14. The Biosecurity Risk Management Plan required by condition 22 of the **NSW approval**, and the Threatened Fish Management Plan required by condition 24 of the **NSW approval**, must be peer reviewed by an **independent, suitably-qualified expert/s** approved by the **Department**.

- a. The peer review must be made publicly available on the **approval holder's website** within 10 **business days** of finalisation; and
- b. The peer review must be undertaken prior to approval of the Biosecurity Risk Management Plan and Threatened Fish Management Plan by the Director-General of the NSW Department of Primary Industries.

15. The Biosecurity Risk Management Plan and the Threatened Fish Management Plan must include provisions to make **monitoring data** (excluding **sensitive ecological data**) available as part of the monitoring, evaluation and reporting programs required by condition 22d and 24g of the **NSW approval**.

16. The **approval holder** must implement the Biosecurity Risk Management Plan and Threatened Fish Management Plan approved by the Director-General of the NSW Department of Primary Industries until the end date of this approval, unless otherwise agreed by the **Minister** in writing.

Annexure C - Extracts from Annual EPBC Compliance Report

Compliance Report - Snowy 2.0 Main Works - EPBC 2018/8322
Reporting period 25 August 2020 - 24 August 2021

	<p>Biosecurity Risk Management Plan required by condition 22 of the NSW approval, and the Threatened Fish Management Plan required by condition 24 of the NSW approval; and</p> <p>(c) before undertaking any stocking of insurance populations required by condition 24d of the NSW approval, implement those measures determined under condition 13a to protect tributaries identified as priority receiving sites for the establishment of stocking insurance populations of the Macquarie Perch and Stocky Galaxias.</p>		
14	<p>The Biosecurity Risk Management Plan required by condition 22 of the NSW approval, and the Threatened Fish Management Plan required by condition 24 of the NSW approval, must be peer reviewed by an independent, suitably-qualified expert/s approved by the Department.</p> <p>(a) The peer review must be made publicly available on the approval holder's website within 10 business days of finalisation; and</p> <p>(b) The peer review must be undertaken prior to approval of the Biosecurity Risk Management Plan and Threatened Fish Management Plan by the Director-General of the NSW Department of Primary Industries.</p>	Not applicable	The condition was not triggered in the reporting period.
15	<p>The Biosecurity Risk Management Plan and the Threatened Fish Management Plan must include provisions to make monitoring data (excluding sensitive ecological data) available as part of the monitoring, evaluation and reporting programs required by condition 22d and 24g of the NSW</p>	Not applicable	The condition was not triggered in the reporting period.

	approval.		
16	The approval holder must implement the Biosecurity Risk Management Plan and Threatened Fish Management Plan approved by the Director-General of the NSW Department of Primary Industries until the end date of this approval, unless otherwise agreed by the Minister in writing.	Not applicable	The condition was not triggered in the reporting period.

[Snowy 2.0 Main Works Annual EPBC Compliance Report EPBC 2018/8322, reporting period 25 August 2021 to 24 August 2022](#)