

Snowy 2.0 Biosecurity Risk Management Plan

2025/2026 Annual Report

August 2026



Executive Summary

This 2025/2026 Annual Report details the implementation and outcomes of the Snowy 2.0 Biosecurity Risk Management Plan (BRMP) during the 2025/2026 financial year. Throughout the reporting period, Snowy Hydro achieved full compliance with all BRMP requirements.

The Pest Fish and Disease Surveillance Programs were successfully executed during the reporting period. The surveillance activities did not detect any changes to target pest distributions, and did not detect EHNV within the Tantangara Reservoir salmonid population.

Operational progress continued with the ongoing performance of the Tantangara Creek Barrier and the advancement of the Tantangara Fish Screen design.

These efforts, integrated with the Threatened Fish Management Plan (TFMP) and Recreational Fishing Management Plan (RFMP), reinforce Snowy Hydro's commitment to effective biosecurity and environmental mitigation for the Snowy 2.0 project.

Acronyms and definitions

Approval	Infrastructure Approval for Snowy 2.0 Main Works issued under Section 5.19 of the Environmental Planning and Assessment Act 1979 (Dated: 20th May 2020) (SSI 9687)
Biosecurity Act	<i>Biosecurity Act 2015 (NSW)</i>
Biosecurity Regulation	<i>Biosecurity Regulation 2017 (NSW)</i>
BRMP	Biosecurity Risk Management Plan
CSSI	Critical State Significant Infrastructure
Dam	A physical structure to hold back water and raise its level, forming a reservoir of water
DAWE	Department of Agriculture Water and the Environment, now Department of Climate Change, Energy, the Environment and Water (DCCEEW)
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water (formerly the Department of Agriculture Water and the Environment (DAWE))
DPE	NSW Department of Planning and Environment (formerly Department of Planning, Industry and Environment (DPIE) and now Department of Planning, Housing and Infrastructure)
DPHI	Department of Planning, Housing and Infrastructure (formerly DPIE and DPE)
DPIRD	NSW Department of Primary Industries and Regional Development, formerly NSW Department of Primary Industries (DPI), formerly part of the Department of Planning, Industry and Environment at the time of project consent
DPIE	Department of Planning, Industry and Environment, now known as Department of Planning, Housing and Infrastructure (DPHI) and the Department of Energy the Environment, Climate Change and Water (DEECCW)
eDNA	Environmental DNA
EHNV	Epizootic Haematopoietic Necrosis Virus
EIS	Snowy Hydro's Environmental Impact Statement for Snowy 2.0 Main Works (EMM, 2019)
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i>
FM Act	<i>Fisheries Management Act 1994 (NSW)</i>
KNP	Kosciuszko National Park
M-E Tunnel	Murrumbidgee-Eucumbene Tunnel. A tunnel used to send water from Tantangara Reservoir to Lake Eucumbene
NPWS	National Parks and Wildlife Service
NSW	New South Wales
Pre-Connection	The period of time before Talbingo and Tantangara Reservoirs are hydrologically linked in an upstream direction via Snowy 2.0
PHES	Pumped Hydroelectric Station (Snowy 2.0)
Post-Connection	The period of time after Talbingo and Tantangara Reservoirs are hydrologically linked in an upstream direction via Snowy 2.0
Reservoir	The impoundment of water behind a dam

ROW	River Outlet Works
RtS	Response to Submissions for the Snowy 2.0 Main Works EIS (EMM, 2020)
Snowy 2.0	A PHES that will link the existing Tantangara and Talbingo reservoirs via a new underground tunnel
RFMP	Recreational Fishing Management Plan
TFMP	Threatened Fish Management Plan

Table of Contents

Executive Summary	2
Acronyms and definitions	3
Table of Contents	5
1. Introduction	6
1.1 Snowy 2.0 Project Overview	6
1.2 Snowy 2.0 Project Approval	6
1.3 Biosecurity Risk Management Plan Background	7
1.4 BRMP Implementation	7
1.5 BRMP Annual Report Requirements	7
2. Surveillance Catchments	8
3. Aquatic Assets	8
3.1 Current Distribution	8
4. Pest Fish Surveillance	10
4.1 Surveillance Objective	10
4.2 Surveillance Overview	11
4.3 Surveillance Results	11
4.4 2026/2027 Surveillance Plan	12
5. Disease Surveillance and Management	12
5.1 Surveillance Objective	12
5.2 Surveillance Overview	13
5.3 Surveillance Results	13
5.4 2026/2027 Surveillance Plan	13
6. Tantangara Creek Barrier	13
6.1 Activity during the reporting period	13
7. Tantangara Fish Screens	14
7.1 Activity during the reporting period	14
8. Tantangara Reservoir Spill Management	14
9. Additional Barriers	14
10. Conclusion	15
11. References	16
Appendix A - Environmental DNA Pest Fish Monitoring report	
Appendix B - Snowy 2.0 Fish Sampling and Collection Report 2026	
Appendix C - EHNv and Lernaean Result Summary	

Please cite this report as:

Snowy Hydro Limited (2026) Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report.
Report prepared by Snowy Hydro Limited. August 2026. Available at: www.snowyhydro.com.au.

1. Introduction

The objective of the Snowy 2.0 Biosecurity Risk Management Plan (BRMP) is to minimise the aquatic biosecurity risks associated with the development, including the movement and/or spread of pests and pathogens. The current plan (Revision A) was endorsed by the NSW Department of Primary Industries and Regional Development (DPIRD) Deputy Secretary Agriculture and Biosecurity, Rachel Connell on the 25th of October 2024.

This Report provides an update of all activities associated with the BRMP undertaken in the 2025/2026 financial year. This is the second Annual Report prepared under the BRMP for Snowy 2.0 Main Works.

Full compliance with the requirements of the BRMP was achieved during the reporting period.

Key components of the report include:

- Outcomes from the Pest Fish Surveillance Program;
- Outcomes from the Disease Surveillance Program; and
- Details on compliance and progress on other aspects of the plan.

The BRMP, alongside the associated Threatened Fish Management Plan (TFMP) and Recreational Fishing Management Plan (RFMP), demonstrate Snowy Hydro's commitment to minimising the potential impacts of the project on biosecurity and fish. They will underpin the NSW Department of Primary Industries and Regional Development (DPIRD) consideration of necessary instruments under the *Biosecurity Act 2015* (NSW) that will be issued prior to the operation of the Snowy 2.0 Pumped Hydro-electric Power Station (PHES).

1.1 Snowy 2.0 Project Overview

Snowy Hydro owns, manages and maintains the Snowy Mountains Hydroelectric Scheme (the Snowy Scheme). The Snowy Scheme currently includes 16 major dams, nine power stations, one pumped power station, 145 km of interconnected tunnels and pipelines, and 80 km of aqueducts. The Snowy Scheme, principally located within the Kosciuszko National Park (KNP), is one of the largest and most complex hydroelectric schemes in the world.

Snowy 2.0 is the pumped hydro-electric expansion of the Snowy Scheme. It will link the existing Tantangara and Talbingo reservoirs via a new underground tunnel and a PHES. Snowy 2.0 will provide an additional 2,200 MW of dispatchable generating capacity, along with approximately 350,000 MWh of large-scale energy storage that will be available on demand as quick-start electricity generation at critical times of peak demand.

For more than 70 years, Snowy Hydro has responsibly operated the Snowy Scheme within KNP. Snowy Hydro is committed to avoiding and minimising potential impacts from Snowy 2.0, including biosecurity, as they do for the existing business.

1.2 Snowy 2.0 Project Approval

This project was designated Critical State Significant Infrastructure (CSSI 9687) and assessed under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Under sections 5.23 and 5.24 of the EP&A Act, certain separate approvals and licences are not required. The project was

approved by the NSW Minister for Planning and Public Spaces under Section 5.19 of the EP&A Act on the 20th of May 2020.

A referral (EPBC 2018/8322) was also prepared and lodged with the Federal Minister for the Environment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the proposal was subsequently determined to be a controlled action under that Act. The project was approved by the Department of Agriculture Water and the Environment (DAWE), now the Department of Climate Change, Energy, the Environment and Water (DCCEEW) under sections 130(1) and 133(1) of the EPBC Act on the 29th of June 2020.

Full details of the Project Approval and supporting information can be found at:

<https://www.planningportal.nsw.gov.au/major-projects/project/12891>

1.3 Biosecurity Risk Management Plan Background

The BRMP and the management measures described within represent the key measures for Snowy Hydro to minimise the biosecurity risks associated with Snowy 2.0, including the movement and/or spread of weeds, pests and pathogens. In addition to the TFMP and RFMP, it is also a key measure to minimise the impact of the development on threatened fish species and their habitat, particularly the Macquarie Perch (*Macquaria australasica*), and Stocky Galaxias (*Galaxias tantangara*) and minimise the impact of the development on recreational fishing in Lake Eucumbene. The three management plans are closely linked and have been designed in concert to avoid and minimise the potential aquatic and biosecurity impacts of Snowy 2.0.

1.4 BRMP Implementation

Snowy Hydro is responsible for the implementation of activities to be undertaken as part of the BRMP for the life of the development. Under the EPBC approval, the BRMP must be implemented until the end date of the approval (31 December 2140) unless otherwise agreed by the Commonwealth Minister¹ in writing.

Works to be undertaken as part of the BRMP will be informed by the outcomes of previous studies and based upon the requirements to successfully achieve the objectives of the BRMP.

1.5 BRMP Annual Report Requirements

In accordance with Section 7 of the Biosecurity Risk Management Plan (Rev. A), this report has been prepared to satisfy the requirement for annual reporting. That requirement is as follows:

Each year, by 31 August, or as otherwise advised to NSW DPIRD in writing, Snowy Hydro will publish an Annual Report detailing the monitoring data (excluding sensitive ecological data) and outcomes from surveillance and management activities undertaken as part of this Plan.

Where relevant, the Annual Report will also include planned deviations from the surveillance activities detailed in Appendix E and F of the BRMP for subsequent years as well as any deviations that occurred in the previous year.

¹ Minister means the Australian Government Minister administering the EPBC Act including any delegate thereof.

Once finalised, this report will be publicly available via Snowy Hydro's website (www.snowyhydro.com.au).

2. Surveillance Catchments

The pest fish and disease surveillance activities and management measures referred to in this BRMP Annual Report have occurred within the following catchments (surveillance catchments) (Figure 1):

1. Tantangara Reservoir
2. Upper Murrumbidgee Catchment (including Tantangara Creek)
3. Mid-Murrumbidgee catchment
4. Lake Eucumbene
5. Talbingo Reservoir.

3. Aquatic Assets

The key aim of the pest fish and disease surveillance programs in the BRMP are to identify if a pest fish or disease incursion occurs within an area of habitat of threatened species or recreationally important salmonids, where they are not already present. For the program, the key aquatic assets include:

- Stocky Galaxias
- Macquarie Perch
- Salmonids.²

3.1 Current Distribution

The known distribution of the aquatic assets within the surveillance catchments as of August 2026 is provided in Table 1. A table of the distribution of all fish species in the surveillance catchments and surrounding areas as at 2019 was provided in the EIS and is replicated in Appendix D of the BRMP (Cardno, 2019).

² Note: Whilst salmonids are a recreational fishing asset, they are also an invasive species with the potential to severely impact native freshwater species, including the Stocky Galaxias and the Macquarie Perch. Salmonids are recorded as a threatening (and limiting) species in the Conservation Advices of both the Stocky Galaxias and the Macquarie Perch.

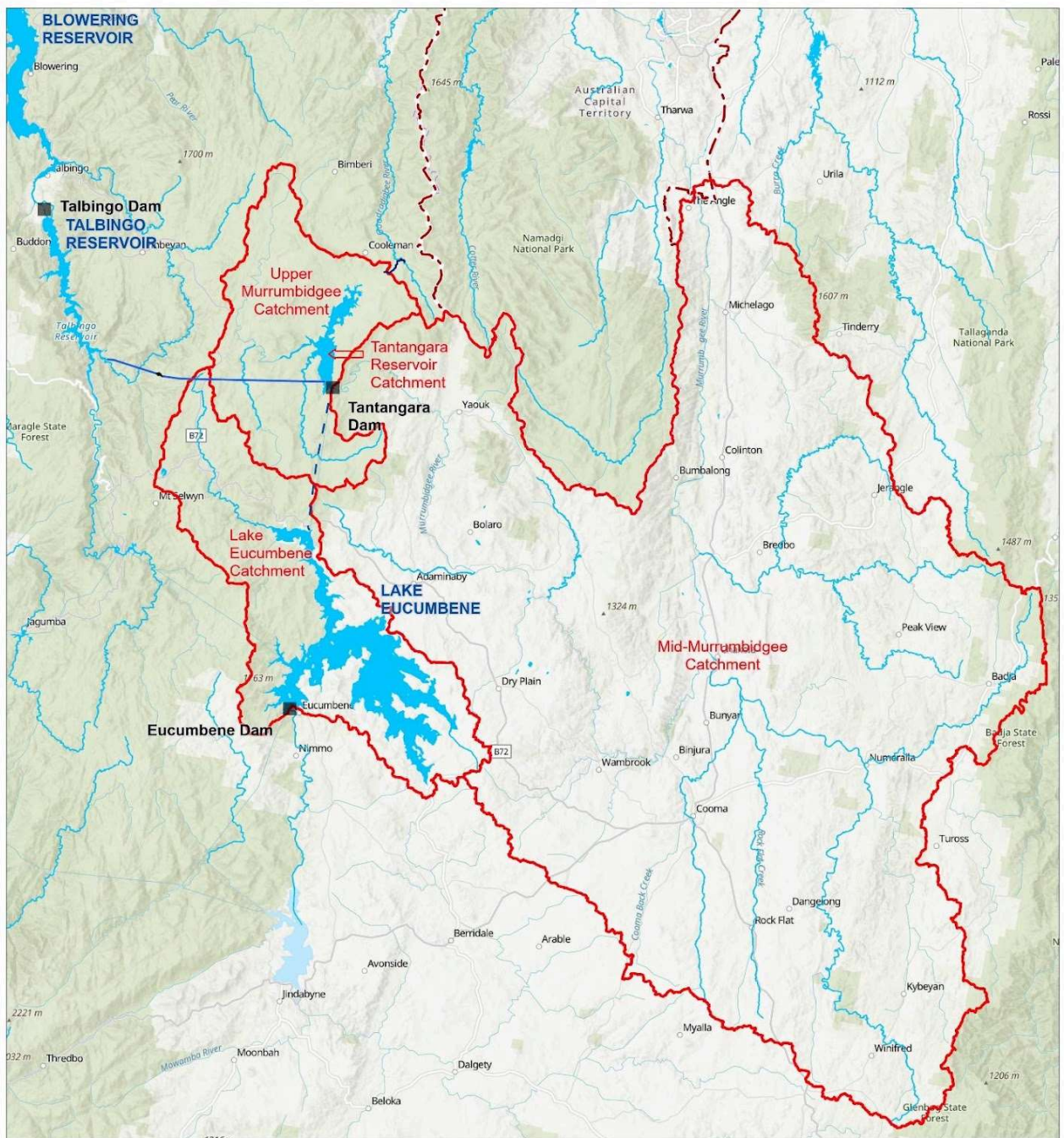


Figure 1: Overview of surveillance catchments

Table 1: Known distribution of aquatic assets within the surveillance catchments

	Talbingo Reservoir	Tantangara Reservoir	Upper Murrumbidgee catchment	Upper Tantangara Creek	Mid Murrumbidgee River	Lake Eucumbene
Stocky Galaxias	-	-		Present*	-	-
Macquarie Perch	-	-	-	-	Present	-
Salmonids	Present	Present	Present	-	Present	Present

* Stocky Galaxias are currently only known to occur in Upper Tantangara Creek (part of the Upper Murrumbidgee catchment), above the Tantangara Creek Waterfall where salmonids are absent and in Sally Flat Creek, a tributary of the Goodradigbee River. (Lintermans and Allan, 2025)

- Not detected.

4. Pest Fish Surveillance

All requirements for physical pest fish surveillance under the BRMP Pest Fish Surveillance Program (Appendix E of the BRMP) prior to the commissioning of Snowy 2.0 were satisfied in the last reporting period as this sampling is only required to be conducted once. Environmental DNA (eDNA) sampling was undertaken across the surveillance catchments. Limited physical sampling also occurred as part of the fish collection process for Disease Surveillance (Section 5) and in the Talbingo catchment for Murray Crayfish surveys (Zukowski and Jacobs, 2026).

This program is based on advice provided by Dr Tarmo Raadik and Associate Professor Mark Lintermans (Raadik and Lintermans, 2022).

4.1 Surveillance Objective

As Snowy 2.0 is not yet operational, the objective of the activities during the reporting period was to ensure the pre-connection distribution of pest fish in the surveillance catchments is well known.

Target Pest Species

The target pest fish species for surveillance under the BRMP include:

- Redfin Perch (*Perca fluviatilis*) (Redfin), exotic, notifiable under Schedule 1 of the NSW Biosecurity Regulation 2017;
- Eastern Gambusia (*Gambusia holbrooki*), exotic; and
- Climbing Galaxias (*Galaxias brevipinnis*), native to the Snowy River catchment (including Lake Eucumbene) but considered translocated outside of its natural range into the Murray and Tumut River catchments.

Expected Distribution

The expected distribution of the target pest species within the surveillance catchments is provided in Table 2. A table of the distribution of all fish species, including pest fish, at the time of the Snowy 2.0 EIS preparation is provided in Appendix D of the BRMP.

Table 2: Expected distribution of target pest fish species within the surveillance catchments

	Talbingo Reservoir	Tantangara Reservoir	Upper Murrumbidgee catchment	Mid Murrumbidgee River	Lake Eucumbene
Redfin	Present	-	-	-	-
Eastern Gambusia	Present	-	-	Present	-
Climbing Galaxias	Present*	-	-	-	Present (endemic)

* Climbing Galaxias has been detected within the Yarrangobilly River and Tumut River, hydrologically connected tributaries. The species has not been recorded in Talbingo Reservoir using traditional physical sampling and eDNA sampling techniques (Cardno, 2019; Griffiths et al., 2024; 2025).

- Not detected.

4.2 Surveillance Overview

Surveillance during the reporting period involved eDNA analysis of water samples. Physical sampling for the purpose of fish collection for disease surveillance (Section 5) also occurred in Tantangara Reservoir and the Upper Murrumbidgee catchment with all species caught or observed recorded.

EnviroDNA undertook eDNA analysis of samples collected by staff from Austral Research and Consulting, EnviroDNA and Snowy Hydro from all five surveillance catchments. Austral Research and Consulting undertook the physical sampling in Tantangara Reservoir and the Upper Murrumbidgee catchments. Full details of the methods and level of effort are detailed in *Appendix A – Snowy 2.0 Environmental DNA Surveillance Report* and *Appendix B – Snowy 2.0 Fish Sampling and Collection Report 2026*.

In addition to the targeted surveillance, other surveys in the catchments provided additional strength to the findings. Additional physical surveys occurred in the Mid-Murrumbidgee catchment under the TFMP. These included the Macquarie Perch population survey in the Murrumbidgee River below Tantangara Dam (Lintermans, 2026) and in Tantangara and Sallys Flat Creeks for population surveys for Stocky Galaxias (Allan, 2026). These reports will be available in the Snowy 2.0 Threatened Fish Management Plan, 2025/26 Annual Report (in preparation).

4.3 Surveillance Results

Surveillance activities during the reporting period confirmed the expected distribution of pest fish within the surveillance catchments (Table 3). The full results are provided in Appendix A and Appendix B.

Table 3: Summary of Pest Fish Sampling Results from the reporting period

	Talbingo Reservoir	Tantangara Reservoir	Upper Murrumbidgee catchment	Mid Murrumbidgee River	Lake Eucumbene
Redfin	Detected (eDNA)	Not Detected (Physical & eDNA)	Not Detected (Physical & eDNA)	Not Detected (eDNA)	Not Detected (eDNA)
Eastern Gambusia	Not Detected (eDNA) Assumed Present [#]	Not Detected (Physical & eDNA)	Not Detected (Physical & eDNA)	Detected (eDNA)	Not Detected (eDNA)
Climbing Galaxias	Not Detected (eDNA) Assumed Present [*]	Not Detected (Physical & eDNA)	Not Detected (Physical & eDNA)	Not Detected (eDNA)	Detected (eDNA) NB. Species is endemic to this catchment

[#] Gambusia were detected in physical sampling in the Yarrangobilly River in 2026 by Zukowski and Jacobs (2026) and in the reservoir in 2025 by Austral Research and Consulting (2025).

^{*} Climbing Galaxias has never been detected in Talbingo Reservoir but were detected in physical sampling in 2026 in the Yarrangobilly River by Zukowski and Jacobs (2026).

Results from eDNA sampling confirmed the presence of Redfin within Talbingo Reservoir (Griffiths et al., 2026). Gambusia and Climbing Galaxias were not detected in the eDNA surveys but are assumed to be present. Gambusia were detected in surveys in 2025 ((Austral Research and Consulting, 2025 and Griffiths et al., 2025). Climbing Galaxias have never been detected in the reservoir itself but a positive eDNA detection for Climbing Galaxias from 2024 in the Tumut River, upstream of Talbingo Reservoir, confirms the ongoing presence of this species within this catchment (Griffiths et al., 2024).

Redfin is still assumed absent from Tantangara Reservoir and the Upper Murrumbidgee as well as the Mid Murrumbidgee and Lake Eucumbene (Griffiths et al., 2026; Austral Research and Consulting, 2026). Redfin were detected in the Murrumbidgee River between Angle Crossing and Michaelago in 2019 but they have not been detected since. Although their origin is unknown, it is assumed that they were illegally released directly into the river or were displaced from a farm dam population somewhere in the catchment (Lintermans, 2025).

Gambusia was detected in eDNA samples throughout the Mid Murrumbidgee River where it is known to be widespread. It was not detected in any other locations, including Talbingo Reservoir where it is known to occur (Griffiths et al., 2026; Austral Research and Consulting, 2026).

Climbing Galaxias was detected in Lake Eucumbene and Gang Gang Creek where it is known to be endemic. It was not detected in any other locations (Griffiths et al., 2026).

Salmonids were also confirmed to be absent in the habitat of the Stocky Galaxias through both physical and eDNA surveys (Griffiths et al., 2026, Allan, 2026). During 2025/2026, a new population of Stocky Galaxias were established in Rules Creek, a tributary of the Yarrangobilly River. This area was also sampled via eDNA for the presence of salmonids, which were not detected.

These results are all in accordance with previous sampling undertaken in these catchments for the Snowy 2.0 project (Cardno, 2019; Griffiths et al., 2017; Griffiths et al., 2020; 2021; 2022; 2023; 2024; 2025 Robinson et al. 2019; Weeks et al. 2019)

4.4 2026/2027 Surveillance Plan

As the sampling did not detect any target species in any locations where it is not currently expected, no additional surveillance beyond the program in the BRMP is required and there is no need to review the current program. Sampling in 2026/2027 will be in accordance with the Surveillance Plan detailed in Appendix E of the BRMP.

The site at Rules Creek will be added to the sampling database so that when sampling occurs again, it is included in the program.

5. Disease Surveillance and Management

Disease surveillance was undertaken as required by the revised BRMP Pest Fish Surveillance Program set out in Appendix F of the 2024/2025 BRMP Annual Report.

5.1 Surveillance Objective

Following the positive detection of EHNIV in Redfin in Talbingo Reservoir in 2024/2025 (Snowy Hydro, 2025), the primary objective for the disease surveillance activities for the BRMP is to now determine whether EHNIV is present in the Tantangara Reservoir salmonid population prior to the connection of Talbingo and Tantangara reservoirs by Snowy 2.0. A secondary objective is to establish the distribution of *Lernaea cyprinacea* (Lernaea), also known as anchorworm, in the surveillance catchments.

5.2 Surveillance Overview

Austral Research and Consulting was engaged to undertake the collection of whole fish and blood samples which were then shipped to the Elizabeth Macarthur Agricultural Institute (EMAI) for EHNIV analysis. Details on the fish collection methods and full results of all fish observed during sampling is provided in *Appendix B – Snowy 2.0 Fish Sampling and Collection Report 2026*.

5.3 Surveillance Results

Surveillance for EHNIV in Tantangara Reservoir involved the collection of 149 adults and 89 young of year (YOY) whole fish samples which were sent for analysis using quantitative polymerase chain reaction (qPCR) analysis. Where practicable, blood samples were also collected for ELISA analysis.

All fish were observed to be in good condition with no external evidence of disease or infection with *Lernaea* (see Appendix B).

The qPCR analysis returned no positive results for EHNIV. All 144 ELISA samples were negative. The full table of results is provided in *Appendix C – EHNIV and Lernaea Results*.

5.4 2026/2027 Surveillance Plan

Surveillance activities in Tantangara Reservoir will be repeated in 2026/2027 as per the revised BRMP Pest Fish Surveillance Program set out in Appendix F of the 2024/2025 BRMP Annual Report.

6. Tantangara Creek Barrier

Condition 21(a) of the Infrastructure Approval requires Snowy Hydro to instal 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 prior to Snowy 2.0 commissioning.

Construction of the Tantangara Creek Barrier was completed in May 2025.

6.1 Activity during the reporting period

The structure continues to perform as designed and no concerns or defects were identified during the reporting period (Figure 2). Rehabilitation of the construction area is ongoing.



Figure 2: Tantangara Creek Fish Barrier (November, 2025).

7. Tantangara Fish Screens

Condition 21(b) of the Infrastructure Approval requires Snowy Hydro to install 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 prior to Snowy 2.0 commissioning.

7.1 Activity during the reporting period

During the reporting period Aurecon completed the 'Issue for Tender' level design for the Tantangara fish screens and was subsequently engaged to complete the 'Issue for Construction' level design. This is currently under review by Snowy Hydro.

Snowy Hydro is also investigating whether there are better options to manage the downstream biosecurity risks associated with Snowy 2.0 to support positive impacts for threatened fish. This work is ongoing in consultation with DPIRD.

8. Tantangara Reservoir Spill Management

Condition 22(b) of the Infrastructure Approval requires that spills over Tantangara Dam are prevented so far as is reasonably practicable.

There were no spills over Tantangara Dam during the reporting period.

9. Additional Barriers

To minimise potential impacts of pest fish movement on Stocky Galaxias and Macquarie Perch, the EPBC Approval for the project includes a requirement to 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 (Condition 13).

The identification of potential locations for the establishment of additional populations of Stocky Galaxias and Macquarie Perch is an activity to occur as part of the habitat surveys for each of these species under the TFMP. Detailed habitat surveys for both species occurred under the TFMP during the 2024/25 and 2025/26 activity periods (NSW DPIRD, 2025; NSW DPIRD, in preparation).

In the case of Macquarie Perch, one reintroduction site was identified in the Big Badja River and translocations commenced in January 2026. Assessments determined that an additional barrier was not required at this site as natural falls exist that make the site inaccessible to redfin (NSW DPIRD, 2025).

For Stocky Galaxias, a preferred reintroduction location was identified at Rules Creek, a tributary of the Yarrangobilly River with translocations commencing in November 2025. Assessments determined that

an additional barrier was not required at this site as natural falls exist that make the site inaccessible to trout and the creek flows underground through the Yarragobilly Caves system meaning it is also likely inaccessible to Climbing Galaxias (NSW DPIRD, 2025).

10. Conclusion

This second Annual Report for the BRMP details the comprehensive activities undertaken between 1 July 2025 and 30th June 2026, demonstrating full compliance with all Biosecurity Risk Management Plan requirements.

Key achievements during this period include the successful execution of the Pest Fish and Disease Surveillance Programs. The surveillance activities did not detect any changes to target pest distributions, and did not detect EHNV within the Tantangara Reservoir salmonid population.

The continued effective performance of the Tantangara Creek Barrier and the progression of the Tantangara Fish Screen design underscore Snowy Hydro's commitment to rigorous biosecurity and environmental safeguards. By aligning these monitoring results with the objectives of the Threatened Fish Management Plan (TFMP) and Recreational Fishing Management Plan (RFMP), Snowy Hydro continues to effectively mitigate aquatic biosecurity risks. These findings will remain central to guiding adaptive management strategies as the Snowy 2.0 project progresses toward full operation.

11. References

Allan, H. (2026). Stocky galaxias population monitoring 2026: Evidence-based baseline refinement and program review. Draft report for NSW DPIRD, Fisheries and Forestry.

Austral Research and Consulting. (2025). Snowy 2.0 Pest Fish Surveillance Program Report 2025. Consultancy report for Snowy Hydro Limited.

Austral Research and Consulting. (2026). Snowy 2.0 Fish Sampling and Collection Report 2026. Consultancy report for Snowy Hydro Limited.

Cardno (2019). Appendix M.2 Aquatic Ecology Assessment, Snowy 2.0 Main Works. Prepared for EMM Consulting Pty Ltd. Cardno, St Leonards, NSW.

Cardno (2020). Snowy 2.0 – request for information. Letter with accompanying information from Cardno to EMM Consulting, 12 March 2020, addressing the request for further information from the Department of Planning, Industry and Environment on the Snowy 2.0 Main Works EIS, which relates to the Aquatic Ecology assessment prepared by Cardno and included as Appendix M.2 of the Snowy 2.0 Main Works EIS. 6 pp.

EMM (2019). Snowy 2.0 Main Works Environmental Impact Statement. September 2019. Available at: <https://pp.planningportal.nsw.gov.au/major-projects/projects/snowy-20-main-works>

EMM (2020). Snowy 2.0 Main Works Environmental Impact Statement. Preferred Infrastructure Report and Response to Submissions. February 2020. Available at: <https://pp.planningportal.nsw.gov.au/major-projects/projects/snowy-20-main-works>

Griffiths, J., van Rooyen, A. and Weeks, A. (2017). Determining the presence or absence of invasive *Perca fluviatilis* (Redfin) at Tantangara Reservoir using environmental DNA. Report to Snowy Hydro Ltd. EnviroDNA, Parkville, 13 pp.

Griffiths, J., Licul, S. and Weeks, A. (2020). Monitoring for the presence of *Perca fluviatilis*, *Gambusia holbrooki*, and *Galaxias brevipinnis* within catchments connected to the Snowy Scheme using Environmental DNA. Report to Snowy Hydro Ltd. EnviroDNA, Parkville, 19 pp.

Griffiths J, Impey R, and Weeks, A. (2021) Monitoring for the presence of *Perca fluviatilis*, *Gambusia holbrooki*, and *Galaxias brevipinnis* within catchments connected to the Snowy Scheme using environmental DNA, 2021. Report prepared by EnviroDNA for Snowy Hydro Limited.

Griffiths, J., Licul, S. and Weeks, A. (2022). Monitoring for the presence of *Perca fluviatilis*, *Gambusia holbrooki*, and *Galaxias brevipinnis* within catchments connected to the Snowy Scheme using Environmental DNA, 2022. Report to Snowy Hydro Ltd. EnviroDNA, Parkville, 22 pp.

Griffiths J, Licul S, Impey R, and Weeks, A. (2023) Monitoring for the presence of *Perca fluviatilis*, *Gambusia holbrooki*, and *Galaxias brevipinnis* within catchments connected to the Snowy Scheme using environmental DNA, 2023. Report prepared by EnviroDNA for Snowy Hydro Limited.

Griffiths J, Impey R, and Weeks, A. (2024) Monitoring for the presence of *Perca fluviatilis*, *Gambusia holbrooki*, and *Galaxias brevipinnis* within catchments connected to the Snowy Scheme using environmental DNA, 2024. Report prepared by EnviroDNA for Snowy Hydro Limited.

Griffiths J, Reid, C, and Licul, S. (2025) Monitoring for the presence of pest fish species within the Snowy Scheme using environmental DNA, 2025. Report prepared by EnviroDNA for Snowy Hydro Limited.

Griffiths J, Reid, C, and Licul, S. (2026) Monitoring for the presence of pest fish species within the Snowy Scheme using environmental DNA, 2026. Report prepared by EnviroDNA for Snowy Hydro Limited.

Hick P, Whittington R, Becker J (2019). Assessment of the potential for increased distribution of Epizootic haematopoietic necrosis virus (EHNV) associated with Snowy 2.0. Consultation to EMM Consulting Pty Ltd for Snowy Hydro Limited, 28th August 2019, 42 pgs.

Lintermans, M. and Allan, H. (2025). Snowy 2.0 Stocky Galaxias monitoring at Tantangara Creek and Sallys Flat Creek 2025. Consultancy report to NSW DPIRD (Fisheries). Fish Fonder Pty Ltd.

Lintermans, M. (2025). Snowy 2.0 Macquarie perch monitoring in the upper Murrumbidgee catchment 2025. Consultancy report to NSW DPIRD (Fisheries). Fish Fonder Pty Ltd.

Lintermans, M. (2026). Snowy 2.0 Macquarie perch monitoring in the upper Murrumbidgee catchment 2025. Consultancy report to NSW Department of Primary Industries and Regional Development. Fish Fonder Pty Ltd.

NSW Department of Primary Industries and Regional Development. (2025). Snowy 2.0 Threatened Fish Management Plan, 2024/2025 Annual Report, Albury, NSW

Raadik, T.A. and Lintermans, M. (2022). Pest fish surveillance for Snowy 2.0. Client Report for Snowy Hydro Ltd, Cooma. Arthur Rylah Institute for Environmental Research, Department of Environment, Land, Water and Planning, Heidelberg, Victoria. Available at:
<https://www.ari.vic.gov.au/research/rivers-and-estuaries/fish-management-advice-informs-snowy-2.0>

Robinson, K., Griffiths, J. and Weeks, A. (2019). Fish and decapod environmental DNA biodiversity surveys in the Snowy 2.0 project area. Report to Snowy Hydro Ltd. EnviroDNA, Parkville, 20 pp.

Weeks, A., Griffiths, J. and Vern Song, S. (2019). Determining the presence of *Perca fluviatilis*, *Gambusia holbrooki*, *Galaxias brevipinnis* and *Macquaria australasica* across a range of locations within the Snowy Hydro region using environmental DNA. Report prepared by EnviroDNA for Snowy Hydro Limited. EnviroDNA, Parkville, 27 pp.

Zukowski, S. and Jacobs, M. (2026). The status of Murray Crayfish in Talbingo Reservoir, Yarrangobilly River and Wallace Creek in June 2026. Report to Snowy Hydro Limited. Nature Glenelg Trust, Victor Harbor.

Appendix A

Environmental DNA Pest Fish Monitoring report



Monitoring for the presence of pest fish species within the Snowy Scheme using environmental DNA, 2026.

Prepared for:

Elizabeth Pope

Snowy Hydro Limited

PO Box 332

Cooma, NSW 2630

Australia

Prepared by:

Josh Griffiths, Dr Chantelle
Reid, Sarah Licul.

EnviroDNA

Level 1, 95 Albert St

Brunswick, VIC 3056

Australia

Disclaimer

The professional analysis and advice in this report has been prepared for the exclusive use of the party or parties to whom it is addressed (the addressee) and for the purposes specified in it. This report is supplied in good faith and reflects the knowledge, expertise and experience of the consultants involved.

EnviroDNA Pty Ltd accepts no responsibility whatsoever for any loss occasioned by any person acting or refraining from action as a result of reliance on the report. In conducting the analysis in this report EnviroDNA Pty Ltd has endeavoured to use what it considers is the best information available at the date of publication including information supplied by the addressee. Unless stated otherwise EnviroDNA Pty Ltd does not warrant the accuracy of any forecast or prediction in this report.

This report is to be referenced as:

Griffiths J, Reid, C, and Licul, S. (2026) Monitoring for the presence of pest fish species within the Snowy Scheme using environmental DNA, 2026. Report prepared by EnviroDNA for Snowy Hydro Limited.

Project team

Title	Name
Project Manager	Josh Griffiths
Laboratory Technician	Dr Chantelle Reid
Laboratory Technician	Sarah Licul

Version control

Date	Version	Description	Author	Reviewed By
26/05/2026	1.0	Draft report	JG	SHL
17/7/26	2.0	Final report	JG	

Abbreviations

Abbreviations	Description
eDNA	environmental DNA
qPCR	quantitative polymerase chain reaction
EIS	Environmental Impact Statement

Contents

Executive Summary.....	4
Background.....	5
Methods	6
Water sampling	6
Target species assays	9
Quality assurance	10
Findings	11
<i>Perca fluviatilis</i>	11
<i>Gambusia holbrooki</i>	11
<i>Galaxias brevipinnis</i>	11
Trout species	11
Conclusions	18
eDNA as a surveillance tool	18
Acknowledgments	19
References	20
Appendix 1. Site details and results of eDNA analysis for target species.	22
Appendix 2. Negative controls collected to assess for field sampling contamination.	28

Executive Summary

A comprehensive surveillance program using environmental DNA to detect pest fish species (*Perca fluviatilis*, *Gambusia holbrooki* and *Galaxias brevipinnis*) has been implemented since 2019 as part of environmental investigations for the Snowy 2.0 project. EnviroDNA, with assistance from Austral Research and Consulting, were engaged to repeat these surveys across six subcatchment areas in early 2026 with the sampling program following the requirements of the Snowy 2.0 Biosecurity Risk Management Plan, Pest Fish Surveillance Program.

Replicate water samples were collected from 87 sites throughout the area, plus additional field negative controls (7), with several sites from previous surveys unable to be sampled due to lack of water. In total, 202 samples from 74 sites were analysed for the presence of *P. fluviatilis* DNA, 178 samples from 67 sites analysed for *G. holbrooki* DNA, and 176 samples from 74 sites analysed for *G. brevipinnis* DNA. Two independent assays for *P. fluviatilis* targeting different gene regions were used for all samples to provide additional confidence in results for this species. A small subset of 10 sites were also analysed for several salmonid species (*Salmo trutta*, *Oncorhynchus mykiss*, *Salvelinus fontinalis*).

Perca fluviatilis was detected at 1 positive control site in Talbingo Reservoir. Widespread detections of *Gambusia holbrooki* were recorded throughout waterways of the Middle Murrumbidgee. *Galaxias brevipinnis* was detected at two sites in the Upper Eucumbene catchment where it is considered endemic. All positive detections were within areas the species' are known to occur.

Brown and rainbow trout were detected at sites in Tantangara and Eucumbene Reservoirs and adjacent waterways where they are expected to occur. Sites upstream of the waterfall along Tantangara Creek where critical *Galaxias tantangara* habitat exists were negative for trout species.

Background

The Snowy Hydro Scheme incorporates a number of reservoirs and river systems in the Kosciuszko National Park, New South Wales. New hydrologic connections between separate catchment areas are being established to increase the capacity of Snowy Hydro's hydro-electric Scheme (Snowy 2.0) with associated construction and operational activities. This increases the risk of facilitating dispersal of aquatic organisms into catchment areas where they don't currently occur. Alien species (native or introduced) have the potential for significant detrimental impacts (i.e. predation, competition, pathogens) on resident native and/or recreational fish species if they were to become established (Koehn 2004; Crowl *et al.* 1992; Forsyth *et al.* 2013; Russell *et al.* 2012).

To understand the current distribution of pest fish within catchments connected to the Snowy Scheme, on behalf of Snowy Hydro, EnviroDNA has implemented a comprehensive surveillance program using environmental DNA to assess the potential presence of several invasive fish species in different catchment areas. Environmental DNA (eDNA) is a non-invasive sampling technique that detects traces of genetic material from a target species secreted into its surrounding environment (i.e. water). Quantitative comparisons with traditional sampling methods have demonstrated that eDNA methods can be superior in terms of sensitivity and cost efficiency, particularly for scarce, elusive or cryptic species (Biggs *et al.* 2015; Smart *et al.* 2015; Thomsen *et al.* 2012; Valentini *et al.* 2016; Lugg *et al.* 2018; McColl-Gausden *et al.* 2020), enabling effective detection of species at low densities and at all life stages. High detection probabilities are critical to reduce the incidence of false negatives in monitoring surveys (Type 2 error - assuming a species is absent when it is actually present), which is particularly important when assessing early incursions of invasive species (Mehta *et al.* 2007). However, the spatial and/or temporal replication required to achieve high detection rates with traditional techniques is often unfeasible or unsuitable for certain habitats. The high sensitivity and ease of implementation of eDNA methods is particularly powerful for early detection of incursions of alien species (Dejean *et al.* 2012; Furlan and Gleeson 2016; Robson *et al.* 2016).

The current pest fish eDNA surveys complement and build on previous monitoring undertaken annually since 2019 (e.g. Weeks *et al.* 2019; Griffiths *et al.* 2025). During this project, eDNA was used to primarily assess the possible presence of redfin (*Perca fluviatilis*), eastern mosquitofish (*Gambusia holbrooki*), and climbing galaxias (*Galaxias brevipinnis*) in Lake Eucumbene and Tantangara Reservoir, as well as waterways of the middle and upper Murrumbidgee catchment areas upstream and downstream of Tantangara Reservoir. *Gambusia holbrooki* and *P. fluviatilis* are known to be present in Talbingo Reservoir and sections of the Murrumbidgee catchment below Tantangara Reservoir. *G. brevipinnis* is considered endemic to the Lake Eucumbene catchment and has previously been detected in the Yarrangobilly River, a tributary of Talbingo Reservoir (Griffiths *et al.* 2017; Weeks *et al.* 2019; Griffiths *et al.* 2020, 2021). These species are expected to be absent elsewhere in the surveyed area outside of these known distributions. A subset of samples were also analysed to check for the presence of salmonid species (*Salmo trutta*, *Oncorhynchus mykiss*, *Salvelinus fontinalis*) in sensitive locations where they are considered absent.

Methods

Water sampling

A comprehensive pest fish surveillance program has been developed based on previous survey data, existing knowledge of species' distributions, and expected activities associated with Snowy 2.0 (Raadik and Lintermans 2022). The purpose of the program is to ensure early detection of new incursions or range expansions of key pest fish species to protect existing aquatic values. Sites surveyed during the 2026 monitoring were in accordance with the program and are largely consistent with those surveyed previously (Griffiths *et al.* 2022, 2023) with additional sites in the Middle Murrumbidgee catchment area added in recent years (Griffiths *et al.* 2024, 2025). Sites were sampled at Talbingo Reservoir as positive controls for *P. fluviatilis*, in Gang Gang Creek as a positive control for *G. brevipinnis* and in the Upper Murrumbidgee for trout species.

Water sampling attempted to target suitable habitat for the relevant species where possible. For example, sampling sites within reservoirs were focused around edge habitat, tributary inlets and where potentially suitable habitat was identified for *P. fluviatilis* and *G. holbrooki* (e.g. vegetation, rocks, snags). In river and stream locations, sampling focused on *G. brevipinnis* habitat preferences where available (e.g. clear fast-flowing shady streams with rocks, boulders and logs).

Sampling was undertaken by EnviroDNA and Austral Research and Consulting staff during late January to early February 2026. Sampling in Lake Eucumbene and Tantangara Reservoir was primarily by boat while other sites were accessed by vehicle and foot. In total, 87 sites were sampled across the six subcatchment areas – Talbingo Reservoir ($n = 3$), Upper Eucumbene ($n = 1$), Lake Eucumbene ($n = 16$), Tantangara Reservoir ($n = 12$), Upper Murrumbidgee ($n = 21$) and Middle Murrumbidgee ($n = 34$). Due to dry conditions leading up to the survey, several sites from previous years were unable to be sampled due to lack of water.

At each site, water samples were collected and filtered by passing 0.31-5.51 L of water (average 2.942 L) through a 5 μ M self-preserving Smith Root filter using an eDNA sampling system (Smith-Root, USA; Thomas *et al.* 2018). If any initial sample volume was <1 L due to the filter clogging from in-stream sediments or algae, a second sample was taken at the site to improve detectability. Two replicate samples were achieved in the smaller lotic systems where DNA is expected to be distributed more homogeneously due to the flow of water. Four replicate samples were obtained in the larger lentic systems to improve detection where DNA may be more patchily dispersed and overall water volumes are greater. Each filter was divided in half prior to analysis to create two replicates (apart from sites where a second sample was taken and each sample was processed independently). A total of 240 samples were analysed across all sites.

Filtration was undertaken on site to reduce DNA degradation during transport of whole water samples (Yamanaka *et al.* 2016). Care was taken to minimise contamination between sites by using clean equipment and gloves at each site and avoiding the transfer of water, soil, or organic matter. The Smith-Root eDNA sampler was designed to minimise contamination risk in the field by using a negative pressure filtration pump where only the filter housing comes in contact with the water at any site with the remainder of the system “upstream” of the filter

(Thomas *et al.* 2018). In-field negative controls were taken ($n = 7$) to check for any sampling or equipment contamination. Negative controls were obtained by filtering approximately 500 mL of DNA-free water, following sampling at sites where the target species are expected to occur from previous surveys (Appendix 2). Following filtration, all samples were placed in individual snap-lock bags, stored out of sunlight and at ambient temperature before being transported to the laboratory for processing.

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

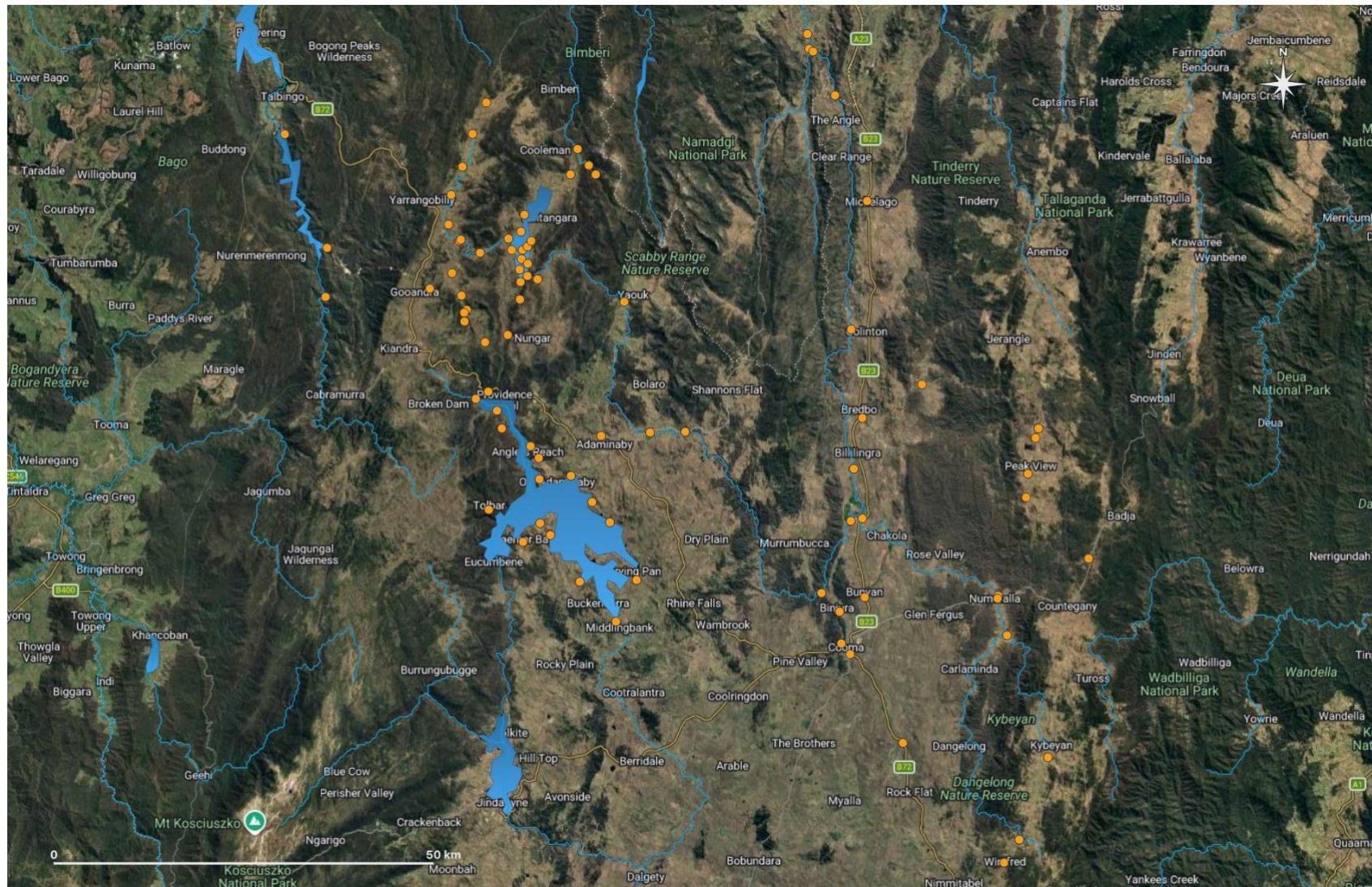


Figure 1. Location of 2026 sampling sites for eDNA surveys of pest fish species throughout the Snowy Hydro surveillance catchments (see Appendix 1 for further details).

Target species assays

DNA was extracted from the filters using a commercially available DNA extraction kit (Qiagen Power Soil Pro Kit) which minimises compounds that can inhibit PCR reactions. As part of the quality control process, a portion of the sample elution is retained after the cellular material has been lysed and DNA removed from the filter but prior to DNA extraction and qPCR steps. This allows independent testing of the original samples to determine whether initial results are consistent with repeat testing if required (see below). Species-specific markers and assays for the target species had already been developed and validated (Griffiths *et al.* 2017; Weeks *et al.* 2019; Furlan and Gleeson 2016). Additional species assays targeted brown trout (*Salmo trutta*)(Capo *et al.* 2020), rainbow trout (*Oncorhynchus mykiss*)(Piggott *et al.* 2021) and brook trout (*Salvelinus fontinalis*)(Wilcox *et al.* 2013).

Using a PrimeTime® probe assay (Integrated DNA Technologies), real-time quantitative polymerase chain reactions (qPCR) were carried out on samples to amplify the target DNA. Three laboratory technical replicates (qPCR's) were undertaken for all samples providing 6 to 12 qPCR assays for each site. Negative controls were included at both the DNA extraction and qPCR stages to help identify possible laboratory contamination. If any contamination is found throughout the DNA extraction or qPCR process, qPCR and/or DNA extractions (using the retained portion of the original elution) are repeated as part of the quality control process.

For this project we consider three possible outcomes for testing based on single species target assays using qPCR across samples at the site level; 'negative' for the target species DNA (no qPCR technical replicates positive out of all samples tested), 'positive' for the target species DNA (at least 3 of 12 or at least 2 of 6 qPCR positives per site) or an 'equivocal' result (less than 3 of 12 or less than 2 of 6 qPCR positives per site). Having an 'equivocal' category can be considered somewhat conservative (see Hyatt *et al.* 2007) but can minimise the chance of false positives. While trace amounts of DNA may indicate the target species is actually present in low abundance, it may also arise from sample contamination through the sampling or laboratory screening process which is minimised through careful field and laboratory protocols as described above. Facilitated movement of DNA between waterbodies can also occur *in situ* via water birds, recreational anglers, water transfers, predator scats, or natural dispersal of DNA from further upstream locations in lotic systems (considered site-level false positives). When 'equivocal' detections occur, further sampling is recommended to confirm the presence or absence of the target species if greater confidence is required. All samples from sites that returned an equivocal result from any replicate sample were re-analysed for confirmation. If the equivocal result could not be corroborated with the second analysis (i.e. all assays were negative), the sample was considered negative.

In recognition of the importance of this project for Snowy Hydro and consequences of both false negatives and false positives, EnviroDNA undertook additional research in 2023 and developed a new *P. fluviatilis* assay targeting a different mitochondrial gene region (ND5). Comparison with the original *P. fluviatilis* assay (Furlan and Gleeson 2016) that targets the 12S mitochondrial gene demonstrates similar performance with Limit of Detection (Thalinger *et al.* 2021) suggesting equivalent sensitivity between the two assays (see Griffiths *et al.* 2024). To provide additional confidence in results, all samples analysed for *P. fluviatilis* used both assays in parallel. This approach was implemented during the Covid-19 pandemic surveillance and can be considered the 'gold standard' for biosecurity or health applications. Samples were only considered positive for *P. fluviatilis* if detections are recorded in both

assays. Any samples with equivocal results were still re-analysed with both assays. If a sample returns a negative result on the re-run, it is considered negative.

Quality assurance

No contamination was detected in either lab (extraction and PCR) or field controls. Positive controls using serial dilutions of DNA for each species returned positive detections and high R^2 values (>0.98) indicating species probes performed as expected.

Findings

Perca fluviatilis

A total of 202 samples from 74 sites were analysed for *P. fluviatilis* eDNA using two assays.

The target DNA was positively detected at 1 site (both assays) within Talbingo Reservoir and another Talbingo site returned an equivocal result (one assay only) (Figure 2, Appendix 1). Talbingo Reservoir is within the known distribution of this species.

There was no evidence of *P. fluviatilis* presence Lake Eucumbene ($n = 16$), the Upper Murrumbidgee catchment ($n = 10$), or Middle Murrumbidgee catchment upstream of Angle Crossing ($n = 30$). There was no evidence of *P. fluviatilis* in the most downstream sites in the Middle Murrumbidgee catchment (MR15, MR16) where they have previously been detected. Detections have been variable at these sites over the years suggesting this area is at the edge of their range and indicates subtle variations in range extent.

Gambusia holbrooki

A total of 178 samples from 67 sites were analysed for *G. holbrooki* eDNA.

Positive detections of *G. holbrooki* were recorded at 9 sites with a further 5 equivocal sites all throughout the Middle Murrumbidgee catchment (Figure 3, Appendix 1) where the species has been consistently detected previously (Weeks *et al.* 2019; Griffiths *et al.* 2020, 2021, 2022).

No evidence of *G. holbrooki* presence was detected in either Lake Eucumbene ($n = 16$), Tantangara Reservoir ($n = 5$), Upper Murrumbidgee ($n = 9$), or Talbingo Reservoir ($n = 3$) catchments.

Galaxias brevipinnis

A total of 176 samples from 74 sites were analysed for *G. brevipinnis* eDNA.

Two positive detections were recorded in Gang Gang Creek (GG01) and the northern end of Eucumbene Reservoir (LE1) where the species is endemic and known to occur (Figure 4, Appendix 1).

No evidence of *G. brevipinnis* presence was detected in any of the Middle Murrumbidgee ($n = 34$), Tantangara Reservoir ($n = 12$), Talbingo Reservoir ($n = 3$), or Upper Murrumbidgee ($n = 20$) subcatchments.

Salmonid species

Brown trout eDNA was positively detected at 5 of the 10 sites surveyed with two further sites returning equivocal results (Figure 5, Appendix 1). Rainbow trout eDNA was positively detected at 4 of the 10 sites surveyed with one further site returning an equivocal result (Figure 6, Appendix 1). No brook trout eDNA was detected at any of the sites (Figure 7, Appendix 1).

No trout species were detected at the two upstream sites in Tantangara Creek above the Tantangara Creek waterfall and within the habitat of *Galaxias tantangara*.

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

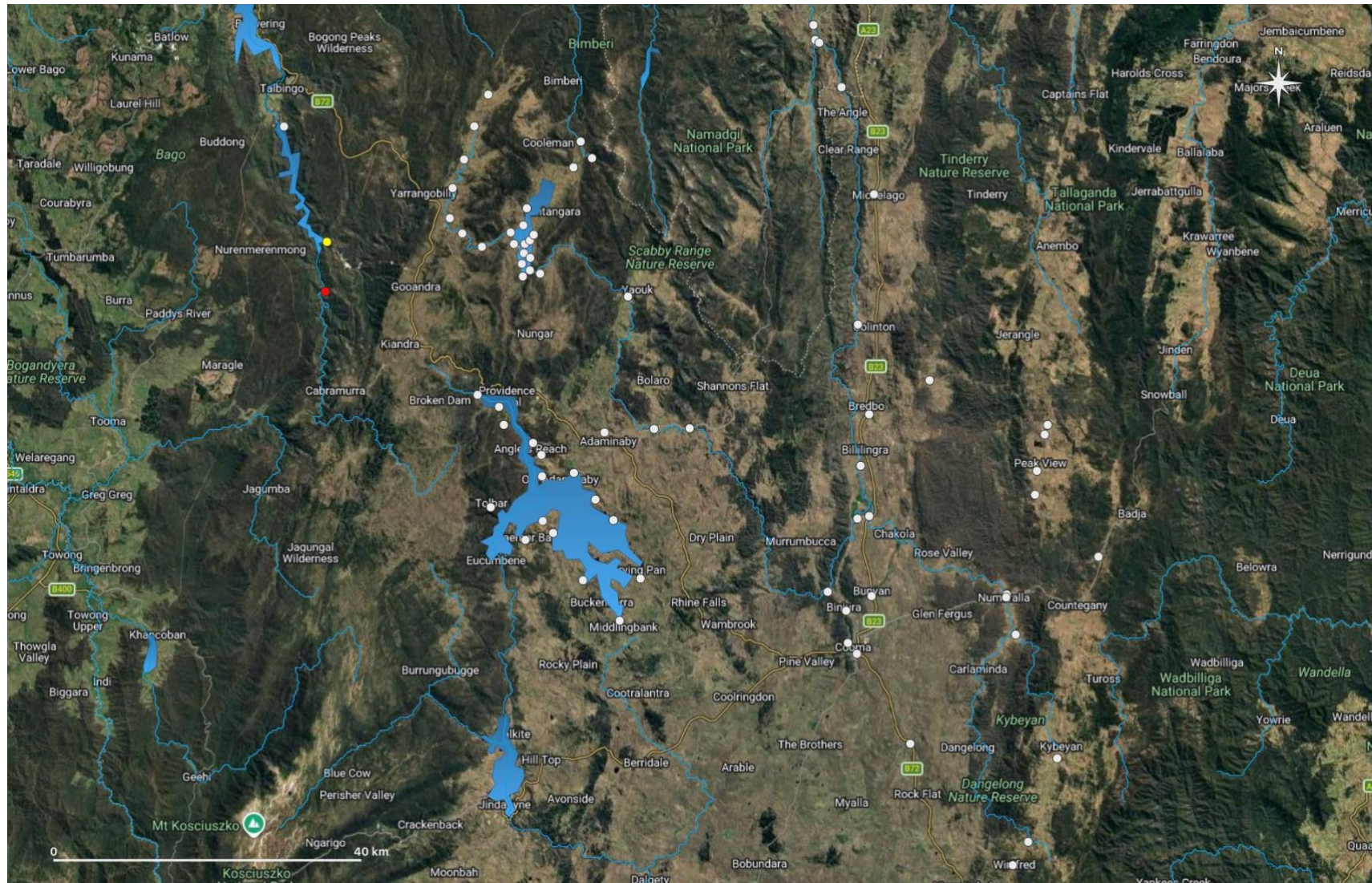


Figure 2. Results of 2026 eDNA surveys for *P. fluviatilis* (red = positive, yellow = equivocal (12S assay only), grey = negative).

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

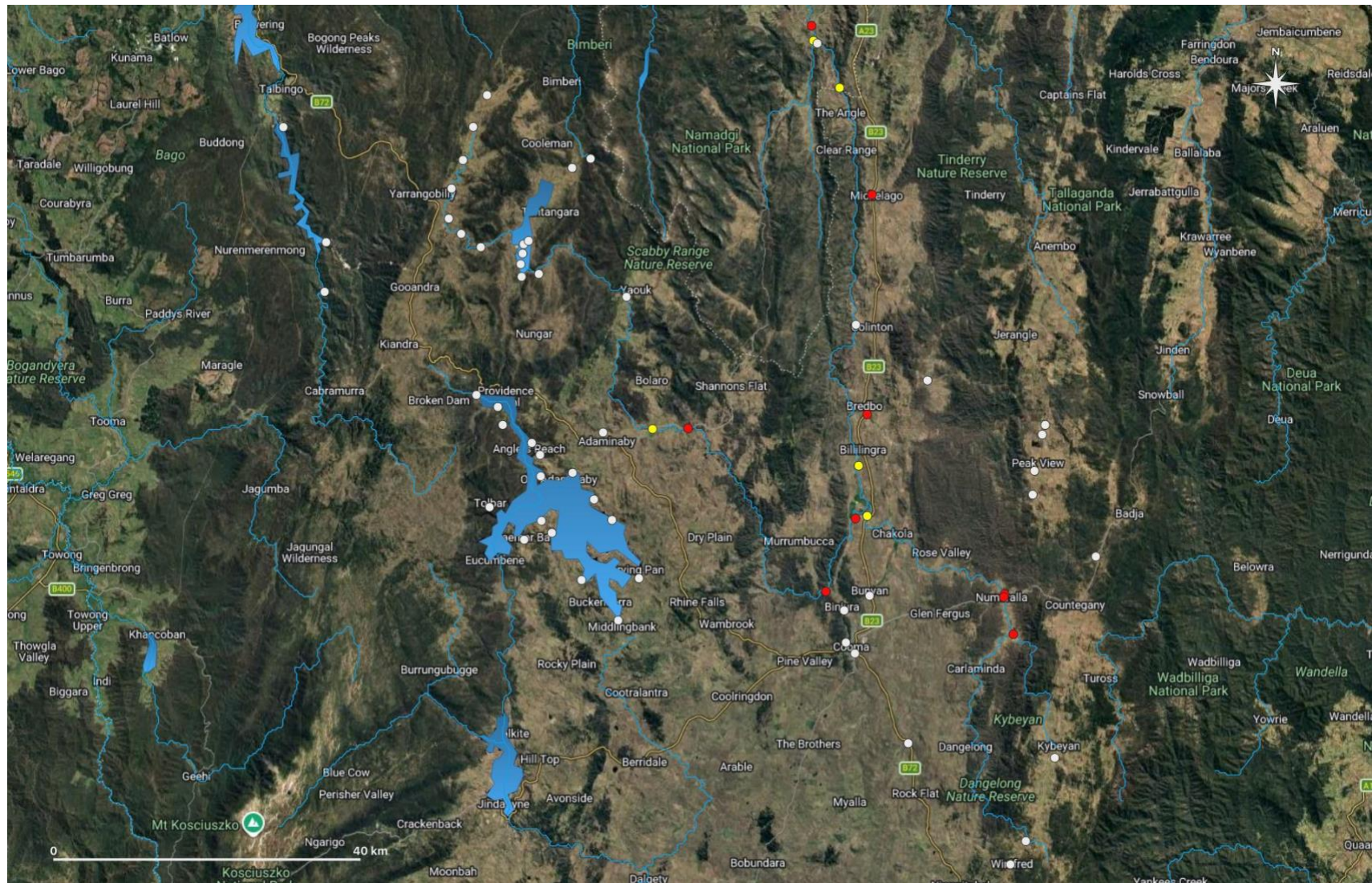


Figure 3. Results of 2026 eDNA surveys for *G. holbrooki* (red = positive, yellow = equivocal, grey = negative).

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

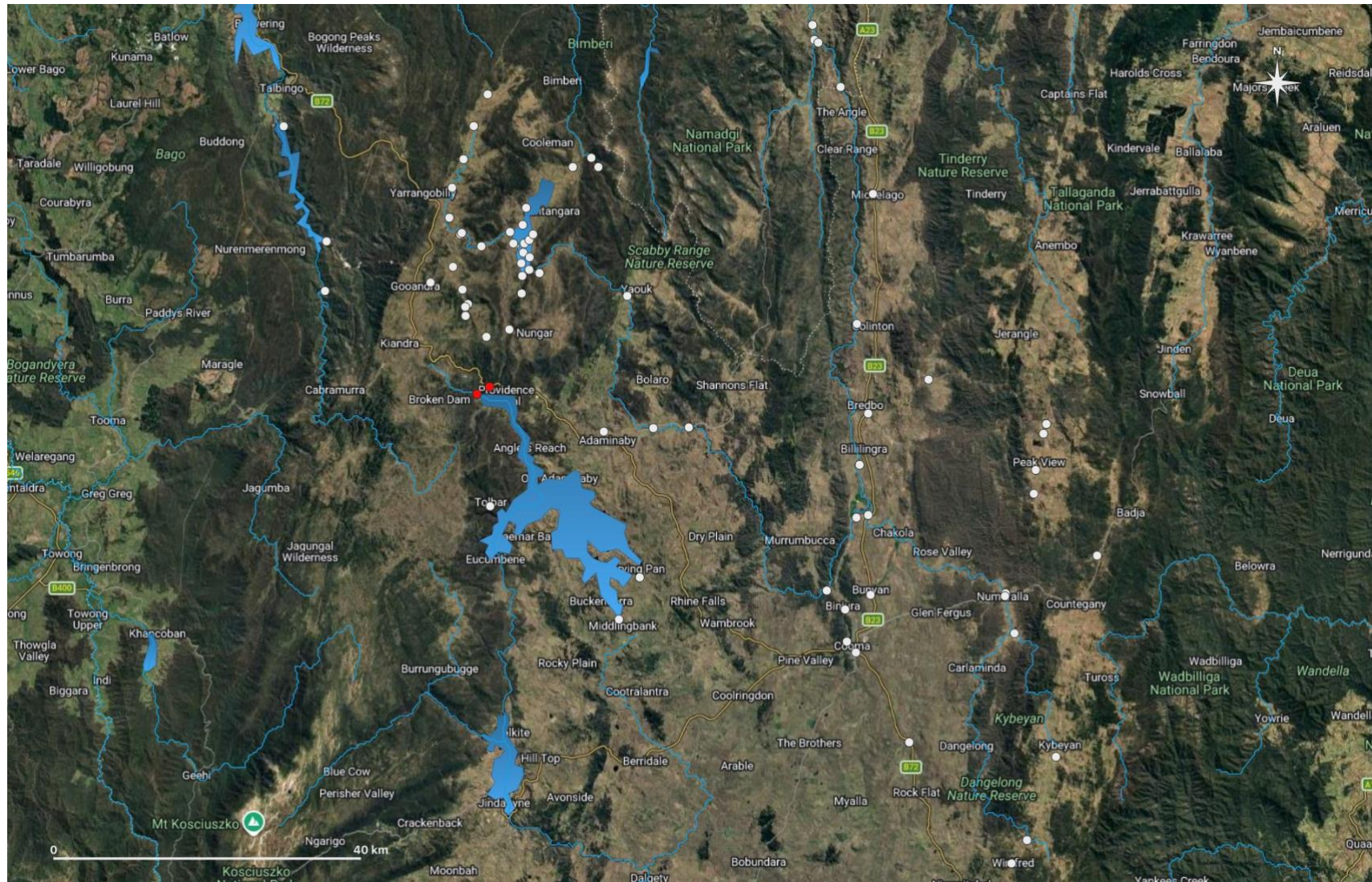


Figure 4. Results of 2026 eDNA surveys for *G. brevipinnis* (red = positive, yellow = equivocal, grey = negative).

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

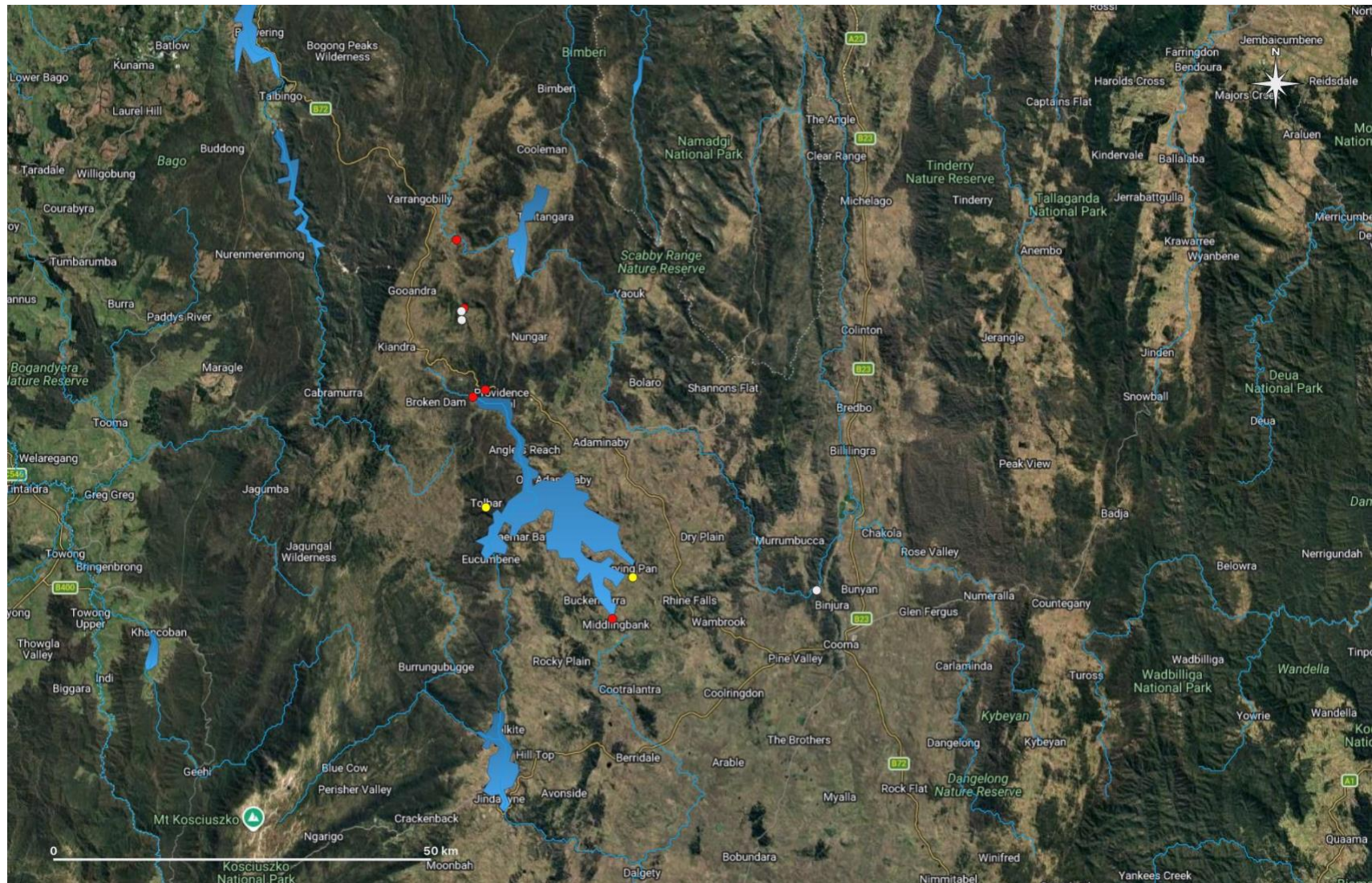


Figure 5. Results of 2026 eDNA surveys for brown trout (red = positive, yellow = equivocal, grey = negative).

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

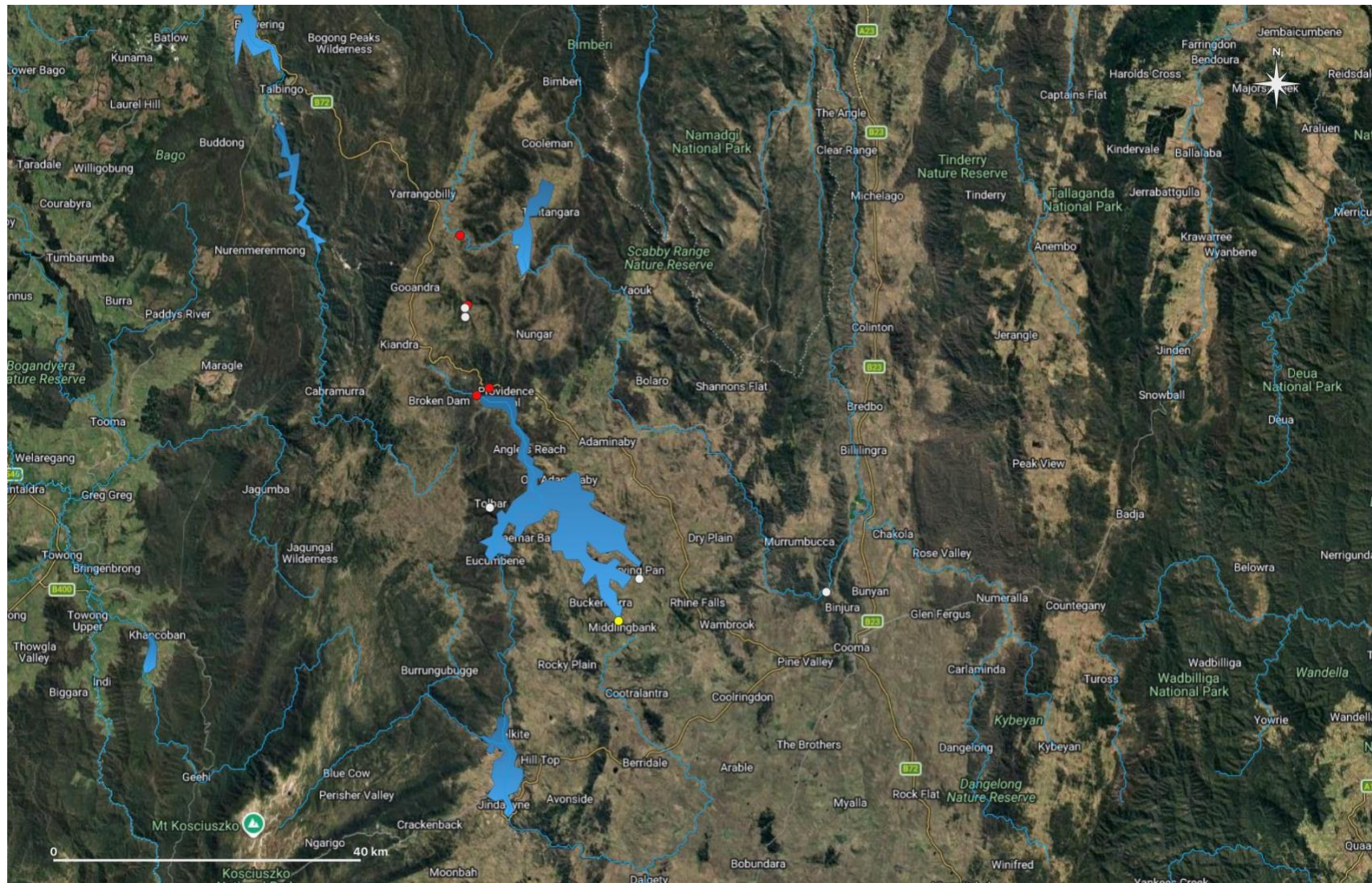


Figure 6. Results of 2026 eDNA surveys for rainbow trout (red = positive, yellow = equivocal, grey = negative).

Monitoring the presence of pest fish species in the Snowy Scheme, 2026.

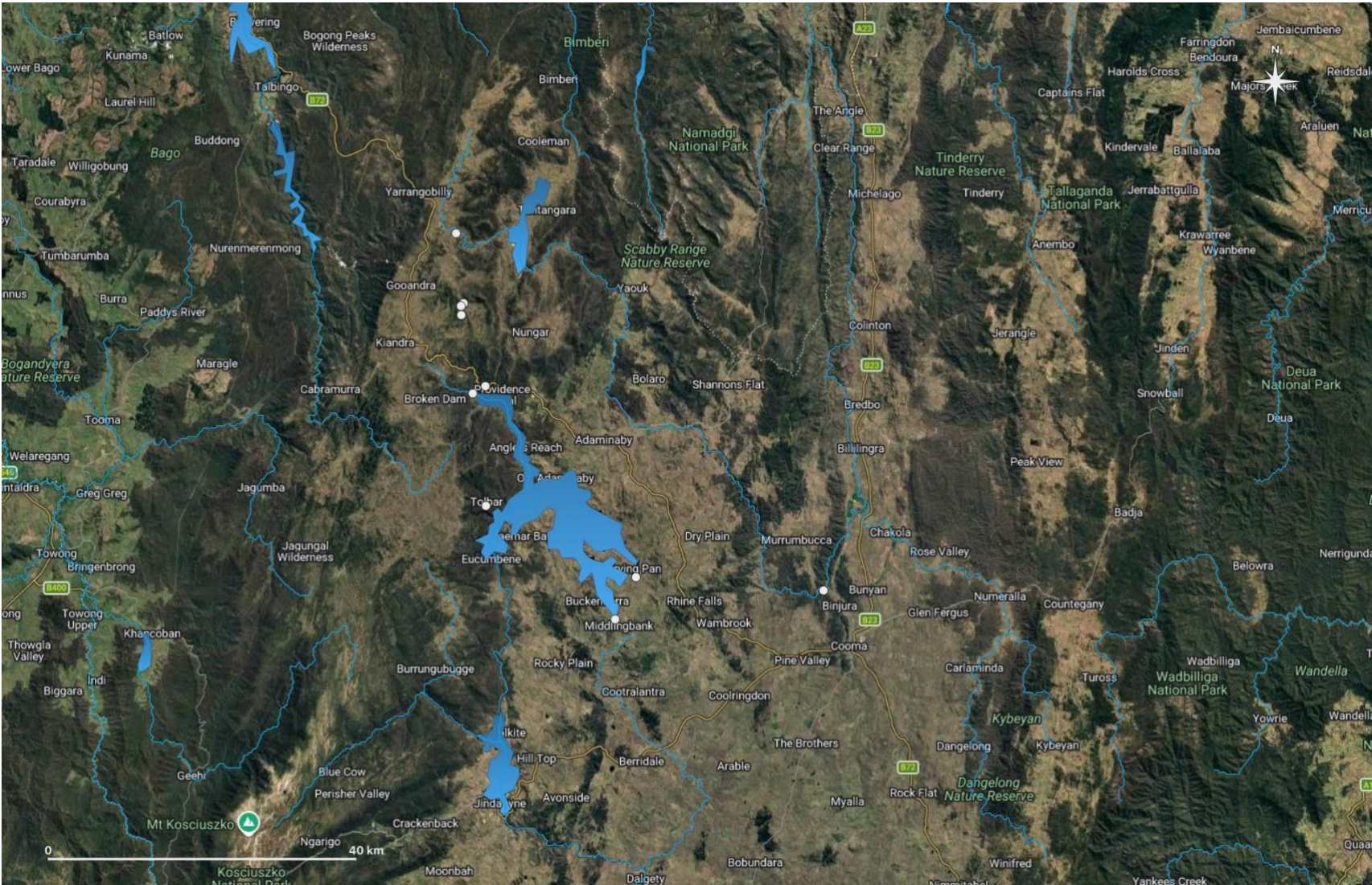


Figure 7. Results of 2026 eDNA surveys for brook trout (red = positive, yellow = equivocal, grey = negative).

Conclusions

Results from the 2026 eDNA pest fish surveillance program recorded detections of target species where they are expected to occur and no evidence for their presence in locations where they are expected to be absent. *Perca fluviatilis* was detected in Talbingo Reservoir only. Widespread detections of *Gambusia holbrooki* were recorded throughout waterways of the Middle Murrumbidgee. *Galaxias brevipinnis* was only detected at two sites in the Upper Eucumbene catchment where the species is endemic. The current surveys found no evidence for incursions of the three target species outside of their expected distributions.

Results from the surveys for trout species found no evidence of encroachment into critical *Galaxias tantangara* habitat.

eDNA as a surveillance tool

Early detection of invasive species significantly increases chances of successful control and eradication (Mehta *et al.* 2007) and therefore of critical importance for waterway managers. However, detecting early incursions can be challenging due to the initial low abundance of the invading species and potential large spatial scale for surveillance. Therefore, surveillance programs require methods that are effective and able to be deployed at scale. Monitoring efforts can be further enhanced by identifying and targeting high risk incursion pathways (e.g. water transfers, boat ramps, periods of high tourism activity).

All survey methods suffer from imperfect detection to varying degrees with Type 1 (false positive) and Type 2 (false negative) errors. A well designed surveillance program should be structured to reduce both Type 1 and Type 2 errors through selection of appropriate methods and spatial and temporal replication. As an indirect method, the risk of Type 1 errors from eDNA surveys can be higher as DNA can be detected when species is not actually present (e.g. non-specific amplification of probes, sample contamination from sampling or laboratory, site contamination by water transfers, flow, movement of animals or vehicles). These can be minimised through careful sampling and laboratory procedures, proper validation of probes, and employing threshold levels for detections. If required, potential detections can be verified through further sampling with eDNA or other methods to confirm. However, when considering incursions of invasive species, the consequences of Type 2 errors are far more significant where the species is not detected and allowed to establish (Mehta *et al.* 2007). Type 2 errors are reduced through eDNA surveys due to higher sensitivity (e.g. Smart *et al.* 2015; Hinlo *et al.* 2017; McColl-Gausden *et al.* 2020) and relative ease of spatial and temporal replication.

The high detection sensitivity of eDNA methods is illustrated in the current program through positive control sites. Talbingo Reservoir supports a known population of redfin and surveillance regularly detect the species through eDNA from just 3 sites. While not all sites yield positive results on every occasion, this likely represents heterogenous distribution and movements of redfin within the reservoir and temporal variation in abundance. However, positive detections in the Reservoir are consistent from the pooled sites (2024 – 2/3 positive sites; 2025 – 3/3; 2026 – 1/3) that sample only a few litres of water in a reservoir with a capacity of over 920 gegalitres (i.e. pooled samples represents approx. 0.000000003% Reservoir volume).

Therefore, eDNA surveys remain an integral component of the pest fish surveillance program and represent the best chance of detecting early incursions due to high sensitivity and ease of implementing over large scales and variable aquatic habitats. This can be complemented by other survey techniques and engagement with local fishing groups to report potential records of alien species that can be quickly followed up by targeted eDNA surveys.

Acknowledgments

EnviroDNA thank Elizabeth Pope (Snowy Hydro) for project support and comments on this report and Mic Clayton (Snowy Hydro) for help with site access and water sampling field work. We also thank Austral Research and Consulting staff for collecting samples at sites throughout the Talbingo, Tantangara, and Upper Murrumbidgee regions.

References

- Biggs J., Ewald N., Valentini A. *et al.* (2015) Using eDNA to develop a national citizen science-based monitoring programme for the great crested newt (*Triturus cristatus*). *Biol. Conserv.* doi: 10.1016/j.biocon.2014.11.029. [online].
- Capo E., Spong G., Königsson H. & Byström P. (2020) Effects of filtration methods and water volume on the quantification of brown trout (*Salmo trutta*) and Arctic char (*Salvelinus alpinus*) eDNA concentrations via droplet digital PCR. *Environ. DNA*. [online].
- Crowl T. A., Townsend C. R. & McIntosh A. R. (1992) The impact of introduced brown and rainbow trout on native fish: the case of Australasia. *Rev. Fish Biol. Fish.* doi: 10.1007/BF00045038.
- Dejean T., Valentini A., Miquel C., Taberlet P., Bellemaine E. & Miaud C. (2012) Improved detection of an alien invasive species through environmental DNA barcoding: the example of the American bullfrog *Lithobates catesbeianus*. *J. Appl. Ecol.*
- Forsyth D. M., Koehn J. D., MacKenzie D. I. & Stuart I. G. (2013) Population dynamics of invading freshwater fish: Common carp (*Cyprinus carpio*) in the Murray-Darling Basin, Australia. *Biol. Invasions* **15**, 341–354.
- Furlan E. M. & Gleeson D. (2016) Environmental DNA detection of redfin perch, *Perca fluviatilis*. *Conserv. Genet. Resour.* **8**, 115–118.
- Griffiths J., Impey R. & Weeks A. (2021) *Monitoring for the presence of Perca fluviatilis, Gambusia holbrooki, and Galaxias brevipinnis within the Snowy Scheme using environmental DNA, 2021. Report prepared for Snowy Hydro.* EnviroDNA, Brunswick, VIC.
- Griffiths J., Impey R. & Weeks A. (2022) *Monitoring for the presence of Perca fluviatilis, Gambusia holbrooki, and Galaxias brevipinnis within the Snowy Scheme using environmental DNA, 2022. Report prepared for Snowy Hydro.* EnviroDNA, Brunswick, VIC.
- Griffiths J., Impey R. & Weeks A. (2024) *Monitoring for the presence of Perca fluviatilis, Gambusia holbrooki, and Galaxias brevipinnis within the Snowy Scheme using environmental DNA, 2024. Report prepared for Snowy Hydro.*
- Griffiths J., Licul S., Impey R. & Weeks A. (2023) *Monitoring for the presence of Perca fluviatilis, Gambusia holbrooki, and Galaxias brevipinnis within the Snowy Scheme using environmental DNA. Report prepared for Snowy Hydro.* EnviroDNA, Brunswick, VIC.
- Griffiths J., Licul S. & Weeks A. (2020) *Monitoring for the presence of Perca fluviatilis, Gambusia holbrooki, and Galaxias brevipinnis within the Snowy Scheme using environmental DNA. Report prepared for Snowy Hydro.* EnviroDNA, Parkville, VIC.
- Griffiths J., Reid C. & Licul S. (2025) *Monitoring for the presence of pest fish species within the Snowy Scheme using environmental DNA, 2025. Report prepared for Snowy Hydro.* EnviroDNA, Brunswick, VIC.
- Griffiths J., Van Rooyen A. & Weeks A. (2017) Determining the presence or absence of invasive *Perca fluviatilis* (redfin) at Tantangara Reservoir using environmental DNA.
- Hinlo R., Furlan E., Sutor L., Gleeson D. & Barnes M. A. (2017) Environmental DNA monitoring and management of invasive fish: comparison of eDNA and fyke netting. *Manag. Biol. Invasions* **8**, 89–100.
- Koehn J. D. (2004) Carp (*Cyprinus carpio*) as a powerful invader in Australian waterways. *Freshw. Biol.* **49**, 882–894.
- Lugg W. H., Griffiths J., van Rooyen A. R., Weeks A. R. & Tingley R. (2018) Optimal survey designs for environmental DNA sampling. *Methods Ecol. Evol.* **9**, 1049–1059.
- McColl-Gausden E. F., Weeks A. R., Coleman R. A. *et al.* (2020) Multispecies models reveal that eDNA metabarcoding is more sensitive than backpack electrofishing for conducting fish surveys in freshwater streams. *Mol. Ecol.* *n/a*. [online].

- Mehta S. V., Haight R. G., Homans F. R., Polasky S. & Venette R. C. (2007) Optimal detection and control strategies for invasive species management. *Ecol. Econ.*
- Piggott M. P., Banks S. C., Broadhurst B. T., Fulton C. J. & Lintermans M. (2021) Comparison of traditional and environmental DNA survey methods for detecting rare and abundant freshwater fish. *Aquat. Conserv Mar Freshw Ecosyst.* [online].
- Raadik T. A. & Lintermans M. (2022) *Pest fish surveillance for Snowy 2. 0: mid to upper Murrumbidgee, and Lake Eucumbene catchments. Published client report for Snowy Hydro Ltd, Cooma.* Arthur Rylah Institute for Environmental Research, Heidelberg, Victoria.
- Robson H. L. A., Noble T. H., Saunders R. J., Robson S. K. A., Burrows D. W. & Jerry D. R. (2016) Fine-tuning for the tropics: application of eDNA technology for invasive fish detection in tropical freshwater ecosystems. *Mol. Ecol. Resour.* **16** , 922–932. [online].
- Russell D. J., Thuesen P. A. & Thomson F. E. (2012) A review of the biology, ecology, distribution and control of Mozambique tilapia, *Oreochromis mossambicus* (Peters 1852) (Pisces: Cichlidae) with particular emphasis on invasive Australian populations. *Rev. Fish Biol. Fish.* **22** , 533–554.
- Smart A. S., Tingley R., Weeks A. R., Van Rooyen A. R. & McCarthy M. A. (2015) Environmental DNA sampling is more sensitive than a traditional survey technique for detecting an aquatic invader. *Ecol. Appl.* **25** , 1944–1952.
- Thalinger B., Deiner K., Harper L. R. *et al.* (2021) A validation scale to determine the readiness of environmental DNA assays for routine species monitoring. *Environ. DNA* **3** , 823–836.
- Thomas A. C., Howard J., Nguyen P. L., Seimon T. A. & Goldberg C. S. (2018) ANDe™: A fully integrated environmental DNA sampling system. *Methods Ecol. Evol.* **9** , 1379–1385.
- Thomsen P. F., Kielgast J., Iversen L. L. *et al.* (2012) Monitoring endangered freshwater biodiversity using environmental DNA. *Mol. Ecol.* **21** , 2565–2573.
- Valentini A., Taberlet P., Miaud C. *et al.* (2016) Next-generation monitoring of aquatic biodiversity using environmental DNA metabarcoding. *Mol. Ecol.* **25** , 929–942.
- Weeks A., Griffiths J. & Song S. V. (2019) *Determining the presence of Perca fluviatilis , Gambusia holbrooki , Galaxias brevipinnis and Macquaria australasica across a range of locations within the Snowy Hydro region using environmental DNA. Report prepared for Snowy Hydro Limited.* Parkville, VIC.
- Wilcox T. M., Mckelvey K. S., Young M. K. *et al.* (2013) Robust Detection of Rare Species Using Environmental DNA: The Importance of Primer Specificity. *PLoS One* **8** , e59520.
- Yamanaka H., Motozawa H., Tsuji S., Miyazawa R. C., Takahara T. & Minamoto T. (2016) On-site filtration of water samples for environmental DNA analysis to avoid DNA degradation during transportation. *Ecol. Res.* **31** , 963–967.

Appendix 1. Site details and results of eDNA analysis for target species.

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (ml)	<i>Perca fluviatilis</i> 12S	<i>Perca fluviatilis</i> ND5	<i>Gambusia holbrooki</i>	<i>Galaxias brevipinnis</i>
TL1C	Talbingo Reservoir	Tumut River	-35.7623	148.3688	27/1/2026	10000	equivocal (1/12)	negative (0/12)	negative (0/12)	negative (0/12)
SUE1	Talbingo Reservoir	Talbingo Reservoir	-35.8204	148.3665	27/1/2026	10000	positive (3/12)	positive (3/12)	negative (0/12)	negative (0/12)
TAL1	Talbingo Reservoir	Talbingo Reservoir	-35.6274	148.3068	27/1/2026	10000	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
GG1C	Upper Eucumbene	Gang Gang Ck	-35.93246	148.60421	2/2/2026	5400				positive (5/6)
LE1	Lake Eucumbene	Lake Eucumbene	-35.941	148.586	2/2/2025	7090	negative (0/12)	negative (0/12)	negative (0/12)	positive (6/12)
LE2	Lake Eucumbene	Lake Eucumbene	-35.955	148.617	2/2/2025	6680	negative (0/12)	negative (0/12)	negative (0/12)	
LE3	Lake Eucumbene	Lake Eucumbene	-35.976	148.624	3/2/2025	9550	negative (0/12)	negative (0/12)	negative (0/12)	
LE4	Lake Eucumbene	Lake Eucumbene	-35.997	148.666	3/2/2025	10050	negative (0/12)	negative (0/12)	negative (0/12)	
LE5	Lake Eucumbene	Lake Eucumbene	-36.011	148.678	3/2/2025	10460	negative (0/12)	negative (0/12)	negative (0/12)	
LE6	Lake Eucumbene	Lake Eucumbene	-36.036	148.679	3/2/2025	10660	negative (0/12)	negative (0/12)	negative (0/12)	
LE7	Lake Eucumbene	Lake Eucumbene	-36.032	148.725	3/2/2025	10190	negative (0/12)	negative (0/12)	negative (0/12)	
LE8	Lake Eucumbene	Lake Eucumbene	-36.063	148.756	3/2/2025	10470	negative (0/12)	negative (0/12)	negative (0/12)	
LE9	Lake Eucumbene	Lake Eucumbene	-36.087	148.782	3/2/2025	10130	negative (0/12)	negative (0/12)	negative (0/12)	
LE10	Lake Eucumbene	Lake Eucumbene	-36.155	148.821	3/2/2025	10030	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
LE11	Lake Eucumbene	Lake Eucumbene	-36.204	148.791	3/2/2025	10160	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
LE12	Lake Eucumbene	Lake Eucumbene	-36.157	148.738	3/2/2025	10010	negative (0/12)	negative (0/12)	negative (0/12)	
LE13	Lake Eucumbene	Lake Eucumbene	-36.102	148.695	3/2/2025	9990	negative (0/12)	negative (0/12)	negative (0/12)	

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (ml)	<i>Perca fluviatilis</i> 12S	<i>Perca fluviatilis</i> ND5	<i>Gambusia holbrooki</i>	<i>Galaxias brevipinnis</i>
LE14	Lake Eucumbene	Lake Eucumbene	-36.088	148.68	3/2/2025	10700	negative (0/12)	negative (0/12)	negative (0/12)	
LE15	Lake Eucumbene	Lake Eucumbene	-36.11	148.655	3/2/2025	10740	negative (0/12)	negative (0/12)	negative (0/12)	
LE16	Lake Eucumbene	Lake Eucumbene	-36.072	148.605	3/2/2025	10120	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
BC1	Upper Murrumbidgee	Boggy Plain Ck	-35.8741	148.5996	26/1/2026	2000				negative (0/6)
GR1	Upper Murrumbidgee	Goodradigbee Rv	-35.645	148.7348	22/1/2026	2200	negative (0/6)	negative (0/6)		
GR2	Upper Murrumbidgee	Goodradigbee Rv	-35.6644	148.7511	22/1/2026	3800	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
GR3	Upper Murrumbidgee	Goodradigbee Rv	-35.6752	148.7613	22/1/2026	2000				negative (0/6)
GU1	Upper Murrumbidgee	Gurrangorambia Ck	-35.6752	148.7244	22/1/2026	1450	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
TA1	Upper Murrumbidgee	Tantangara Creek	-35.7541	148.562	23/1/2026	4000				negative (0/6)
TA2	Upper Murrumbidgee	Tantangara Creek	-35.7921	148.5513	23/1/2026	4000				negative (0/6)
TA3	Upper Murrumbidgee	Tantangara Creek	-35.8188	148.565	23/1/2026	4000				negative (0/6)
TA4	Upper Murrumbidgee	Tantangara Creek	-35.8357	148.5728	26/1/2026	4000				negative (0/6)
TA5	Upper Murrumbidgee	Tantangara Creek	-35.839	148.569	26/1/2026	4000				negative (0/6)
TA6	Upper Murrumbidgee	Tantangara Creek	-35.8495	148.5695	26/1/2026	3100				negative (0/6)
Tat1	Upper Murrumbidgee	Gooandra Ck	-35.8105	148.5188	23/1/2026	4000				negative (0/6)
UMU1	Upper Murrumbidgee	Murrumbidgee Rv	-35.7681	148.5923	23/1/2026	2000	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
UMU2	Upper Murrumbidgee	Murrumbidgee Rv	-35.7525	148.564	23/1/2026	2000	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
UMU3	Upper Murrumbidgee	Murrumbidgee Rv	-35.7346	148.546	23/1/2026	2000	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
UMU4	Upper Murrumbidgee	Murrumbidgee Rv	-35.6994	148.55	23/1/2026	2000	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (ml)	<i>Perca fluviatilis</i> 12S	<i>Perca fluviatilis</i> ND5	<i>Gambusia holbrooki</i>	<i>Galaxias brevipinnis</i>
UMU5	Upper Murrumbidgee	Murrumbidgee Rv	-35.666	148.5665	23/1/2026	2000	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
UMU6	Upper Murrumbidgee	Murrumbidgee Rv	-35.6271	148.5813	23/1/2026	2000	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
UMU7	Upper Murrumbidgee	Murrumbidgee Rv	-35.5899	148.6014	23/1/2026	3300	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
16	Upper Murrumbidgee	Nungar Creek	-35.865439	148.63270	20/1/2026	5000				negative (0/6)
23	Upper Murrumbidgee	Kelly's Plain Creek	-35.823311	148.65051	20/1/2026	3000				negative (0/6)
TRA1	Tantangara Reservoir	Tantangara Reservoir	-35.7755	148.6528	21/1/2026	3000	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
TRA2	Tantangara Reservoir	Tantangara Reservoir	-35.7647	148.6543	21/1/2026	2500	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
TRA3	Tantangara Reservoir	Tantangara Reservoir	-35.7607	148.6614	21/1/2026	3000	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
TR1	Tantangara Reservoir	Tantangara Reservoir	-35.788	148.65	20/1/2026	3000	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
TR3	Tantangara Reservoir	Tantangara Reservoir	-35.7648	148.6385	21/1/2026	2400	negative (0/6)	negative (0/6)		negative (0/12)
TR4	Tantangara Reservoir	Tantangara Reservoir	-35.7513	148.6337	21/1/2026	2100	negative (0/6)	negative (0/6)		negative (0/12)
TR5	Tantangara Reservoir	Tantangara Reservoir	-35.743	148.652	21/1/2026	2500	negative (0/12)	negative (0/12)		negative (0/12)
TR6	Tantangara Reservoir	Tantangara Reservoir	-35.723	148.657	21/1/2026	3600	negative (0/12)	negative (0/12)		negative (0/12)
TR10	Tantangara Reservoir	Tantangara Reservoir	-35.754	148.667	21/1/2026	3200	negative (0/12)	negative (0/12)		negative (0/12)
TR11	Tantangara Reservoir	Tantangara Reservoir	-35.781	148.662	20/1/2026	3000	negative (0/12)	negative (0/12)		negative (0/12)
TR12	Tantangara Reservoir	Tantangara Reservoir	-35.795577	148.66145	20/1/2026	3000	negative (0/12)	negative (0/12)		negative (0/12)
TR13	Tantangara Reservoir	Tantangara Reservoir	-35.80275	148.65132	20/1/2026	3000	negative (0/12)	negative (0/12)	negative (0/12)	negative (0/12)
Badja1	Middle Murrumbidgee	Big Badja River	-36.173513	149.34946	1/2/2026	1150	negative (0/6)	negative (0/6)	positive (2/6)	negative (0/6)
Badja2	Middle Murrumbidgee	Big Badja River	-36.12959	149.48159	1/2/2026	3950	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (ml)	<i>Perca fluviatilis</i> 12S	<i>Perca fluviatilis</i> ND5	<i>Gambusia holbrooki</i>	<i>Galaxias brevipinnis</i>
Bred01	Middle Murrumbidgee	Bredbo River	-35.963709	149.150911	1/2/2026	1930	negative (0/6)	negative (0/6)	positive (6/6)	negative (0/6)
Bred03	Middle Murrumbidgee	Bredbo River	-35.976	149.4083	1/2/2026	4930	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Cele01	Middle Murrumbidgee	Celeys Creek	-35.987278	149.40407	1/2/2026	2340	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
COOMA 1	Middle Murrumbidgee	Cooma Creek	-36.192411	149.117679	2/2/2026	4460	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Cooma2	Middle Murrumbidgee	Cooma Creek	-36.24247	149.1332	2/2/2026	310	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Cooma4	Middle Murrumbidgee	Cooma Creek	-36.17537	149.15443	4/2/2026	990	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Cooma5	Middle Murrumbidgee	Cooma Creek	-36.22985	149.12023	4/2/2026	3520	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Cowra2	Middle Murrumbidgee	Cowra Creek	-36.05743	149.39019	1/2/2026	2300	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
GOOR01	Middle Murrumbidgee	Goorudee River	-35.98488	148.7691	2/2/2026	2130	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Gudg01	Middle Murrumbidgee	Gudgenby River	-35.525942	149.07333	4/2/2026	4390	negative (0/6)	negative (0/6)	equivocal (1/6)	negative (0/6)
Kybeyan 1	Middle Murrumbidgee	Kybeyan River	-36.36386	149.42213	31/1/2026	1580	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Kybeyan 2	Middle Murrumbidgee	Kybeyan River	-36.2202	149.36223	1/2/2026	940	negative (0/6)	negative (0/6)	positive (6/6)	negative (0/6)
Mich01	Middle Murrumbidgee	Michelago Creek	-35.706686	149.15791	4/2/2026	2560	negative (0/6)	negative (0/6)	positive (6/6)	negative (0/6)
MR01	Middle Murrumbidgee	Murrumbidgee Rv	-35.7995	148.6762	2/2/2026	1380	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
MR03	Middle Murrumbidgee	Murrumbidgee Rv	-35.82624	148.80301	2/2/2026	3640	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
MR06	Middle Murrumbidgee	Murrumbidgee Rv	-35.980784	148.84063	2/2/2026	3950	negative (0/6)	negative (0/6)	equivocal (1/6)	negative (0/6)
MR06a	Middle Murrumbidgee	Murrumbidgee Rv	-35.979951	148.89195	2/2/2026	3310	negative (0/6)	negative (0/6)	positive (2/6)	negative (0/6)
MR08	Middle Murrumbidgee	Murrumbidgee Rv	-36.170377	149.091151	2/2/2026	1590	negative (0/6)	negative (0/6)	positive (3/6)	negative (0/6)
MR09a	Middle Murrumbidgee	Murrumbidgee Rv	-36.02368	149.13857	1/2/2026	1150	negative (0/6)	negative (0/6)	equivocal (1/6)	negative (0/6)

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (ml)	<i>Perca fluviatilis</i> 12S	<i>Perca fluviatilis</i> ND5	<i>Gambusia holbrooki</i>	<i>Galaxias brevipinnis</i>
MR09b	Middle Murrumbidgee	Murrumbidgee Rv	-36.08527	149.13405	1/2/2026	1350	negative (0/6)	negative (0/6)	positive (3/6)	negative (0/6)
NUM10	Middle Murrumbidgee	Numerella Rv	-36.0823	149.15092	1/2/2026	2030	negative (0/6)	negative (0/6)	equivocal (1/6)	negative (0/6)
MR11	Middle Murrumbidgee	Murrumbidgee Rv	-35.8589	149.1347	4/2/2026	2230	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
MR12.1	Middle Murrumbidgee	Murrumbidgee Rv	-35.58747	149.10995	4/2/2026	1880	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
MR12.2	Middle Murrumbidgee	Murrumbidgee Rv	-35.58128	149.11107	4/2/2026	2120	negative (0/6)	negative (0/6)	equivocal (1/6)	negative (0/6)
MR15	Middle Murrumbidgee	Murrumbidgee Rv	-35.52915	149.0789	4/2/2026	1320	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
MR16	Middle Murrumbidgee	Murrumbidgee Rv	-35.50839	149.0706	4/2/2026	1830	negative (0/6)	negative (0/6)	positive (3/6)	negative (0/6)
NUM2	Middle Murrumbidgee	Numeralla River	-36.176884	149.34853	1/2/2026	1140	negative (0/6)	negative (0/6)	positive (5/6)	negative (0/6)
NumCk01	Middle Murrumbidgee	Numeralla Creek	-36.4607	149.3803	31/1/2026	2960	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
RFC2	Middle Murrumbidgee	Rock Flat Creek	-36.34698	149.21026	31/1/2026	2720	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
SaL02	Middle Murrumbidgee	Strike-a-light River	-35.92401	149.23806	1/2/2026	810	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Scott01	Middle Murrumbidgee	Scotts Creek	-36.487742	149.35795	31/1/2026	--	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)
Yell01	Middle Murrumbidgee	Yellow Creek	-36.029638	149.39286	1/2/2026	1310	negative (0/6)	negative (0/6)	negative (0/6)	negative (0/6)

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (L)	<i>Brown trout</i>	<i>Rainbow trout</i>	<i>Brook trout</i>
GG1C	Upper Eucumbene	Gang Gang Ck	-35.93246	148.60421	2/2/2026	5400	positive (4/6)	positive (4/6)	negative (0/6)
LE1	Lake Eucumbene	Lake Eucumbene	-35.941	148.586	2/2/2026	7090	positive (12/12)	positive (9/12)	negative (0/6)
LE10	Lake Eucumbene	Lake Eucumbene	-36.155	148.821	3/2/2026	10030	equivocal (2/12)	negative (0/12)	negative (0/12)

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (L)	Brown trout	Rainbow trout	Brook trout
LE11	Lake Eucumbene	Lake Eucumbene	-36.204	148.791	3/2/2026	10160	positive (9/12)	equivocal (1/12)	negative (0/12)
LE16	Lake Eucumbene	Lake Eucumbene	-36.072	148.605	3/2/2026	10120	equivocal (2/12)	negative (0/12)	negative (0/12)
TA1	Upper Murrumbidgee	Tantangara Creek	-35.7541	148.562	23/1/2026	4000	positive (6/6)	positive (6/6)	negative (0/6)
TA4	Upper Murrumbidgee	Tantangara Creek	-35.8357	148.5728	26/1/2026	4000	positive (3/6)	positive (4/6)	negative (0/6)
TA5	Upper Murrumbidgee	Tantangara Creek	-35.839	148.569	26/1/2026	4000	negative (0/6)	negative (0/6)	negative (0/6)
TA6	Upper Murrumbidgee	Tantangara Creek	-35.8495	148.5695	26/1/2026	3100	negative (0/6)	negative (0/6)	negative (0/6)
MR08	Middle Murrumbidgee	Murrumbidgee Rv	-36.170377	149.091151	2/2/2026	1590	negative (0/6)	negative (0/6)	negative (0/6)

Appendix 2. Negative controls collected to assess for field sampling contamination.

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (L)	<i>Perca fluviatilis</i> 12S	<i>Perca fluviatilis</i> ND5	<i>Gambusia holbrooki</i>	<i>Galaxias brevipinnis</i>
EC-MR06	Middle Murrumbidgee	Murrumbidgee Rv	-35.9808	148.8406	2/2/2026	620			negative (0/6)	
EC-MR06a	Middle Murrumbidgee	Murrumbidgee Rv	-35.98	148.892	2/2/2026	690			negative (0/6)	
EC-MR09b	Middle Murrumbidgee	Murrumbidgee Rv	-36.08527	149.13405	1/2/2026	860			negative (0/6)	
EC-MR15	Middle Murrumbidgee	Murrumbidgee Rv	-35.52915	149.0789	4/2/2026	420	negative (0/6)	negative (0/6)		
EC-MR16	Middle Murrumbidgee	Murrumbidgee Rv	-35.50839	149.0706	4/2/2026	610	negative (0/6)	negative (0/6)		
EC-GG01	Eucumbene	Gang Gang Ck	-35.93246	148.6042	2/2/2026	490				negative (0/6)

Site	Catchment	Waterway	Latitude	Longitude	Collection date	Volume filtered (L)	<i>Brown trout</i>	<i>Rainbow trout</i>	<i>Brook trout</i>
EC-LE7	Lake Eucumbene	Lake Eucumbene	-36.032	148.725	3/2/2026	490	negative (0/6)	negative (0/6)	negative (0/6)

Appendix B

Snowy 2.0 Fish Sampling and Collection Report 2026

austral

research and consulting

Snowy 2.0 Fish Sampling and Collection Report 2026

- Final
- August 2026

Austral Research and Consulting
ABN 73 007 840 779
23 Buntings Rd
Kirkstall Vic 3283 Australia
Web: www.austral.net.au

Document history and status

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
Draft V1	7/4/2026	Dion Iervasi	Dion Iervasi	7/4/2026	Draft
Draft V1	7/4/2026	E. Pope	Lizzie Pope	15/7/2026	Draft Review
Draft V1	5/8/2026	Jackson Lamin	Jackson Lamin	7/8/2026	Address Review comments
Final	10/8/2026	Dion Iervasi	Dion Iervasi	10/8/2026	Review and issue of final report
Final	10/8/2026	E. Pope	Dion Iervasi	12/8/2026	Minor edits

Distribution of copies

Revision	Copy no	Quantity	Issued to

Printed:	12 August 2026
Last saved:	12 August 2026 09:57 AM
File name:	Snowy 2.0 – Fish Sampling and Collection Report 2026
Author:	Dion Iervasi, Jackson Lamin
Project manager:	Dion Iervasi
Name of organisation:	Snowy Hydro
Name of project:	2026 Snowy 2.0 Fish Collection
Name of document:	Snowy 2.0 – Fish Sampling and Collection Report 2026
Document version:	Final

Please cite this report as:

Austral Research and Consulting. (2026). *Snowy 2.0 Fish Sampling and Collection Report 2026*. Consultancy report for Snowy Hydro Limited.

Contents

1.	Introduction	4
2.	Methods	7
2.1.	Survey Method	7
2.1.1.	Backpack electrofishing	7
2.1.2.	Boat Electrofishing	7
2.2.	Fyke netting	7
2.3.	Data collection, sampling and processing	8
2.4.	EHNV Surveillance monitoring effort	8
3.	Results	10
4.	Summary	13
5.	References	14
6.	Appendix 1: Revised Snowy 2.0 Biosecurity Risk Management Plan	15

1. Introduction

Austral Research and Consulting (Austral) were contracted by Snowy Hydro to sample Tantangara Reservoir and tributaries to collect fish to execute the requirements of the revised Snowy 2.0 Biosecurity Risk Management Plan (BRMP) disease surveillance program (Snowy Hydro, 2025; Appendix 1). This 2026 program continues the ongoing monitoring of the project for the presence of EHN virus in waterways that may be impacted by the operation of Snowy 2.0. EHN virus was detected in Redfin perch from the 2025 surveys in Talbingo Reservoir (Snowy Hydro, 2025). The newly detected presence of EHN virus in Talbingo Reservoir has triggered a shift in the disease surveillance program under the BRMP, with the focus now on whether EHN virus is present in rainbow trout in Tantangara Reservoir. The revised BRMP disease program required the collection and sampling of Rainbow trout from Tantangara Reservoir and its tributaries for the 2026 sampling round (Appendix 1). The areas sampled across the 2026 program are shown in Figure 1 and Figure 2.

Species targeted in the 2026 program included Rainbow Trout (*Oncorhynchus mykiss*) with Brown Trout (*Salmo trutta*) also collected. The program also recorded other species detected during the sampling to confirm the current fish species diversity in Tantangara Reservoir. Opportunistic visual examination of captured fish for the presence of *Lernaea* also formed part of the program. All surveys and activities were conducted under NSW Animal Research Authority – RVF21/3375 (Animal Ethics), NSW DPI fisheries permit Section 37 Research Permit – FP24/89 and Animal Research Licence number – 82073

This report details the methods used to collect fish and blood samples for the Revised BRMP disease surveillance program and summarises the results of the surveys.

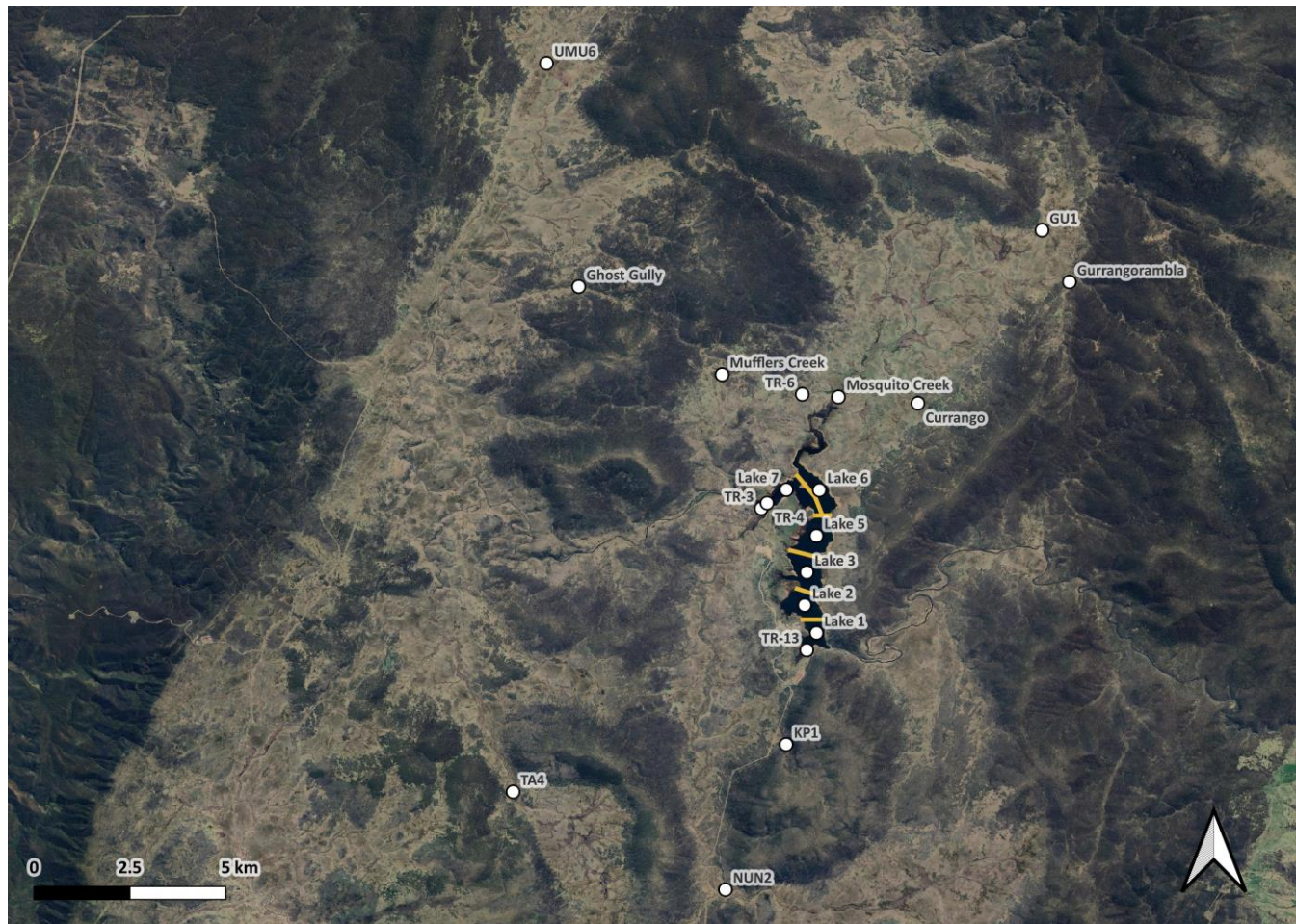


Figure 1: Sample locations for EHNV monitoring program.



Figure 2: Tantangara Reservoir partitioning for EHNV monitoring

2. Methods

Sites were selected in both Tantangara reservoir and the connected upstream tributaries. Tantangara reservoir was divided into 6 zones (Figure 2). Boat electrofishing and fyke netting were the methods used in the reservoir. Survey sites within the tributaries were selected based on previous survey success and accessibility from track intersections. Backpack and fyke netting were used in the tributaries.

2.1. Survey Method

Fish collection occurred from the 18th to the 30th of January 2026. Survey methods included:

- 1) Fyke netting,
- 2) Boat electrofishing, and
- 3) Backpack electrofishing.

2.1.1. Backpack electrofishing

Backpack electrofishing was performed at suitable sites using a Smith-Root LR-24 electrofisher. The sampling procedure involved electrofishing all wadable areas of the waterways targeting available fish habitat such as rocks, snags and riffles. The amount of survey effort employed at each site was determined by the size of the waterway and availability of wadable water. The survey effort (electro fisher on time) was recorded at each site.

2.1.2. Boat Electrofishing

Boat electrofishing was performed across all navigable areas at selected sites, targeting suitable fish habitat. Austral used a 4.3 m electrofishing vessel "MSV11263" for the surveys. The vessel was equipped with Smith root 7.5 GPP boat electrofishing unit, two boom arms with 16-dropper anode arrays and hull cathode. During electrofishing immobilised fish were netted from the water and transferred to a holding tank to recover.

Fish observed as affected by the electric field and positively identified, but not captured, were also counted. The fishing effort at each site was recorded.

2.2. Fyke netting

Fyke nets were deployed in both Tantangara Reservoir and the tributaries. Small single wing fyke nets with 600m D-rings were used in the tributaries and small water ways. Large double wing fyke nets with 900mm hoops and 8m long wings were set in the reservoir. Fyke nets were deployed overnight and retrieved the following morning.

2.3. Data collection, sampling and processing

All fish were identified to species level, measured (Fork length) and weighted to the nearest gram. Experienced ecologists identified individuals in the field however young of year Brown Trout and Rainbow Trout can be difficult to distinguish at smaller sizes. Therefore, it is possible that some individual young of year trout may potentially have been misidentified.

Adult fish of each species had a 0.5ml blood sample taken from the caudal vein. The blood samples were allowed to stand at room temperature for approximately 30minutes to allow for the blood to separate. The samples were then refrigerated. The fish were then euthanised and frozen. Frozen fish and blood samples were then shipped to the laboratory for processing.

All captured fish were assessed for presence of parasites including *Lernaea*.

2.4. EHNV Surveillance monitoring effort

The methods used and total effort for each site are detailed in Table 1.

Table 1: Method and effort completed for EHNV monitoring.

Site	Catchment	Backpack Electrofishing	Boat Electrofishing	EF On-time (secs)	Fyke Nets
GU1	Upper Murrumbidgee	✓		450	
TA4	Upper Murrumbidgee	✓		1800	5
UMU6	Upper Murrumbidgee	✓		1800	
Ghost Gully	Upper Murrumbidgee	✓		600	
TR13	Tantangara	✓		600	
TR3	Tantangara	✓		750	
TR4	Tantangara	✓		1800	
TR6	Tantangara	✓		450	
Mosquito Creek	Tantangara	✓		1800	
Mufflers Creek	Tantangara	✓		1350	
Currango	Tantangara	✓		240	
KP1	Tantangara	✓		720	
NUN2	Tantangara	✓		390	
Gurrangorambla	Tantangara	✓		5400	
Lake 1 (Nungar Creek end)	Tantangara		✓	1944	9
Lake 2	Tantangara		✓	1824	
Lake 3	Tantangara		✓	488	
Lake 4	Tantangara	Not Surveyed ¹			
Lake 5	Tantangara		✓	990	2
Lake 6 (Murrumbidgee)	Tantangara		✓	9321	2
Lake 7 (Mosquito Creek)	Tantangara		✓	2508	2

Note 1 – Not surveyed because site does not exist.

3. Results

Sampling locations were located in Tantangara reservoir and its tributaries including the upper Murrumbidgee River (Figure 1). The sample collection relied heavily on backpack and boat electrofishing (Table 1). Backpack electrofishing and boat electrofishing were found to be the most effective methods for sample collection. No fish were captured using fyke nets.

A total of 238 individual trout were collected during the survey. Brown trout (*Salmo trutta*) were the most abundant species encountered during the sampling program and accounted for 66% (157 individuals) of the total catch with Rainbow trout (*Oncorhynchus mykiss*) less prevalent (Table 2 and Table 3) with 81 individuals sampled. No other species of fish were detected. Yabbies (*Cherax destructor*) were widespread and encountered at multiple tributary sites (Table 4). Rioks Spiny Crayfish (*Euasticus reiki*) was found at a single location, Gurrangorambla Creek. The identification was determined based on the previous presence of the species in this area as definitive identification requires destructive sampling. Across all sites an additional 8 Brown Trout and 18 Rainbow Trout were observed, but not captured, during survey efforts (Table 4).

Fish captures were less prevalent in the reservoir than the tributaries and only accounted for 19% of the fish sampled. The majority of fish (42) captured in the reservoir were collected in the Murrumbidgee arm of the reservoir (Table 3) at the transition zone between the flowing water and the reservoir in water typically less than 2m deep.

Platypus (*Ornithorhynchus anatinus*) were observed in the Murrumbidgee arm of the reservoir during the survey program on three separate occasions with multiple individuals observed at the same time on two occasions.

No captured fish were observed with parasites or *Lernaea* during the EHNV surveillance program although damage and deformities were observed on several specimens.

Table 2: Fish Species and numbers of individuals captured during the EHNV sampling program in Tantangara Reservoir and tributaries.

Species	Backpack EF	Boat EF	Total
Brown trout Adult	76	21	97
Brown trout YOY	60	0	60
Rainbow trout Adult	28	23	51
Rainbow trout YOY	27	3	30
Total	191	47	238

Table 3: Species and numbers of individuals captured across surveyed sites during the EHNV sampling program in Tantangara Reservoir and tributaries.

Site Code	Location type (Reservoir or Creek/River)	Brown Trout	Rainbow trout	Total
GU1	Creek/River	6	4	10
KP1	Creek/River	17	5	22
LAKE1	Reservoir	1	2	3
LAKE2	Reservoir	2		2
LAKE6	Reservoir	18	24	42
NUN2	Creek/River	1		1
TA4	Creek/River	44	17	61
TR3	Creek/River			0
TR4	Creek/River		1	1
TR6	Creek/River	14		14
UMU6	Creek/River	12		12
Mosquito Creek	Creek/River	1		1
Mufflers Creek	Creek/River	6	13	19
Ghost Gully Creek	Creek/River	2		2
Gurrangorambla Creek	Creek/River	33	15	48
Total		157	81	238

Table 4: Other species captured and numbers of trout observed during the EHNV sampling program in Tantangara Reservoir and tributaries.

Site Code	Spiny Crayfish	Yabbie	Rainbow trout	Brown trout	Total
GU1					0
KP1		(2)		(2)	(4)
LAKE1			(9)		(9)
LAKE2					0
LAKE6			(2)	(4)	(6)
NUN2					0
TA4			(3)	(2)	(5)
TR3		33			33
TR4		21			21
TR6		(78)			(78)
UMU6		8			8
Mosquito Creek		(36)			(36)
Mufflers Creek		(14)	(4)		(18)
Ghost Gully Creek		(5)			(5)
Gurrangorambla Creek	17				17
Total	17	62 (135)	(18)	(8)	79 (161)

Note: Observation numbers in brackets

4. Summary

Across all survey sites a total of 238 individuals were collected for sampling including Rainbow trout and Brown trout. No other fish species were encountered.

Catch efficiency within the lake habitats was poor, with capture success restricted to the transition areas between the creeks and lake habitat particularly around the Murrumbidgee river and Nungar Creek. Other methods were considered and deployed (i.e. fyke nets) during the sampling and were found to be ineffective.

Gill netting is an option for future surveys but this is not recommended due to the presence of platypus which would be at risk of harm from the use of this net type.

Backpack electrofishing was found to be effective in the tributaries where habitat suitability (water depth and flow) permitted. The distribution of fish was variable and fish were absent in some locations where they have been previously surveyed.

Future sampling (2026-27) is recommended to focus on the tributaries and the transitions zones between the lake and inflowing waters.

5. References

QGIS.org. (n.d.). QGIS Geographic Information System. Retrieved from
<http://www.qgis.org>

Snowy Hydro Limited (2025) Snowy 2.0 Biosecurity Risk Management Plan – 2024/25 Annual Report. Report prepared by Snowy Hydro Limited. August 2025. Available at: www.snowyhydro.com.au.

6. Appendix 1: Revised Snowy 2.0 Biosecurity Risk Management Plan

Appendix F – Revised BRMP Disease Surveillance Program

Revision 2, August 2025

This disease surveillance program is based on advice provided by Diggles (2022b), Dr Paul Hick from the Elizabeth Macarthur Agricultural Institute (EMAI) and Dr Jeffrey Go from NSW DPIRD, Aquatic Biosecurity.

Surveillance will include both active and passive components.

Following a positive detection of EHN in Talbingo Reservoir in February 2025 the disease surveillance program has been reviewed. As EHN has been confirmed present in the Talbingo Reservoir Redfin population, the focus for the program has shifted to determining the potential presence of EHN in Tantangara Reservoir which is currently considered Redfin and EHN free.

Active Surveillance

Targeted active sampling for EHN will be undertaken in Tantangara Reservoir targeting the summer months between December and February once water temperatures exceed 19°C. Annual surveillance surveys will occur for two consecutive years, to meet the international requirements for declaration of freedom from disease (OIE, 2015).

As Redfin is considered absent from Tantangara Reservoir, the target fish species is Rainbow trout although any non-native species collected during sampling will be sent for laboratory testing for EHN. Each sampling season, best efforts will be made to lethally sample the numbers of fish presented in Table 5 for EHN analysis using qPCR testing and if available, serology. Fish collection will be undertaken using electrofishing, netting, lures, baited hooks or other suitable approved methods of capturing fish.

Table 5: Surveillance design for detecting EHN in Tantangara reservoir.

Location	Water Temperature	Time of Year	No. of samples and species targeted for lethal testing by qPCR and serology
Tantangara Reservoir	>19°C	Dec-Feb	Rainbow Trout (n ≥ 156)

The reservoir will be partitioned into 5-10 units, depending on water levels, with fish in each unit to be collected and bagged separately. Fish from each unit will be analysed to account for disease clustering. The collection of unwell or injured fish or fish showing unusual external signs (including signs of disease) will be prioritised. Sampling effort will occur for up to 10 days. If more than the required number of fish are collected, additional fish will be analysed for qPCR using pooled sampling. In the event that insufficient numbers of fish can be collected, Snowy Hydro will consult with NSW DPIRD on the appropriate course of action.

Chilled samples of whole fish will be maintained at 2-4°C and sent to the laboratory within three days. Alternatively, the samples will be frozen at -20°C prior to transport to the laboratory as soon as practicable. The preferred laboratory to conduct the testing is the OIE Reference Laboratory for infection with EHN, namely, EMAI. Any non-normal results from qPCR analysis will be tested by conventional PCR and sequence analysis to increase sensitivity and specificity.

If analysis capability is available at the EMAI, blood samples will also be collected from the caudal vein of up to 156 adult fish and placed in labelled tubes and placed on ice or in a portable fridge. The same fish can be tested using qPCR and serology.

Notification of suspected emergency disease and positive test results for EHN will be undertaken according to legislative requirements.

During pest fish and EHN surveillance activities, opportunistic visual examination of captured fish for the presence of *Lernaea* will occur. This will be done by visually examining all relevant fish species, including juvenile and adult Redfin, native species such as Trout Cod, Golden Perch, Mountain Galaxias, as well as exotic Rainbow and Brown Trout and Goldfish that are collected during sampling for EHN or pest fish. Non-lethal sampling of desirable species will aim to minimise

handling time and stress, and involve brief, gentle handling of freshly captured fish including close visual observation of the entire body surface (including fins and under opercula) prior to their release at the site of capture.

Specific diagnostic tests are not required for *Lernaea*, however in order to confirm a positive detection in an area where the parasite is not already confirmed to occur, where appropriate, voucher specimens will be dissected from the infected fish and fixed in 70% ethanol before being sent to an appropriate person/facility for official identification.

This surveillance program will be reviewed following a positive detection of EHNV within the surveillance catchments or following two consecutive years of negative samples within the target area.

Passive Surveillance

Passive surveillance for EHNV will occur across all surveillance catchments for the duration of the BRMP.

Reports of fish kill³ events or fish disease in any of the surveillance catchments will trigger a notification to NSW DPIRD in accordance with legislative requirements and the deployment of a sample collection team as soon as reasonably practicable who will seek to collect dead or moribund fish from the relevant location and submit them for EHNV testing. Any affected fish species will be collected and will include a minimum of five and up to 30 moribund or freshly dead fish per location where possible. Visual examination of any affected fish species for *Lernaea* will also occur.

Appendix C

EHNV and Lernaea Result Summary

Table C1: Results of EHNV Analysis and Lernaea observations

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
21/01/2026	22/01/2026	Backpack EF	Mosquito Creek	Adult	TAN 1 - T	Negative	TAN 1 - B	Negative	Brown Trout	240	130	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 2 - T	Negative	TAN 2 - B	Negative	Brown Trout	282	276	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 3 - T	Negative	TAN 3 - B	Negative	Rainbow trout	161	48	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 4 - T	Negative	TAN 4 - B	Negative	Brown trout	126	33	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 5 - T	Negative	TAN 5 - B	Negative	Brown trout	121	30	
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	YOY	TAN 6 - T	Negative			Rainbow trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	YOY	TAN 6 - T	Negative			Rainbow trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	YOY	TAN 6 - T	Negative			Rainbow trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	YOY	TAN 6 - T	Negative			Rainbow trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	YOY	TAN 6 - T	Negative			Rainbow trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	YOY	TAN 6 - T	Negative			Rainbow trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Ghost Gully Creek	Adult	TAN 7 - T	Negative	TAN 7 - B	Negative	Brown trout	211	116	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Ghost Gully Creek	Adult	TAN 8 - T	Negative	TAN 8 - B	Negative	Brown Trout	194	100	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 9 - T	Negative	TAN 9 - B	Negative	Brown Trout	302	337	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 10 - T	Negative	TAN 10 - B	Negative	Rainbow trout	208	108	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 11 - T	Negative	TAN 11 - B	Negative	Rainbow trout	176	65	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 12 - T	Negative	TAN 12 - B	Negative	Rainbow trout	188	78	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 13 - T	Negative	TAN 13 - B	Negative	Brown trout	258	205	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	Adult	TAN 14 - T	Negative	TAN 14 - B	Negative	Brown trout	181	76	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	Adult	TAN 15 - T	Negative	TAN 15 - B	Negative	Brown trout	186	85	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	Adult	TAN 16 - T	Negative	TAN 16 - B	Negative	Brown trout	231	140	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 17 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 18 - T	Negative			Brown trout			No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 18 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 18 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 18 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Tantangara Reservoir	YOY	TAN 18 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	Adult	TAN 19 - T	Negative	TAN 19 - B	Negative	Rainbow trout	143	43	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	Adult	TAN20 - T	Negative	TAN 20 - B	Negative	Rainbow trout	136	34	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	Adult	TAN21 - T	Negative	TAN 21 - B	Negative	Rainbow trout	128	34	No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN22 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN22 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN22 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN22 - T	Negative			Brown trout			No Lernaea
21/01/2026	22/01/2026	Backpack EF	Nungar Creek	Adult	TAN23 - T	Negative	TAN 23- B	Negative	Brown trout	287	252	No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek tributary	YOY	TAN 24 - T	Negative			Rainbow trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek tributary	YOY	TAN 24 - T	Negative			Rainbow trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek tributary	YOY	TAN 24 - T	Negative			Rainbow trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek tributary	YOY	TAN 24 - T	Negative			Rainbow trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 25 - T	Negative			Rainbow trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 25 - T	Negative			Rainbow trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 26 - T	Negative			Brown trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 26 - T	Negative			Brown trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 26 - T	Negative			Brown trout			No Lernaea
22/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 26 - T	Negative			Brown trout			No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
24/01/2026	26/01/2026	Backpack EF	at Long Plain Road	YOY	TAN 36 - T	Negative			Brown trout			No Lernaea
24/01/2026	26/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 37 - T	Negative			Brown trout			No Lernaea
24/01/2026	26/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 37 - T	Negative			Brown trout			No Lernaea
24/01/2026	26/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 37 - T	Negative			Brown trout			No Lernaea
24/01/2026	26/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 37 - T	Negative			Brown trout			No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 38 - T	Negative	TAN 38 - B	Negative	Brown trout	533	1960	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Kelly's Plain Creek	Adult	TAN 39 - T	Negative	TAN 39 - B	Negative	Rainbow trout	124	31	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Kelly's Plain Creek	Adult	TAN 40 - T	Negative	TAN 40 - B	Negative	Rainbow trout	179	93	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 41 - T	Negative	TAN 41 - B	Negative	Brown trout	233	156	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 42 - T	Negative	TAN 42 - B	Negative	Brown trout	198	99	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 43 - T	Negative	TAN 43 - B	Negative	Brown trout	248	171	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 44 - T	Negative	TAN 44 - B	Negative	Brown trout	246	195	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 45 - T	Negative	TAN 45 - B	Negative	Brown trout	197	115	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 46 - T	Negative	TAN 46 - B	Negative	Rainbow trout	154	42	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 47 - T	Negative	TAN 47 - B	Negative	Brown trout	186	85	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 48 - T	Negative	TAN 48 - B	Negative	Brown trout	163	55	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 49 - T	Negative	TAN 49 - B	Negative	Brown trout	205	114	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 50 - T	Negative	TAN 50 - B	Negative	Brown trout	278	259	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 51 - T	Negative	TAN 51 - B	Negative	Brown trout	242	168	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 52 - T	Negative	TAN 52 - B	Negative	Brown trout	165	52	No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
			Creek									
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 53 - T	Negative	TAN 53 - B	Negative	Brown trout	272	247	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 54 - T	Negative	TAN 54 - B	Negative	Brown trout	161	60	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 55 - T	Negative	TAN 55 - B	Negative	Rainbow trout	194	88	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 56 - T	Negative	TAN 56 - B	Negative	Brown trout	201	102	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 57 - T	Negative	TAN 57 - B	Negative	Brown trout	175	68	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 58 - T	Negative	TAN 58 - B	Negative	Rainbow trout	168	60	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 59 - T	Negative	TAN 59 - B	Negative	Brown trout	173	58	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 60 - T	Negative	TAN 60 - B	Negative	Brown trout	177	72	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 61 - T	Negative	TAN 61 - B	Negative	Brown trout	239	161	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 62 - T	Negative	TAN 62 - B	Negative	Brown trout	168	53	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 63 - T	Negative	TAN 63 - B	Negative	Brown trout	193	91	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 64 - T	Negative	TAN 64 - B	Negative	Brown trout	213	131	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 65 - T	Negative	TAN 65 - B	Negative	Brown trout	167	163	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 66 - T	Negative	TAN 66 - B	Negative	Brown trout	198	122	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 67 - T	Negative	TAN 67 - B	Negative	Rainbow trout	324	493	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 68 - T	Negative	TAN 68 - B	Negative	Brown trout	302	322	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 69 - T	Negative	TAN 69 - B	Negative	Rainbow trout	365	513	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 70 - T	Negative	TAN 70 - B	Negative	Brown trout	298	362	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 71 - T	Negative	TAN 71 - B	Negative	Brown trout	232	179	No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 72 - T	Negative	TAN 72 - B	Negative	Brown trout	304	480	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 73 - T	Negative	TAN 73 - B	Negative	Brown trout	217	134	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 74 - T	Negative	TAN 74 - B	Negative	Rainbow trout	210	142	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 75 - T	Negative	TAN 75 - B	Negative	Brown trout	348	522	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 76 - T	Negative	TAN 76 - B	Negative	Rainbow trout	230	184	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 77 - T	Negative	TAN 77 - B	Negative	Rainbow trout	225	157	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 78 - T	Negative	TAN 78 - B	Negative	Brown trout	300	330	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 79 - T	Negative	TAN 79 - B	Negative	Rainbow trout	234	165	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 80 - T	Negative	TAN 80 - B	Negative	Rainbow trout	214	139	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 81 - T	Negative	TAN 81 - B	Negative	Brown trout	257	241	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 82 - T	Negative	TAN 82 - B	Negative	Brown trout	402	1085	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 83 - T	Negative	TAN 83 - B	Negative	Rainbow trout	342	466	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 84 - T	Negative	TAN 84 - B	Negative	Brown trout	324	438	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Murrumbidgee River at Long Plain Road	Adult	TAN 85 - T	Negative	TAN 85 - B	Negative	Brown trout	184	102	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Murrumbidgee River at Long Plain Road	Adult	TAN 86 - T	Negative	TAN 86 - B	Negative	Brown trout	181	98	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Murrumbidgee River at Long Plain Road	Adult	TAN 87 - T	Negative	TAN 87 - B	Negative	Brown trout	190	115	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Murrumbidgee River at Long Plain Road	Adult	TAN 88 - T	Negative	TAN 88 - B	Negative	Brown trout	149	72	No Lernaea
25/01/2026	26/01/2026	Backpack EF	Murrumbidgee River at Long Plain Road	Adult	TAN 89 - T	Negative	TAN 89 - B	Negative	Brown trout	182	103	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 90 - T	Negative	TAN 90 - B	Negative	Rainbow trout	236	174	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 91 - T	Negative	TAN 91 - B	Negative	Rainbow trout	213	138	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 92 - T	Negative	TAN 92 - B	Negative	Rainbow trout	211	114	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 93 - T	Negative	TAN 93 - B	Negative	Rainbow trout	235	177	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 94 - T	Negative	TAN 94 - B	Negative	Rainbow trout	206	98	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 95 - T	Negative	TAN 95 - B	Negative	Rainbow trout	174	70	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 96 - T	Negative	TAN 96 - B	Negative	Rainbow trout	185	82	No Lernaea
25/01/2026	26/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 97 - T	Negative	TAN 97 - B	Negative	Rainbow trout	185	68	No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 98 - T	Negative	TAN 98 - B	Negative	Brown trout	212	126	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 99 - T	Negative	TAN 99 - B	Negative	Brown trout	180	66	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 100 - T	Negative	TAN 100 - B	Negative	Brown trout	194	105	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 101 - T	Negative	TAN 101 - B	Negative	Brown trout	247	188	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 102 - T	Negative	TAN 102 - B	Negative	Brown trout	223	253	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 103 - T	Negative	TAN 103 - B	Negative	Brown trout	188	92	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 104 - T	Negative	TAN 104 - B	Negative	Brown trout	176	77	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 105 - T	Negative	TAN 105 - B	Negative	Rainbow trout	181	85	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 106 - T	Negative	TAN 106 - B	Negative	Brown trout	200	109	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 107 - T	Negative	TAN 107 - B	Negative	Brown trout	178	72	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 108 - T	Negative	TAN 108 - B	Negative	Brown trout	171	73	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 109 - T	Negative	TAN 109 - B	Negative	Rainbow trout	216	134	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 110 - T	Negative	TAN 110 - B	Negative	Brown trout	182	83	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 111 - T	Negative	TAN 111 - B	Negative	Brown trout	281	292	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 112 - T	Negative	TAN 112 - B	Negative	Brown trout	171	67	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 113 - T	Negative	TAN 113 - B	Negative	Brown trout	231	185	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 114 - T	Negative	TAN 114 - B	Negative	Brown trout	161	53	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 115 - T	Negative			Rainbow trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 115 - T	Negative			Rainbow trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 115 - T	Negative			Rainbow trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 115 - T	Negative			Rainbow trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 115 - T	Negative			Rainbow trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 116 - T	Negative			Brown trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 115 - T	Negative			Brown trout			No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 117 - T	Negative	TAN 117- B	Negative	Rainbow trout	179	82	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 118 - T	Negative	TAN 118 - B	Negative	Brown trout	190	90	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 119 - T	Negative	TAN 119 - B	Negative	Rainbow trout	161	52	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 120 - T	Negative	TAN 120 - B	Negative	Brown trout	222	152	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 121 - T	Negative	TAN 121 - B	Negative	Rainbow trout	176	64	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 122 - T	Negative	TAN 122 - B	Negative	Brown trout	242	202	No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 123 - T	Negative	TAN 123 - B	Negative	Brown trout	160	57	No Lernaea
27/01/2026	28/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 124 - T	Negative	TAN 124 - B	Negative	Brown trout	189	43	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Kelly's Plain Creek	YOY	TAN 125 - T	Negative			Brown trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 126 - T	Negative	TAN 126 - B	Negative	Rainbow trout	217	130	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 127 - T	Negative	TAN 127 - B	Negative	Brown trout	212	130	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 128 - T	Negative	TAN 128 - B	Negative	Rainbow trout	115	21	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Mufflers Creek	Adult	TAN 129 - T	Negative	TAN 129 - B	Negative	Rainbow trout	144	40	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 130 - T	Negative	TAN 130 - B	Negative	Brown trout	250	229	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 131 - T	Negative	TAN 131 - B	Negative	Brown trout	198	100	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 132 - T	Negative	TAN 132 - B	Negative	Rainbow trout	158	61	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	Adult	TAN 133 - T	Negative	TAN 133 - B	Negative	Rainbow trout	147	38	No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 134 - T	Negative			Rainbow trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 134 - T	Negative			Rainbow trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 134 - T	Negative			Rainbow trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 134 - T	Negative			Rainbow trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 135 - T	Negative			Rainbow trout			No Lernaea

Snowy 2.0 Biosecurity Risk Management Plan – 2025/2026 Annual Report

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
			Creek									
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 135 - T	Negative			Rainbow trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 135 - T	Negative			Rainbow trout			No Lernaea
28/01/2026	30/01/2026	Backpack EF	Gurrangorambla Creek	YOY	TAN 135 - T	Negative			Rainbow trout			No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 136 - T	Negative	TAN 136 - B	Negative	Rainbow trout	362	498	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 137 - T	Negative	TAN 137 - B	Negative	Brown trout	372	653	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 138 - T	Negative	TAN 138 - B	Negative	Brown trout	253	179	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 139 - T	Negative	TAN 139 - B	Negative	Rainbow trout	233	169	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 140 - T	Negative	TAN 140 - B	Negative	Rainbow trout	174	67	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 141 - T	Negative	TAN 141 - B	Negative	Brown trout	304	364	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 142 - T	Negative	TAN 142 - B	Negative	Rainbow trout	164	60	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 143 - T	Negative	TAN 143 - B	Negative	Rainbow trout	165	64	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 144 - T	Negative	TAN 144 - B	Negative	Brown trout	219	126	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 145 - T	Negative	TAN 145 - B	Negative	Brown trout	230	140	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 146 - T	Negative	TAN 146 - B	Negative	Brown trout	211	120	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 147 - T	Negative	TAN 147 - B	Negative	Rainbow trout	225	125	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	Adult	TAN 148 - T	Negative	TAN 148 - B	Negative	Brown trout	242	177	No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	YOY	TAN 149 - T	Negative			Rainbow trout			No Lernaea
29/01/2026	30/01/2026	Boat EF	Tantangara Reservoir	YOY	TAN 149 - T	Negative			Rainbow trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 150 - T	Negative	TAN 150 - B	Negative	Brown trout	187	94	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 151 - T	Negative	TAN 151 - B	Negative	Rainbow trout	172	63	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 152 - T	Negative	TAN 152 - B	Negative	Brown trout	192	99	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 153 - T	Negative	TAN 153 - B	Negative	Brown trout	277	267	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 154 - T	Negative	TAN 154 - B	Negative	Brown trout	170	71	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 155 - T	Negative	TAN 155 - B	Negative	Rainbow trout	146	43	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 156 - T	Negative	TAN 156 - B	Negative	Rainbow trout	188	77	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 157 - T	Negative	TAN 157 - B	Negative	Brown trout	174	68	No Lernaea

Date Collected	Date Shipped	Collection Method	Location Name	Fish Type	qPCR Sample Number	EHNV Real Time PCR Result	ELISA Sample ID	EHNV ELISA Result	Species	Length	Weight	Lernaea?
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 158 - T	Negative	TAN 158 - B	Negative	Rainbow trout	141	38	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 159- T	Negative	TAN 159- B	Negative	Brown trout	269	256	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 160- T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 160- T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 160- T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 160- T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 160- T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 160- T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 161- T	Negative	TAN 161- B	Negative	Brown trout	174	66	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 162- T	Negative	TAN 162- B	Negative	Rainbow trout	168	53	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 163- T	Negative	TAN 163- B	Negative	Rainbow trout	170	56	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 164- T	Negative	TAN 164- B	Negative	Brown trout	181	63	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 165- T	Negative	TAN 165- B	Negative	Brown trout	166	54	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 166- T	Negative	TAN 166- B	Negative	Brown trout	187	88	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 167- T	Negative	TAN 167- B	Negative	Brown trout	198	107	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 168- T	Negative	TAN 168- B	Negative	Brown trout	163	55	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	Adult	TAN 169- T	Negative	TAN 169- B	Negative	Brown trout	260	233	No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 170 - T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 170 - T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 170 - T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 170 - T	Negative			Brown trout			No Lernaea
29/01/2026	30/01/2026	Backpack EF	Tantangara Creek	YOY	TAN 171 - T	Negative			Rainbow trout			No Lernaea

EF - Electrofishing