

19 September 2023

The Department of Planning and Environment
Via major projects planning portal
Attention: Anthony Ko

Dear Sir/Madam,

RE: Submission on Snowy 2.0 Main Works modification SSI-9687-Mod-2

The National Parks Association of NSW offers the following submission on the exhibited modification to the Snowy 2.0 Main Works titled 'Remediation of sinkhole and ground consolidation works to facilitate the progression of TBM Florence at Tantangara'.

Tunnel boring machine (TBM) Florence has excavated 146 metres of a 16 km headrace tunnel in the eighteen months since being commissioned on 22 March 2022. The TBM has been stuck beneath a five metre deep sinkhole since December 2022.

The modification seeks to expand the construction envelope in Kosciuszko National Park (KNP) to enable works to be carried out to free the TBM. Notably it omits any measures to avoid further environmental damage.

The modification application:

- provides no information on the required scope of the application
- reveals that Snowy Hydro's reporting of Florence's predicament has been misleading, failing to acknowledge the magnitude of problems and the extent of damage to KNP;
- establishes that the exploratory borehole drilling failed to detect the soil conditions at the start of the headrace adit tunnel ;
- establishes that the TBM was not fitted for closed mode operation (slurry plant) to handle soft ground at the outset;
- provides no information on the environmental impacts of the grouting operations undertaken to date nor of the expected impacts of further grouting;
- claims that the risk of further sinkholes is unlikely without providing evidence;
- fails to provide a rigorous process to detect further potential problems and undertake measures to avoid additional environmental damage; and
- causes doubts on whether the 'approved construction envelope' is sufficient, potentially triggering another modification request

NPA recommends that the Department of Planning and Environment (DPE) engage independent experts to review the adequacy of the proposed measures to address the current problems and avoid further environmental damage.

Unclear scope of application for modification

NPA has been unable to find a public copy of the scoping letter submitted by Snowy Hydro or the departmental response setting out the requirements for the modification report. In the absence of those documents it is difficult to ascertain whether the problems described below are the result of insufficient guidance by the department or inadequate response by the applicant. In either case, the exhibited application has significant shortcomings.

Contradictory information

The information in the application varies markedly with that previously provided by Snowy Hydro, casting doubt on its credibility. We recommend that DPE seeks clarification from the applicant as to why the application deviates so significantly from their public announcements and confirmation of which account is correct.

Incomplete description of environmental impact

The application does not provide information on the grouting works over the past 18 months. In NPA's view such information is important for assessing the extent of unapproved environmental impact and as indication of the adverse impacts to KNP that may be generated by this application.

Inadequate testing

Snowy Hydro has stated that \$100 million was spent on exploratory borehole drilling prior to the start of tunnelling, yet the difficult soil conditions at the very start of the headrace tunnel were not identified.

The application does not offer any discussion on whether, in response to these failures, a more intensive program of test boreholes is required to reduce the potential for further sinkholes and 'pauses'.

Extent of construction impacts

Since the sinkhole is outside the approved construction envelope, the application should address the consequences of already breaching the terms of the existing approval.

The modification is limited to rehabilitation of the sinkhole and ground consolidation works outside of the approved construction envelope.

In addition, now that the appearance of the sinkhole has demonstrated the potential for adverse surface impacts along the tunnel route, the application should clarify whether an expanded construction envelope is required.

Potential for further sinkholes and impacts on ground water

The Report dismisses the likelihood of further sinkholes, as did the original application. In light of the current reality, in just the first 140 metres of the headrace tunnel, the application should assess the potential environmental impacts and mitigations of additional sinkholes

along Nungar Creek and other waterways along the entire tunnel route with respect to impacts on surface water flows and water table drawdown.

The potential for broader impacts is particularly important given that the Biodiversity Assessment Report is focussed on a relatively tiny area of 0.63 hectares in the immediate vicinity of the existing sinkhole, with no consideration of potential issues along the remaining 26 kilometres of tunnel.

No mention is made of the actions to be taken in areas of naturally occurring asbestos.

Overall, the application needs to be augmented to address *“how we can be assured this will not occur in the future or that no further impacts occur on park”* (NPWS) and *“how the project can safely progress without further environmental damage”* (DPE).

Need for independent expert advice

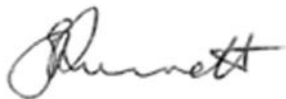
One of the lessons from the Snowy 2.0 project is that advice from Snowy Hydro is invariably optimistic and underestimates the actual extent of environmental impact on KNP. NPA strongly recommends that DPE seek independent expert advice of the unapproved damage that has already occurred in KNP and the potential for this expanded construction envelope to inflict further avoidable damage on the National Park.

Detailed commentary and questions

Attached is a more detailed paper with specific questions that we request be put to Snowy Hydro to assist in DPE’s assessment of the application.

If you have any questions please contact NPA CEO Gary Dunnett at garyd@npansw.org.au.

Yours sincerely,



Gary Dunnett
CEO

National Parks Association of NSW

protecting nature through community action