COMMISSIONER FOR SUSTAINABILITY AND THE ENVIRONMENT

ATTENTION: Anthony Ko

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To whom it may concern

Submission on Snowy 2.0

Introduction

As my office drafts the 2019 SOER in the shadow of both the climate emergency and associated and shocking drought conditions I determined that it might be useful to add the voice of my Office to the submission process in respect of Snowy 2.0.

An enormous opportunity exists to lead and guide climate change research, biodiversity assessment processes, and the consideration of Aboriginal people's deep interest in cultural water entitlements.

The EIS could be described as adequate but it lacks ambition. The available EIS documents include an offset strategy. Much has been said about whether offsets address the loss of the natural asset being 'replaced', and more work should be undertaken in respect of this part of the proposal. Critically, Snowy 2.0 is being built in our iconic Kosciuszko National Park, and this needs to be considered carefully.

Beyond responding to the issue of offsetting, however, Snowy 2.0 provides an opportunity to undertake leading edge scientific research and innovation. It is important to ensure that Snowy 2.0 is not reduced to a straight-forward engineering and infrastructure project. It is being built as a silver bullet for national energy security and a key climate change response, so those designing and building it need to consider matters across the great breadth of such cutting edge projects.

Snowy 2.0 is about inter-basin transfers of water in an over-used, exploited, regional water catchment which is of enormous importance in the broader context, linking as it does to the needs of, and concerns about, the health of Murray Darling Basin and its dependent biodiversity (and communities).

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Snowy 2.0 provides a unique opportunity to explore the application of Australian biophysical science. It should be used to incubate and deliver innovative research programs in parallel with its primary function. The local, national and international research opportunity is to develop greater understanding of climate change resilience in aquatic species and to build that resilience into climate change scenarios.

Associated considerations include environmental flows, inter-basin transfers, and Indigenous cultural water interests.

ACT Environmental Flows – Leading practice

Environmental flows have been in place in the ACT since 1999.

Various flow patterns, natural events, and ecological responses have been researched intensively, particularly through the Millennium Drought, and these have been tested again with construction of the Cotter Dam (2012).

ACT environmental flow regulation and research presents as leading practice and if embraced could assist in guiding the best foundation for Snowy 2.0 to build upon. The current commitment to environmental flows from Tantangara Reservoir needs to be considered in this context. I would urge you as the proponent, to examine this work with care for its insights, implementation challenges, evaluation guidance, and research and engineering feedback loops.

Snowy 2.0 is an opportunity to provide best practice environmental flows as an offset and support the associated research into environmental flow management and outcomes.

Inter-Basin Transfers – science and risk

Residual risks which warrant interventions in respect of inter-basin transfers include:

- the prevention of upstream migration of Climbing galaxias (a native but translocated species) into the habitat of the critically endangered Stocky galaxias, and
- the screening of pest species.

Leading aquatic ecology research and conservation initiatives from work done by the ACT Government provide scientific guidance.

Currently the EIS proposes to reduce pest invasion at the Tantangara outlet by using screens, but it does not propose a screen at the inlet at Talbingo Reservoir.

With no pest control in place between Talbingo and Tantangara, pests would invade across the two systems. Pests such as Redfin Perch (pest species), Climbing Galaxias (invasive native species), Goldfish (pest species) and Gambusia (pest species) currently in Talbingo but not in Tantangara, would spread degrading the quality of the Tantangara ecosystem.

The risk of Redfin invading Tantangara reservoir, is of major concern to the ACT, and from there the upper Murrumbidgee River. Redfin are the main carrier of a fish virus (EHN) that could decimate local ACT endangered fish populations, notably the Macquarie Perch. Relevant research and application of screens to control fish virus has been developed by the ACT.[1]

Screens reduce risks for pest transfer and provide increased risk mitigation in sequence (multiple barrier approach). As a minimum, it would appear from the available science and analysis that screens should be applied at the inlet to Talbingo and outlet from Tantangara and key operational control points.

Indigenous peoples' cultural values in water

The cultural importance of water to the Aboriginal people of the Snowy River region is significant.

Recent research into the connections of Indigenous people with long cultural ties to the Snowy Mountains region, have been described in consultations, conversations, and research which is detailed in the work of Simon Williams, Dianne Connolly and Alice Williams -2019 ('The Recognition of cultural water requirements in the montane rivers of the Snowy Mountains, Australia').[2]

Aboriginal people, including the Bidwell Maap, Maneroo, Wolgalu, Southern Monero/Yuin/Bolga, and Wiradjuri, spoke of environmental and cultural flows, management and use of fish populations, the significance of biodiversity, and of spiritual connections.

To properly inform the assessments of environmental matters in the region Aboriginal people have called for male and female representation on the Snowy River governing body (see s57 of the *Snowy Corporatisation Act 1997*). This invitation has been misunderstood to mean that a single representative is adequate to this need. This is patently erroneous.

To avoid further error or oversight I urge the consideration of appropriate Indigenous recognition and representation in respect of Snowy 2.0, in line with previous submissions of Aboriginal people in this region.

Indigenous people's understanding of water is integral to healthy waterways and resource availability, even as they speak to cultural practices and belief systems.

In the ACT State of the Environment Report 2019 I am reflecting the need to include Aboriginal people in relation to water issues and considering how to do this with integrity and commitment. The Water Resource Plans required under the Murray Darling Basin Plan require Aboriginal people to be properly consulted about water entitlements and issues. In the ACT context this has been done. The need to reflect Aboriginal people's insights and entitlements in water management will grow in the years to come. In this context Snowy 2.0 provides yet another opportunity for practical and respectful leadership.

Thank you for taking the time to consider these matters as you strive to deliver Snowy 2.0.

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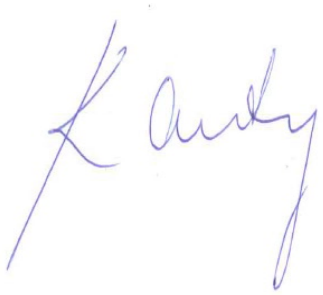
[1] https://www.iconwater.com.au/water-and-sewerage-system/our-projects/water-security-projects/enlarged-cotter-dam/protecting-native-fish-species.aspx

[2] Found in the *Australasian Journal of Environmental Management* 26: 3255-272, accessed on 5 November 2019.

This energy, climate change and water project will continue to be examined (and scrutinised) in the many decades to come. It is important that your legacy is cultural, ecological, and potentially even inspirational, as it builds and informs all our communities about what an inclusive and thoughtful nation of innovators, we really are or can be.

Yours sincerely



Professor Kate Auty
Commissioner for Sustainability
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6 November 2019