



Friends of the Earth Adelaide

c/- Conservation Council of SA, 55 Exchange Place, Adelaide SA 5000
adelaidefoe.org | facebook.com/foe.adelaide | e: adelaide.office@foe.org.au

Northern Water Desalination Plant and Water Transfer System Infrastructure Project EPBC Number: 2025/10397

The Northern Water Desalination and Pipeline Infrastructure Project (Northern Water) is a complex project. This submission addresses just two issues:

1. Giant Australian Cuttlefish, and
2. Mound Springs.

Restricting discussion to these two issues is not meant to imply that there are no other environmental issues that deserve attention.

Recommendations

- An independent comparative environmental analysis of the Mullaquana Station and Cape Hardy sites should be published before a final decision is made.
- The positive and negative impacts of the project on the Great Artesian Basin, the Mound Springs and the River Murray should be included in the assessment.
- Water extractions for Olympic Dam from BHP's Wellfield A should be stopped immediately and extractions from Wellfield B should be progressively shutdown as soon as possible.

1. Giant Australian Cuttlefish

The project documentation states,

[The Cuttlefish Coast Sanctuary] "Zone is located approximately 34 km north-east from the Mullaquana Station desalination plant site. Due to this distance, impacts on this National Heritage Place are not expected"

and

"In terms of the population of USG cuttlefish more broadly, although it is acknowledged that individual transient cuttlefish may be present from time to time, the marine Project Area off the coast of Mullaquana Station does not provide important, unique or breeding habitat for USG cuttlefish and the species is not known to regularly utilise the area" (Attachment D, p. 14).

Based on the above, it might seem reasonable to conclude that "The construction and operation of the Northern Water desalination plant is not expected to have a significant impact on the EPBC Act National Heritage listed CCSZ, and EPBC Act National Heritage values would remain unaffected" (Attachment D, p. 20). On the other hand, the consequences of being wrong are potentially devastating. It is not clear that enough is known about the lives of Giant Cuttlefish apart from their breeding season to be so confident in discounting the possibility that they could be negatively impacted by a desalination plant at Mullaquana Station. Gillanders et al (2016), cited in Attachment D, state, "little is known of their movements when away from the breeding aggregation site".

We believe that the utmost caution should be exercised to prevent irreversible damage. While it is claimed that “the Project would adhere to strict compliance limits and monitoring requirements as part of the EPA environmental licence to operate the desalination plant” (Attachment D, p. 20), we question whether, once started, the desalination plant would really be turned off if adverse impacts were identified. We expect there would be extreme political pressure from mining and other water users to prioritise their interests over environmental considerations.

Indeed, we wonder why Mullaquana Station was chosen over Cape Hardy. On the face of it, Cape Hardy would seem to be environmentally superior from the perspective of distance from giant cuttlefish breeding and transit grounds and the openness of the waters around the site. We are disappointed at the lack of explanation of why the previous proposal to locate the desalination plant at Cape Hardy was abandoned in favour of Mullaquana Station and recommend that an independent comparative environmental analysis of the two sites be published before a final decision is made.

2. Mound Springs and Great Artesian Basin

The project documentation states,

“There is strong support from surrounding Aboriginal groups, particularly from the Arabana Aboriginal Corporation in reducing on reliance natural water sources, such as the Great Artesian Basin (GAB), which offers benefits to the culturally and ecologically valuable Mound Springs.”

This brief reference to potential positive impacts is included as an aside, but the potential negative impacts of the Northern Water Project on the Mound Springs and the GAB are not covered by this EPBC Act referral. We believe there is potential for both positive and negative indirect impacts of the project on the GAB and the Mound Springs and that they should be addressed in the assessment. We also recommend that the potential impact on the River Murray be considered.

According to the Northern Water Project Overview web site,

“Northern Water aims to deliver a secure, climate-resilient water source to meet the growing needs of existing and emerging industries in South Australia's Upper Spencer Gulf and Far North. It will unlock the economic growth potential of the region, particularly in industries that are critical to global decarbonisation, and will reduce reliance on precious water resources including the Great Artesian Basin and the River Murray.”

According to Infrastructure SA, in its February 2024 ‘Business Case Summary - Northern Water project’,

“Currently, mining and other industry in the region are reliant upon extracting water from the River Murray, Great Artesian Basin and other deep saline groundwater resources. SA Water supplies to the region are also heavily reliant on the River Murray.

“Reliance on these unsustainable water sources will result in ongoing environmental degradation.” (p. 10)

It goes on to quote the 2021 Juukan Gorge Inquiry:

"These springs (Mound Springs) are of great significance to the Arabana people and they are an important part of their cultural heritage. There are fears that continued extraction from the Great Artesian Basin will result in a significant reduction to the 'vitality and the ecological viability of the springs', and that there is a high likelihood that more springs will go extinct." (p. 10)

There is an assumption that the Northern Water Project will reduce environmental and cultural impacts by reducing the demand for water from the GAB and the River Murray. This is a possible outcome if the project is implemented with this desirable outcome as a major objective. However, if it is just assumed that the impact on these resources will be diminished, it is not inconceivable that the opposite could occur.

For example, if business decisions are made on the expectation of a reliable supply of water from the Northern Water Project but the Project is delayed, mining expansions premised on increased water consumption could have already commenced before water from the Northern Water Project becomes available. In that situation, demand for water from the GAB and the River Murray could actually increase to cover the shortfall. Likewise, after a regular supply from Northern Water is in place, if for some reason there is an interruption to that supply, mining expansions could turn to the GAB and the River Murray to fill the gap. Starting from a high base supply from Northern Water, if that supply is interrupted, the demands on the GAB and the River Murray could lead to an even higher level of extraction than in the past. Political and economic considerations could make it very difficult to deny access to those resources.

These contingencies should be considered in the assessment from the outset. To prevent these potential negative impacts, a clear decision should be made that mining extractions from GAB will cease once the Northern Water Desalination and Pipeline Project comes on line and that there will be no increases before supply from the Northern Water Project is up and running. A similar commitment should be made with regard to the River Murray.

Given the ongoing negative impact on the Mound Springs of Olympic Dam's extraction of water from the GAB, ending this extraction should be a matter of the highest priority. Extractions for Olympic Dam from BHP's Wellfield A should be stopped immediately and extractions from Wellfield B should be progressively shutdown as soon as possible. The government and BHP have known for many years about the impact on the Mound Springs of GAB water extractions. Allowing this situation to drag on indefinitely is totally unacceptable.

Philip White
Convenor
Friends of the Earth Adelaide