



**NORTHERN
LAND COUNCIL**

Our Land, Our Sea, Our Life

24 February 2025

Northern Territory Environment Protection Authority
Level 1, Arnhemica House
16 Parap Road
PARAP NT 0820

By email only: ntepa@nt.gov.au

Dear Northern Territory Environment Protection Authority,

Referral to the Northern Territory Environment Protection Authority for an environmental impact assessment – AROWS

The Northern Land Council (NLC) seeks to provide comments in response to the Department of Logistics and Infrastructure (DLI)'s Referral to the Northern Territory Environment Protection Authority (NT EPA) for an environmental impact assessment under the *Environmental Protection Act 2019* (NT) (EP Act) in relation to the Adelaide River Off-Stream Water Storage (AROWS) Project.

The NLC is established under the *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth) as the Land Council for the Top End of the Northern Territory. The functions of the NLC under the *Land Rights Act* are set out in section 23 of that Act, and include assisting Aboriginal people in the Top End to protect sacred sites (23(1)(ba)). The NLC is also recognised under Part 11 of the *Native Title Act 1993* (Cth) as the representative body for the area of land and waters that wholly includes AROWS.

This submission is made on behalf those of the NLC's Aboriginal constituents whose interests in their traditional lands and waters will be affected by AROWS. It draws on the NLC's history and experience working with Aboriginal people throughout the Northern Territory.

At the outset, the NLC notes that AROWS is a large-scale project which will likely have significant impacts on the environment. Therefore, it appears that an environmental impact assessment by way of Environmental Impact Statement (EIS) is appropriate.

Given the inextricable link between the environment and culture, it is essential that cultural values be considered during the environmental impact assessment, and Aboriginal people

affected by the project are properly consulted at every stage of the environmental approvals process.

The NLC also notes that AROWS, if it proceeds, will permanently change the landscape, both within the AROWS inundation area and throughout the catchment area. The NLC expects that Traditional Owners to receive fair and just compensation for such significant and irreversible impacts to Country.

This submission provides recommendations on how DLI should mitigate impacts on sacred sites, cultural heritage and the environment, as well as how DLI should provide compensation and economic opportunities for our constituents. It also provides an overview of feedback received from the NLC's constituents during the public consultation period for the Referral.

The term *Traditional Owner* will be used throughout the submission to describe Aboriginal people with traditional interests in the AROWS area, including Aboriginal Traditional Owners under the Land Rights Act, native title holders under the Native Title Act and custodians under the *Northern Territory Aboriginal Sacred Sites Act 1989* (NT).

1. Sacred Sites and Cultural Heritage concerns

1.1 Protect sacred sites, including complying with any Authority Certificate issued by the Aboriginal Areas Protection Authority (AAPA) and working with AAPA and Traditional Owners to protect against possible damage to sacred sites.

Firstly, and importantly, the NLC notes that the Adelaide River region contains many sacred sites of significance to Traditional Owners. As an ongoing priority, it is vital that DLI complies with any Authority Certificate issued by the Aboriginal Areas Protection Authority (AAPA) and works closely with AAPA and Traditional Owners to ensure that sacred sites are not damaged.

Additionally, proactive measures must be taken to minimise any potential risks to these culturally important locations. Cultural monitors should be utilised where possible, and Traditional Owners should be provided with regular updates on any works within the vicinity of sacred sites.

1.2 Measure and protect against any impact on the cultural value of water throughout the Adelaide River.

The cultural heritage impacts referred to in the Referral main report are not yet fully understood and this work is incomplete. As water holds significant value for Traditional Owners, any possible alteration to the volume, flow or quality of water in the Adelaide River must be carefully assessed to ensure it does not diminish its

availability or compromise cultural significance. The NLC urges that hydrological modelling of water extraction scenarios be conducted as a key feature of the EIS to assess the impact on Aboriginal peoples' connection to water.

Additionally, the NLC recommends that findings and consultations regarding the cultural value of water arising from the Adelaide River water allocation plan and Water Advisory Committee be considered within the scope of the EIS.

The incorporation of traditional knowledge is essential when considering how to mitigate impacts to culture and heritage. The NLC submits that the identification of ecosystems, including species, on which cultural values are based be a key feature of the technical work underpinning the EIS. An effective and practicable method of minimising environmental impacts would be to engage affected Aboriginal people with traditional knowledge on a formal basis.

1.3 *Measure and protect against any impact on traditional customs and practices located around the AROWS basin.*

The land and water around the proposed AROWS basin has significance to traditional customs, including but not limited to fishing, hunting, and ceremonial activities. The diversion of water or limitation of access to certain areas may interfere with these practices. The EIS must consider meaningful engagement with affected Aboriginal groups to both map and understand what traditional customs occur in the inundation area to ensure that protective measures can be implemented.

1.4 *Include Traditional Owners and knowledge in AROWS decision-making, including employing cultural monitors across all investigative works and construction activities.*

The NLC strongly recommends that Traditional Owners be active participants in all decision-making processes related to AROWS. This includes employing cultural monitors to oversee investigative works and any eventual construction activities. The integration of knowledge and expertise into environmental management planning will assist in ensuring cultural sensitivity and the development of effective risk mitigation controls.

2. Environmental concerns

2.1 *Mitigate impact on aquatic ecosystems, including comprehensive hydrological studies to measure long-term upstream and downstream flow impacts.*

The AROWS project proposes to extract a significant volume of water (70 – 75 gigalitres/GL) from the Adelaide River catchment and distribute 60 GL of that per

year (with an expected average of 165 megalitres per day) to other catchments around Darwin. The EIS must consider the implications of extracting and distributing large volumes of water in both the Adelaide River catchment and the receiving catchments.

To fully understand downstream environmental impacts, the NLC submits that coastal processes and marine impacts should be included in the scope of the EIS for assessment. On the basis that an average of 70 – 75 GL per year is expected to be extracted, in conditions of significant tidal influence throughout the Adelaide River and possibly extended dry periods, there is a need for the EIS to consider the entire flow impacts from the Adelaide River catchment through to the coastal and marine zone at the bottom of the catchment.

The NLC notes that potential domestic and agricultural demand for water would likely increase in drier conditions. A critical question to be addressed by the EIS is under what detailed criteria would extraction from the Adelaide River occur during consecutive periods of dry conditions? A contingency plan must be developed to detail how if storage levels are depleted, and extended dry conditions continue, AROWS and other local groundwater sources would not be relied on as water sources.

When considering impacts on aquatic ecosystems, there is also a need for the EIS to provide a comprehensive assessment of impacts to water quality. The NLC recommends that water contamination issues arising from changes to water flows, dilution and chemical impacts, current and historical mine impacts or other sources of contamination are included in the scope of water quality modeling.

Additionally, the NLC submits that the extraction and use of groundwater must be considered as a priority in the hydrological impact assessment. Significant impacts on aquatic ecosystems may be exacerbated by changes to base flow, springs, or shifts to saltwater and freshwater dynamics resulting from the AROWS extractions.

2.2 *Mitigate impact on terrestrial ecosystems, including biodiversity and conservation of all species present in the AROWS basin, not exclusively endangered species.*

Terrestrial ecosystems surrounding the AROWS basin include a diverse range of flora and fauna, many of which are not classified as endangered species but hold a cultural significance and contribute to the health of ecosystems in the region. The NLC recommends that baseline surveys to be conducted during the EIS include an impact assessment for all species present, with further impact assessments for NT threatened species and matters of national environmental significance. Strategies should be developed to minimise habitat destruction, prevent the introduction of

invasive species, and mitigate changes in land use that could disrupt ecosystems endemic to the Adelaide River.

Further, the NLC notes that the threatened species assessment report addresses only the AROWS basin and intake corridor, and “a linear area just outside the basin”, “two infrastructure corridor options (Byers Road and Acacia Gaps Road)” and a “potential diversion route for the Marrakai Track (along Chinner and Heather’s Lagoon Roads)”. This is inadequate as it does not consider the broader downstream and upstream impacts of AROWS.

2.3 *Prioritise the welfare and relocation of flora and fauna.*

The construction and operation of AROWS will cause irreversible changes to the landscape of the project area, currently consisting of local habitat for flora and fauna that holds cultural significance for Traditional Owners. To address this, the NLC recommends that proactive conservation strategies be developed to ensure the welfare of affected wildlife.

The relocation of flora and fauna should be developed in consultation with ecologists and Traditional Owners to ensure best practices for identifying and relocating displaced species while ensuring minimal disturbance. Additionally, rehabilitation initiatives should be applied to restore native vegetation in areas impacted by construction activities.

2.4 *Integrate climate change resilience strategies into AROWS planning where unpredictable wet season and rainfall patterns can impact extraction capability.*

Where there is an increasing unpredictability of rainfall patterns in the Northern Territory, there is a need to ensure that the AROWS project does not trigger adverse environmental impacts in periods of both extreme dry and extreme wet conditions and an increased domestic and agricultural demand for water. The EIS should model scenarios from drought to monsoonal conditions and propose clear criteria and contingency planning for water extraction from the Adelaide River in the event of consecutive seasons of variable rainfall.

In the event of multiple consecutive seasons of dry conditions, where the timing and distribution of flows is equally critical for the ecosystems and species that rely on water in the Adelaide River catchment, the NLC recommends developing safeguards against increased extraction by AROWS.

Similarly, significant wet season conditions and peak flows can serve critical ecosystem functions. The NLC recommends that the EIS consider how the volume of

peak flows is relied on by local ecosystems and species to build an effective understanding of water requirements.

Noting concerns set out in section 2.1 of this document, the NLC strongly recommends detailed modelling of extraction scenarios in extended periods of both dry and wet conditions be included within the EIS.

3. Economic concerns

- 3.1 *Ensure a clear commitment to local Aboriginal participation, including employment, training, and business development opportunities for Aboriginal people, in an ongoing capacity, not exclusively during the construction of AROWS.*

The NLC acknowledges the commitment by the Northern Territory Government to lasting social and economic benefits for Traditional Owners arising from AROWS. It is important to Traditional Owners that, if the AROWS project were to proceed, it would include employment, training, and business development opportunities for Traditional Owners throughout the investigative, construction and operational phases, ensuring a direct and continuous economic benefit to affected Aboriginal communities.

The NLC emphasises again that AROWS, if it proceeds, will permanently alter the landscape. The impact on Traditional Owners' ability to practice their culture in the AROWS inundation area (and, in some cases, throughout the catchment area) will be significant and ongoing. Such ongoing impact must be met with ongoing benefits for Traditional Owners.

Further, the development of long-term strategies to provide sustainable economic benefits, including local workforce engagement, capacity building and leadership roles in water management, serve to benefit both affected Aboriginal communities and the level of environmental protection expertise throughout the AROWS project.

- 3.2 *Ensure that fair compensation for changes to country and the cultural landscape is provided to Traditional Owners, including through an Indigenous Land Use Agreement.*

Due to the significant and ongoing impact of the proposed AROWS project to the environment and culturally significant areas in the Darwin region, it is vital that Traditional Owners receive fair and just compensation for AROWS.

The NLC acknowledges that DLI has committed to negotiating an Indigenous Land Use Agreement (ILUA) in good faith with Traditional Owners in relation to the AROWS inundation area. At a minimum, this ILUA must provide for compensation

for the loss, diminution, impairment and other effects on Traditional Owners' native title rights and interests. An ILUA also provides a key opportunity for Traditional Owners to protect both tangible and intangible cultural places and values.

Given the impacts of AROWS are broad ranging, the NLC also submits that compensation and benefits should not be limited to the AROWS inundation area. DLI should take a holistic approach and should consider providing Traditional Owners throughout the catchment area with compensation, and employment and business opportunities.

4. Comments received from NLC constituents

In the course of the NLC's distribution of information and resources regarding the AROWS Referral report, we have received a range of feedback from affected Aboriginal groups in the Darwin region. While the NLC encouraged all groups and individuals to submit a public comment, we have collected and summarised the key concerns and themes that have been raised to by our constituents with the view that they provide essential insights for preparing the Terms of Reference for an Environmental Impact Statement.

The NLC's constituents strongly recommend the following:

- That the EIS measure and consider the impacts of AROWS construction on ecosystems existing both at the proposed site and downstream in the Adelaide River, and risks to water quality and hydrology are fully understood and able to be effectively mitigated.
- That cultural monitors are included in all EIS, investigative and construction activities.
- That ranger groups undertake monitoring and other land and water (ecosystem) management work, including weed and other pest species control.
- That all animals present in the Adelaide River and proposed AROWS basin are included in any studies and planning around impacts on terrestrial ecosystems, not just those that are considered endangered species.
- That sufficient funding for animal welfare programs and local staff in the region be allocated as a mitigation for impacts to wildlife.
- That a comprehensive plan for the relocation of animals, including insects and reptiles, from the proposed AROWS basin area prior to inundation be developed and implemented as a mitigation for impacts to wildlife.
- That employment, economic and caretaker opportunities are provided specifically for Traditional Owners in the Darwin region.
- That outcomes associated with the industrial and agricultural demand for the water proposed to be stored by the AROWS project is included in the scope of the EIS. This includes water intended to be used for the Middle Arm Industrial Precinct.

Finally, quotes from affected constituents that speak to the spiritual, economic and social significance of water have been included here, with permission, as they are relevant in shaping the EIS:

“Water is life. It is integral to our lives. It is everything. It is woven into every aspect of our lives; making medicine, art, drinking, ceremonies, mixing with the clay to get the paint.”

“We don’t have to go anywhere else. If something happens to this river system we have nothing. It was our supermarket, but good food, good for you.”

The NLC thanks the NT EPA for the opportunity to make this submission, and requests that DLI and the NT EPA take into account the matters in this submission when undertaking the environmental impact assessment for AROWS.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Yuseph Deen', with a stylized flourish at the end.

Yuseph Deen
Chief Executive Officer
Northern Land Council