



Environmental
Defenders Office

**Submission to the Joint Select Committee Inquiry into
Energy, Food, and Water Security in Northern Australia**

7 February 2025

About EDO

EDO is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 30 years' experience in environmental law, EDO has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

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Acknowledgement of Country

EDO recognises and pays respect to the First Nations peoples of the lands, seas and rivers of Australia. We pay our respects to First Nations Elders past, present and emerging, and aspire to learn from traditional knowledges and customs that exist from and within First Laws so that together, we can protect our environment and First Nations cultural heritage through both First and Western laws. We recognise that First Nations Countries were never ceded and express our remorse for the injustices and inequities that have been and continue to be endured by the First Nations of Australia and the Torres Strait Islands since the beginning of colonisation.

EDO recognises self-determination as a person's right to freely determine their own political status and freely pursue their economic, social and cultural development. EDO respects all First Nations peoples' right to be self-determined, which extends to recognising the many different First Nations within Australia and the Torres Strait Islands, as well as the multitude of languages, cultures, protocols and First Laws.

First Laws are the laws that existed prior to colonisation and continue to exist today within all First Nations. It refers to the learning and transmission of customs, traditions, kinship and heritage. First Laws are a way of living and interacting with Country that balances human and environmental needs to ensure the environment and ecosystems that nurture, support, and sustain human life are also nurtured, supported, and sustained. Country is sacred and spiritual, with culture, First Laws, spirituality, social obligations and kinship all stemming from relationships to and with the land and waters.

A note on language

EDO is a non-Indigenous community legal centre that works alongside First Nations peoples around Australia and the Torres Strait Islands in their efforts to protect their Countries and cultural heritage from damage and destruction. In making this submission, we note that EDO represents First Nations peoples across Australia. Our clients have vastly different Countries and waters, and they experience water laws in different ways across jurisdictions.

Out of respect for the self-determination of First Nations peoples, EDO has provided high-level recommendations for western law reform to empower First Nations to protect their Countries and cultural heritage. These high-level recommendations comply with Australia's obligations under international law and provide respectful and effective protection of First Nations' Countries and cultural heritage.

We acknowledge there is a legacy of writing about First Nations peoples without seeking guidance about terminology. We also acknowledge that where possible, specificity is more respectful. For the purpose of this report, we have chosen to use the term First Nations. We acknowledge that not all First Nations people will identify with that term and that they may instead identify using other terms or with their immediate community or language group.

First Laws is a term used to describe the laws that exist within First Nations. It is not intended to diminish the importance or status of the customs, traditions, kinship and heritage of First Nations in Australia. The EDO respects all First Laws and values their inherit and immeasurable worth. EDO recognises there are many different terms used throughout First Nations for what is understood in the Western world as First Laws.

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Executive Summary

Environmental Defenders Office (**EDO**) welcomes the opportunity to comment on the Joint Select Committee on Northern Australia's Inquiry into Energy, Food, and Water Security.

We recognise energy, food and water security are inherently linked issues and support an inquiry that is examining the impact of these issues collectively in Northern Australia. However, as a specialist environmental community legal centre, we have focused our submission on our area of expertise relevant to the inquiry – water security.

Securing water for current and future generations and uses is an issue front and centre in Australia, due to our dry environment and history of drought. In a changing climate, we are faced with how to manage current and future threats to the security of our precious water resources; threats that are further exacerbated in Northern Australia due to climatic extremes.

Water is protected and managed at a State / Territory and Commonwealth level resulting in a fragmented regulatory framework that lacks robust protections for communities and the environment while prioritising industry.

The current Federal Government-led negotiation of a modernised National Water Agreement, presents an opportunity to address the inconsistent management of water resources across North Australia through the development of an enforceable agreement, and jurisdiction-wide implementation through mandatory monitoring and compliance.

Here we provide a summary of recommendations for the Committee's consideration in better managing water security in Northern Australia, with detailed submissions below.

Summary of Recommendations:

- 1:** The new National Water Agreement must be binding on parties, with clear and prescriptive jurisdictional action plans that are enforceable.
- 2:** Monitoring and assessment of compliance with the National Water Agreement should be frequent and transparent.
- 3:** The Federal Government must take the lead in ensuring water-related legislation is climate ready, including by implementing:
 - an evidence-based cap on extractions at catchment and basin scales which is informed by climate projections;
 - triggers to prevent extraction where unsustainable, for example if the receiving environment demonstrates impacts due to water scarcity or First Nations cultural water needs are impacted;
 - an adaptive water allocation scheme with an embedded climate projection signal;
 - in regulated river systems, management of public storages on the basis of climate projections, not historic climate data;

- fulsome monitoring of groundwater resources, and appropriate limits on extractions which take into account connectivity with surface water, as well as the tendency to shift to consumption from aquifers during periods of water scarcity; and
- the inclusion of clear duties to, for example, act on the basis of best-available evidence and protect water resources from over-extraction.

4: The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) must explicitly incorporate climate change considerations in all assessment and approval decisions, particularly as they relate to the protection of water resources.

5: The Federal Government must protect Australia's water security by immediately stopping the approval and development of new fossil fuels and phasing out of existing fossil fuels consistent with the science.

6: The new National Water Agreement must strengthen the concept of environmentally sustainable level of take (ESLT) and ensure ESLT is identified and assessed based on the best available scientific knowledge and First Nations knowledges.

7: Governments in all jurisdictions should prioritise the collection, and sharing, of long-term and reliable hydrological data.

8: The National Water Agreement must be enforceable, sufficient to allow communities recourse beyond sub-national regimes, which historically have failed to protect their water interests from extractive industries and agriculture.

9: Standards of upfront environmental impact assessment and consultation must be improved in all jurisdictions, including the consideration of impact on cultural water rights.

10. The Federal Government must implement a Right to a Healthy Environment in human rights legislation at the national level. Concurrently, State and Territory Governments must enshrine the legally binding right to water, including safe drinking water, as a basic human right in accordance with the 2010 declaration of the UN General Assembly.

11: The National Water Agreement should mandate the adoption of the Australian Drinking Water Guidelines as the minimum, enforceable standard. These standards should then be regularly monitored and reported by the responsible department in publicly available registers. This reform would ensure accountability, transparency and public participation in relation to access to safe drinking water.

Introduction

Water is vital for life. It plays a critical role in the health of our communities, economy, and ecosystems. Australia is the driest inhabited continent on Earth.¹ The management and security of our water resources is an increasingly complex issue, and EDO welcomes the Joint Select Committee on Northern Australia's inquiry (**the Committee**) into water security, among other matters. The environment, First Nations peoples, the broader community and industry all rely on access to finite water resources. Demand for water is increasing as industry expands and our population grows, while future supply is subject to the risks and uncertainties of climate change. Meanwhile, the disparity between access to safe drinking water in urban centres and regional communities is a persistent issue requiring urgent attention.

The free-flowing tropical rivers of Australia's north have been relatively undisturbed by influences such as land-clearing, water extraction and river impoundment,² but pressure on those systems is increasing rapidly. There is a serious risk that Northern Australia will repeat the mistakes of Southern states that saw mismanagement and overallocation result in the environmental degradation of the Murray Darling. It is imperative that we apply the lessons learned from the Murray Darling to protect our Northern rivers and communities.

Legislative and regulatory reform is needed across Northern Australia to implement these lessons and ensure the appropriate management and security of water resources for current and future generations. Relevantly for this Committee, in EDO's view the Federal Government has a key role in modernizing, harmonizing, and improving water management across Northern Australia.

The Federal Government's commitment to modernise the National Water Initiative (**NWI**) through the negotiation of a new National Water Agreement, presents an opportunity for Northern Australia to implement much needed reforms, and at a minimum, address non-compliance with the current NWI as identified by the Productivity Commission in its National Water Reform 2024 Inquiry Report (**NWI 2024 Inquiry Report**).³

It is imperative this modernisation process result in an enforceable agreement – one that States and Territories are required to adopt and implement. Moreover, water management must be appropriately adapted to, and safeguarded against, key threats. Relevantly to the Committee, this includes both the impacts of climate change, and use by extractive industries.

As such, EDO's submission addresses the following issues:

- a weak and inconsistent regulatory framework;

¹ Shahbaz Khan, 'Managing climate risks in Australia: options for water policy and irrigation management' (2008) 48(3) *Australian Journal of Experimental Agriculture* 265.

² This is particularly the case in the tropics. See Clement Duvert et al, 'Hydrological processes in tropical Australia: Historical perspective and the need for a catchment observatory network to address future development' (2022) 43 *Journal of Hydrology: Regional Studies* 101194, 2.

³ Productivity Commission, National Water Reform 2024 Inquiry Report, available [here](#).

- threats to water security:
 - i. climate change
 - ii. unsustainable levels of extraction; and
 - iii. lack of jurisdiction-wide safe drinking water.

Weak and inconsistent regulatory framework

Water is regulated (and protected) in Australia by individual States and Territories. In 2004, the Federal Government and all Australian states and territories signed on to the NWI – a non-binding intergovernmental agreement underpinning water reform and regulation in Australia.

Under the agreement, Australian governments committed to:

- prepare water plans with provisions for environmental water;
- achieve sustainable water use in over-allocated or stressed water systems;
- introduce registers of water rights and standards for water accounting;
- expand trade in water rights;
- improve pricing for water storage and delivery; and
- better manage urban water demands, including the provisions of healthy, safe and reliable water supplies.

Despite this commitment, the NWI was not implemented consistently across Australia. In fact, the Productivity Commission (who is required under the *Water Act 2007* (Cth) to assess jurisdictional progress against implementation of the NWI) found that while all Australian governments had made some progress in improving the way Australia manages its water resources in line with the NWI, not all jurisdictions were NWI compliant. In particular, the Productivity Commission found jurisdictions in Northern Australia had not properly implemented key aspects of the NWI and were non-compliant with the agreement.

The EDO provided extensive feedback on the implementation of the NWI and areas for inclusion in a new National Water Agreement, most recently in the Productivity Commission’s 2024 Inquiry into National Water Reform. We acknowledge and continue to endorse our recommendations made to that inquiry, which are included in this submission at **Appendix A**.⁴

Security of surface and groundwater resources across Northern Australia are under increasing pressure from development, including hydraulic fracturing, intensive irrigated agriculture, and mining. In addition, climate change will have substantial effects on water resources. Northern

⁴ Environmental Defenders Office, *Submission to the Productivity Commission on the National Water Reform Inquiry* (21 February 2024) (**2024 Submission**) available [here](#).

Australia is likely to see impacts to water availability, including increased frequency of extreme rainfall events, yet projected average rainfall remains unclear.⁵ Southern WA is particularly likely to see reduced rainfall and increased frequency of droughts.⁶ First Nations people living on Country in regional and remote communities in these regions are likely to experience disproportionate impacts to water security caused by climate change.⁷

Despite these pressures on water security, there are significant deficiencies in water laws in Northern Australia. In particular, in our view, water laws in the NT and WA are the weakest in the country.

The NWI 2024 Inquiry Report confirmed the Productivity Commission's earlier concerns in the Assessment of National Water Initiative implementation progress report (2017–2020) (**NWI Implementation Report**) finding that, in many respects, implementation remains an issue in Northern Australia.⁸

Below we provide a brief overview of the regulatory inadequacies in Northern Australian water laws. This analysis emphasizes the need for strong Commonwealth leadership on water, and highlights the risks of a non-binding, and unenforceable National Water Agreement. Please see our submission to the Productivity Commission's 2024 Inquiry for further analysis.⁹

Western Australia

In the NWI Implementation Report, the Commission found WA had not implemented the agreed NWI commitments and, in particular, was deficient in areas including failure to create statutory water allocation plans,¹⁰ identification of cultural objectives in statutory water allocation plans,¹¹ lack of publication of the location or timelines of enforcement actions,¹² issues relating to water quality regulation in regional and remote areas¹³ and lack of progress regarding community partnerships.¹⁴

In many of its findings about WA, the Productivity Commission noted that WA was “*considering draft legislation*” to strengthen deficiencies in its compliance with the NWI.¹⁵

The WA government first announced plans to reform the State's water legislation in 2006. Water regulation in Western Australia is governed by six pieces of water legislation, the most notable being

⁵IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Regional Fact Sheet- Australasia) 2 available [here](#).

⁶ Ibid.

⁷ Natalie Teasdale and Peter Panegyres, 'Climate change in Western Australia and its impacts on human health' (2023) 12 *The Journal of Climate Change and Health* 6.

⁸ NWI 2024 Inquiry Report, available [here](#).

⁹ 2024 Submission, available [here](#).

¹⁰ Ibid 12, 30.

¹¹ Ibid 43.

¹² Ibid 166.

¹³ Ibid 173.

¹⁴ Ibid 200.

¹⁵ See for example NWI Implementation Report, 30.

the *Rights in Water and Irrigation Act 1914 (WA) (RIWI Act)*.¹⁶ This announcement was followed by a position paper released in 2013, ‘Securing Western Australia’s water future’, providing the public with an opportunity to comment on the proposed future of water resource management in WA.

Despite continued engagement for the past 10 years regarding this reform process, unexpectedly on 21 December 2023, the Minister for Water announced that plans to consolidate the State’s six water regulation Acts would not proceed “*following stakeholder feedback*” that “*many of the existing and long-standing arrangements are suitable*”.¹⁷

Unsurprisingly, in the NWI 2024 Inquiry Report, the Productivity Commission made the following findings about WA:

- Western Australia is falling behind in planning or implementing initiatives that identify and achieve First Nations people’s cultural objectives.¹⁸
- No water allocation plans in Western Australia specifically address cultural water outcomes.¹⁹
- Western Australia has still not implemented secure, NWI-consistent water access entitlements and water planning is based on ‘out-of-date, 110-year-old legislation’.²⁰
- There are opportunities to better achieve the intent of the NWI through completing ‘unfinished business’ such as the introduction of statutory water allocation plans in Western Australia.²¹

The Productivity Commission specifically recommended that WA ‘introduce NWI-consistent water legislation’.²²

The absence of statutory water allocation plans, lack of allocation for environmental water, and the need for increased First Nations participation in water governance, demonstrate a lack of progress with compliance with the NWI and are directly linked to water insecurity in the State. The removal of water reform from the WA Government’s agenda comes at a time when adequate water legislation should be a priority.

Northern Territory

In the NWI Implementation Report, the Commission found the NT had not implemented the agreed NWI commitments, and, in particular, was deficient in areas including: failure to enact legislation to create secure, NWI-consistent water access entitlements;²³ overallocation of the Katherine Tindall

¹⁶ These pieces of legislation are the RIWI Act; *Water Agencies (Powers) Act 1984 (WA)*; *Metropolitan Arterial Drainage Act 1982 (WA)*; *Metropolitan Water Supply, Sewerage, and Drainage Act 1909 (WA)*; *Country Areas Water Supply Act 1947 (WA)*; and *Waterways Conservation Act 1976 (WA)*.

¹⁷ Minister for Water, ‘Water priorities reset to focus on practical measures’ (Media statement, 21 December 2023) available [here](#).

¹⁸ NWI 2024 Inquiry Report, 78.

¹⁹ NWI 2024 Inquiry Report, 79.

²⁰ NWI 2024 Inquiry Report, 17.

²¹ NWI 2024 Inquiry Report, 130.

²² NWI 2024 Inquiry Report, 17.

²³ NWI Implementation Report, 11.

Limestone Aquifer and several groundwater resources in the Darwin Rural area;²⁴ substantial declines in recent years in representation of Aboriginal people in water planning processes in the Territory;²⁵ issues relating to water quality regulation in regional and remote areas;²⁶ lack of drinking water standards set in NT legislation;²⁷ and inadequate and ineffective consultation and engagement.²⁸

In October 2022, as part of the *Draft Territory Water Plan*, the NT government announced plans to reform the Territory's water legislation, promising to introduce standalone safe drinking water legislation by 2024 and replace the *Water Act 1992* (NT) (**NT Water Act**) with new legislation by 2026.²⁹ These commitments were retained within the final *Territory Water Plan*, which the NT Government describes as the first whole-of-government strategic plan for water security.³⁰

These commitments were made by the previous Northern Territory Labor Government. The current Northern Territory Country Liberal Party Government have not publicly committed to much needed reforms to the NT *Water Act* or the introduction of safe drinking water legislation.

Queensland

In the NWI Implementation Report, the Commission found QLD had not implemented the agreed NWI commitments, and, in particular, was deficient in the following areas:

- exemptions to water entitlements for mining and petroleum industries;³¹ and
- inadequate independent economic regulation.³²

In 2018, the Queensland Government amended the *Water Act 2000* (Qld) to require new or replacement water plans to explicitly recognise Aboriginal or Torres Strait Islander people's cultural outcomes as a separate outcome of the plan.

For the vast majority of water plans following the amendment, the following standard cultural outcome was included:

“The cultural water plan outcomes for this plan are to maintain flows of water to which this plan applies that support the water-related cultural, spiritual, social and environmental values of Aboriginal people.”³³

²⁴Ibid 33.

²⁵ Ibid 42.

²⁶ Ibid 174.

²⁷ Ibid 174.

²⁸ Ibid 200.

²⁹ NT Government, *Draft Territory Water Plan* (October 2022) available [here](#).

³⁰ NT Government, *Territory Water Plan* (June 2023) available [here](#), 5, 24, 34.

³¹ NWI Implementation Report 2024, 14.

³² Ibid, 2, 14, 167, 169, 171.

³³ See for example, *Water Plan (Condamine and Balonne) 2019* (Qld) s21.

For the recently reviewed and amended Mary Basin Water Plan³⁴ and Barron Water Plan,³⁵ Queensland undertook significant consultation to develop cultural outcomes specific to the Aboriginal and Torres Strait Islander people of the water plan areas.

However, over the same period, the expiry of the Wet Tropics Water Plan was extended to 1 December 2032. The Wet Tropics Water Plan has not been amended to include separate cultural outcomes, and the 2024 Ministers Performance Report for the Wet Tropics Water Plan failed to fully assess the impact on cultural values due to insufficient information.³⁶ Despite this, the water plan was extended to 2032.

Queensland has inconsistently engaged in consultation with First Nations people while reviewing expiring water plans, resulting in disparate protections for cultural values. The resourcing and implementation of the First Nations Water Strategy is vital to ensure equitable outcomes across Queensland.

The Productivity Commission identified the fact that Queensland continues to allow exemptions from water entitlements for associated water for mining and petroleum industries as a ‘key problem’ in its NWI 2024 Inquiry Report, noting this can ‘undermine the integrity of the entitlements system, adversely affect environmental outcomes and reduces transparency’.³⁷

Summary

Clearly, there is disparate and inconsistent water management and regulation across the country, with poor adherence to the NWI across the Northern States and Territories.

In EDO’s view, the Federal Government must take a leadership role in harmonizing water laws and associated public consultation requirements (particularly for First Nations), by ensuring the NWI, and new National Water Agreement, are complied with. As such, the National Water Agreement must be enforceable, with continuous assessment of, and clear requirements for, prescriptive and effective jurisdictional action plans.

Recommendation 1: The new National Water Agreement must be binding on parties, with clear and prescriptive jurisdictional action plans that are enforceable.

Recommendation 2: Monitoring and assessment of compliance with the National Water Agreement should be frequent and transparent.

Water (in)security

The concept of water security is diverse and includes issues of water quality and quantity.

³⁴ *Water Plan (Mary Basin) 2024* (Qld) s18.

³⁵ *Water Plan (Barron) 2024* (Qld) s20.

³⁶ Ministers Performance Report for the Wet Tropics Water pg. 18.

³⁷ NWI 2024 Inquiry Report, 14.

Definitions can vary with context and discipline as demonstrated in the following table from ‘Water security: debating an emerging paradigm’ by Christina Cook and Karen Bakker:³⁸

Table 2

Scope of approaches to water security, selected examples.

| CODE | Subject area | Water security focus or definition |
|------|---|---|
| AG | Agriculture | •Input to agricultural production and food security |
| EN | Engineering | •Protection against water related hazards (floods, droughts, contamination, and terrorism) |
| ES | Environmental science, environmental studies | •Supply security (percentage of demand satisfied) |
| | | •Access to water functions and services for humans and the environment |
| | | •Water availability in terms of quality <i>and</i> quantity |
| | | •Minimizing impacts of hydrological variability |
| NS | Fisheries, geology/geosciences, hydrology | •Hydrologic (groundwater) variability |
| | | •Security of the entire hydrological cycle |
| PH | Public health | •Supply security and access to safe water |
| | | •Prevention and assessment of contamination of water in distribution systems |
| SS | Anthropology, economics, geography, history, law, management, political science | •Drinking water infrastructure security |
| | | •Input to food production and human health/wellbeing |
| | | •Armed/violent conflict (motivator for occupation or barrier to cooperation and/or peace) |
| | | •Minimising (household) vulnerability to hydrological variability |
| | Policy | •Interdisciplinary linkages (food, climate, energy, economy and human security) |
| | | •Sustainable development |
| | | •Protection against water-related hazards |
| | | •Protection of water systems and against floods and droughts; sustainable development of water resources to ensure access to water functions and services |
| WR | Water resources | •Water scarcity |
| | | •Supply security (demand management) |
| | | •“Green” (versus “blue”) water security – the return flow of vapour |

Source: Prepared by the authors.

For the purpose of this inquiry, EDO has adopted a broad definition of water security to include the availability of a safe and reliable supply of water. In this regard, we are concerned with the quality of water (ensuring it is clean and safe) and the quantity of water (ensuring there is enough water for multiple uses including human, environmental and cultural consumption).

The remainder of this submission identifies the key issues we identify as threatening water security in Northern Australia, including: climate change; unsustainable levels of extraction (including consideration of extractive industries and agriculture); and lack of jurisdiction-wide safe drinking water. In our view, these threats are the key challenges faced by our communities and decision-makers in relation to water security.

Where possible, we make recommendations as to reform that can be implemented to address these threats and strengthen Northern Australia’s water security.

Threats to water security

Climate change

Australia’s water security has already been significantly influenced by climate change. Rainfall patterns are shifting, and the severity of floods and droughts has increased.³⁹

Climate change is impacting and will continue to impact water resources in Australia. Climate change will lead to greater frequency of severe droughts, more intense extreme rainfall events, a

³⁸ Christina Cook and Karen Bakker, ‘Water security: Debating an emerging paradigm’ (2012) *Global Environmental Change* 22, 94 – 102.

³⁹ Will Steffen et al, *Deluge and drought: Australia’s water security in a changing climate* (Climate Council of Australia, Sydney, 2018).

continuing decrease in cool-season rainfall and an increase in the time spent in drought.⁴⁰ Climate change will also affect the quality of water, for example, increases in the severity of floods and droughts will change sediment loading, chemical composition, total organic carbon and microbial quality of drinking water.⁴¹

There is a pressing need for water management regimes to incorporate climate change projections into decision-making and to ensure fundamental ecosystem health through environmental flows. Many of the key issues that arise when considering water security are intrinsically linked to climate change. For example:

- The impacts of climate change on groundwater include exacerbating water scarcity, flood, sea water intrusion and deteriorating groundwater-dependent ecosystems.⁴²
- The need for accurate measurement and accounting, the inclusion of appropriately drafted civil and criminal offence provisions supported by an independent regulator, and justiciable provisions, are all essential aspects of climate-ready water laws.

Conversations about the interaction between climate change and environmental water (and all water management) should be informed by First Nations perspectives and voices. As stated in a recent article about the Martuwarra Fitzroy River in the Kimberley region of WA:⁴³

Climate change impacts are already happening due to [the Martuwarra's] geographic location and vulnerable environment. From an Indigenous perspective, the climate change space and discussions are currently highly dominated by Western science and politics. Unfortunately, the progress in understanding Indigenous culture and cultural needs has not advanced to a point where socio-ecological knowledge and primacy in ontological theory or rationale have been injected into the debate. Now more than ever, it is time to listen to the voices and wisdom of Indigenous people for the paradigm shift.

It is imperative that the impacts from climate change are adopted as mandatory considerations for decision makers when determining water allocation planning and licensing. We provide further principles for assessing the climate-readiness of water legislation in our submission to the Productivity Commission.⁴⁴

Moreover, climate change considerations must be incorporated into all environmental decision-making at the Federal level, not least project assessment and approvals made under the

⁴⁰ Will Steffen et al, *Deluge and drought: Australia's water security in a changing climate* (Climate Council of Australia, Sydney, 2018).

⁴¹ State of the Environment Report 2021 (<https://soe.dcceew.gov.au/inland-water/pressures/climate-change>), citing WHO (World Health Organization) (2011). Guidelines for drinking-water quality, 4th edn, WHO Press, Geneva.

⁴² Glen Walker et al, 'Groundwater Impacts and Management under a Drying Climate in Southern Australia' (2021) 13 *Water* 3588.

⁴³ Martuwarra, RiverOfLife et al, 'Martuwarra Fitzroy River Watershed: One society, one river law' (2023) 2(9) *Public Library of Science (PLOS) Water* (online) 13.

⁴⁴ Environmental Defenders Office, Submission to the Productivity Commission on the National Water Reform Inquiry (21 August 2020) 15 available [here](#).

Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act). This is especially relevant given the (now expanded) matter of national environmental significance relating to water resources and certain forms of fossil fuel extraction.⁴⁵

Finally, as described above, climate change, caused primarily by the extraction and use of fossil fuels, will have compounding effects on Australia's water security. This has implications for every sector of our economy. The science tells us that no new fossil fuel projects should be approved in order to mitigate the worst impacts of climate change, and EDO urges the Committee to adopt this recommendation.

Recommendation 3: The Federal Government must take the lead in ensuring water-related legislation is climate ready, including by implementing:

- an evidence-based cap on extractions at catchment and basin scales which is informed by climate projections;
- triggers to prevent extraction where unsustainable, for example if the receiving environment demonstrates impacts due to water scarcity or First Nations cultural water needs are impacted;
- an adaptive water allocation scheme with an embedded climate projection signal;
- in regulated river systems, management of public storages on the basis of climate projections, not historic climate data;
- fulsome monitoring of groundwater resources, and appropriate limits on extractions which take into account connectivity with surface water, as well as the tendency to shift to consumption from aquifers during periods of water scarcity; and
- the inclusion of clear duties to, for example, act on the basis of best-available evidence and protect water resources from over-extraction.

Recommendation 4: The EPBC Act must explicitly incorporate climate change considerations in all assessment and approval decisions, particularly as they relate to the protection of water resources.

Recommendation 5: The Federal Government must protect Australia's water security by immediately stopping the approval and development of new fossil fuels, and phasing out of existing fossil fuels consistent with the science.

⁴⁵ Environment Protection and Biodiversity Conservation Act 1999 (Cth)s 24D.

Unsustainable levels of extraction

Determining an environmentally sustainable level of take

The concept of an environmentally sustainable level of take (**ESLT**) is embedded in the NWI.⁴⁶ The NWI acknowledged the need to 'return all systems to environmentally sustainable levels of extraction' (**ESLT**)⁴⁷ and included returning 'all currently overallocated or overused systems to environmentally-sustainable levels of extraction' as an objective.⁴⁸ Involved in this is recognition that water is required for the environment – to maintain healthy, productive and resilient river systems and ecosystems.

Through the NWI, Australian Governments committed to establishing water plans. These plans are used to:

- determine the amount of water that may be available for consumptive use, such as irrigation, industry, stock and domestic use, within a given plan area (known as the “consumptive pool”). Persons seeking to use water for consumptive purposes require a water access entitlement. This is a perpetual or ongoing entitlement to exclusive access to a share of water from the consumptive pool.⁴⁹
- ensure water is secured to meet environmental and other public benefit outcomes. Environmental water must have statutory recognition and at least the same level of security as water access entitlements for consumptive use.

In 2021, the Australian Productivity Commission found that “all jurisdictions, except Western Australia and the Northern Territory, have enacted legislation required to create secure, NWI-consistent water access entitlements for consumptive uses”.⁵⁰ Western Australia was also singled out as the only jurisdiction which fails to provide statutory protection to water for environmental and public benefit outcomes.⁵¹

Although the Northern Territory has statutory water plans, in 2024, the Australian Productivity Commission found “The non-binding nature of water allocation plans in the Northern Territory mean water for the environment and other public benefit outcomes do not have the same level of security as consumptive uses.”⁵²

⁴⁶ Defined in the NWI as “the level of water extraction from a particular system which, if exceeded, would compromise key environmental assets, or ecosystem functions and the productive base of the resource”, [Schedule B] 29.

⁴⁷ NWI, 1[5].

⁴⁸ NWI, 4[23.iv]; 4 [25(ii)]; 5[25(v)].

⁴⁹ NWI Report (n 17) 32.

⁵⁰ Productivity Commission, Australian Government, *Assessment of the National Water Initiative implementation progress (2017-2020)* (Implementation report No 96, 28 May 2021) ('NWI Implementation report') <<https://pc.gov.au/inquiries/completed/water-reform-2020/report>>.

⁵¹ NWI Implementation report (n 32) 36.

⁵² NWI 2024 Inquiry Report, 124.

Determining a sustainable level of extraction inevitably involves balancing competing environmental and consumptive interests. There is no widely accepted formula as to the proportion of water that may be extracted from a river system without adverse ecological impacts. Moreover, the ecosystems of many of Northern Australia's river systems, are already known to be ecologically impacted due to long-term alterations to the water cycle.⁵³ Nevertheless, the NWI defines 'environmentally sustainable levels of extraction' as: "*the level of water extraction from a particular system, which, if exceeded, would compromise key environmental assets or ecosystem functions and the productive base of the resource*".⁵⁴

Therefore, the determination of regulation that is consistent with a sustainable level of extraction requires an understanding of key aquatic ecosystems that are at risk from water extraction and the ecosystem services that support them.⁵⁵ It also requires an understanding of the downstream impacts that various levels of water extraction will have on river flows. In short, extraction limits *must* be underpinned by the best available science, including climate science. Further, this science must be specific to the relevant catchments within which water extraction is occurring and being regulated.

Both the National Water Agreement and water resources legislation in Northern Australia should carry forward and strengthen the foundational importance of capping or reducing extraction to an ESLT. It is vital that an ESLT is identified and assessed, based on the best available scientific knowledge and First Nations knowledges, for a water resource, and that the flows required to maintain the water resource and its dependent ecosystem systems are protected from consumptive allocation.

Recommendation 6: The new National Water Agreement must strengthen the concept of environmentally sustainable level of take (ESLT), and ensure ESLT is identified and assessed based on the best available scientific knowledge and First Nations knowledges.

The need to incorporate best available science in decision-making

In response to the highly seasonal climates across most of Australia, the natural flow regime of most Australian rivers is highly dynamic.⁵⁶ Water management to maintain river health must therefore mimic that variability, especially to maintain the low flows critical to ecological health in dry periods, to create connectivity between different parts of the system, to export salts, flood

⁵³ Peter Davies et al, *Sustainable Rivers Audit 2: The ecological health of rivers in the Murray–Darling Basin at the end of the Millennium Drought (2008-2010), Volumes 1 and 2* (MDBA Publication number 72/12, Murray Darling Basin Commission, Canberra, 2012).

⁵⁴ NWI, Schedule B, 29.

⁵⁵ 'Sustainable levels of extraction: National Water Commission position', *UNSW: Connected Waters Initiative* (Web Page, 5 June 2010) <<https://www.connectedwaters.unsw.edu.au/articles/2010/06/sustainable-levels-extraction-national-water-commission-position>>.

⁵⁶ Angela Arthinton and Bradley Pusey, 'Flow restoration and protection in Australian rivers' (2003) 19(5-6) *River research and applications* 377-395.

wetlands, water floodplains and trigger fish breeding events, as well as multiple other processes critical to the health of the system.⁵⁷

While flow regimes differ greatly across various different areas, the health of rivers and their dependent ecosystems all depend on the maintenance of natural flow regimes.⁵⁸ The ecological consequences of changing flow regimes must be understood, and appropriate management solutions implemented, prior to the significant extraction of water in a given catchment. A framework guiding this process of determining ecological values, developing a scientific understanding of ecological limits, and adequately provisioning environmental water requirements has long been established⁵⁹, and should be followed. The current scientific paradigm recommends also moving away from designing flow requirements around protecting individual threatened species and towards taking a bigger picture, metasystem approach to curb the rapid loss of freshwater biodiversity.⁶⁰

NT and WA are unique in the world as many of their rivers retain natural flow regimes relatively undisturbed by influences such as land-clearing, water extraction and river impoundment.⁶¹ However, particularly in the tropics, the scientific understanding of these flow regimes is limited. Recent research argues that the lack of high-resolution and long-term hydrological data in these areas limits the robustness of water resources assessments relied upon for water allocation policies.⁶² This reinforces the necessity for legislative regimes in WA, NT and at the national level to promote ongoing research while also being flexible enough to incorporate evolving understandings of water resources.

Undoubtedly, there are practical, financial and resourcing barriers to achieving in-depth scientific understanding of catchments throughout vast sparsely populated areas of WA and NT. This underscores the need for legislation to prioritise the precautionary principle. That is, the ecological impacts of interfering with flow regimes must be understood prior to permitting increased water extraction.

⁵⁷ See Richard Kingsford, *Submission to the Murray-Darling Basin Royal Commission* (Centre for Ecosystem Science, University of New South Wales, 2019, available [here](#); Celine Steinfeld, *Progress towards environmental outcomes in the Murray-Darling Basin* (Appendix 2 of Review of Water Reform in the Murray Darling Basin, Wentworth Group, 2017) available [here](#).

⁵⁸ Mohd Sharjeel Sofi et al., 'The natural flow regime: A master variable for maintaining river ecosystem health' (2020) 13(8) *EcoHydrology* <<https://doi.org/10.1002/eco.2247>>; Mark J Kennard et al, 'Classification of natural flow regimes in Australia to support environmental flow management' (2009) 55(1) *Freshwater Biology* 171 <<https://doi.org/10.1111/j.1365-2427.2009.02307.x>>.

⁵⁹ Angela Arthinton and Bradley Pusey, 'Flow restoration and protection in Australian rivers' (2003) 19(5-6) *River research and applications* 377-395.

⁶⁰ Mathis Messager et al, 'A metasystem approach to designing environmental flows' (2023) 73(9) *BioScience* 643-662, <<https://doi.org/10.1093/biosci/biad067>>.

⁶¹ Se; Clement Duvert et al, 'Hydrological processes in tropical Australia: Historical perspective and the need for a catchment observatory network to address future development' (2022) 43 *Journal of Hydrology: Regional Studies* 101194, 2 <<https://doi.org/10.1016/j.ejrh.2022.101194>>.

⁶² *Ibid*12.

Recommendation 7: Governments in all jurisdictions should prioritise the collection, and sharing, of long-term and reliable hydrological data.

Impacts from extractive industries and agriculture

As the effects of climate change continue to be felt, governments are presented with the challenge from increasing contestation over our water resources and subsequent issues regarding prioritisation of competing users. Extractive industries (mining and gas) and agriculture are recognised consumptive users of water, and hold water licenses (or access entitlements) to significant amounts of water.

As outlined above, it is imperative that the best available science is used to determine the ESLT, that safeguards current and future water use in the context of a changing climate. Further, when considering competing water user interests, it is imperative that the interests of First Nations and water for the environment are considered on an equal footing to that of other water users. Decision-making processes that fail to facilitate adequate and equal consideration to competing water uses pose a threat to water security.

Threats to water security from a First Nations perspective do not only relate to the availability of water, but to the implications of interference with river and groundwater systems from a cultural perspective. The western legal system in Australia views water as a resource and has conceptualised water rights as extractive property rights. This paradigm ignores First Nations laws, knowledges and governance systems which conceptualise water as a living entity or ancestral being towards which there are cultural and spiritual responsibilities and obligations.⁶³

As demonstrated below, the current regulatory frameworks in Northern Australia are insufficient to protect First Nations water interests and protect environmental water allocations. Without reform to these frameworks, it is likely that aggrieved individuals or organisations will need to rely on Federal mechanisms, such as the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), and these avenues are only available in specific circumstances – in some cases, no recourse is available.

The community should not have to rely on Federal mechanisms to ensure water security, whether that be water security as that term relates to First Nations interests, or supply of environmental water. The existence of competing priorities and inconsistent and flawed regulatory frameworks emphasises the need for an enforceable National Water Agreement.

Western Australia

An example of a challenge in assessing the competing priorities of water users, and resulting threats to water security, is demonstrated in the Kimberley region of WA.

⁶³ Katherine Selena Taylor, Bradley J Moggridge and Anne Poelina, '[Australian Indigenous Water Policy and the impacts of the ever-changing political cycle](#)' (2016) 20(2) *Australasian Journal of Water Resources* 132.

The Martuwarra Fitzroy River Council (**MFRC**) has identified mining, fracking and water extraction as the three major threats to the Martuwarra. The MFRC is an Indigenous-led organisation ‘guided by a diverse representation of senior elders with cultural authority, knowledge holders on the front line, defending against the destruction of cultural heritage, ecological damage, poverty and climate change.’⁶⁴

Fracking is currently banned in areas in Western Australia,⁶⁵ but is permitted in certain places, including in the Kimberley region.

The MFRC consider the Martuwarra to be a living ancestral being.⁶⁶ The Fitzroy River Declaration, signed in 2016, is a statement by native title holders from along the river who have agreed to work together to protect and manage the river as a single living system.⁶⁷ It is said that ‘Traditional Owners and environmentalists have raised concern regarding the significant extent of existing petroleum leases that could be fracked and negatively affect the river and its catchment’.⁶⁸

Water security is not an issue that arises for consideration under the relevant fracking legislation, but evidently fracking is an activity that may have an impact on water security.

Another example is the recent litigation between mining businessman Andrew Forrest’s pastoral lease entity and the Buurabalayji Thalanyji Aboriginal Corporation regarding Mindurru, or the Ashburton River.

Mr Forrest sought to construct 10 weirs across Mindurru, together with related bores, infrastructure and access tracks. The purpose of doing so was to pool and capture water to facilitate the recharging of groundwater aquifers, which would enhance beef production, cropping and other agricultural and pastoral uses at Minderoo Station.⁶⁹

Part of Mindurru was an ‘Aboriginal site’ under the *Aboriginal Heritage Act 1972* (WA) (**AH Act**), and Mr Forrest therefore needed consent from the Minister for Aboriginal Affairs to construct the weirs and associated works, on the basis that doing so would destroy, damage, conceal or alter the Aboriginal site and breach of the AH Act.

The Minister refused consent, and Mr Forrest took the matter to the State Administrative Tribunal (**Tribunal**), who affirmed the Minister’s decision. The matter was appealed to the Court of Appeal of Western Australia, who allowed the appeal on one ground and sent it back to the Tribunal for reconsideration by different members. The Court of Appeal found the Tribunal had unlawfully given

⁶⁴ Martuwarra Fitzroy River Council, ‘About Us’ webpage, available [here](#).

⁶⁵ See *Petroleum and Geothermal Energy Resources (Hydraulic Fracturing) Regulations 2017* (WA) s 4, *Petroleum and Geothermal Energy Resources (Hydraulic Fracturing) Regulations 2017* (WA) s 5.

⁶⁶ See RiverOfLife Martuwarra, ‘A Conservation and Management Plan for the National Heritage Listed Fitzroy River Catchment Estate’ (2020). Available [here](#).

⁶⁷ Fitzroy River Declaration, available [here](#); Anne Poelina et al, ‘Martuwarra Fitzroy River Council: an Indigenous cultural approach to collaborative water governance’ (2019) 26(3) *Australasian Journal of Environmental Management* 236.

⁶⁸ Anne Poelina et al, ‘Martuwarra Fitzroy River Council: an Indigenous cultural approach to collaborative water governance’ (2019) 26(3) *Australasian Journal of Environmental Management* 236, 241.

⁶⁹ *Forrest & Forrest Pty Ltd v Minister for Aboriginal Affairs* [2024] WASCA 96.

weight to the fact of the Minister's decision, as opposed to any reasons expressed by the Minister for making that decision.⁷⁰

Although the case turned on administrative law arguments, the key underlying fact is that:⁷¹

Mindurru occupies a central place in the belief system of the Thalanyji. The Thalanyji relationship to Mindurru is properly regarded as deeply spiritual, and Mindurru can be regarded as sacred to the Thalanyji. The Thalanyji believe in the existence of the Warnamankura (water snake) as a powerful spirit which lives in Mindurru, which travels up, down and under Mindurru and can control the natural flow of Mindurru. The existence of semi-permanent pools in Mindurru is regarded by the Thalanyji as an enduring expression of the existence of the water snake. The Thalanyji believe that they need to engage in respectful behaviour near Mindurru in order not to make the water snake angry. The Thalanyji believe that if they allow changes that affect the water flow, this would change the natural balance of Mindurru, the water snake may become angry as a result, and that in turn may cause spiritual problems for the Thalanyji.

In this case the Minister for Aboriginal Affairs acted in a way consistent with the protection of First Nations water interests and water security under the AH Act. However, the fact remains that the AH Act leaves open the possibility that extractive industries can apply to the Minister for consent to destroy, damage or interfere with Aboriginal cultural heritage, and this has the potential to negatively affect First Nations water security.

Without either a robust State-based water regulation framework that allows First Nations participation in decision making about water resources, or an enforceable National Water Initiative, First Nations water security interests are under threat in WA.

Northern Territory

In November 2021, the NT Water Controller granted Fortune Agribusiness Funds Management Pty Ltd (**Fortune**) a 30-year water extraction licence of 40 gigalitres of groundwater per year. The licence will stagger the amount of water that can be extracted over the first 8 years, reaching a maximum of 40 gigalitres per year, and amounting to a total of 1 trillion litres of water allocated over the 30-year period.⁷² Fortune is seeking to grow fruits and vegetables across 3,500ha of irrigated horticulture in Singleton Station, which is a pastoral lease near the community of Ali Curung, 370km north of Alice Springs.

The scale of the water extraction is unprecedented and environmentally unsustainable. The Western Davenport Ranges Water Allocation Plan, at the time, allowed a maximum groundwater drawdown of 15 metres within the aquifer, however due to NT water laws, the Controller was able to grant an extraction licence that is likely to cause a 50 metre groundwater drawdown.⁷³ The highly episodic groundwater recharge in the region combined with the impacts of climate change to water

⁷⁰ *Forrest & Forrest Pty Ltd v Minister for Aboriginal Affairs* [2024] WASCA 96 [118].

⁷¹ *Forrest & Forrest Pty Ltd v Minister for Aboriginal Affairs* [2024] WASCA 96 [115] (footnotes omitted).

⁷² Arid Lands Environment Centre, Singleton Station Horticultural Development (available at <https://www.alec.org.au/faq>).

⁷³ *Ibid.*

availability, have increased the concern about the impacts on the aquifer as an ongoing sustainable water resource.⁷⁴

This licence decision was the subject of judicial review proceedings in the Northern Territory Supreme Court in September 2022.

Despite the concerns raised above, the January 2024 decision of the NT Supreme Court in *Mpwerempwer Aboriginal Corporation RNTBC v Minister for Territory Families & Urban Housing as Delegate of the Minister for Environment & Anor and Arid Lands Environment Centre Inc v Minister for Environment & Anor* [2024] NTSC 4 (**Singleton Station Case**), serves to highlight the deficiencies in the NT's water planning frameworks. That decision includes a finding that section 22B(4) of the NT Water Act, which states that "water resource management in a water control district is to be in accordance with any water allocation plan declared in respect of the district", does not require that water licences in a WAP area be consistent with the terms of a declared WAP.⁷⁵ Rather, the plan is just one of many factors which the Controller of Water Resources is required to consider or "take into account", if relevant, when determining a water licence application.⁷⁶

Queensland

Queensland allows exemptions for the mining and petroleum industry from the water plan framework for the planning, allocation, and use of water,⁷⁷ through the provision of 'associated water licences' and statutory rights to associated underground water.⁷⁸

The separate framework for extractive industries has resulted in significant community concern of the impacts on other water users from extraction within the water plan area. Approvals are often accompanied with conditions requiring the creation of management and monitoring plans. However, as the plans are developed after the grant of an approval, considerations as to the effectiveness of the plans on limiting impacts to surrounding water users is only considered (if at all) after the fact.

By way of example, the Carmichael Coal Mine (Adani Mining Pty Ltd trading as Bravus Mining and Resources) was granted an Environmental Authority and associated water licence on 2 February 2016 and commenced open cut mining in 2020. The EA was conditioned to require the development of a Groundwater Dependent Ecosystem Management Plan, ongoing groundwater monitoring and a review of the groundwater modelling 2 years after operations commenced as part of an 'adaptive management approach'.⁷⁹

Adani's first groundwater modelling review report in February 2023 was not accepted by the Queensland Department of Environment and Science (**DES**) as the revised modelling indicated that underground mining would result in exceeding the draw down limit of the Doongmabulla Springs,

⁷⁴ Ibid.

⁷⁵ Singleton Station Case [58]-[59].

⁷⁶ Singleton Station Case [44]-[47].

⁷⁷ *Water Act 2000* (Qld) s1250T(2).

⁷⁸ *Mineral Resources Act 1989* (Qld) s334ZP.

⁷⁹ Environmental Authority EPML0140513.

a culturally significant site for the Nagana Yarrbayn Wangan and Jagalingou people. DES issued an Environmental Protection Order (**EPO**) to restrain Adani from commencing underground mining operations until new modelling indicated that undergrounding mining would not exceed the thresholds.⁸⁰ Adani is presently appealing the issue of the EPO.⁸¹

Separately the Nagana Yarrbayn Wangan and Jagalingou Cultural Custodians group have commenced action in the Queensland Supreme Court to compel the Queensland government to suspend the mine on the grounds of hydrocarbon contamination occurring in the Doongmabulla Springs.⁸²

Insufficient upfront assessment and reliance on adaptive management conditions and post-approval development of impact assessment reports and management plans results in the need for reactive action by government and the public.

Not only are regulators making decisions that are not sufficiently informed as to the potential impacts of a project, members of the public are unable to provide meaningful, informed submissions about the extent or appropriateness of any potential impacts during public notification processes.

Recommendation 8: The National Water Agreement must be enforceable, sufficient to allow communities recourse beyond sub-national regimes, which historically have failed to protect their water interests from extractive industries and agriculture.

Recommendation 9: Standards of upfront environmental impact assessment and consultation must be improved in all jurisdictions, including the consideration of impact on cultural water rights.

Lack of jurisdiction-wide safe drinking water

The right to water is one of the most fundamental conditions for survival.¹⁷¹ Adequate and appropriately managed water services reduce exposure to preventable health risks.¹⁷

In 2010, the UN General Assembly adopted a resolution that the right to safe and clean drinking water and sanitation “is essential for the full enjoyment of life and all human rights”,⁸³ and in 2015, the UN General Assembly adopted a resolution that recognised it as a distinct, standalone right.⁸⁴

⁸⁰ Environmental Protection Order STAT-E-100392431.

⁸¹ *Adani Mining Pty Ltd v Chief Executive, Department of Environment and Science* (Queensland Planning and Environment Court, No 1485 of 2023).

⁸² *Nagana Yarrbyn Wangan and Jagalingou Cultural Custodians Ltd v Chief Executive, Department of Environment, Science and Innovation* (Queensland Supreme Court, No 1902 of 2024).

⁸³ A/RES/64/292 at [1]

⁸⁴ A/RES/70/169 at [2]

Furthermore, in 2022, the UN General Assembly reaffirmed recognition of the human right to a clean, healthy and sustainable environment,⁸⁵ which Australia voted in favour of, after this right was explicitly recognised by the UN Human Rights Council in 2021.⁸⁶ One substantive element of the right to a healthy environment is the right to access safe drinking water.⁸⁷

Although a basic human right, many Australians do not have access to safe drinking water.¹⁷³ Recent research undertaken by ANU found that Australians in more than 400 remote or regional communities lack access to good-quality drinking water and 40% of all locations with reported health-based non-compliances were remote Indigenous communities.¹⁷⁴

The Productivity Commission acknowledged that a definition of “safe” water should align with existing health guidelines under the Australian Drinking Water Guidelines (**ADWG**). The ADWG provide guidance to water regulators and suppliers on monitoring and managing drinking water quality, including listing recommended maximum values for contaminants. However, implementation of the ADWG is haphazard, and the ADGW is not legally binding.

Notably, the Productivity Commission’s International Benchmarking Report: Arrangements for Setting Drinking Water Standards⁸⁸ found:

- relatively little resources are devoted to regulatory development and enforcement activities in Australia;
- benefit-cost analysis is rarely used in developing standards;
- there is a scarcity of information on the quality of drinking water in different parts of Australia and the accompanying risk levels; and
- an increase in standards is likely to require significant additional investment in water treatment infrastructure.

Further, it was noted that there is institutional fragmentation within jurisdictions in promulgating and enforcing standards in Australia. Health departments, water resources departments and the water suppliers are all involved. This sharing of responsibility potentially lessens accountability for public health outcomes.

⁸⁵ UN General Assembly, *The human right to a clean, healthy and sustainable environment*, UN Doc. A/RES/76/300 (28 July 2022).

⁸⁶ UN Human Rights Council, *The Human Right to a Clean, Healthy and Sustainable Environment*, GA Res 48/13, UN Doc A/HRC/48/13 (18 October 2021).

⁸⁷ For more information of the right to access safe drinking water and sanitation in the context of the right to a healthy environment, see David R Boyd, Special Rapporteur on Human Rights and the Environment, *Human rights and the global water crisis: water pollution, water scarcity and water-related disasters*, UN Doc A/HRC/46/28 (19 January 2021).

⁸⁸ Productivity Commission (2000) [Arrangements for Setting Drinking Water](#).

In Western Australia:

- Under the *Water Services Act 2012* (WA), a water service provider cannot provide a water service (meaning a water supply, sewerage, irrigation or drainage service)⁸¹ except under a licence.⁸² The licensing framework is administered by the Economic Regulation Authority (**ERA**).
- Unless an exemption applies, a water service provider also has to comply with a Memorandum of Understanding (**MOU**) with the Department of Health (**Department**) to address the quality of drinking water.
- In its 2019 Consultation paper, *A new regulatory framework for drinking water in Western Australia* (**Consultation Paper**), the Department of Health identified several deficiencies with the supply of drinking water in WA,⁸⁹ and proposed a new drinking water regulatory framework.
- Currently, the Department ‘requires adherence to best practice quality management by entering into a MOU with a water service provider [...]’ and, given that the ERA is primarily responsible for water licencing, this framework ‘means that public health provisions are subordinate to a water licencing framework, rather than having public health provisions as a valuable or intrinsic social right.’⁹⁰
- The Department also identified the lack of transparency in setting standards and regulatory obligations⁹¹ and lack of enforcement options as issues with the current framework.⁹²
- The Department suggested that amended regulations require licenced drinking water suppliers to publish annual drinking water quality information and says ‘This is a key aspect of public transparency and meets obligations expected of the licenced drinking water supplier to ensure that consumers are able to obtain detailed information about the quality of drinking water supplied.’⁹³ We endorse this position.

In the Northern Territory:

- The extraction and supply of drinking water is regulated by the NT *Water Act* and the *Water Supply and Sewerage Services Act 2000* (NT) (**WSSS Act**). Licences are required for the supply of water within a declared water supply licence area under the WSSS Act.
- Power and Water Corporation (**PWC**), a government owned corporation, is the only licence holder for the supply of water across the 18 declared water supply service

⁸⁹ Consultation Paper. Accessible [here](#).

⁹⁰ Ibid, 17.

⁹¹ Ibid.

⁹² Ibid, 18.

⁹³ Ibid, 33.

areas. These areas relate to urban and regional centres and do not apply to remote communities.

- Indigenous Essential Services Pty Ltd (a subsidiary of Power and Water Corporation) (**IES**) is a company contracted by the Department of Territory Families, Housing and Communities to provide water and sewerage services to remote communities and outstations.
- There are currently no enforceable standards in relation to the quality of drinking water in the Northern Territory.
- There is an expired MOU between PWC and the Department of Health, dated June 2011 (and stated to expire in 2015). The MOU does not refer specifically to IES. The MOU states at 4.1 that:
 - i. The Department and Corporation accept that pursuant to Section 45 of the *Water Supply and Sewerage Services Act 2000* (NT) no minimum standards for drinking water quality have been set in licensed areas or in areas not subject to the Act, however, the *ADWG* will be used as the peak reference regarding the quality of drinking water and management of drinking water quality.
- The lack of safe drinking water is a recognised problem in the NT. The former NT Labor Government committed to the development of stand-alone safe drinking water legislation by the end of 2024. While we understand drafting has commenced, no exposure bill has been released, and the new NT Government have not publicly stated their commitment to a safe drinking water act.

In Queensland:

- The supply of drinking water is regulated by the *Water Supply (Safety and Reliability) Act 2008* (Qld). The Department of Local Government, Water and Volunteers is responsible for maintaining a register of water service providers and monitoring compliance regarding water supply.⁹⁴
- Water service providers are required to obtain a water entitlement or resource operations licence to extract water.⁹⁵
- The *Public Health Act 2005* (Qld) provides the offence to knowingly supply unsafe drinking water⁹⁶ and provides the Queensland Department of Health the power to require a water service provider to remedy the contravention.⁹⁷ Many aspects of the *ADWG* have been implemented through the water quality standards in Part 9 of the

⁹⁴ *Water Supply (Safety and Reliability) Act 2008* (Qld) s11(1).

⁹⁵ *Ibid* s29.

⁹⁶ *Public Health Act 2005* (Qld) s57E.

⁹⁷ *Ibid* s57A

Public Health Regulation 2018 (Qld); however, the health-based targets have not been adopted.

- The Queensland Audit Office December 2024 report ‘Managing Queensland’s regional water quality’ audited 4 regional councils. It identified various instances of non-compliance with approved drinking water quality management plans,⁹⁸ with some identified measures to reduce high risk not implemented up to 4 years since identification.⁹⁹
- The Queensland Department of Health undertakes risk assessment of water service providers and applies a risk rating, but is not transparent in the justification for the rating.¹⁰⁰

Northern Australia is comprised of the largest jurisdictions (geographically) in Australia. It is acknowledged that distance creates barriers to building and maintaining appropriate infrastructure needed to raise drinking water quality to meet the ADWG. In its report, the Productivity Commission noted that while all jurisdictions have arrangements in place to implement the ADWG, regulatory arrangements vary across and within jurisdictions.¹⁰¹

Every Australian should have access to safe drinking water, irrespective of geography. It is critical the Federal Government support Northern Australia to protect the human right to water through: legislative reform (including the adoption of the ADWG as an enforceable standard); and investment in infrastructure.

The Federal Government has a key role in protecting Australian’s human rights across the continent, and clear responsibility to implement international human rights instruments through the adoption of nationally enforceable legislation. In a rich country such as Australia, it is appalling that many Australians do not have access to safe drinking water – this must be rectified urgently and in line with our international obligations.

Recommendation 10: The Federal Government must implement a Right to a Healthy Environment in human rights legislation at the national level. Concurrently, State and Territory Governments must enshrine the legally binding right to water, including safe drinking water, as a basic human right in accordance with the 2010 declaration of the UN General Assembly.

Recommendation 11: The National Water Agreement should mandate the adoption of the Australian Drinking Water Guidelines as the minimum, enforceable standard. These standards should then be regularly monitored and reported by the responsible department in publicly available registers. This reform would ensure accountability, transparency and public participation in relation to access to safe drinking water.

⁹⁸ QAO 2024, *Managing Queensland’s regional water quality* pg. 10-11.

⁹⁹ *Ibid* pg. 12.

¹⁰⁰ *Ibid* pg. 19.

¹⁰¹ NWI 2024 *Inquiry Report*, 237.

Appendix A: Recommendations from EDO's submission to the Productivity Commission's Inquiry into National Water Reform 2024

First Nations water access, management and ownership

The next iteration of the NWI must require States and Territories to provide for First Nations-led reform that generates genuine, legally binding water justice for First Nations. Building upon, and in addition to, EDO's previous recommendations, this should:¹⁰²

- include scope to acknowledge and co-develop legal and governance frameworks which directly reflect First Nations epistemology (ways of knowing) and ontology (ways of being), and which are adequately resourced.
- Include the incorporation of the principle of FPIC of First Nations in all water management frameworks.

Water allocation planning:

In addition to EDO's previous recommendations, the next iteration of the NWI must require:

- All jurisdictions to have legally binding statutory water plans that allocate water to consumptive and non-consumptive uses, prepared in accordance with robust legislative requirements that deliver on modernised NWI commitments and underpinned by peer reviewed science.
- In the absence of statutory plans, non-statutory policies should provide guidance only and decisions must be made transparently, based on the best available, up-to-date science and incorporating principles of ecologically sustainable development.

Community participation:

In addition to EDO's previous recommendations,¹⁰³ the next iteration of the NWI must require:

- Consultation processes for water management decisions to be enshrined in legislation with appropriate timeframes for genuine consultation and co-design.
- First Nations to decide appropriate consultation and engagement for their communities, which may include materials being provided in language and processes taking place on Country.

¹⁰² See, in particular, EDO's recommendations from the 2020 Submission in relation to (6) Aboriginal water rights, (7) water markets and (9) collaborative governance; and Recommendations 1-5 of the 2021 Submission.

¹⁰³ See, in particular, EDO's recommendations from the 2020 Submission in relation to (9) Collaborative governance and Recommendation 1 of the 2021 Submission.

Advisory committees:

- Where advisory committees are used:
 - The role and functions of the committee should be set out clearly in legislation, including the role of advisory committees with respect to water allocation/management plans.
 - There should be clear governance arrangements for the advisory committee, set out in legislation.
 - The membership of the committee should be diverse and require community representatives from a range of stakeholders.

Climate change:

The EDO continues to endorse its previous recommendations on climate change.¹⁰⁴ In summary:

- Under a renewed NWI, all jurisdictions must ensure water laws and policies are climate-ready, including by reviewing all relevant legislation with a view to incorporating clear and binding requirements for considering the impacts of climate change in decision making and clear requirements for climate change mitigation and adaptation.

Safe drinking water

Building upon EDO's previous recommendations,¹⁰⁵ the next iteration of the NWI must require:

- State and Territory Governments to enshrine a legally binding right to water, including safe drinking water, as a basic human right in accordance with the 2010 declaration of the UN General Assembly.
- In line with the Productivity Commission recommendations, access to a basic level of service, based on safe and reliable drinking water should then be ensured.
- To ensure consistency of water quality standards, State and Territory laws should adopt the ADWG as the minimum, enforceable standard. These standards should then be regularly monitored and reported by the responsible department in publicly available registers. This reform would ensure accountability, transparency and public participation in relation to access to safe drinking water.

Transparency and access to information

In addition to EDO's previous recommendations,¹⁰⁶ under the next iteration of the NWI, all jurisdictions must improve transparency and accountability by:

¹⁰⁴ For more detail, see EDO's recommendations from the 2020 Submission on (5) climate change.

¹⁰⁵ See, in particular, EDO's recommendations from the 2020 Submission on (10) Water quality.

¹⁰⁶ See, in particular, EDO's recommendations from the 2020 Submission on (3) Access to information. See also our recommendations with respect to (1) Measurement, water accounting and auditing and (2) compliance and enforcement.

- Ensuring drinking water quality information is published and shared with communities in a timely, accessible and culturally appropriate manner.
- Open-standing, third-party merits review processes are in place with respect to water management decisions including on water licence and permit applications.
- Clearly and publicly reported information around compliance with and enforcement of water laws.