

TERRITORY WATER PLAN



A plan to deliver water security
for all Territorians, now and
into the future

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The Northern Territory Government respectfully and proudly acknowledges the Northern Territory's Aboriginal people and their rich cultures. We pay respect to Elders past and present. We acknowledge Aboriginal peoples as the Traditional Owners and custodians of the lands and waters that we rely on for our livelihoods. We recognise the intrinsic connection of Traditional Owners to Country and value their ongoing contribution to managing the lands and waters. We support the need for genuine and lasting partnerships with Traditional Owners to better understand cultural connections, and we will work to establish lasting partnerships to manage water together, now and into the future.



*Leliyn Falls,
Nitmiluk National Park*



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*Ormiston Gorge,
Tjoritja / West MacDonnell National Park*

Statement of Commitment



The Territory Water Plan (the Plan) is the Northern Territory's first whole-of-government strategic plan for water security. The Plan responds to community feedback on Territorians' needs and aspirations for water management, and proposes a holistic approach to the complex water security challenges and opportunities that we now face, and those that will emerge over the coming decades. It has been informed by a two-year community consultation process, and concerted coordination effort across government.

The Plan will position the Northern Territory to maintain its enviable position in being protective of water for the environment and ensuring water is available and managed for the future, including future growth and a changing economy. The priority actions outlined in the Plan provide a balanced mix of reform across legislation, policy, governance and regulation, infrastructure delivery, science, cultural knowledge and community engagement. These actions individually and collectively will enable us to systematically improve and extend drinking water supply for remote and rural areas, support our growing population and provide secure and sustainable water for economic growth and new industries in the face of global uncertainty and climate change.

As the Minister for Environment, Climate Change and Water Security, I will champion the Plan and oversee the implementation of its actions on behalf of the Northern Territory Government. I will provide an annual Ministerial Statement to the Legislative Assembly of the Northern Territory, detailing its progress and outcomes and forecasting future commitments under the Plan.

I will be supported by the Office of Water Security; a dedicated team tasked with leading and coordinating implementation of the Plan and its actions across the Northern Territory. The Office of Water Security will report annually on progress against the Plan, lead significant water policy development and perform an ongoing community engagement role, building research partnerships and strong relationships across the community and the water sector.

I look forward to working with all Territorians to deliver the Plan and secure our water future.

Hon. Lauren Moss MLA
Minister for Environment, Climate Change and Water Security

Water in the Territory



Our water story is like nowhere else in Australia.

Our major rivers remain free-flowing, continuing to support the oldest culture in the world and providing a home for unique species and largely intact ecosystems.

The Territory covers one sixth of Australia or 1,340,000 km², but is home to less than 1% of its population. Whilst the majority of our 250,000 population live in major centres like Darwin, Palmerston, Alice Springs and Katherine, many live in regional towns and remote areas. The sheer size of the Territory, its diverse climate, and small population makes providing safe and secure water for all Territorians a challenge.

Aboriginal lore and spirituality are intertwined with the land, sea and water. It remains central to Aboriginal lives and culture. More than 30% of the Territory's population is Aboriginal. Almost half the land is freehold held by Aboriginal organisations. Connection to water means that Aboriginal Traditional Owners feel a responsibility to care for water places on their Country. Almost one third (approximately 5,000 of 15,000) of all sacred site records across the Territory are water-related. Protection of these sacred sites, and other culturally significant places that are yet to be recorded, and the values associated with them, are paramount to protecting living Aboriginal culture. It is why Aboriginal connections to water have an important place in the way we manage water. Aboriginal people also want the opportunity to receive an economic and social benefit from using their water to support development.

The Territory's water resources are driven by presence or absence of rainfall. In the Top End more than 95% of our annual rainfall comes during the wet season. Tropical cyclones and

monsoon rains drive our weather systems dropping an average of between 600–1,700 mm of rain during October to April each year. In the wet season this water feeds large river systems to support some of the world's last remaining free-flowing rivers, without interruption by dams or levies we see elsewhere. Aquifers are reliably topped up in the wet season, when high rainfall fills flood plains and wetlands. For the rest of the year, there is practically no rain. We draw water from aquifers and human-made water storages to sustain life in the dry season. Drought is infrequent and it is rare to see a run of failed wet seasons.

In comparison, in the semi-arid and arid regions of the Territory, there is much less rainfall, providing an average of 200–600 mm a year. To sustain life in these environments we must draw on our underground aquifers. These aquifers vary in location and capacity and replenishment occurs less regularly. Recharge can be by the slow movement of water seeping through river beds and flood out areas from large rainfall events. In some cases, recharge rates are so slow they're measured in geological time with these deeper aquifers holding vast stores of water underground for centuries.

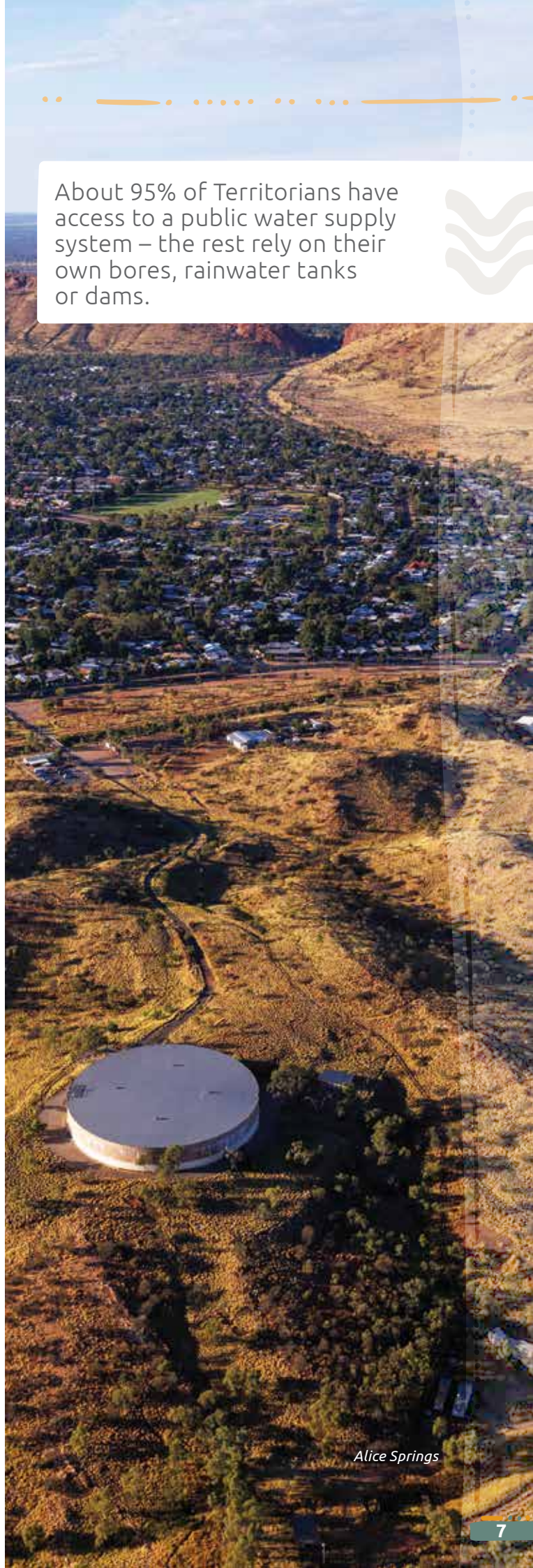
Many people think groundwater is stored in underground lakes or is flowing in underground rivers. In fact, the water fills the tiny spaces and cracks in the rocks that form aquifers. The connectivity of aquifers is complex and the quality of the water varies depending on the kinds of soil, parent rock and dissolved minerals. This can mean that not all groundwater is naturally safe for people to drink.

About 95% of Territorians have access to safe drinking water from a public water supply system, the rest rely on their own bores, rainwater tanks or dams. Power and Water Corporation provides safe drinking water across 18 urban centres and 72 remote communities through the reticulated network covering more than 3,000 km of water mains.

Where Territorians get their drinking water from depends on where they live. For the majority of people, such as those living in Darwin, Palmerston and Katherine, water supply mainly comes from surface water sources like Darwin River Reservoir (~85%) or the Katherine River (~90%). For the rest of the Territory, about 90% of overall water supply comes from groundwater and less than 10% comes from surface water. Alice Springs, Tennant Creek and other communities across the Territory get their water from aquifers. These range from small less reliable local aquifers, to larger, more resilient regional aquifers, though these are typically recharged infrequently.

In the Territory rural stock and domestic use does not require a water extraction licence. This ensures the 5% of Territorians that live beyond the reticulated network on rural blocks, pastoral properties or more remotely can access water for their household and livestock.

About 95% of Territorians have access to a public water supply system – the rest rely on their own bores, rainwater tanks or dams.



Alice Springs



The primary tool for managing and protecting the Territory's water resources is the *Water Act 1992* (NT) (the Water Act). This provides rules for the investigation, management, allocation and protection of water. The Act includes mechanisms to create advisory committees comprised of representatives from community groups, industry, agriculture, non-government organisations, government agencies and landholders to advise the NT Government on water management. This includes providing advice on the development of water allocation plans which set the total amount of water which can be taken from groundwater and surface water resources through licences.

The Territory is well-positioned to manage its water resources equitably and sustainably. Unlike in the Murray-Darling system where there is wide-spread over-allocation and expensive water buy-backs, the Territory's policy and regulatory framework allocates sufficient water to protect the environment and cultural values first, before it can be used for any other purpose. Drinking water supply is also prioritised before water can be allocated for commercial activity.

The Northern Territory is also unique in its establishment of an Aboriginal water reserve in all declared water allocation plans which was formalised in amendments to the Water Act in 2019. The Aboriginal water reserve ensures that water is set aside for Aboriginal people to access for economic development, either directly as equity in a business partnership or traded on a temporary basis.

To date, more than 57,000 megalitres per year is available through Aboriginal water reserves, representing about 15% of all water entitlements in the Territory, excluding public water supply. This volume will grow as more water allocation plans are developed and declared.



Water over road on Ross Highway
© Territory Families, Housing and Communities

**67
SURFACE WATER
LICENCES**

135,447 ML/yr

22%



**5
TIDAL WATER
LICENCES**

154,100 ML/yr

25%



**523
GROUNDWATER
LICENCES**

326,326 ML/yr

53%



Licensed water extraction by source type,
current as of June 2022.

In the Territory, rural stock and domestic use is a protected right which does not require a water extraction licence. This ensures the 5% of Territorians that live beyond the reticulated network on rural blocks, pastoral properties or more remotely can access water for their household and livestock. Most water used for development is allocated for use under a water extraction licence.

Licences in the Territory are issued with conditions and requirements for reporting and provide for an entitlement to use water rather than an ownership right to water. There are currently close to 600 licences issued in the Northern Territory accounting for approximately 615,900 megalitres of water. Almost half of these licences are issued in the Darwin Rural Water Control District, totaling close to 149,000 megalitres per year. Water allocated under a licence is primarily for the agricultural sector (56%), followed by public water supply (16%) and aquaculture (23% – which includes tidal waters).

Water allocated for mining and onshore gas is expected to increase. Changes to the Water Act require these activities to be subject to water licence and permitting requirements. New industries and industries required to mitigate climate change, such as rare earth mining, hydrogen production, waste reduction and management projects and bio fuels will require water and water management regimes to facilitate their development. To support this growth and changing demand profile for water, new technologies, infrastructure and contemporary water legislation will be needed.

*Bitter Springs,
Elsey National Park*



Territorians recognise the importance of water to the natural environment and the key role this plays in their identity and lifestyle. Water and water-dependent environmental values underpin a range of important economic and liveability outcomes such as commercial and recreational fisheries, parks and reserves, and the tourism sector which attracts people to live and work in the Northern Territory. In addition, water-dependent ecosystems provide amenity and food including traditional harvests, have cultural and spiritual values, and are fundamental to landscape function. These values are protected and prioritised in our current water management regime.

So far the Northern Territory has had sufficient water to meet its needs and has experienced few water restrictions due to drought or other shortages, which has limited attention to water efficiency, water productivity (the benefit derived from a given amount of water) or identifying 'back-up' water sources for population centres. However, as climate change impacts become more apparent and water security issues more prominent, contingency planning must advance.

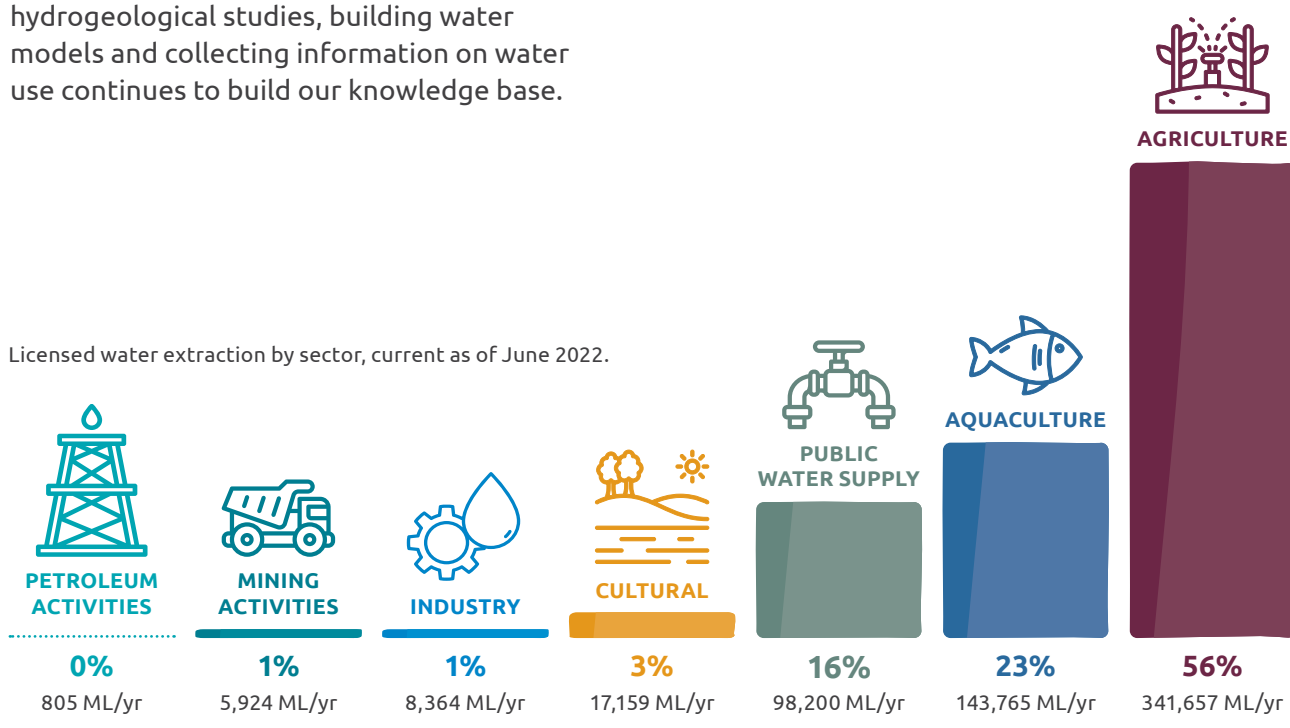
Our knowledge of the Territory's water resources is informed by millennia of traditional knowledge and more than 60 years of modern science. Investigative drilling, water monitoring, hydrogeological studies, building water models and collecting information on water use continues to build our knowledge base.

Most of this work has focused along the Stuart Highway 'spine' of the Territory. These areas are important, and continuing to monitor water systems and build knowledge is critical for maintaining sustainable development. However there are opportunities to expand where we get our water from by gathering more knowledge and undertaking new scientific investigation that will help make water more secure and inform sustainable development.

But it is not just about finding more water. Better and more efficient use of water can enable significant growth and improved water security.

This is only a snapshot of our water story for the Territory. For more information on water resource management, visit <https://depws.nt.gov.au/water>.

Licensed water extraction by sector, current as of June 2022.





Lettuce

© Department of the Chief Minister

Why do we need a plan for water?



Water is essential to life, living and livelihoods and its security is important now and for future generations.



Water is vital for our wellbeing and maintaining the health of our unique environment the Northern Territory is renowned for. It supports the functioning of resilient cities, towns and communities that maintain our economy and society, and directly supports a range of industry sectors and enterprises that provide opportunities for all Territorians. Unlike other parts of Australia the Territory's water resources have not been over allocated and are by and large available to be shared. However, with aspirations for a growing population, a larger and more diversified economy and the challenge of climate change, we need to ensure a comprehensive plan for water security, tailored to the Territory context, is able to balance competing and complex water demands, pressures and challenges, now and into the future.

The Plan, informed by Territorians, provides for a comprehensive and integrated approach to water security for the Northern Territory.

Water security for the Territory means:

Having an acceptable quantity and quality of water for people, economic opportunities, cultural and environmental needs, now and into the future.

What the Plan does



The Plan is the first of its kind in the Northern Territory. It provides a lasting strategic framework to guide all water management functions and activities, using water security as the core principle and lens to guide reform efforts into the future.

Beneath the framework, the Plan brings together existing efforts to improve water management, and provides a set of priority actions to set the foundation for water security into the future.

The Plan will strengthen water governance in the Northern Territory, by delivering the actions under the Plan and by coordinating all water management functions and activities undertaken by the NT Government across water resource management, water services and utilities, policy, legislation, regulation and water use.

Other strategic frameworks across the NT Government complement the Plan, including efforts to grow the economy in response to the Territory Economic Reconstruction Commission's final report, the Northern Territory Infrastructure Strategy, the Northern Territory Implementation Plan for Closing the Gap, the Everyone Together: Aboriginal Affairs Strategy, the Remote Housing Investment Package, Regional Growth Plans, Northern Territory Climate Change Response and the Circular Economy Strategy. It positions the Northern Territory to respond to the challenges of the future, including the effects of climate change, global geopolitical shifts and the growing community expectations for involvement and participation in government service delivery and shared water stewardship.



*Munga-Thirri
Simpson Desert*

Bringing together government roles and responsibilities in water



Roles and responsibilities for water are spread across a number of government agencies and entities, each with their own legislation and remit. The Office of Water Security has been established to provide whole-of-government coordination across these agencies to maintain a coherent and comprehensive reform agenda to improve water security through the implementation of the Plan.

DEPARTMENT OF ENVIRONMENT, PARKS AND WATER SECURITY

- › Water resource management including monitoring, drilling investigation, science and assessment, planning, licencing, regulation and compliance
- › Environmental approvals
- › Biodiversity protection
- › Environmental policy including water, climate change and circular economy

DEPARTMENT OF TERRITORY FAMILIES, HOUSING AND COMMUNITIES

- › Remote service funding and policy
- › Homelands services

DEPARTMENT OF HEALTH

- › Health regulator of water and wastewater services

POWER AND WATER CORPORATION

- › Utility provider for water and wastewater services
- › Water infrastructure
- › Remote service delivery through Indigenous Essential Services Ltd
- › Water efficiency education and awareness

DEPARTMENT OF TREASURY AND FINANCE

- › Economic regulator of water and wastewater services
- › Government funding agency

DEPARTMENT OF INDUSTRY, TOURISM AND TRADE

- › Economic and industry development for agriculture, aquaculture, fisheries, mining, energy, manufacturing, tourism sectors
- › Project facilitation, including business case development and funding proposals for water projects focused on supporting regional economic growth and development

DEPARTMENT OF INFRASTRUCTURE, PLANNING AND LOGISTICS

- › Land use planning
- › Major infrastructure project delivery
- › Flood mitigation planning and infrastructure

DEPARTMENT OF THE CHIEF MINISTER AND CABINET

- › Whole-of-government strategic policy advice and coordination, including Aboriginal Affairs priorities such as Closing the Gap targets

Territory Water Plan Framework

PLAN PURPOSE

The Plan aims to deliver water security for all Territorians, now and into the future.

Water security as a principle

At core of the plan's purpose is the guiding principle of water security for all Territorians.

Water security for the Northern Territory is defined as having an acceptable quantity and quality of water for people, economic opportunities, cultural and environmental needs, now and into the future.

PRIORITY AREAS

The Plan identifies four priority areas which reflect the diverse values and uses of water in the Territory. Under each priority area are outcomes which the NT Government will aim to achieve and maintain over the coming decades.

SAFETY

Provide safe and secure drinking water for Territorians.

SUPPLY

Maximise economic opportunities and livelihoods through water management.

SUSTAINABILITY

Use water sustainably to protect the Territory's environmental and Aboriginal cultural assets.

TRUST and CONFIDENCE

Engage Territorians in water management and decisions to build confidence and foster a shared understanding.

THE DROPLET CONCEPT

Water is central to all life, it flows across both physical and managerial boundaries and is not easily compartmentalised.

Shown as part of a droplet, the four priority areas of safety, supply, sustainability, and trust and confidence are interconnected. Water security challenges and opportunities such as climate change, economic development, protection of environmental and cultural values or the provision safe drinking water are considered across multiple priority areas.



Priority areas, outcomes and actions at a glance

There are a range of outcomes that can be identified for each priority area in the Plan framework that map across the economic, social, environmental, cultural and governance aspects of water security.



SAFETY

Provide safe and secure drinking water for Territorians

- All Territorians have safe drinking water with secure supply
- Fit for purpose management and governance structures for safe drinking water
- The Territory's water is resilient to climate change.



SUPPLY

Maximise economic opportunities and livelihoods through water management

- Secure public water supply for urban centres to support population and economic growth
- Support remote services through infrastructure investment
- Enable sustainable development and regional economic participation
- Economic opportunities from the energy transition, circular economy and environmental offsets are realised.



SUSTAINABILITY

Use water sustainably to protect the Territory's environmental and cultural assets

- Territory rivers, groundwater and water-dependent ecosystems remain healthy
- Water use supports and maintains liveability and the Territory lifestyle
- Water use is efficient and productive across the water cycle
- Aboriginal cultural values are recognised and protected.



TRUST and CONFIDENCE

Engage Territorians in water management and decisions to build confidence and foster a shared understanding

- Water management and governance frameworks fit the Territory context and align with best practice
- Water is valued by community, business and government
- Water science, literacy and communication supports water stewardship
- All Territorians are empowered to participate in water management.

Like water itself, the actions in the Plan cannot be easily compartmentalised, and contribute to multiple priority areas and outcomes. The icons beside each action map the action to the priority areas it contributes to. For more detail on each action, read the full description further below.

PRIORITY ACTIONS

-   1. New safe drinking water legislation
-    2. Securing Darwin's future water supply
-    3. Improved water security for remote communities
-   4. Improved water outcomes for homelands
-    5. Government leadership on water efficiency
-  6. Placing a value on water
-  7. Territory voices in water security
-  8. Enhancing Aboriginal participation in water decisions
-    9. Understanding the Aboriginal cultural values of water
-    10. Improved water planning
-   11. Contemporary water resource management legislation
-    12. Climate resilience and adaptation for a water secure future
-    13. Accelerated water science program
-    14. Ensure water supply and sewerage services meet customer needs
-    15. Sustainable water supply for energy transition
-     16. The role of the Office of Water Security

What the NT Government is already doing



While this Plan is new and brings together government actions on water security, various NT Government agencies have been working for a long time to improve water security outcomes for Territorians.

- ✓ Power and Water Corporation's **Drinking Water Monitoring Program** uses sophisticated monitoring and treatment processes to provide transparency to customers. Drinking water quality reports are published annually. Power and Water's Drinking Water Management System, based on the Framework of the Australian Drinking Water Guidelines, provides a preventative management approach for all steps in water production from catchment to consumers, to keep customers safe.
- ✓ **Drinking water guidelines** are available for those on private water supplies to assist with keeping their water safe.
- ✓ The **NT Climate Change Response: Towards 2050** provides a policy framework for the Territory to adapt to climate risk and reduce greenhouse gas emissions across all sectors to maximise short term and long-term benefits for the Territory.
- ✓ The NT Government is delivering a **\$28 million Remote Water Security and Quality program** targeted at communities with high-priority water security or water quality issues. Works include new bores, network upgrades, improved water disinfection systems, and the installation of meters to monitor and reduce water usage.
- ✓ The NT Government is working with the Commonwealth Government and Land Councils to deliver more housing in remote communities to reduce overcrowding by investing **\$139 million in essential service infrastructure to support the Remote Housing Investment Program** over the next four years, with a large component going to water infrastructure.
- ✓ The **Territory Economic Reconstruction Commission Report** and the **NT Infrastructure Strategy 2022–2030** have set a clear goals to grow the economy (Gross State Product) to \$40 billion, our population to 300,000, and create more than 35,000 new jobs by 2030. These goals will be supported by the Plan through investment in infrastructure, industry, people, and protecting and managing our natural resources.
- ✓ The **Northern Territory Agribusiness Strategy 2030** considers how to grow the agriculture and aquaculture industries, which are dependent on water.
- ✓ The role of water in growing the economy is a key part of **Regional Economic Growth Plans** which are being developed across the Territory by advisory committees made up of regional and Aboriginal leaders from key industries, businesses and local government.



- ✓ The **Northern Territory Circular Economy Strategy 2022–2027** is the NT Government’s plan to modernise the regulatory framework to protect the environment and start the transition to reducing waste, recycling and reusing materials, including water through consideration of improved wastewater regimes, technology and reuse.
- ✓ The Territory has embraced an aspirational target of net-zero emissions by 2050 and has developed the **Northern Territory Renewable Hydrogen Strategy** that can play a critical role in achieving this target. A sustainable water source is critical to the success of a hydrogen industry.
- ✓ The Department of Industry, Tourism and Trade has partnered with Charles Darwin University to build resilience in farming communities likely to experience drought through the **Developing sustainable and diversified farming systems for the NT** project. The 12-month project received funding from the Australian Government’s Future Drought Fund.



Water tank, Palmerston

© Power and Water



Water tank, Parap
© Power and Water

✓ Power and Water Corporation's successful **Living Water Smart** program has been helping residents and businesses in the Darwin region reduce their water use and become more efficient for many years. The program offers the community access to rebates, community and school programs, business water-use health checks, smart technology, leak detection, irrigation and garden tune-ups, and expert advice. Power and Water Corporation have also implemented an integrated water literacy, demand management and water efficiency program in Aboriginal communities, prioritised to water stressed communities.

✓ The Department of Environment, Parks and Water Security has a **long-standing program of water monitoring and investigative drilling**. For over 60 years, the Water Resources Division has supported the sustainable development of the Territory by providing expert water resource information to government and businesses. Results of this monitoring are available to the public through the Water Data Portal.

✓ The **Northern Territory Water Availability Stocktake Report** will provide historical and current water supply and demand data to give a snapshot of water availability across the Territory by region, location, source and water resource.

✓ The **NT Water Licencing Portal** provides transparency of water licencing decisions for the public. The portal includes notices of licence applications, licence locations and conditions, maps of Water Control Districts and Water Allocation Plans and supporting scientific documents.

- ✓ The **Strategic Regional and Environmental Baseline Assessment** (SREBA) is a set of studies used to gather baseline data on the Beetaloo Sub-basin and provide necessary information for environmental protection and management of risks relating to onshore gas development. The report of the study represents more than two years of intensive fieldwork and data collection, research and synthesis and community engagement.
- ✓ A new **Controller of Water Resources** has been appointed by the Minister for Environment, Climate Change and Water Security. This role is now an independent statutory decision-maker separate to the Department of Environment, Parks and Water Security. The Controller has wide-ranging powers under the Water Act, including granting licences and permits, approving actions and enforcing compliance. This provides institutional separation between water resource management and regulatory enforcement in accordance with the National Water Initiative.
- ✓ **That's My Water Bush Schools** is a Power and Water education program. Power and Water worked with ARIA award winning artist Baker Boy to craft videos and activities help students learn about where their water comes from in the Territory. The curriculum based program focus on water supply, treatment and Aboriginal peoples' cultural connections. It encourages students to think about their role in their communities and achievable actions to look after water.
- ✓ The **My Meter App** is an online portal for licence holders to submit their water meter reading data and track their water use. Water extraction licence holders may be required to submit a water meter reading based on their licence conditions and the app provides an easy way to do this. Water use data collected through the app is used by the NT Government along other with rainfall, river, spring flow, and groundwater level data to track the impact of water use on groundwater resources.
- ✓ Amendments to the Water Act made in 2019 now require **Aboriginal water reserves** to be established whenever a water allocation plan is declared where there is eligible land with access to a water resource subject to the plan. Water in an Aboriginal water reserve is set aside for Aboriginal people to use water for economic development when they are ready. The water can be used directly by Aboriginal people, as equity in a business partnership or traded on a temporary basis. To date, more than 57,000 ML/year is available, with this volume set to increase as new plans are declared.



© David Freund



Priority actions



The actions listed in this section represent the highest priority actions that the NT Government is committing to initially to implement through this Plan.

The priority actions are based on evidence, good regulatory practice, and community values and aspirations for water. These actions are informed by extensive consultation and engagement with the community, including detailed submissions and proposals from stakeholder groups. The priority actions are also informed by the principles of the National Water Initiative and proposed national reform commitments to water security.

Delivering these actions will set the foundation for water security into the future, and lay the groundwork for further actions to be committed longer-term.



1

SAFE DRINKING WATER LEGISLATION



By 2024, the NT Government will introduce safe drinking water legislation.

Safe drinking water was the single most important issue in the community consultation process that informed the Plan, with a strong sense that clearly defined regulation that mandates regular monitoring and public reporting on water quality is needed.

The NT Government will develop new legislation for safe drinking water that commits to transparency in drinking water quality which will be monitored against agreed guideline values through plans outlining how water quality will be improved.

Safe drinking water legislation will provide for Safe Drinking Water Management Plans for all water supplies above a certain (household) threshold. Safe Drinking Water Management Plans will be developed with communities to ensure engagement and understanding about local water quality and water security and to agree on how improvements can be met.

Individual Management Plans will be tiered and vary in detail and requirements depending on the size and complexity of the supply they relate to. They will set the requirements for management, monitoring and public reporting, including annual auditing of water quality against Australian Drinking Water Guidelines.

Safe drinking water legislation will be introduced to the Legislative Assembly in 2024. Once commenced the new legislation will be administered by Department of Health, who will deliver an annual report on progress across the Territory.

Water tanks
Kaltukatjara / Docker River

2

SECURING DARWIN'S FUTURE WATER SUPPLY



The NT Government will secure Darwin's future water supply through:

- working closely with the Power and Water Corporation to deliver the Manton Dam Return to Service project by 2026
- accelerating pre-construction activities of the Adelaide River Off-stream Water Storage (AROWS) project.

The current water storage provided by Darwin River Dam requires diversification and increased capacity to support the long-term growth and development of the Greater Darwin Region.

Based on the findings of the AROWS Detailed Business Case, the NT Government and Power and Water Corporation, with support from the Australian Government, are now delivering Stage 1 of the Darwin Region Water Supply Infrastructure Program, which includes:

- delivering Manton Dam Return to Service by 2026
- progressing pre-construction activities for the AROWS project, including:
 - environmental assessment
 - concept design
 - stakeholder engagement and community consultation.

The program will deliver solutions to secure the sustainability and resilience of Darwin's long-term water supply, support future population growth in the region and act as an economic enabler to drive a \$40 billion economy by 2030.



Manton Dam

IMPROVED WATER SECURITY FOR REMOTE COMMUNITIES



Starting in 2023, the NT Government will deliver water information forums in priority communities.

By 2024, the NT Government will develop and publish a regional and remote community water infrastructure priority list and continue the capital investment in remote community water infrastructure.

The NT Government will partner with the National Water Grid Authority for remote and regional water assessment and infrastructure to:

- accelerate the delivery of the infrastructure priority list in remote communities
- support water efficiency and innovation in remote communities and Homelands.

Security in drinking water in terms of its supply and its quality is a priority to ensure health, social and economic outcomes for regional and remote communities.

The proposed approach to improve drinking water security and safety involves NT Government agencies with responsibility for water management, supply and services jointly engaging in forums in communities with water quality and security risks every 1–2 years.

These forums will be a key engagement mechanism to provide transparent information and work with the community over time on the safety of drinking water at the community level under the safe drinking water legislation.

They will also provide the opportunity to engage on water security more broadly, including water quality, water supply, catchment management, water infrastructure planning and prioritisation, and community-wide demand management and efficiency opportunities.

The NT Government will use the forums to report back on progress and check in with communities.

Forums will be coordinated by the Office of Water Security and will also include the Department of Territory Families Housing and Communities, Power and Water Corporation, Department of Health, Department of Infrastructure Planning and Logistics and Department of Environment Parks and Water Security (Water Resources).

The Department of Infrastructure, Planning and Logistics and Power and Water Corporation are currently delivering a significant program to complete water investigations and infrastructure assessments (including water and wastewater infrastructure assessments) for 55 communities supported by Indigenous Essential Services will commence in 2023.

These assessments and the outcomes from the forums will inform prioritisation and investment in water infrastructure. This includes the NT Government investment in the Rolling Capital Program for Remote Water Security and Quality, the Land Servicing and Infrastructure Headworks Program under the Remote Housing Investment Package, and funding proposals to the National Water Grid Authority (NWGA).

4

IMPROVED WATER OUTCOMES FOR HOMELANDS



Starting in 2023, the NT Government will deliver a program to build the capacity of water service providers in Aboriginal homelands.

Homelands across remote parts of the Territory are important to Aboriginal people for caring for Country, passing on cultural knowledge to new generations and providing a safe and strong environment to raise families. The majority of Homelands are located on Aboriginal land.

The NT Government provides grant funding towards the delivery of housing maintenance services, municipal and essential services, including water infrastructure, for eligible homelands under the NT Homelands Program.

Water supply and water quality services are provided under contracted arrangements with a range of providers across the Northern Territory.

The NT Government will work with service providers to build their capacity and capability in line with agreed standards and expectations. This will support development of:

- templates to support improved water management practices
- tools to assess water quality outcomes against national guidelines
- technologies and standard infrastructure arrangements to achieve and support water quality outcomes
- educational materials to build contracted service provider skills, including local jobs capability and capacity.



Above ground rising main from borefield at Ngukur

© Sean Carroll

5

**GOVERNMENT LEADERSHIP ON
WATER EFFICIENCY**

By 2024, the NT Government will deliver a water demand management strategy for the government sector in the Northern Territory.

The Northern Territory has among the highest water usage rates in Australia, using more than double the national average on a per capita basis.

Power and Water Corporation's successful Living Water Smart program has been helping residents and businesses in the Darwin region reduce their water use and become more efficient for many years. Power and Water Corporation has also implemented an integrated water literacy, demand management and water efficiency program in Aboriginal communities, prioritised their focus on those communities most water stressed. On the other hand, government water usage in the Territory has been growing.

To support good water stewardship by all Territorians and increase the water security in the future, the NT Government will also make change, aiming to lead by example in demand management and water efficiency.

The first stage of the strategy will focus on NT Government leading the way through mandated water efficiency targets for all NT Government agencies in the Greater Darwin region. These targets will be supported by agency-specific water efficiency plans, co-developed and tailored to each agency's business. Identified savings measures may include reduced water use, identifying and fixing leaks and building water efficiency into design, greenfield land development and procurement processes. NT Government agencies will be required to report annually on progress to drive continuous improvement in water efficiency.

The second stage would expand targets and agency-specific plans to other regions of the Territory and include agencies from other levels of government, including local governments and Territory-based commonwealth agencies. The NT Government will collaborate and share knowledge with these organisations to help improve their water efficiency. The NT Government would also support projects that integrate whole-of-water cycle water management in cities, towns and communities using water sensitive design, stormwater management, recycled water and groundwater replenishment.



By 2023, the NT Government will implement a water charging framework for licenced users through:

- annual charges on granted water licence entitlements
- administrative fees for licences and permits.

Water extraction licences in the Northern Territory have not been subject to administrative fees or cost recovery arrangements, which was a key national reform agreed by governments in 2004 under the National Water Initiative.

The NT Government will develop a water charging framework in consultation with key industry sectors and stakeholders based on key policy principles including ‘beneficiary pays’, contribution to cost recovery for government services and promoting water efficiency and industry competitiveness. The charging regime will also need to consider an approach that it is straightforward to administer across the Northern Territory and with appropriate transitional arrangements.

The preferred approach for the Territory is to apply a uniform volumetric charge (in dollars per megalitre) to all licenced users, with a minimum charge for lower levels of take. Stock and domestic take will not be subject to charges.

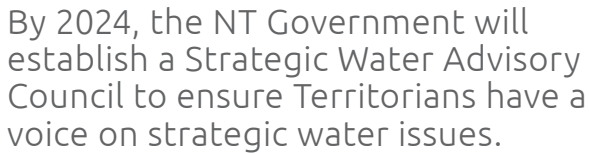
This approach will balance the NT Government’s ability to financially sustain robust water resource management that enables development, with ensuring industry costs to access water remain competitive.



Mangoes

There will also be fees associated with licence and permit administration, such as processing water licence applications, amending and transferring licences, renewals and for permits to interfere with a waterway and drillers licencing. These fees will contribute to the cost of licence and permit administration and management.

TERRITORY VOICES IN WATER SECURITY



The NT Government recognises the breadth of interests and expertise in water management and water security and will establish a Strategic Water Advisory Council to report to the Minister for Environment, Climate Change and Water Security.

The Advisory Council will be established to ensure there is broad skills, experience and diversity in its membership. It will be supported by the Office of Water Security.





By 2024, the NT Government will establish an Aboriginal Water Advisory Council to advise the NT Government on strategic water issues.

Aboriginal Territorians want to be more involved in water management and decision making.

The Office of Water Security will work with Land Councils, peak Aboriginal organisations, local government, the Office of Aboriginal Affairs and the National Indigenous Australians Agency to co-design better participation of Aboriginal Territorians in water security and establish an Advisory Council that reports to the Minister for Environment, Climate Change and Water Security. The Advisory Council will support implementation of the Territory Water Plan, as well as actions related to the Closing the Gap priority reforms and the inland waters and community infrastructure targets.

The Advisory Council will play a key advisory role in:

- the delivery of safe and reliable drinking water in remote communities and homelands
- identifying opportunities for Aboriginal people to effectively participate in local water management and decision making through water advisory committees and Aboriginal reference groups
- supporting Aboriginal water entitlement holders to realise the social and economic benefits of Aboriginal water reserves under the Water Act
- building capacity of the Aboriginal community-controlled sector in water resource management and water services.





By 2024, the NT Government will partner with Aboriginal organisations to better understand the cultural values of water across the Territory.

Knowing about water in the context of Country is important for its effective care, and for proponents, government and Traditional Owners to inform water management decisions and to ensure that any potential impacts can be managed or averted. Whilst thousands of sacred water sites are documented as part of the Northern Territory Aboriginal Sacred Sites Act 1989 (NT), there is an ongoing need for education and understanding of the cultural values of water. This includes the rights of Aboriginal people to control their cultural information and be involved in decision-making affecting their cultural values and sites.

The Office of Water Security will partner with Land Councils, the Aboriginal Areas Protection Authority (AAPA) and Aboriginal

community-controlled organisations and ranger groups to develop guidelines, build capacity and understanding of cultural values to better inform water management decisions.

This priority action will:

- build on previous knowledge gathering processes for cultural water values undertaken with Traditional Owners
- co-design methods with Aboriginal organisations and Traditional Owners informed by the principles of free, prior and informed consent to improve understanding of cultural water values across the Territory
- develop a framework and methodology for cultural values assessment and monitoring across both water allocation planning and water licence applications, including roles for Traditional Owners and Aboriginal rangers
- engage Aboriginal people by understanding how they want to manage their cultural heritage and foster economic development.

The project will support community and decision makers understanding of water-related cultural values to underpin strategic land use planning and development activities. It will also help to build the water expertise of the Aboriginal community-controlled sector and support growing potential Aboriginal leaders in water governance.



Gunbalanya

10

IMPROVED WATER PLANNING



By 2025, the NT Government will deliver an improved water planning program.

Water allocation plans establish the protections for key environmental and cultural values in a region and determine the water that can be sustainably allocated to different community and economic uses in a region.

Water planning is about achieving a balance between competing interests in water. The Minister can appoint community members to water advisory committees to provide advice on the development, implementation and review of water allocation plans to help maximise the social, economic and cultural benefits within ecological restraints.

The current Water Act allows the Minister to declare a water allocation plan to guide the management of water resources in a water control district. The key elements of a plan are to determine an estimated sustainable yield, allocate water to beneficial uses including allocations to the environment and Aboriginal water reserve within the estimated sustainable yield, provide guidance on trading water, and provide guidance on recovering the cost of managing water. A water allocation plan can be in force for up to 10 years and must be reviewed at least every 5 years.

The National Water Initiative has guidelines for water planning, which the NT Government is committed to meeting.

A clear statement of how the Government will continue to better meet the objectives and outcomes of the NWI regarding water planning is required to direct continuous improvement.

The Department of Environment, Parks and Water Security will work with key stakeholders and the community to develop an improved water planning program for the Territory that considers legislation, policy, government operations, governance and engagement.

This priority action will:

- commission an independent review of water allocation planning against the NWI (noting the Productivity Commission has already done this for plans declared before 2020) to guide the improvement plan
- strengthen governance and build capacity of stakeholders and community members to participate in developing, implementing and reviewing water allocation plans
- review the NT Water Allocation Planning Framework to better protect river flows and maintain groundwater levels to support environmental and cultural values in a changing climate
- strengthen water allocation plans to provide water for emerging uses and mitigating the impacts of climate change
- develop a comprehensive operational policy for developing, implementing and reviewing water allocation plans.



By 2026, the NT Government will develop new legislation to replace the *Water Act 1992* (NT) and provide a regulatory regime that supports sustainable development through contemporary water resource management.

The Water Act has provided a sound legislative basis for the investigation, allocation, use, control, protection, management and administration of water resources. However, it does not provide all the necessary mechanisms for best practice water resource management in the current context of climate change, growing competition for water and community expectations around governance and accountability.



Water Resources visiting Alice Springs Date Farm

At a minimum, a new Act will need to consider:

- objects that support and enhance sustainable development and promote the value of water and its management now, and into the future
- a framework for allocation decisions that sets in legislation the protections for environmental and cultural values, taking into account the risks and impacts of climate change
- strong transparency measures and mechanisms to engage with the community and Aboriginal Territorians in a genuine and meaningful way
- processes which ensure allocations are based on strategic value for the Territory in terms of economic and social impacts; and
- effective governance and accountability measures
- the commitment to the renewal of the National Water Initiative and other key national water policy reforms.

The objectives, policy principles and settings for the legislation will be developed with community and industry input to recognise the strong social, cultural and economic value of water. It will also be developed with reference to national water reform priorities.

To improve water resource management in the shorter term the NT Government will implement targeted reforms of the Water Act, regulations and water management policies in partnership with key stakeholders.

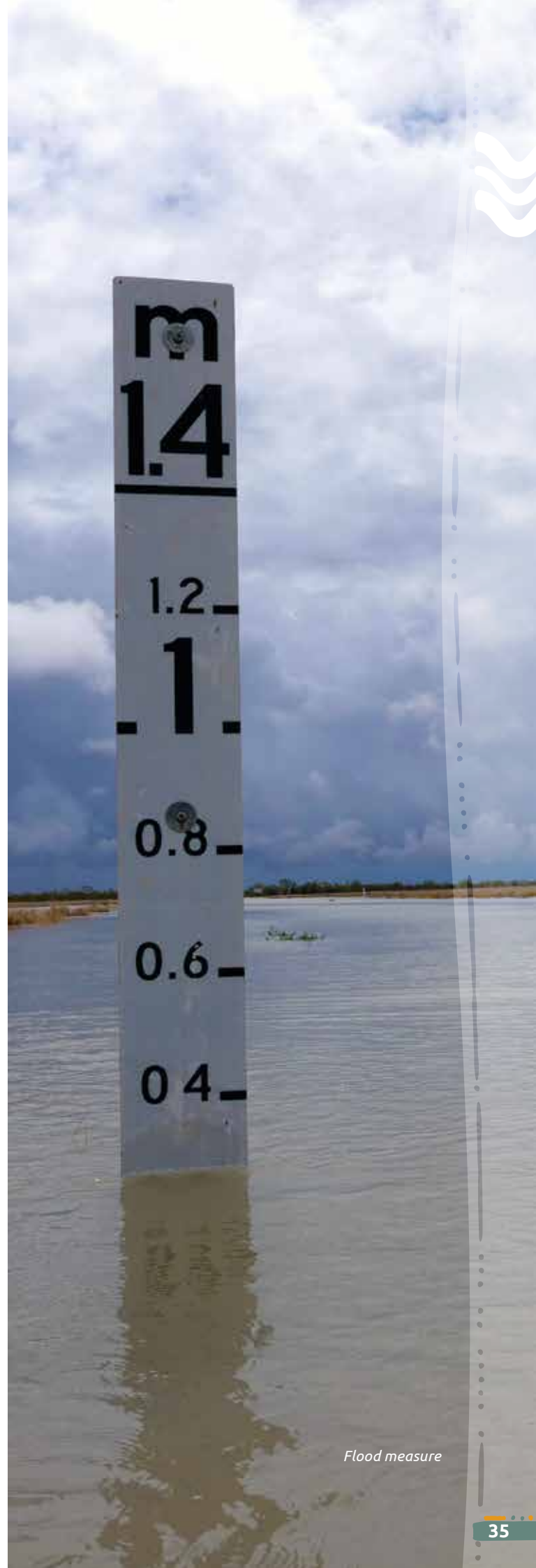


By 2024, the NT Government will deliver a climate risk assessment to identify the risks to water security.

There is a level of uncertainty about the localised effects of climate change on water security in the Territory. This uncertainty requires the application of the precautionary principle in decision making, while furthering our understanding of potential climate risk at local scales.

The Office of Water Security and Office of Climate Change (both within the Department of Environment, Parks and Water Security) will work with NT Government agencies and key community and industry stakeholders to undertake a Territory-wide climate risk assessment in line with the Northern Territory Climate Change Response: Towards 2050. This process will identify key climate risks including risks to water security, identify information gaps, and prioritise opportunities for adaptation.

The NT Government will also look to partner with other State, Territory and Commonwealth agencies (such as the Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation) and research organisations to advance the Territory's climate modelling capability as well as pilot on-the-ground adaptation projects.



Flood measure



Starting in 2023, the NT Government will accelerate its existing water science program to support best practice water resource management and sustainable development.

Protection of environmental and cultural values and maintaining healthy ecosystems is a core principle of water resource management. Healthy freshwater ecosystems also underpin important economic values, such as commercial and recreational fisheries, the Northern Territory's tourism sector and related businesses.



'Dropping' a bore

At the same time, demand for water for agriculture, mining, industry and energy (including water-intensive hydrogen) projects is growing in new parts of the Territory, and enhanced knowledge of regional water resources is needed to enable sustainable development and support the NT Government's vision for a \$40 billion economy by 2030.

Good management means water science that targets water resources, water quality monitoring and eco-hydrology studies to provide greater certainty in the evidence that underpins water allocation decisions. The program will enhance the NT Government's existing knowledge of the Territory's water resources by increasing geographical coverage and granularity of datasets to inform robust water resource management decisions and the protection of ecological and cultural values. Strategic partnerships with external researchers and research agencies, particularly where co-investment is possible, will be used to leverage investment into applied science in the Territory.

The program will facilitate sustainable economic development in the Territory by providing greater certainty about water availability and quality across the Territory. Overtime this will reduce upfront project development costs for project proponents in conducting their own water resource investigations.



By 2023, the NT Government will deliver an economic regulatory reform roadmap for water supply and sewerage services with a focus on transparent and accountable decision-making.

The supply of water and sewerage services is essential to Territorians who expect affordable, reliable and safe services. Water supply and sewerage services also enables business activity and economic development and supports amenity and liveability of communities.

As customers do not have a choice about who provides their water supply and sewerage services, economic regulation places rules on service providers to ensure that they provide services in the long-term interests of customers and the community.

The *Water Supply and Sewerage Services Act 2000* (NT) provides the Territory's economic regulatory framework for water supply and sewerage services. It has not been reformed since its commencement in 2000, and requires review to ensure it remains fit for purpose. The NT Government intends to establish, through stakeholder consultation, a reform roadmap to improve economic regulation of water supply and sewerage services. The roadmap will ensure that water supply and sewerage services are provided to meet the current and future needs of customers and the liveability and prosperity of the community.

There are opportunities to enhance transparency and accountability of service providers, including by ensuring appropriate standards of service and protections for customers. There is also an opportunity to consider extending economic regulation to service providers in towns and communities across the Territory (including where no economic regulation currently applies) using a flexible and tiered approach to improve service delivery, while keeping essential services affordable.





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SUSTAINABLE WATER SUPPLY FOR ENERGY TRANSITION



Starting in 2024, the NT Government will accelerate activities associated with assessment of water availability for renewable hydrogen production to support the emerging hydrogen industry.

Hydrogen is emerging as a key component of the global clean energy transition needed to achieve net-zero carbon emissions and mitigate climate change impacts. The NT Government is positioning the Territory to be at the forefront of the significant economic development opportunities that the hydrogen industry offers in terms of research, production and downstream manufacturing. Hydrogen can also contribute to the energy mix needed to transition remote communities across the Territory to renewable energy sources.

The Department of Industry, Tourism and Trade through the Office of Sustainable Energy will work with other government agencies and key community stakeholders to identify and map water demand for renewable hydrogen, and explore key opportunities associated with sustainable water use for renewable hydrogen production across the Territory.

The NT Government will then leverage existing water resource information to facilitate a preliminary assessment of water availability for renewable hydrogen production across the Territory, to determine what, if any, further water resource assessments are required.

Following completion of relevant water resource assessments, the NT Government intends to develop a strategy to communicate outcomes and manage any community concerns and build trust that water used for renewable hydrogen production (particularly ground water allocations) will be sustainable.

*Water supply infrastructure,
© Power and Water*

THE ROLE OF THE OFFICE OF WATER SECURITY



The NT Government will expand resourcing for the Office of Water Security to lead the implementation of the Territory Water Plan, including legislation and policy reform, community engagement on water stewardship initiatives, and cross government coordination and reporting.

The Office of Water Security is a dedicated team in the Department of Environment, Parks and Water Security tasked with developing the Plan.

Recognising the importance of water security for all Territorians, the Office of Water Security will be elevated to its own division within the department and expanded to kick-start the delivery of programs under the Plan. The expanded team will:

- coordinate legislation, policy reform and facilitate strategic water policy development
- support cross government collaboration and new governance models
- build science, research and economic development partnerships to support decision-making
- coordinate investment in water infrastructure
- engage with all Territorians to develop water literacy and facilitate a shared responsibility for water
- develop a Monitoring and Evaluation framework and report on progress against the Plan.



Waruwi,
© Power and Water

Future opportunities and challenges



The Territory Water Plan, as the first strategic water plan of its kind, provides a framework and an initial set of priority actions that aim to lay the foundation for water security into the future.

The Plan cannot address every challenge or opportunity, deliver perfect solutions or provide instant maturity in new governance processes.

But it can set the Northern Territory on a path of continued improvement in water security outcomes.

The challenges and opportunities of water security in the Northern Territory, and the broader global environment around us, are complex and evolving, and our reform pathway for water security will need to be maintained and developed over time. Successive Plans will provide a mechanism to address these challenges and opportunities in the years and decades to come.

Looking ahead, strategic ideas for future consideration and action may include:

- achieving net-zero carbon emissions in the water services sector
- opportunities to participate in carbon and biodiversity offset markets through blue carbon projects and ecosystem services
- continuing to improve water efficiency through circular economy principles in planning and design
- integrated catchment management approaches to water and other natural resource management activities
- long-term investment in remote water infrastructure to support economic development and community resilience to climate change and improve liveability
- water source diversification, infrastructure solutions and policy changes to address groundwater scarcity issues and meet the growing needs of urban and regional centres, including considering technology options such as desalination and atmospheric harvesting
- continuing to build Aboriginal participation and partnerships in water management, including local decision-making opportunities and potential future Treaty processes
- coordinating water management across jurisdictional boundaries, including in the Great Artesian Basin and the Ord Irrigation Scheme
- engaging with the Commonwealth and other states and territories on new agreed national reforms under a refresh of the National Water Initiative.



*Flock of Budgerigars Drinking at a Dam – Molyhil Mine,
© Dave Waterson*

Delivering on the Plan



Delivering water security for all Territorians will require sustained effort from all sectors of the community, including all levels of government, water service providers, businesses and the general public. The Plan sets out what the NT Government and its partners will do over the next few years as an initial set of actions to lay the foundation for water security into the future.

PROGRESS REPORTING

The NT Government will be accountable for the delivery of the Plan. The Minister for Environment, Climate Change and Water Security will provide an annual Ministerial Statement to the Legislative Assembly of the Northern Territory, detailing progress on the delivering the priority actions.

The Office of Water Security will complement the Ministerial Statement by publishing an annual progress report on the Plan.

The priority actions proposed in the Plan touch on many different priority areas and outcomes. The annual report will provide an update on the progress of priority actions and identify any new actions or complementary activities that support the goal of delivering water security for all Territorians.

REVIEW AND EVALUATION

The Office of Water Security will develop a Monitoring and Evaluation Framework to assess if priority actions are meeting the Plan outcomes. This will inform annual progress reporting.

After three years, the Office of Water Security will lead a full review and evaluation of the Plan's effectiveness. Following this review, a new set of priority actions and the next iteration of the Plan will be developed with input from across government, partner organisations and the community.

MORE INFORMATION

For more information on the Plan go to watersecurity.nt.gov.au or contact the Office of Water Security at watersecurity.ntg@nt.gov.au.





Manton Dam