

WATER DEMAND MANAGEMENT STRATEGY



Greater Darwin Region

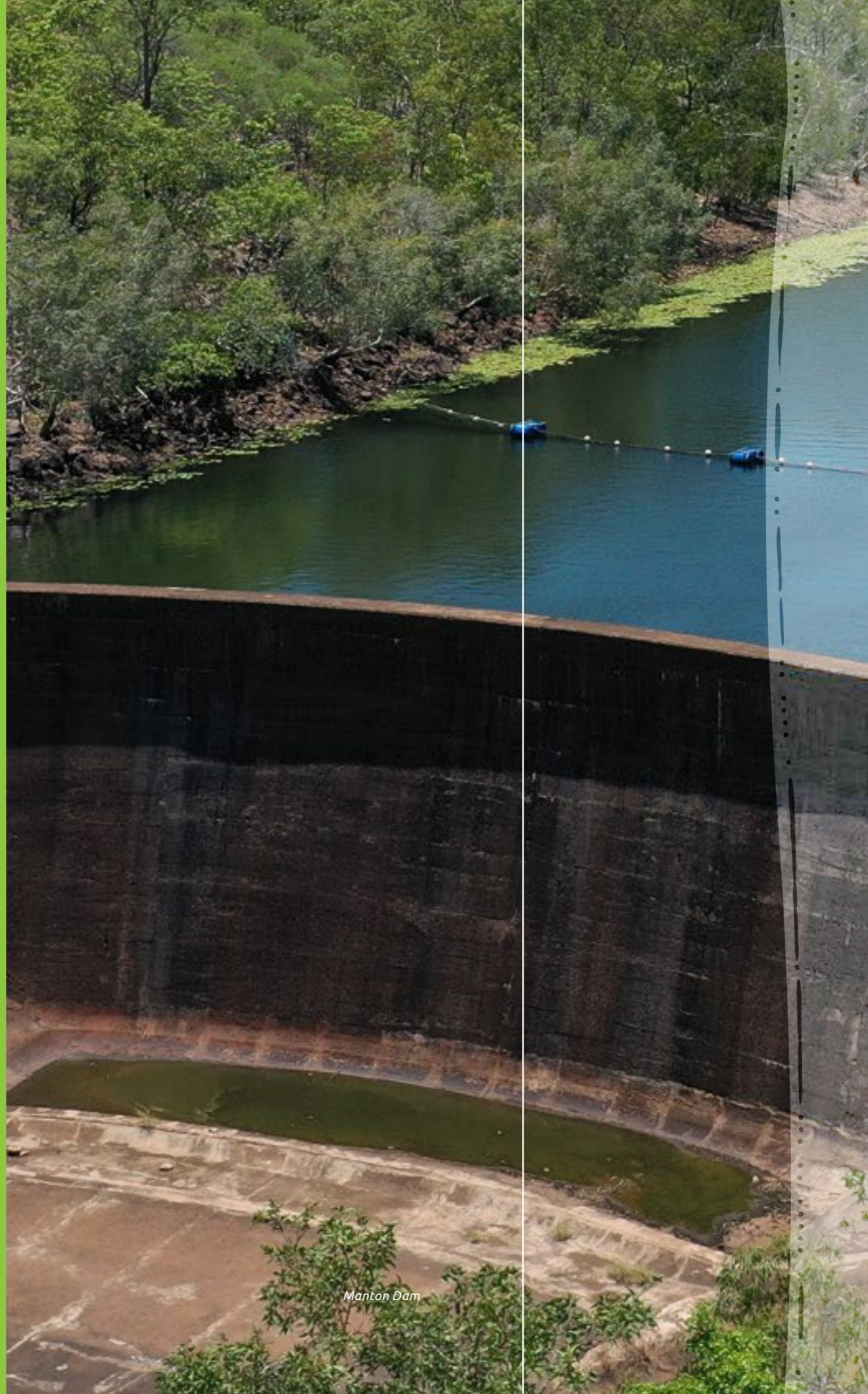
2024 - 2028



The Northern Territory Government Water Demand Management Strategy is an initiative developed by the Office of Water Security in close partnership with Power and Water Corporation and will be delivered through a whole-of-government collaborative effort with input from other NT Government agencies.



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.



Manton Dam

Contents



1. Introduction	4
2. Purpose	6
3. Why a Water Demand Management Strategy is needed for the Northern Territory	6
4. Whole-of-government implementation approach	7
5. Strategic Policy Measures to Improve Water Demand Management	8
6. Reporting	12
7. Review	12
8. NT Government Water Demand Management Strategy - Action Plan	14

1. Introduction



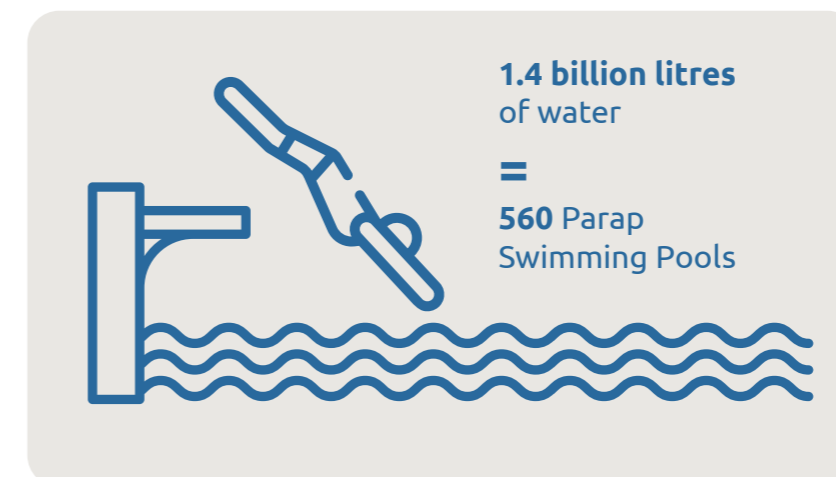
The Northern Territory (NT) Government is committed to delivering the Northern Territory Water Demand Management Strategy (the Strategy) to play a key role in encouraging water wise behaviour and improve water security for Territorians.

The Strategy delivers Priority Action 5 of the Territory Water Plan – Government Leadership in Water Efficiency. The Territory Water Plan released in June 2023, led by the Office of Water Security (OWS) provides an overarching strategic framework for water resource management in the Territory.

The Strategy sets out a strategic whole-of-government approach to reduce NT Government agency water use. The Strategy encourages collaboration between government agencies and OWS and Power and Water Corporation to develop tailored water demand management plans for each agency. These agency plans address five policy measures agencies are required to implement to improve their water use efficiency.

Through improved water use efficiency, the NT Government aims to save an estimated **1.4 billion litres of water** per year by 2028 which would result in a **\$3.1 million** annual cost saving for government agencies from reduced water bills, providing better value for money for Territorians.

The Strategy will apply to NT Government agencies in the greater Darwin region initially, before being expanded Territory-wide following a review of the Strategy in 2028.



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2. Purpose

The purpose of this Strategy is to demonstrate NT Government's leadership in water efficiency and to compliment infrastructure solutions as part of an overall water security strategy for the Greater Darwin region. In order to achieve this objective the NT Government will reduce its water use by 20% over the next 3 years. This initial implementation period will inform broader government water efficiency measures across the Territory.

3. Why a Water Demand Management Strategy is needed for the Northern Territory

Water demand management is important in the NT as the Territory currently has the highest per-capita water consumption in Australia and in many cases, uses twice as much as jurisdictions with broadly comparable climates.

With climate change impacting seasonal variability of wet season rainfall in the Top End, and predicted increases in population growth and economic development for Greater Darwin, there is an urgent need for the NT Government to ensure that we are making the most of our water supply in the most efficient way possible, while investigations into options to increase future water supply are undertaken.

Water demand management provides a number of benefits to the NT, including:

Benefits of Water Demand Management for the NT



Cost effectiveness
Demand management initiatives are the most cost-effective and timely solution to deliver additional water availability within existing supply, when compared with infrastructure development options.



Reduction in water bills
For some agencies, including Departments of Environment, Parks and Water Security (DEPWS), Education (DoE) and Infrastructure, Planning and Logistics (DIPL), water use represents the largest variable cost to their business. By implementing water efficiency initiatives, significant reductions in the cost of water bills can be achieved, providing better value for money for Territorians.



Enhanced water security
Successful implementation of a demand management strategy will assist in managing potential water supply constraints in the future. The detailed business case for Darwin Region Water Supply Infrastructure Program (DRWSIP) found that Darwin's current water supply is operating at capacity. With no intervention, there is an emerging risk to urban water security in the greater Darwin region.



Promoting economic development
There are opportunities to use water that is saved through demand management for more productive purposes, such as for industrial use and agricultural development.



Circular economy
Saving water through demand management is important to achieving a circular economy and will assist implementation of the NT Circular Economy Strategy 2022-27.

4. Whole-of-government implementation approach

The Strategy will be delivered through the development and implementation of agency-specific demand management plans. The 16 government agencies, which account for approximately 90% of the NT Government's Greater Darwin water use, have been selected to participate in the Strategy. These agencies undertake water intensive activities that involve irrigation or operation of other water infrastructure beyond water fixtures and fittings in commercial building assets.

Agency-specific demand management plans will be structured to outline water reduction targets, water savings measures, roles and responsibilities, reporting, and monitoring and evaluation. To deliver these policy measures, OWS, in partnership with Power and Water will work with government agencies to develop and implement agency-specific demand management plans. These plans will be:

- Developed for an initial three year period to 2027-28
- Focused on prioritising cost-effective demand management measures
- Tailored to each individual agency's business activities
- Developed for agencies in the Greater Darwin region initially before being rolled out for the whole of the Territory

The demand management plans will be developed for the following agencies:

- Darwin Waterfront Corporation
- Department of the Attorney-General and Justice
- Department of the Chief Minister and Cabinet
- Department of Corporate and Digital Development
- Department of Education
- Department of Environment, Parks and Water Security (including Territory Wildlife Parks)
- Department of Health
- Department of Industry, Trade and Tourism (including Tourism NT)
- Department of Infrastructure, Planning and Logistics (including Land Development Corporation)
- Department of Territory Families, Housing and Communities
- Department of Treasury and Finance
- Land Development Corporation
- NT Fire and Emergency Services
- NT Police
- Power and Water Corporation
- Territory Generation



5. Strategic Policy Measures to Improve Water Demand Management

To support the development of the agency-specific demand management plans and successful reduction in agency water use, the NT Government has established the following key policy measures.

1. A global baseline target to reduce NT Government agency water use by 20% by 2027-28;
2. Mandated public reporting on agencies' annual water use in annual reports;
3. Embedding water efficiency into procurement practices;
4. Accelerating rollout of smart water meters; and
5. Providing water efficiency training for key agency staff.

1 GLOBAL BASELINE TARGET TO REDUCE NT GOVERNMENT AGENCY WATER USE BY 20% BY 2027-28

The global target of a 20% reduction in water use by 2027/28 sets an achievable goal which underpins the Strategy. The NT Government recognises that the context of each agency's water use is unique and therefore agencies' reduction targets will be configured to match their business activities and will identify water savings measures that are realistic and achievable. Therefore, some individual agencies' reduction targets may end up being set at higher than 20%, and some may be lower.

Outcomes

The development and realisation of a 20% global water efficiency target across NT Government agencies will:



Provide agencies with a clear understanding of their baseline agency water use



Demonstrate leadership in water efficiency



Set a benchmark for the strategic objectives of the Strategy

Actions	What we will do
Action 1.1 Determine baseline water use data for Darwin-based agencies	Undertake desktop analysis of water use data for agencies within the Greater Darwin region to determine a baseline for a 'global' water use reduction target. Once baseline water use is determined, a 20% reduction by 2027-28 will be set as the global target. Develop agency-specific targets that collectively achieve a 20% global reduction.
Action 1.2 Complete water audits for each agency	Engage Power and Water to conduct water audits across priority agency sites to identify water use characteristics for each agency that will be used to identify what water savings measures can be implemented.
Action 1.3 Develop agency-specific demand management plans	Develop agency-specific demand management plans for the 16 priority Darwin-based agencies that sets an achievable water efficiency target to reduce their water use. The agency plan will identify water savings measures tailored to the agency's business activities.
Action 1.4 Explore alternative policy-based water efficiency measures	Require office-based agencies like the Departments of Corporate and Digital Development (DCDD), Treasury and Finance (DTF) and the Chief Minister and Cabinet (DCMC) to explore alternative policy-based measures in place of a 20% reduction target.

What does success look like?

Year 1 – 2025	Year 4 – 2028
<ul style="list-style-type: none"> ✓ All 15 selected agencies have finalised development of agency-specific demand management plans ✓ Each agency has completed a water audit to determine baseline water use ✓ Each agency has developed its own specific water reduction target ✓ Each agency has identified water savings measures to achieve target 	<ul style="list-style-type: none"> ✓ Global reduction in water use of 20% across fourteen agencies has been realised ✓ Each agency has implemented the suite of water savings measures identified in its agency-specific demand management plan ✓ Each agency has met its agency-specific water reduction target ✓ Office-based agencies have implemented alternative policy-based measures

2 MANDATED PUBLIC REPORTING ON AGENCIES' ANNUAL WATER USE IN ANNUAL REPORTS

A critical factor in the success of reducing water use will be the extent to which the NT Government is accountable to the actions committed to in the Strategy. To ensure accountability against the global water efficiency target, the NT Government will mandate the public reporting on water use by agency which will be published in each agency's annual report.

Outcomes

Public reporting of agency water use will:



Improve transparency and accountability of water use data



Provide better accessibility of public water use information



Enable government agencies' and other users to undertake comparative analysis between years to determine water use trends

Actions	What we will do
Action 2.1 Agencies report annual water use data	Require agencies to publicly report annual water use data in their annual reports.
Action 2.2 Office of Water Security report whole-of-government annual water use data	OWS will report whole-of-government progress through the Territory Water Plan Annual Progress Report.

What does success look like?

Year 1 – 2025	Year 4 – 2028
<ul style="list-style-type: none"> ✓ Each agency has published annual water use data in the 2024/25 annual report ✓ OWS have published annual water use data for all agencies 	<ul style="list-style-type: none"> ✓ Each agency has published at least 3 years of annual water use data ✓ Comparative analysis for water use can be done by year for each agency ✓ Trends in water use by agency can be quickly and easily determined

3 EMBED OPTIMISING WATER EFFICIENCY IN THE NORTHERN TERRITORY GOVERNMENT PROCUREMENT POLICY FRAMEWORK

The NT Government is responsible for contracting services for many water-intensive activities, including irrigation and maintenance. There is a real opportunity to improve the way that these services are procured by Government that ensures that water efficiency is a consideration in the procurement process.

Outcomes

Embedding optimising water efficiency in the NT Government procurement policy framework will:



Ensure water efficiency is considered in all applicable contract and procurement processes



Ensure future contracts apply best practice water efficiency from contract inception and during negotiations for construction, building and landscape design projects and/or irrigation management project.

Actions	What we will do
Action 3.1 – Embed Water efficiency as an objective in the NT Government Procurement Framework	Embed optimising water efficiency as an objective under the Value For Territory and Environmental Protection procurement principles for all NT Government procurement processes where applicable.
Action 3.2 – Provide training to procurement practitioners who provide procurement services to NT Government	Provide training to procurement practitioners in order to ensure that water efficiency is considered for all applicable procurement practices. This provides a more targeted approach to ensuring water efficiency is considered as procurement officers are at the interface of all NT government procurement activities.

What does success look like?

Year 1 – 2025	Year 4 – 2028
<ul style="list-style-type: none"> ✓ Procurement officers equipped with knowledge to advise on water efficiency for applicable procurement processes 	<ul style="list-style-type: none"> ✓ NT Government procurement policy framework updated to include water efficiency as part of its standard review process

ACCELERATE ROLLOUT OF SMART WATER METERS

Technological improvements in water metering have significantly improved Power and Water’s ability to monitor water use across NT Government agency sites. Smart meters allow remote and near real-time access to water use data and are used across Australia to gain higher water efficiency, and would support ongoing efforts to maintain and improve water efficiency.

Outcomes

Accelerating the rollout of smart water meters will:



Improve access to water use data to provide a better understanding of water use across NT Government sites



Improve capability to detect leaks and system irregularities



Provide better and more responsive asset management and ability to repair damaged/faulty infrastructure

Actions	What we will do
Action 4.1 – Accelerate rollout of existing smart meter roll out program	Accelerate the rollout of smart water meters to priority sites to improve water usage data collection and monitoring.
Action 4.2 – Investigate opportunities to roll out smart meters to additional sites	Investigate opportunities to utilise cost savings from demand management initiatives to re-invest in smart metering at additional sites.
Action 4.3 – Incentivise implementing recommendations from water audits through targeted rebates and smart metering	Encourage improved water use practices through engagement with Departments when and where irregularities occur. Targeted rebates may be provided in instances where capital investment is required to improved water use

What does success look like?

Year 1 – 2025	Year 4 – 2028
<ul style="list-style-type: none"> ✓ 1800 of 2500 smart meters within the Department of Territory Families, Housing and Communities (DTFHC) installed across Greater Darwin region 	<ul style="list-style-type: none"> ✓ All 2500 NT Government smart meters installed and operational. ✓ Additional sites investigated and equipped with smart meters as identified ✓ Improved coverage of NT Government asset network

6. Reporting

The NT Government is committed to ensuring accountability and transparency in water resource management. That’s why we will monitor progress against the policy measures identified in this Strategy and will report on our progress through the Territory Water Plan annual reporting process.

Each agency will be required to publish its water use data in their annual report. Progress on their agency-specific demand management plan will be provided to OWS.

7. Review

A review of the Strategy is scheduled to occur in 2028, following the completion of agency-specific demand management plans. Following the review, the scope for the Strategy will be expanded to agencies outside of the Greater Darwin region and across the Territory, where lessons learned from the first iteration of demand management plans can be incorporated into the next iterations, where there is a greater deal of complexity when it comes to managing remote water use.

WATER EFFICIENCY TRAINING AND AWARENESS FOR KEY AGENCY STAFF

Achieving a significant reduction in water use requires a mindset shift in the way water is used for many NT Government employees. Water use efficiency has not historically been a priority in the Top End and so water efficiency training is required to equip staff with the knowledge and skills that are needed to bring about a change in water use behaviour in order to optimise water use.

Outcomes

Providing water efficiency training and awareness for key agency staff will:



Improve capabilities of agency staff to identify and implement water efficiency measures



Embed the idea of water efficiency as a key consideration in all relevant NT Government policy and services



Integrate an understanding of water efficiency into other NT Government priorities such as the NT Circular Economy Strategy 2022-2027






Actions	What we will do
Action 5.1 – Provide water efficiency training and awareness for key agency staff	Agency staff responsible for their agency-specific demand management plan implementation undertake water efficiency training to build their awareness and understanding of demand management measures appropriate for their business activities.
Action 5.2 – Provide industry training for leak detection and irrigation scheduling for irrigation maintenance personnel	Power and Water are in the process of developing Irrigation Application Guidelines to contractors. This will be a valuable resource in supporting irrigation managers to apply best practice irrigation scheduling and maintenance for their irrigated spaces, as required.
Action 5.3 – Agencies’ to nominate ‘water efficiency champion’ within existing resources	Each agency nominate a ‘water efficiency champion’ to oversee the implementation of the demand management plan for their agency. The water efficiency champion would be the lead responsible for developing the plan and reporting progress on water savings measures. OWS and Power and Water will provide guidance and support to each water efficiency champion throughout the development and implementation of their agency plan.
Action 5.4 – Investigate the role of a Water Efficiency Champion for whole-of-Government	OWS will investigate the role of a whole-of-government ‘water efficiency champion’ that would be responsible for delivering the Strategy and be the focal point for all demand management activities across government.

What does success look like?

Year 1 – 2025	Year 4 – 2028
<ul style="list-style-type: none"> ✓ Irrigation Application Guidelines are provided to all irrigation managers for NT Government-managed sites ✓ Water efficiency champions are nominated by each agency ✓ The role of a whole-of-government water efficiency champion has been investigated 	<ul style="list-style-type: none"> ✓ Water efficiency training modules has been provided to key agency staff and is available for new staff as business-as-usual

8. NT Government Water Demand Management Strategy - Action Plan

TABLE 1: ACTION PLAN

Policy Measure	No	Action	Responsible agency/division	Measure of success	Indicative Timeframe	Status
 GLOBAL WATER EFFICIENCY TARGET	1.1	Determine baseline water use data for Greater Darwin-based agencies	OWS, PWC	OWS and PWC have 2023/24 water use data for each agency	Q1 2024/25	In progress, 2023/24 water use data expected to be available in August 2024
	1.2	Complete water audits for each agency	NTG agencies, PWC	PWC share results from water audits with each agency and OWS	Q1 2024/25	DoE have a number of irrigation assessments completed for schools
	1.3	Develop agency-specific demand management plans	NTG agencies, OWS, PWC	Agency-specific demand management plans received by OWS	Q4 2024/25	Pilot agencies have commenced development of Demand Management Plan, other agencies to commence in later half of 2025
	1.4	Explore alternative policy-based water efficiency measures	DCDD, DTF, DCMC	Policy-based measures described in approved demand management plan	Q2 2024/25	Not started
 PUBLIC REPORTING OF WATER USE DATA	2.1	Agencies report annual water use data	NTG agencies	Baseline annual water use published in 2024/25 annual report	Q1 2025/26	Not started
	2.2	Office of Water Security report whole-of-government annual water use data	OWS	Baseline annual water use published in 2024/25 annual progress report for TWP	Q1 2025/26	Not started
 EMBED OPTIMISING WATER EFFICIENCY IN PROCUREMENT PROCESSES	3.1	Embed Water efficiency as an objective in the NT Government Procurement Framework	DITT, OWS	Updated whole-of-government procurement policy framework incorporates water efficiency	TBC	Initial discussions between DITT and OWS have progressed as to how this might look. DITT leading this work so will be guided by their timeline
	3.2	Provide water efficiency guidance and support to procurement practitioners who provide procurement services to NT Government	OWS, PWC, DITT, DIPL and DCDD	OWS and PWS to deliver information sessions delivered to key procurement services staff through DCDD's capability-building program	Q3 2024/25	OWS, PWC, DITT, DIPL and DCDD to discuss options for delivering information sessions to DITT, DIPL and DCDD staff
 ACCELERATE ROLLOUT OF SMART WATER METERS	4.1	Accelerate rollout of existing smart meter roll out program	PWC	1800 NTG smart meters installed and operational	Q4 2024/25	PWC has planned for the rollout of approximately 1800 smart meters within the Department of Territory Families Housing and Communities (TFHC), by June 2025 as part of the Living Water Smart Program
	4.2	Investigate opportunities to roll out smart meters to additional sites	PWC, OWS	Coverage across NTG is optimised to the fullest extent practicable and spatially informs a detailed knowledge of NTG asset base and water use	Q4 2024/25	Not started
	4.3	Incentivise implementing recommendations from water audits through targeted rebates and smart metering.	OWS, PWC	Ad hoc opportunities to leverage funding are taken to provide incentives for infrastructure options or additional smart meters where applicable	Q4 2026/27	Not started
 WATER EFFICIENCY TRAINING FOR KEY AGENCY STAFF	5.1	Provide water efficiency training and awareness for key agency staff	NTG agencies, OWS, PWC	Information sessions have been delivered to water efficiency champions at each agency	Q4 2024/25	Discussions regarding potential opportunities have progressed with PWC and OWS
	5.2	Provide industry training for leak detection and irrigation scheduling for irrigation maintenance personnel	PWC, OWS	Irrigation Application Guidelines are complete and provided to irrigation managers Information sessions have been delivered to irrigation managers	Q4 2024/25	PWC have engaged contractors to develop Irrigation Application Guidelines which will inform industry training
	5.3	Agencies' to appoint 'water efficiency champion' within existing resources	NTG agencies	Water efficiency champion is identified and known to OWS and other agencies	Q4 2024/25	The role of water efficiency champions have been discussed with OWS, PWC and DoE, yet to be confirmed. Other agencies, not started
	5.4	Investigate the role of a Water Efficiency Champion for whole-of-Government	OWS	Feasibility of resourcing a dedicated water efficiency champion role across government is determined	Q4 2024/25	Not started



**NORTHERN
TERRITORY**
GOVERNMENT