



Darwin Region Water Supply Infrastructure Program

Community Reference Group – November 2022

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Department of Industry, Tourism and Trade

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Power and Water Corporation



Acknowledgment

The Northern Territory Government respectfully acknowledges Aboriginal and Torres Strait Islander peoples as the First Nations people of this country.

We acknowledge the continuing connection to lands, waters and communities, and the evolving cultures of all our First Nations peoples.

We pay our respects to all Aboriginal and Torres Strait Islander cultures, and to their leaders - past, present and emerging.

There are two major activities being undertaken by the NT Government relating to water

NT STRATEGIC WATER PLAN

The Northern Territory Strategic Water Plan is being developed to help us plan for a secure water future for the Territory.

This is the first ever strategic plan for water in the Territory.

The plan will help government and business plan for the future and ensure we have safe, available and secure water.



LEAD AGENCY

Department of Environment,
Parks and Water Security



FOCUS

Long term regulatory,
policy and legislative
reform

DARWIN REGION WATER SUPPLY INFRASTRUCTURE PROGRAM

Darwin, as Australia's northern most capital city, is facing water supply challenges.

Current supply is operating at capacity and new water supply infrastructure is required to meet long term demand.

Manton Dam Return to Service (RTS) and the Adelaide River Off-stream Water Storage project (AROWS) has been identified as the superior infrastructure solutions for the Darwin region.



LEAD AGENCY

Department of Industry,
Tourism and Trade



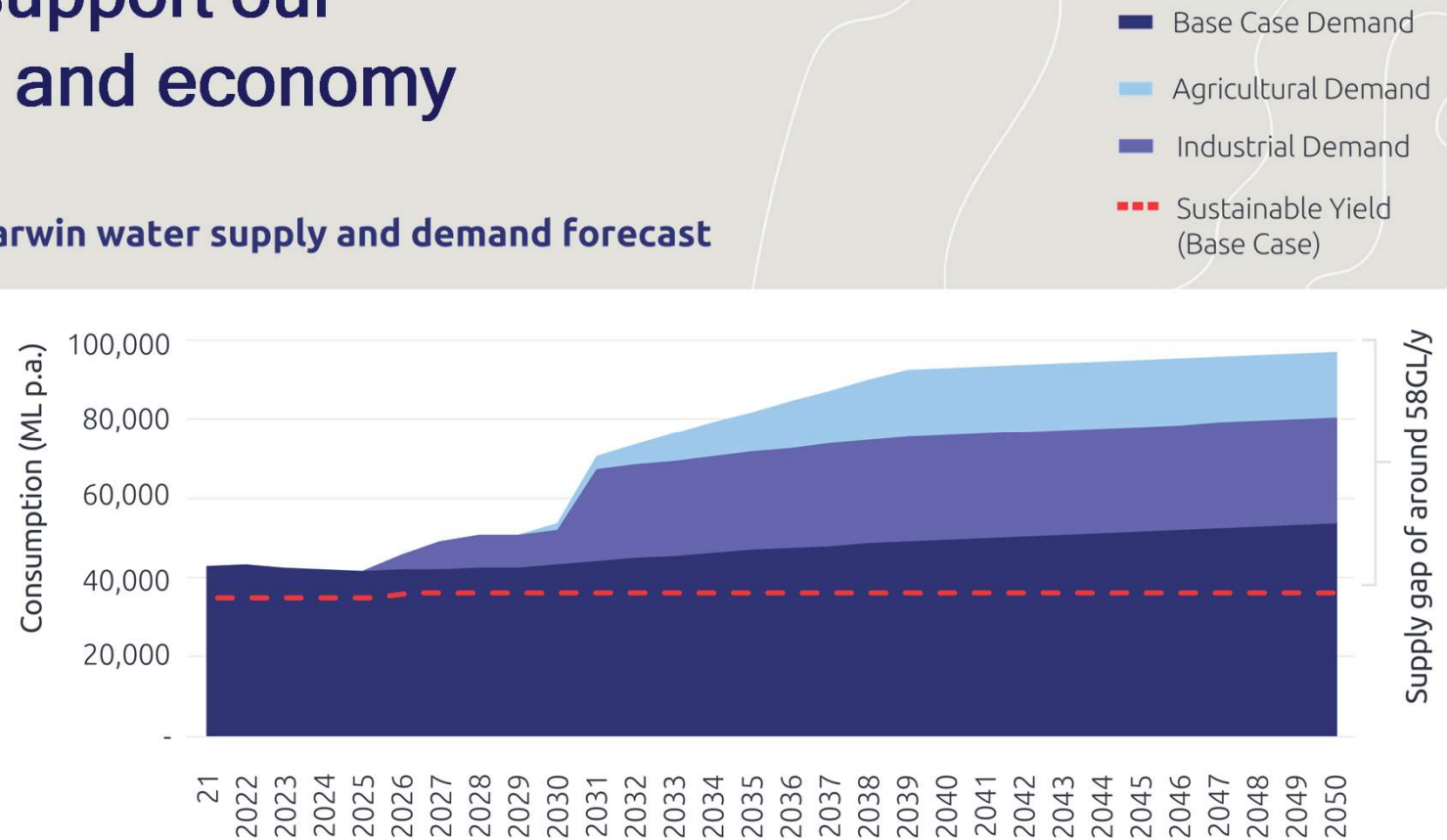
FOCUS

Project facilitation

Water is critical to support our population, lifestyle and economy

Darwin water supply and demand forecast

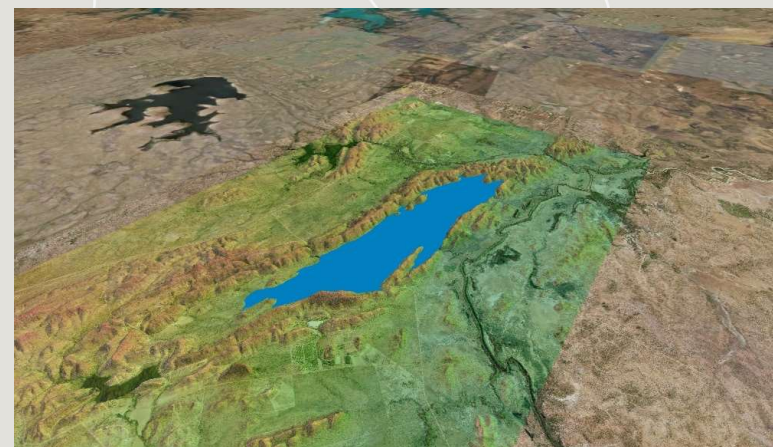
- New water supply infrastructure is needed to sustain our lifestyle and population and strengthen water security over the long term
- New water supply infrastructure will also enable a range of development opportunities in agriculture and industry



Detailed Business Case Summary

The Detailed Business Case confirmed Manton Dam Return to Service (RTS) and the Adelaide River Off-stream Water Storage (AROWS) as the most cost effective and economically viable infrastructure solution to meet the needs of the greater Darwin region.

Option 1 Manton Dam RTS and AROWS



Recognised as best practice, laying the foundation for future public and private infrastructure projects in the NT

- **First ever NT infrastructure project** to be independently verified as 'Investment Ready' on Infrastructure Australia's Priority List
- IA's positive assessment **recognises the national significance** of delivering secure and reliable water supply to Australia's northern most capital city
- Used as the evidence base to underpin an application for funding from the Australian Government through the Water Infrastructure Investment Framework
- This best practice approach demonstrates the significant benefit of delivering a DBC for major projects.



The Darwin Region Water Supply Infrastructure Program has two key stages

Stage 1 - Manton
Return to Service
Delivery and AROWS
Project Planning



Stage 2 - AROWS
Delivery

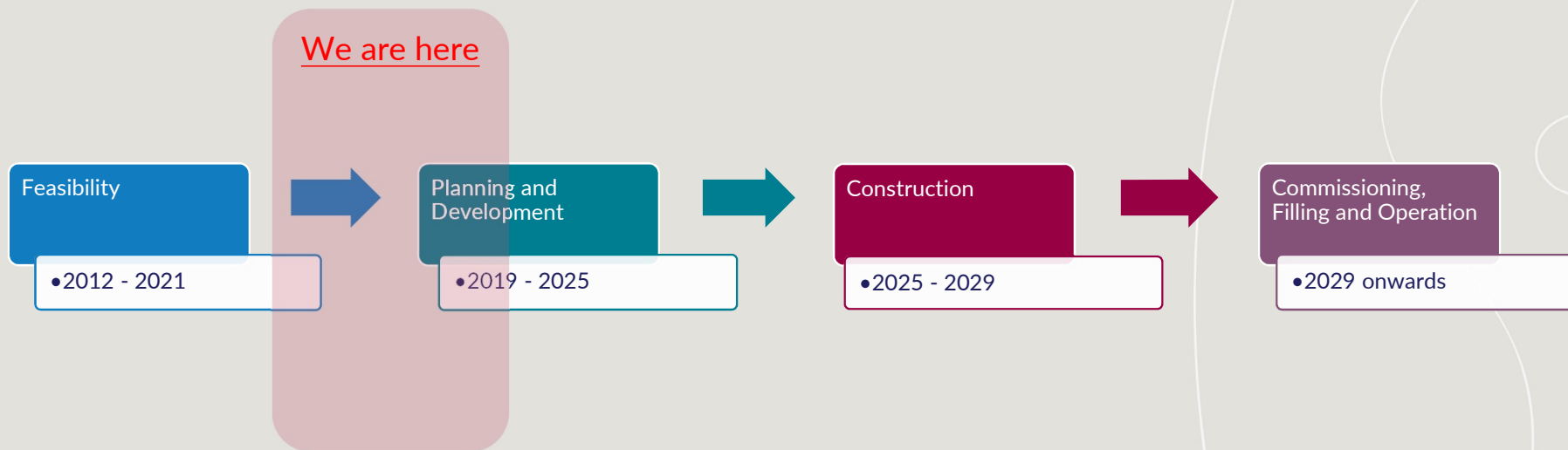
Funding for Stage 1 was announced by the Australian Government.

Manton RTS	\$189m
Strauss to Middle Arm Pipeline	\$93m
AROWS Project Development	\$18m

Progression to Stage 2 will be subject to a gateway review.

**Highly indicative and subject to change*

Project Status - AROWS



Manton Dam Return to Service

A low-risk source of water in the short term.



Meet short term increases in demand - 3 to 4 year development timeframe



Low risk - Power and Water owns the asset and has a license to extract water



Important source diversity and enhanced supply capability



Use of existing assets and already disturbed ecosystems

Key infrastructure components

- Refurbished intake tower
- New pumping station and pipeline
- Strauss Water Treatment Plant (Stage 1)
- New distribution main from Strauss to Middle Arm.



AROWS



Long term water security for Darwin and a significant water resource to support economic development



Low impact - does not dam the river, water is harvested from the river during wet season



Extends source diversity and supply capability

Key infrastructure components:



Water retaining barrier to create the AROWS basin



Pumping station and pipeline for extraction from the Adelaide River



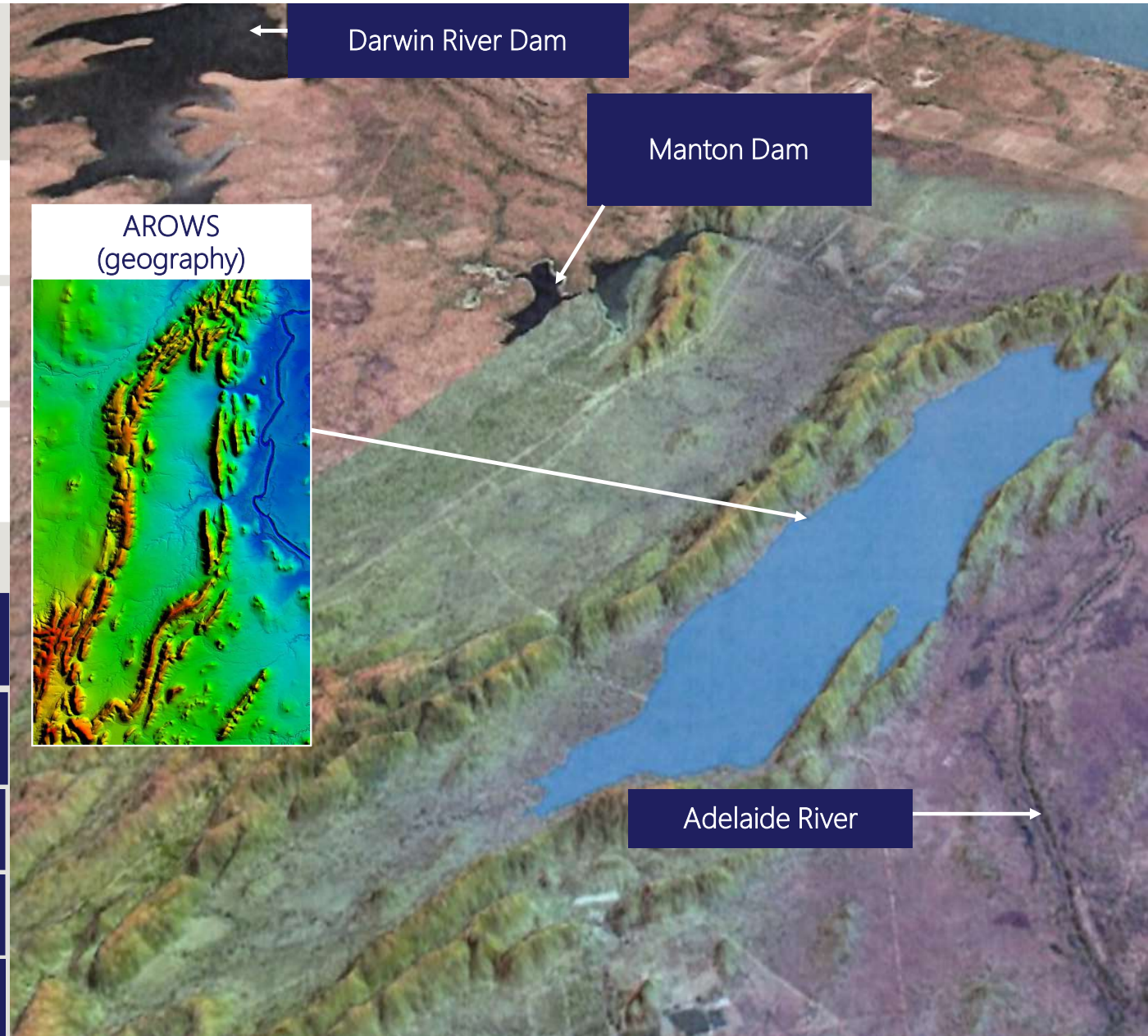
Pipeline to Strauss Water Treatment Plant



Pipeline to irrigated agriculture precinct



Strauss Water Treatment Plant Stage 2



Why wasn't a major in-stream dam option taken through?

The **Upper Adelaide River Dam** was considered in Part A of the DBC, one of the more well-advanced in-stream dam options that have been assessed previously.

From a technical point of view, the dam was assessed highly, however, when considered holistically, a range of issues were identified:

- Damming a river and impeding riparian flows has significant environmental impacts, making it difficult and time consuming to receive environmental approval (if ever);
- It would be highly difficult to receive approval due to current regulatory and legislative barriers within the *Water Act* (for example, maintenance of environmental flows and interference with a waterway);
- There are a number of Aboriginal sacred sites, both in the area of the dam, and in the inundation area;
- At least one Aboriginal group with connections to the land has, in the past, been vocal in its opposition to its development;
- The option would permanently inundate areas of Litchfield National Park, with uncertainty around the associated potential cultural and social impacts.

Based on the above, this project was considered too high risk from a 'deliverability' perspective.



Picture: CSIRO NAWRA Report 2018

Key regulatory approvals required

AROWS Project Specific Assessment

A comprehensive Environmental Assessment Process will be undertaken for the AROWS project, which will be informed by the WAP process and deliver a project specific environmental assessment (in line with the *NT Environment Protection Act*), including an assessment of the social and economic impact on the surrounding region.

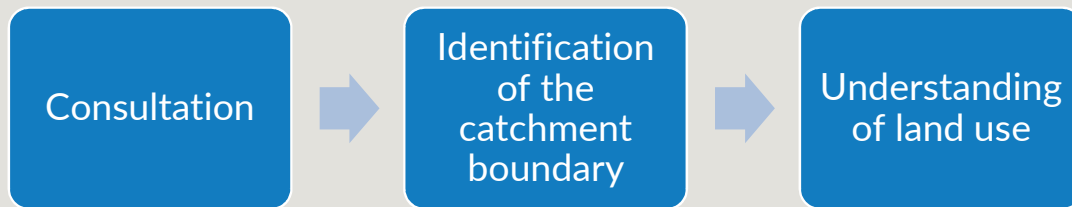
Adelaide River Water Allocation Plan Catchment-wide Assessment

A Water Allocation Plan will be developed for the entire Adelaide River Catchment, prior to the project being constructed, which will consider:

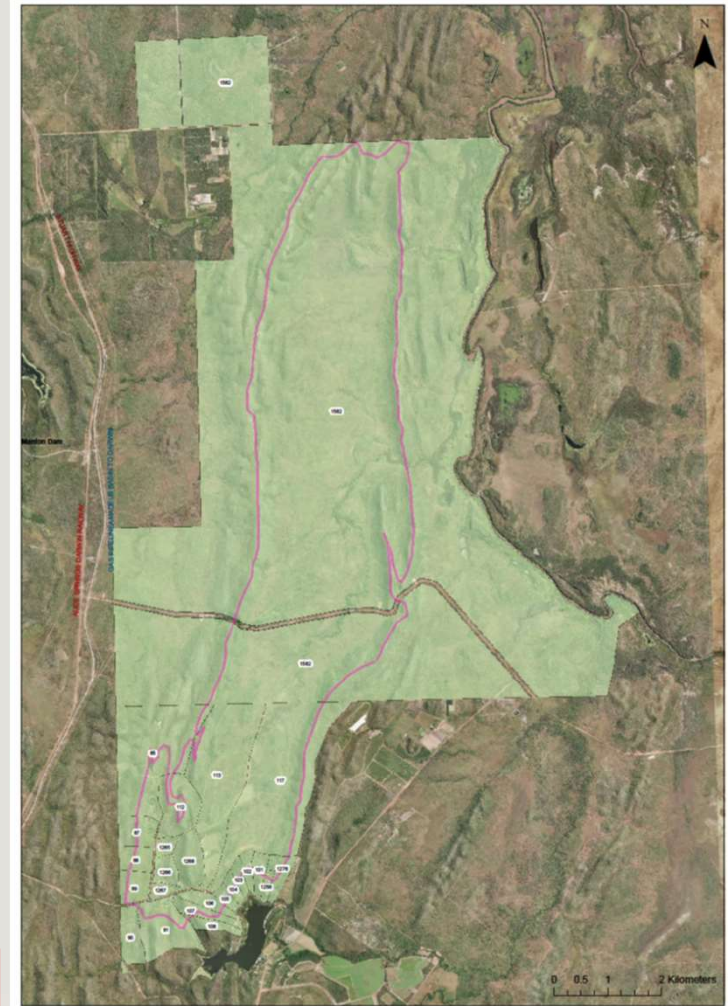
- Cultural flows/values
- Strategic Aboriginal Water Reserve
- Environmental flows/values and biodiversity
- Land use
- Stakeholder views
- Overall consumptive pool

Land Tenure and Catchment Management

- Before any decisions are made the following needs to occur:

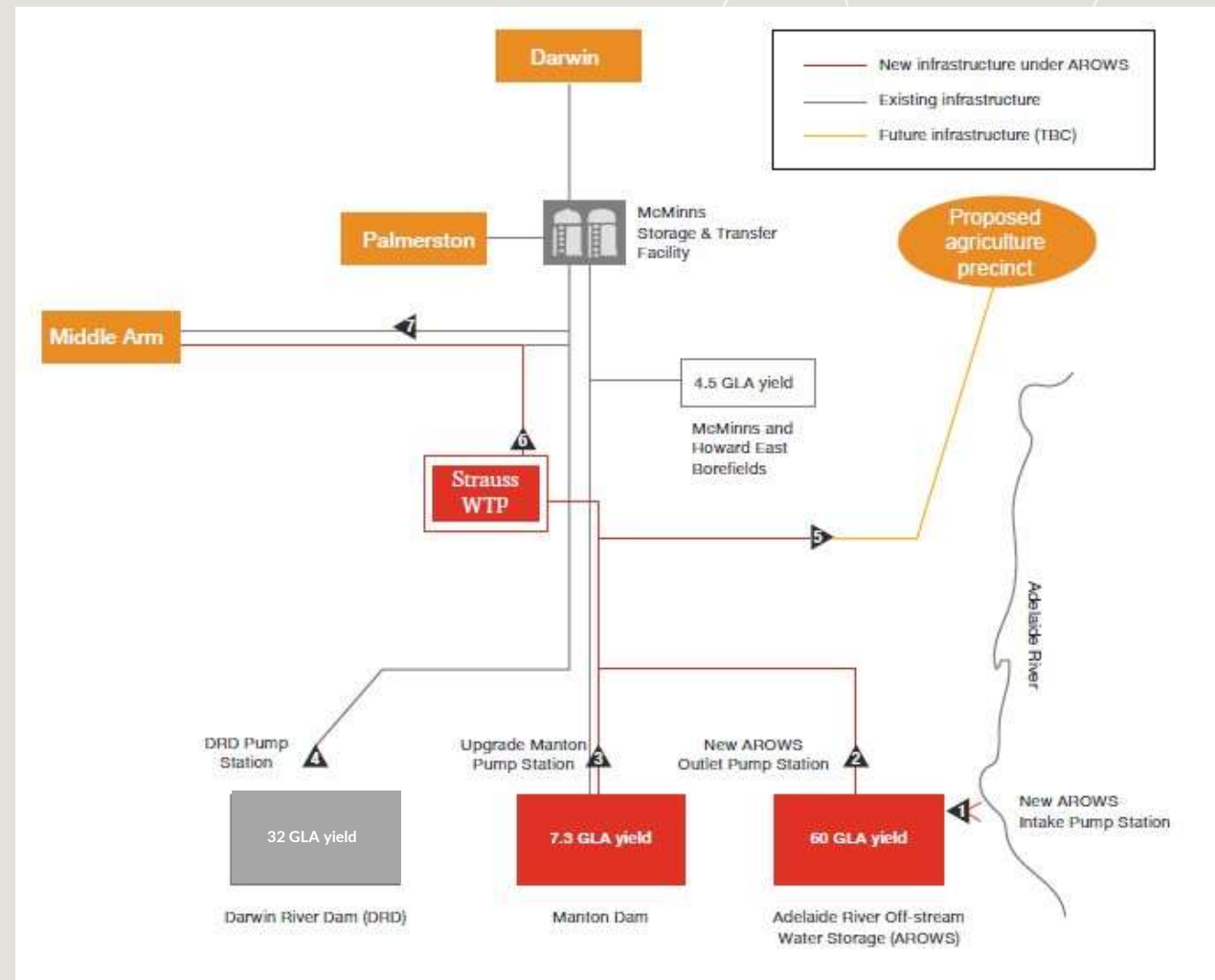


**Map for illustrative purposes only*

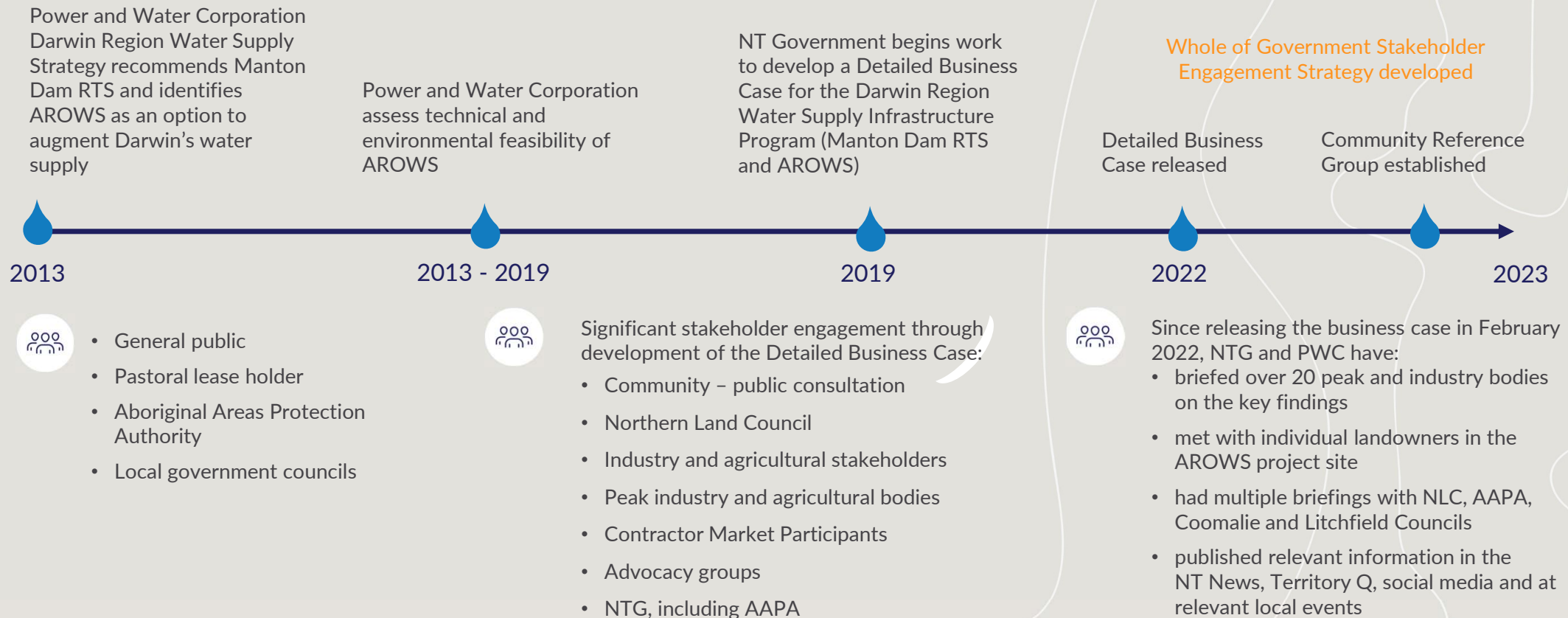


A multi-source water supply for Darwin

- Safe and secure drinking water while enabling future economic growth.
- Future ready
 - Safe and secure drinking water for Darwin
 - Sustainable, affordable water for industry
 - Opportunity for irrigated agriculture
 - Diversity of supply, climate resilience



The engagement journey so far



The engagement journey so far



What we are hearing

- The community was consulted through development of the business case.
- A 'Have Your Say' campaign was delivered in June - July 2021.
- 207 survey responses were received through this process.

SURVEY RESPONDENTS WERE **OVERALL SUPPORTIVE OF THE MANTON DAM AND AROWS PROJECTS**

Important factors for respondents were; protecting the environment and our top end lifestyle and continued recreation on Manton Dam.



Key stakeholders



Lake Bennett
Community
Association Inc.

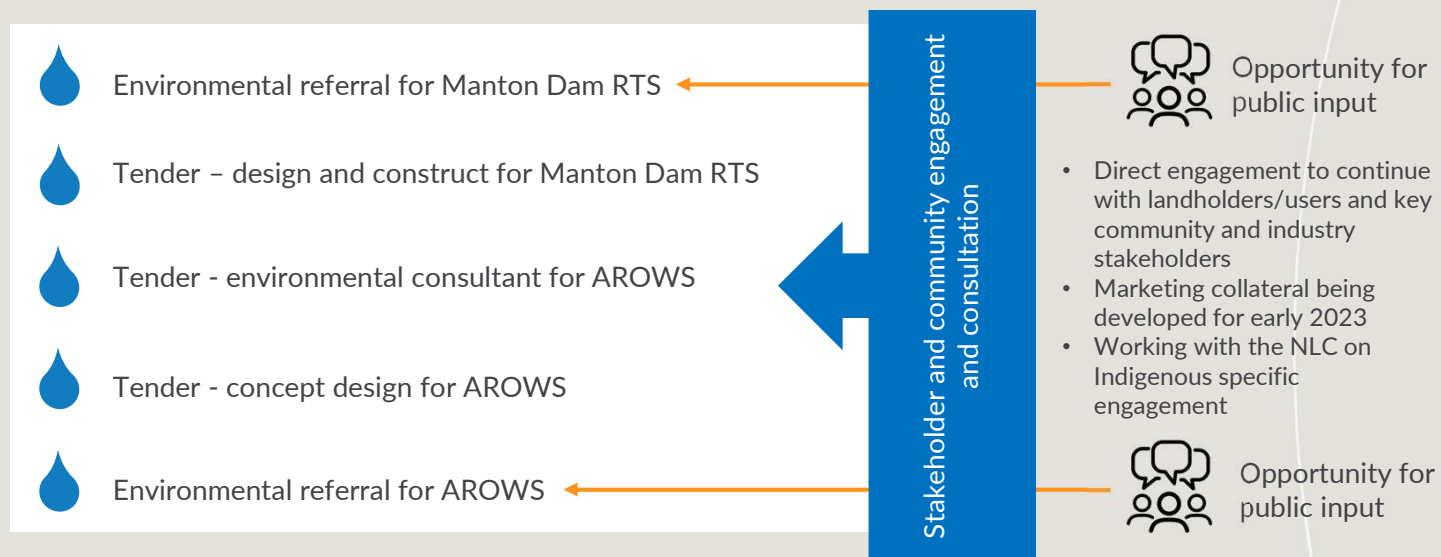


and more...

Community engagement and consultation

Where we are headed

2023



DEPWS responsible:

- Regulator to commence development of the Water Allocation Plan for the Adelaide River Catchment
- Territory Water Plan to be released

The Community Reference Group will play an important role:

- discuss matters of community and stakeholder interest in relation to the Infrastructure Program;
- provide valued feedback and input as the project progresses; and
- help members of the community and stakeholders to better understand the Infrastructure Program.



Thankyou

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PowerWater



THE
TERRITORY