



Meeting the Challenges of today's Industry



An Australian point of view

- The Australian Water Market
- Today's challenges in Australia
- Responding to these challenges
- Collaboration – leveraging industry expertise
- Case Studies Aroona v AllWater

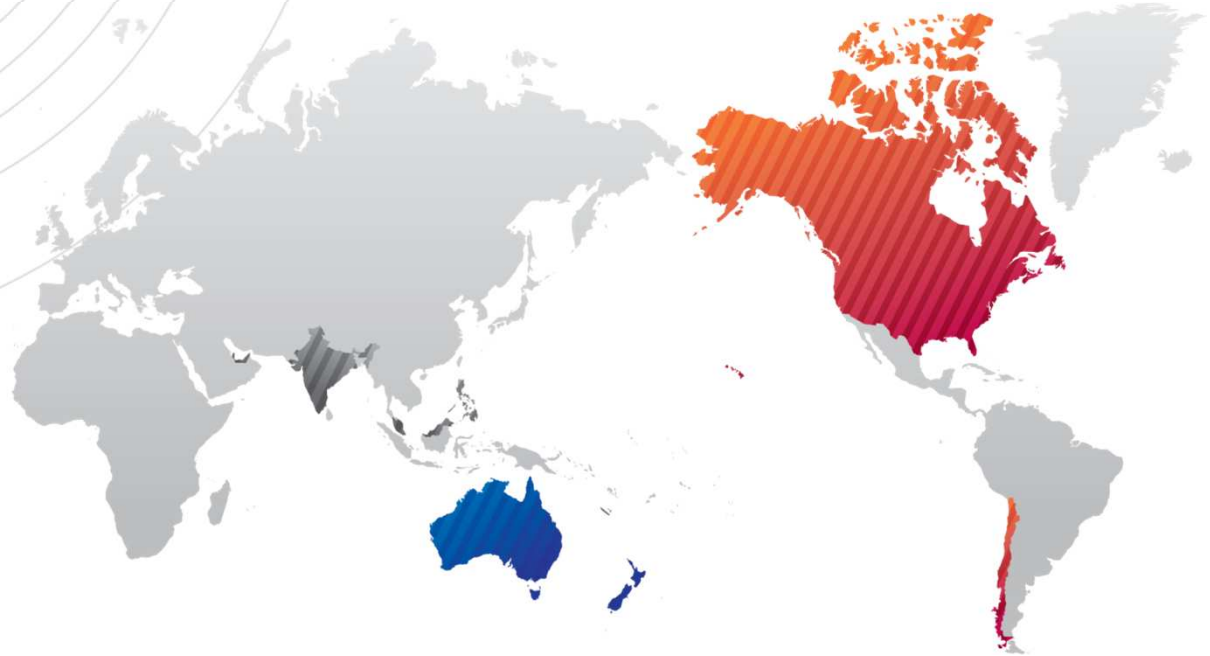


WHO WE ARE



11 countries | 20 industries | +200 clients | +26,000 employees

- Transfield Services is a leader in **asset management**, providing operations, maintenance, advisory and construction services
- We service the infrastructure, resources, energy, industrial, property and defence sectors.



OUR WATER BUSINESS



Experienced in delivering water and wastewater projects for public and private sector clients in Australia and New Zealand

- Urban & Regional Water Utilities
- Irrigation Sector
- Industrial Water



service over 4 million customers

>70,000km

W&WW networks managed



operate & maintain 450
treatment plants & pumping stations

\$3billion

irrigation modernisation
assets delivered

Irrigation Geographical Coverage

58,000km²

THE AUSTRALIAN WATER MARKET



Federal

- National Water Commission
 - Water reform, policy and legislation

State

- Minister Departments, regulators and major utilities
 - Pricing and economic regulation
 - Planning and management
 - Water and wastewater supply and services

Local

- Local water utilities, councils and irrigation companies
 - Water and wastewater pricing and supply services



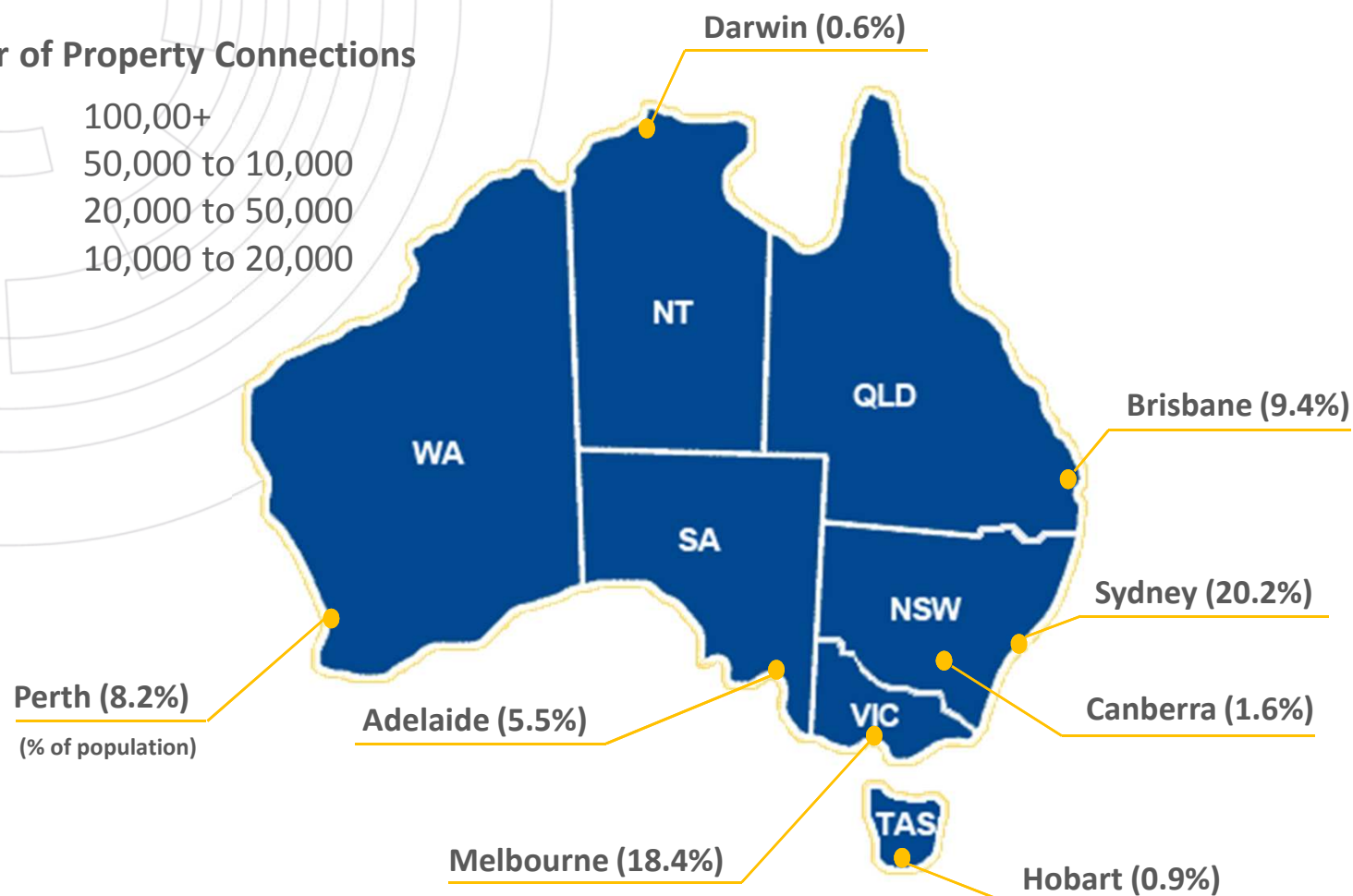
THE AUSTRALIAN WATER MARKET



Total Australian Population - 23.1 million people

Utilities /number of Property Connections

- 11 Utilities 100,00+
- 11 Utilities 50,000 to 10,000
- 18 Utilities 20,000 to 50,000
- 24 Utilities 10,000 to 20,000



TODAY'S CHALLENGES IN AUSTRALIA



- **Political pressure** – desire to cap increases to water pricing
 - **Increasing operational costs** – labour, energy, chemicals
 - **Infrastructure is critically ageing** – requiring capex which isn't available
 - **Tighter regulation driving improvements in quality** – investment required to meet regulatory compliance
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- **An ageing workforce** – skills shortages and loss of knowledge
 - **Population growth** – increasing water demand, pressure on assets
 - **Climate variability** – extreme weather events, drought then flood

TRADITIONAL SOLUTIONS



- Traditionally the solution to managing these issues would be to increase spend to:
 - improve and/or replace assets
 - invest in assets to meet increase demand
 - absorb increased operating costs
- Capital is no longer available, hence this option is no longer viable

We need to adapt and change our approach to water management to ensure its sustainability

HOW WE ARE RESPONDING TODAY



- Increase range of water sources
 - desalination, water recycling, aquifer recharge
- Reduce water demand
 - demand management, irrigation modernisation, water trading
- Capital intensive centralised systems v decentralised schemes
- Lowering the cost of asset ownership
 - OPEX – reduce both the ***volume*** of work + ***cost*** of doing work
 - CAPEX – whole of life approach to asset management – ***‘sweat the asset’***

HOW WE ARE RESPONDING TODAY



- Commercialisation of utilities
 - Shift from asset focused to customer centric
 - Maintain standard v over-engineer
- Capitalising on ageing workforce
- Collaboration between utilities and private sector
 - Leveraging industry knowledge
 - Range of models from insourcing to outsourcing

COLLABORATION – FEATURES AND BENEFITS



- ***Common objectives*** – sharing a common purpose with performance linked to agreed objectives
- ***Knowledge transfer*** – people and data
- ***Sharing of benefits*** – bring targeted innovation
- Continuous Improvement – across the life of the project
- Appropriate ***risk transfer***
- Workforce Management – attract and develop workforce
- ***Joint governance*** and decision making

AUSTRALIAN CASE STUDIES



Aroona

Located in Perth, Western Australia, Aroona is a 10 year operations and maintenance (O&M) alliance with the Water Corporation. The alliance covers all water and wastewater treatment assets servicing a total of 1.8 million customers



AllWater

Located in Adelaide, South Australia, Allwater is a 15 year alliance that delivers O&M services for all water and wastewater assets, servicing 1.1 million customers. Water treatment at 1,800 MLD and wastewater at 250 MLD.



CONTRACT INITIATIVES



Aroona		AllWater
Groundwater recharge from treated wastewater Mix of surface water and desal	Water supply	Recycled water for domestic use and irrigation Mix of surface water and desal
Introduction of predictive modelling RCM analysis on major assets	Reduce volume of work	Risk based review of scheduled M&E maintenance Analysis of poor performing assets
Integration of O&M teams Optimisation of chemical usage within wastewater plants Strategic assessment of vacated roles Benchmarking against global contracts	Increase efficiency	Reducing crew size for network mgt Chemical use optimisation Mobility and vehicle management Increase dual trades - people and vehicles Benchmarking against global contracts
Load shedding initiatives Monitoring of pump efficiency	Reducing energy	Cogeneration at major wastewater plant Water network optimisation to maximise use of storage and pump in off peak
Mentoring program and part time work Work within client systems Joint management team	Knowledge transfer	Real time system integration between Key client employees embedded within management team
Insourcing Resources remain Client employees and part of an integrated management team Joint governance and management	Collaboration	Outsourcing Workforce + plant transferred to contractor Joint governance and management

- Challenges are many, and continuing
- Traditional responses are unlikely to be appropriate
- Therefore the industry needs to adapt and change
- Collaboration between industry participants has been an enabler of change



Thankyou

