

Perth: Transitioning to a World-Leading Water Sensitive City

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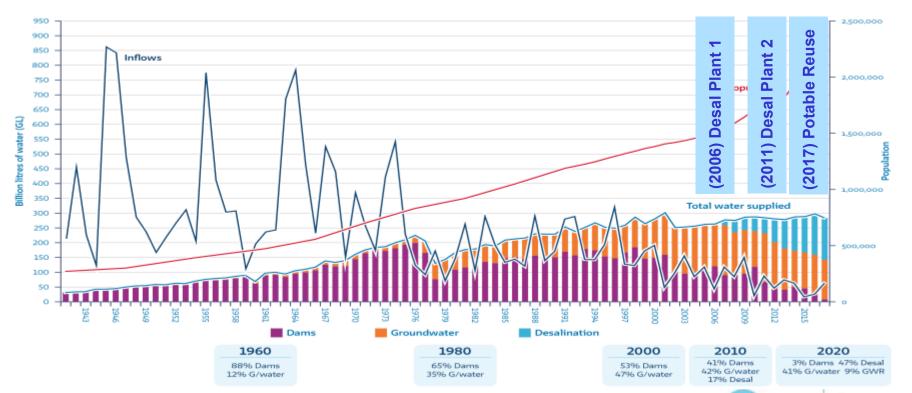
Water as a resource in Western Australia





Perth's Water Supply









Resilience through climate independence





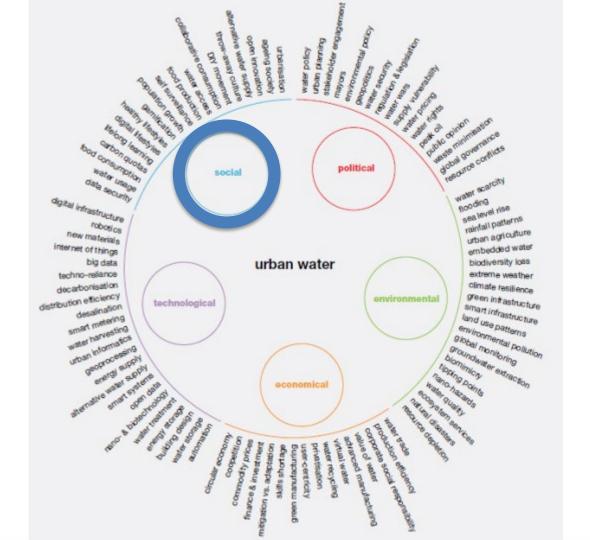






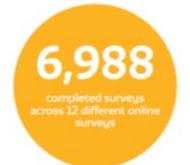


The future is much more complicated.....



Perth customer engagement

54
focus groups and workshops with
693
participants







A watersensitive city?



Confirming the need for Perth





CLIMATE CHANGE

- Declining rainfall and streamflow
- Decreasing groundwater levels
- Rising temperatures



POPULATION GROWTH

- Urban development in water constrained areas
- Urban intensification



AFFORDABILITY

- Sustainable cost of water services
- Reducing water use



COMMUNITY ASPIRATIONS

Water is central to our lifestyle and *Tap In* told us that customers expect us to go beyond our core services



ENVIRONMENTAL PROTECTION

 Conserving and protecting water resources and environments

How do we measure progress?

Water Sensitive Cities Index

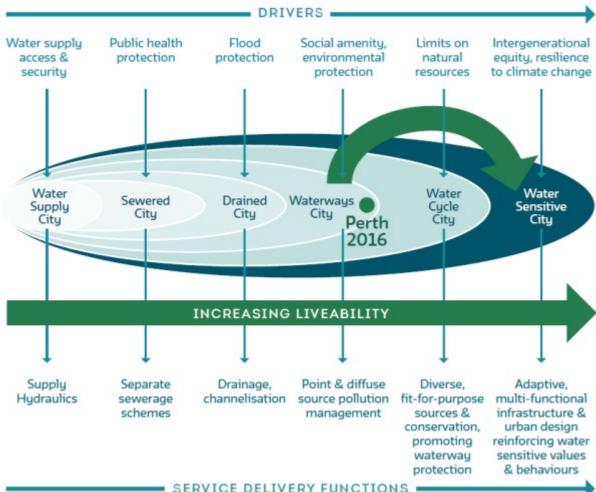






Urban water transitions continuum

(based on T. Wong and R. Brown, 2009)



Benchmarking results for Perth

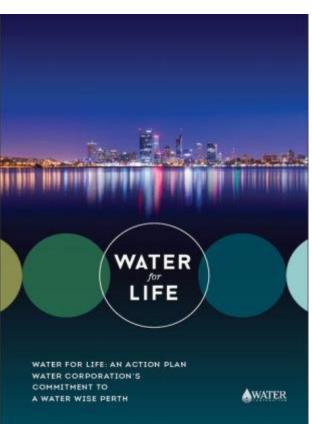




Our plans







Collaborate and form partnerships

Engage our customers to reduce demand

Reuse, recovery and recycling

Optimise water and energy and reduce carbon footprint

Enhance assets to improve liveability outcomes





Collaborate and form partnerships to deliver waterwise outcomes

- Increase innovation and industry collaboration
- Embed waterwise city principles in strategies, policy, planning and decision making frameworks
- Waterwise infrastructure planning and operation
- Sustainable use of groundwater









Engage with our customers to improve water knowledge and reduce demand



Water efficiency: Reduce scheme water use (110 kilolitres per person per year)



Increase community water knowledge



Water wise Gold councils









Increase reuse, recovery and recycling



Water recycling: Triple recycled and alternate water use



Recover non-revenue water: Decrease non-revenue water (including water losses from pipes and inaccurate meters) to a maximum of 10% of total water demand





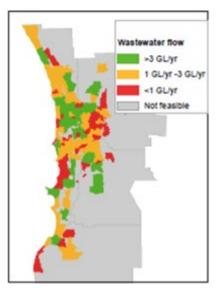


Water Research and Innovation Precinct





Water Research And Innovation Precinct in Subiaco



Identifying alternative water options



Australia's first groundwater replenishment scheme is located on the Beenyup wastewater treatment plant site





Optimise the relationship between water and energy and reduce carbon footprint



Greenhouse gas: Reduce greenhouse gas emissions to zero (net) tonnes CO_2^{-e} per year



Renewable energy: 100% of energy requirements for major treatment plants and pump stations will come from renewable sources generated on-site





Concluding Remarks



- Perth has a long history of innovation and adaption in managing water resources
- Water resilience is critical for a city's future
- But so too is environmental excellence, affordability, productivity and community awareness and collaboration:

A Water Sensitive City





