



The South East Queensland Drought Experience

Lessons for Canadian Demand Management Practitioners



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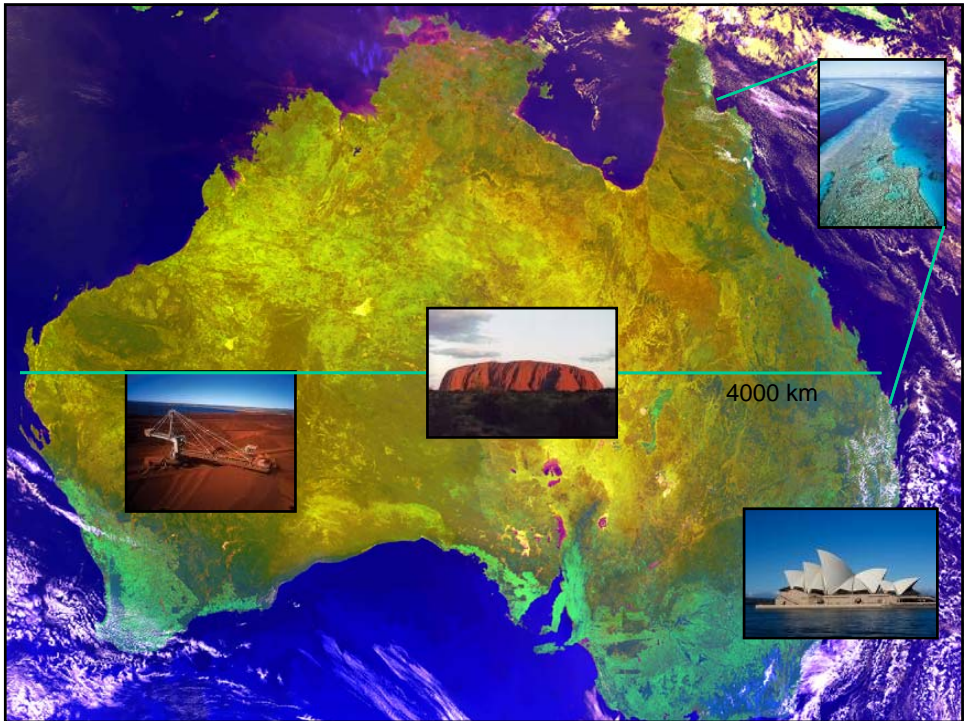
My Story

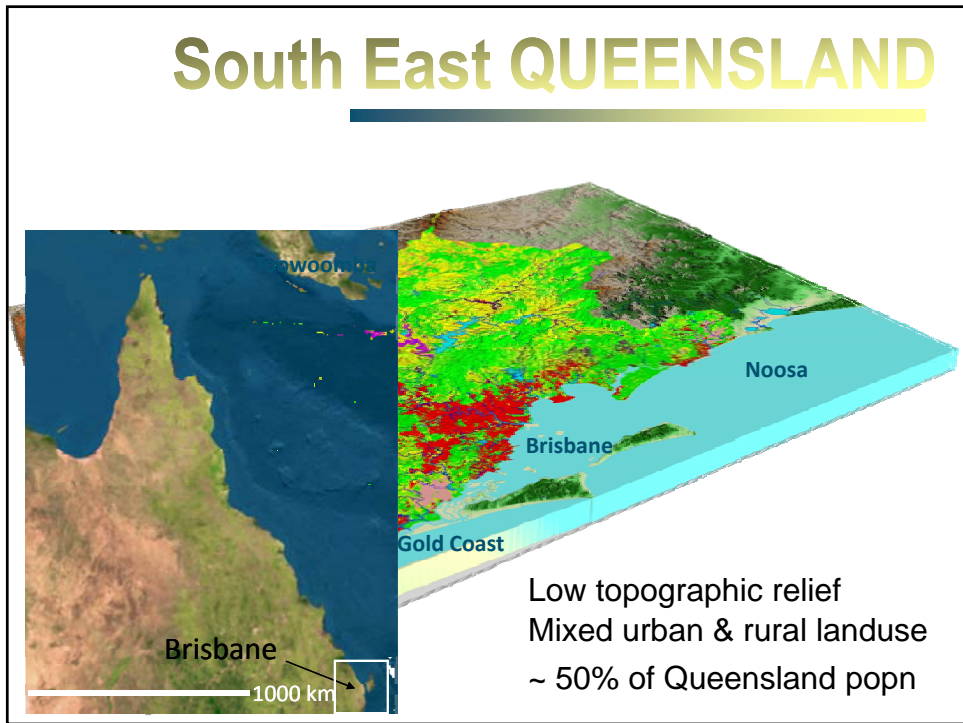
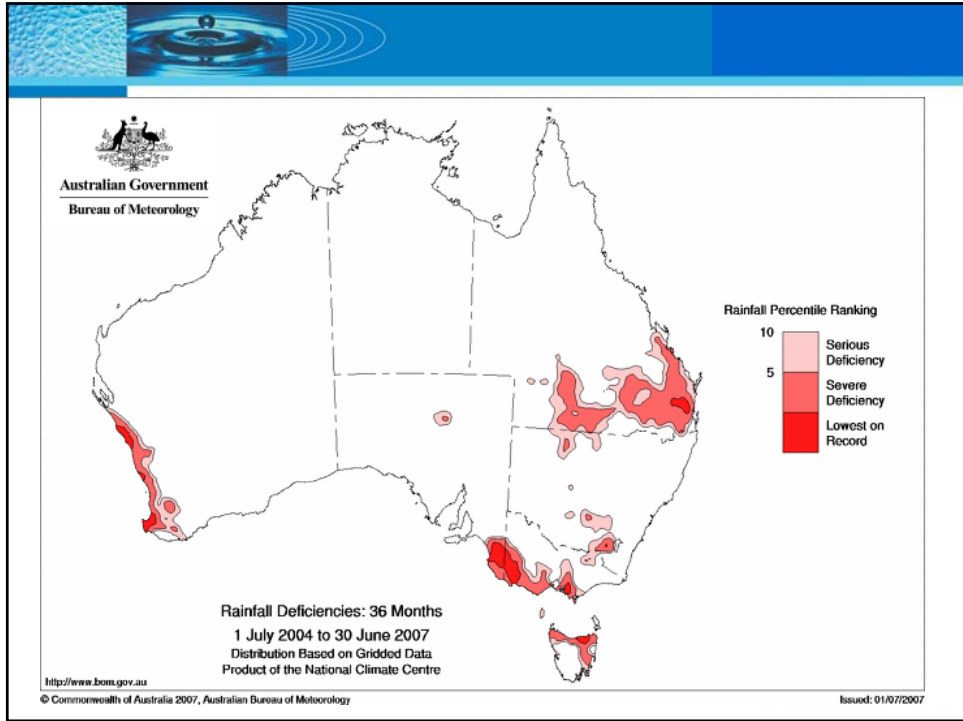
- Joint Canadian/Australian citizen
- Positions in Australia since 2003
 - Demand Management Coordinator, Gold Coast Water
 - Advisor, Gold Coast Waterfuture Project
 - Project Manager, SEQ Integrated Urban Water Management Investigation
 - Project Director, SEQ Home Waterwise Service
 - Project Director, SEQ Pressure and Leakage Management Project
 - Advisor, SEQ One-to-One Water Saving Program

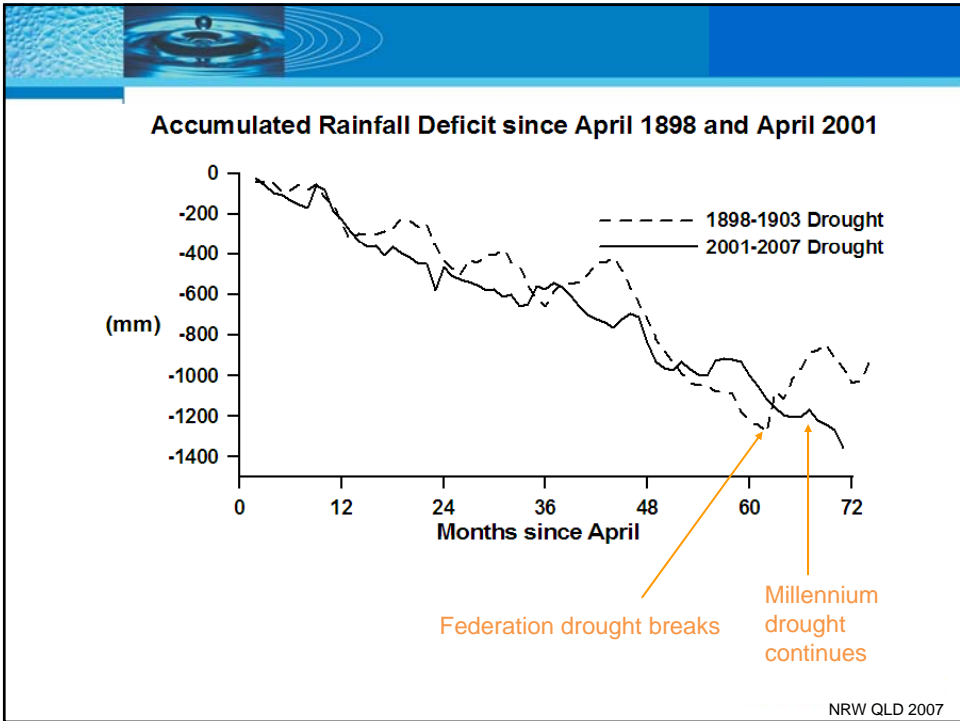
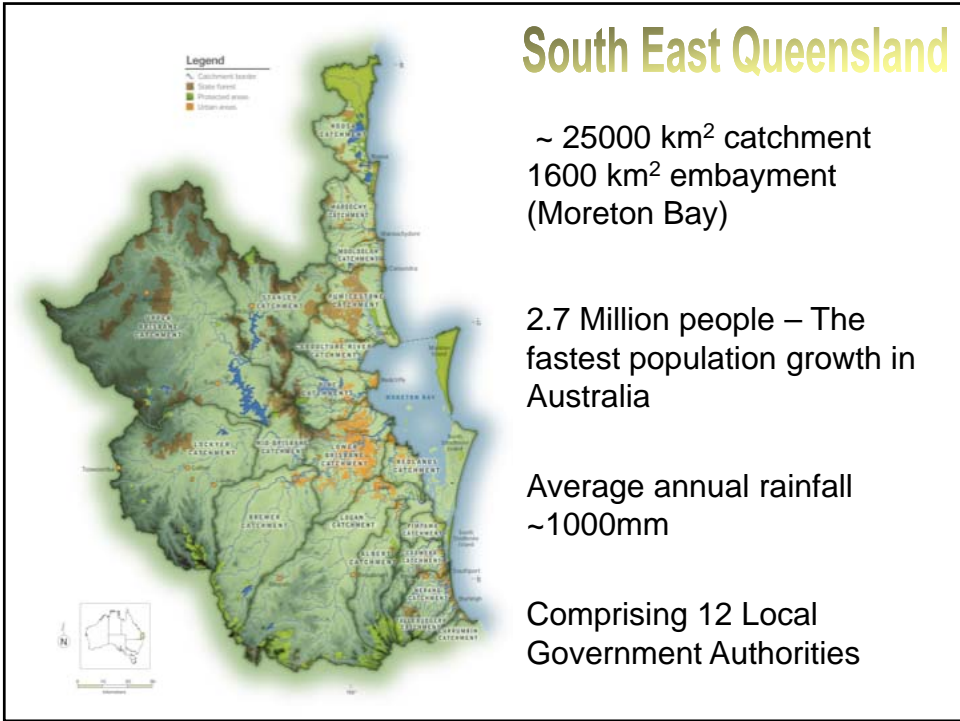


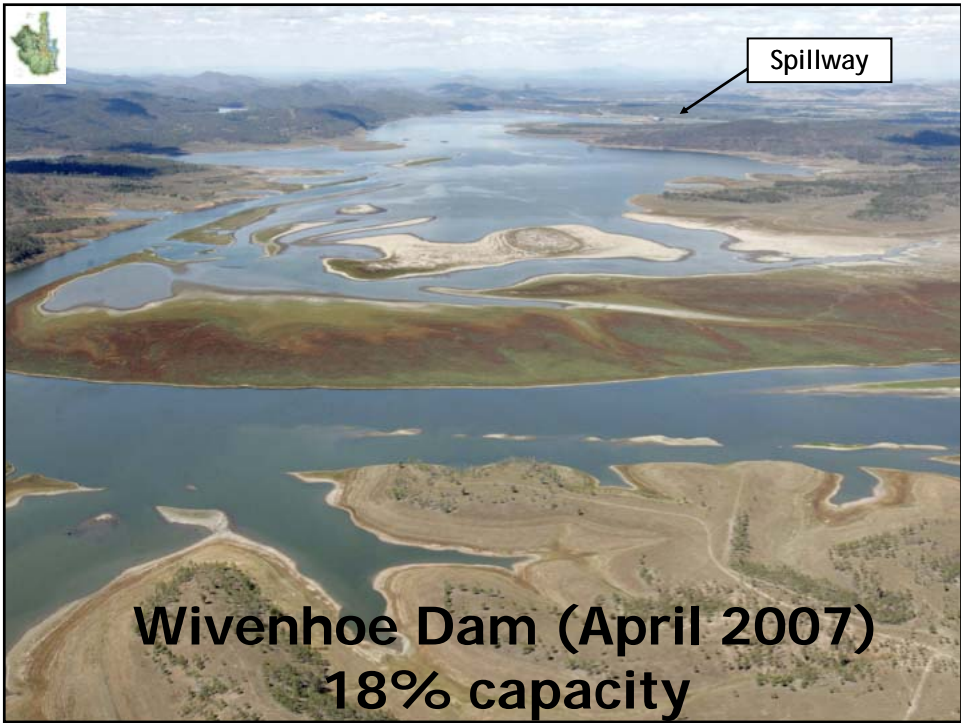
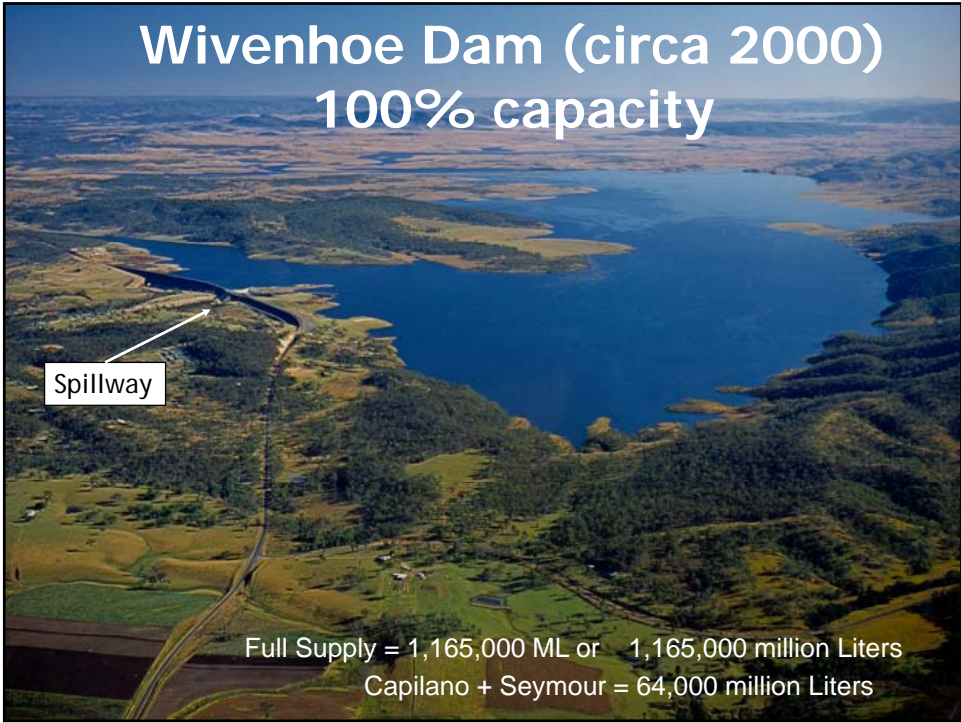
Presentation Outline

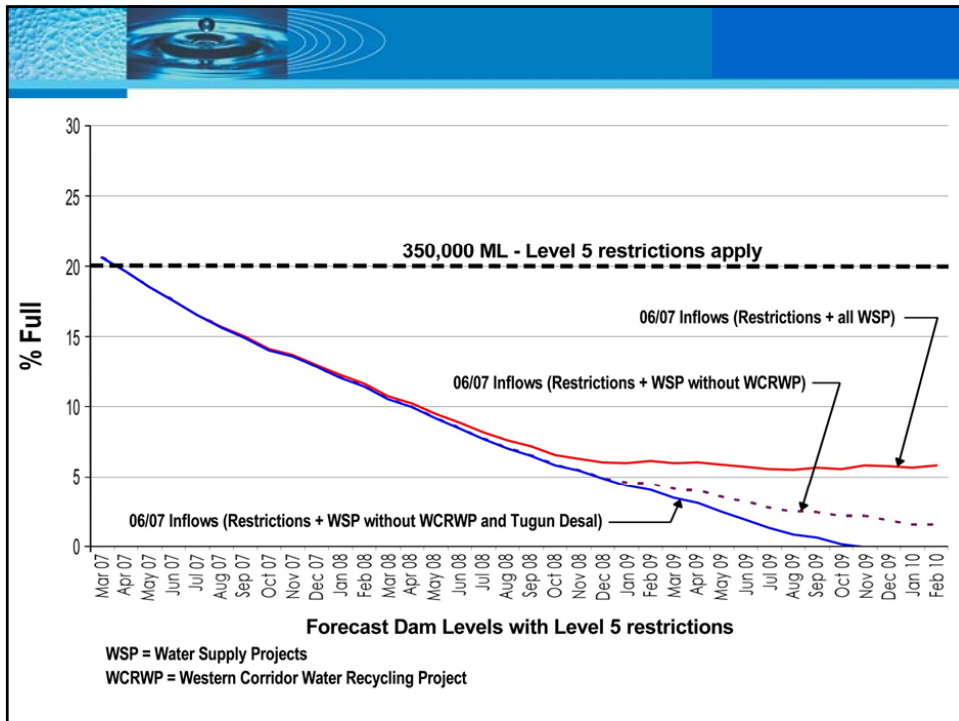
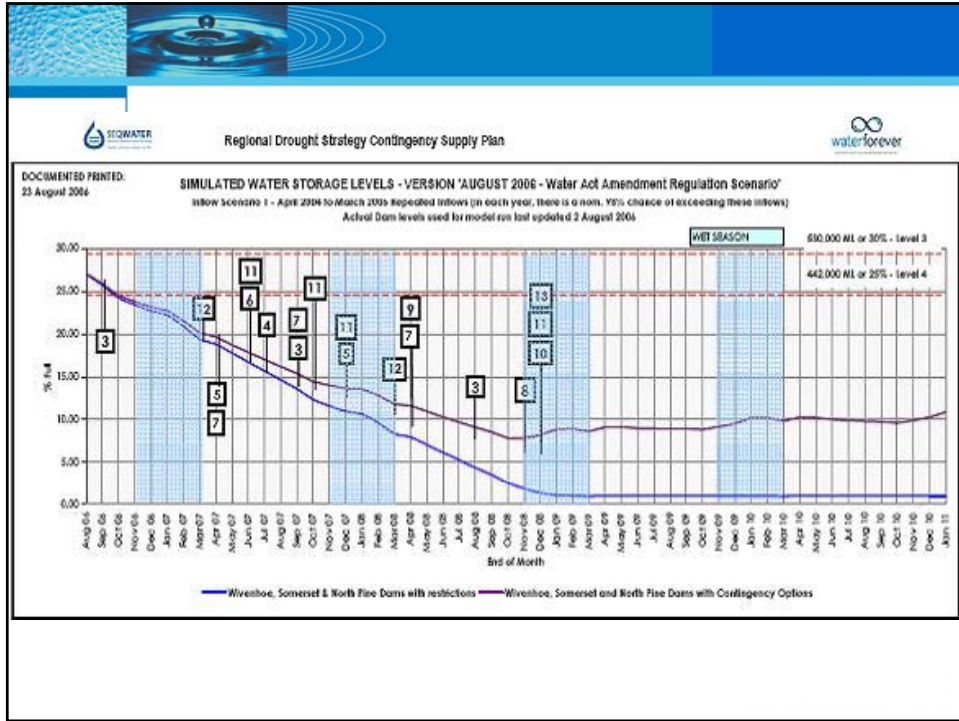
- The South East Queensland Drought
- Four Innovative Drought Response Projects
 - The Home Waterwise Service
 - The SEQ Pressure and Leakage Management Project
 - The One-to-One High Water User Program
 - The Gold Coast Waterfuture Project
- Lessons for Canadian Demand Management Practitioners

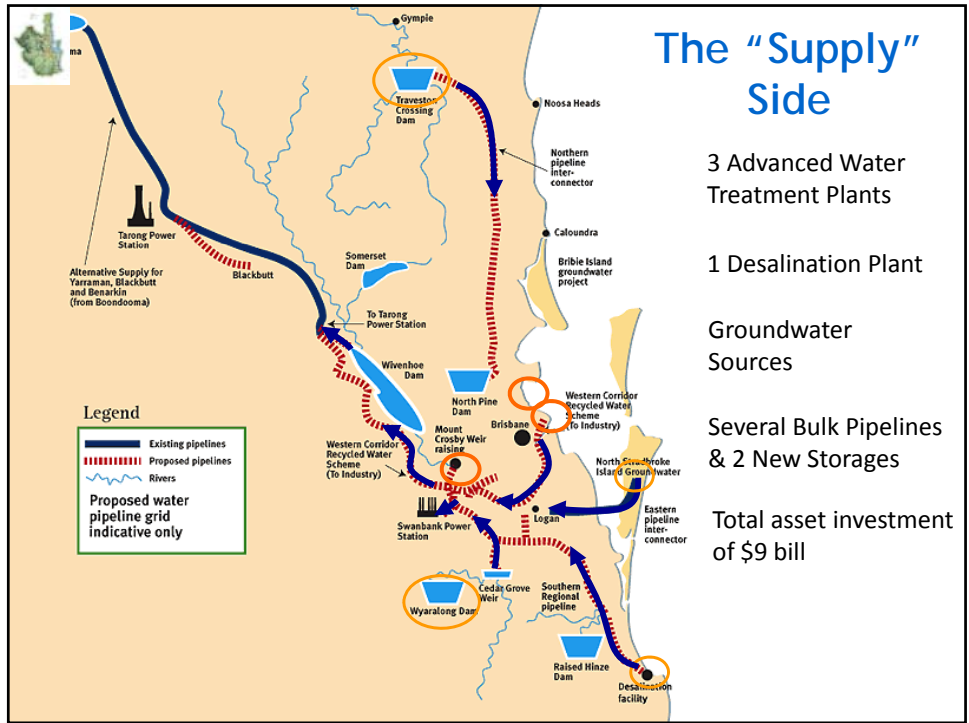












The Demand Side

The Home WaterWise Service
YOU SAVE MONEY WE ALL SAVE WATER


One to One Waterfuture
WATER SAVINGS PROGRAM

One to One Waterfuture
WATER SAVINGS PROGRAM Project

SEQ Pressure and Leakage Management Project

Council of Mayors South East Queensland
Queensland Government
LG Infrastructure Services






The Home WaterWise Service

YOU SAVE MONEY WE ALL SAVE WATER

- A comprehensive water audit (with CBSM toolkit)
- 1 new water saving showerhead
- Water efficient aerators on bathroom and kitchen taps
- Up to 3 leaking taps fixed
- All materials supplied and installed
- \$150 in value for \$20




The Home WaterWise Service

YOU SAVE MONEY WE ALL SAVE WATER





- 135 plumbers involved at program peak
- 3000 retrofits per week




The Home WaterWise Service

YOU SAVE MONEY WE ALL SAVE WATER



- Full time call centre with 50 staff
- Comprehensive marketing campaign: print, radio, TV, web...
- 95% customer satisfaction KPI
- CBSM design (including the market research!)




The Home WaterWise Service

YOU SAVE MONEY WE ALL SAVE WATER

The Outcome

- 228,551 homes by Dec 08
- 4800 ML savings per year (13 ML per day)
- \$42.1 million investment







 Council of Mayors
 South East Queensland


 Queensland
 Government


 LG Infrastructure Services
A joint venture of the Local Government Association of Queensland and Queensland Treasury Corporation

SEQ Pressure and Leakage Management Project




The Challenge:

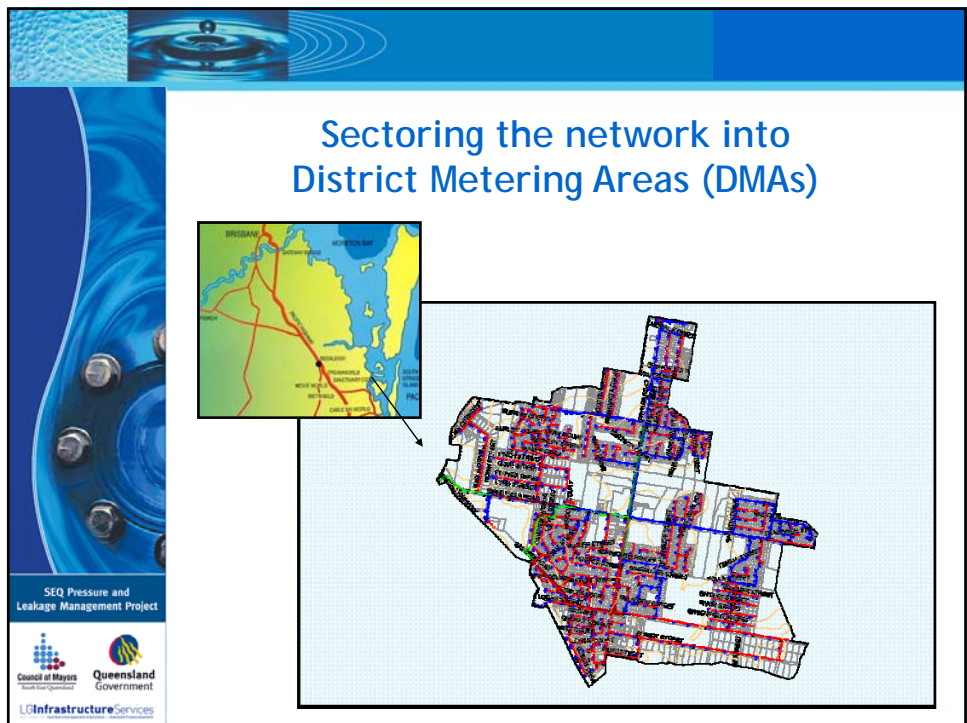
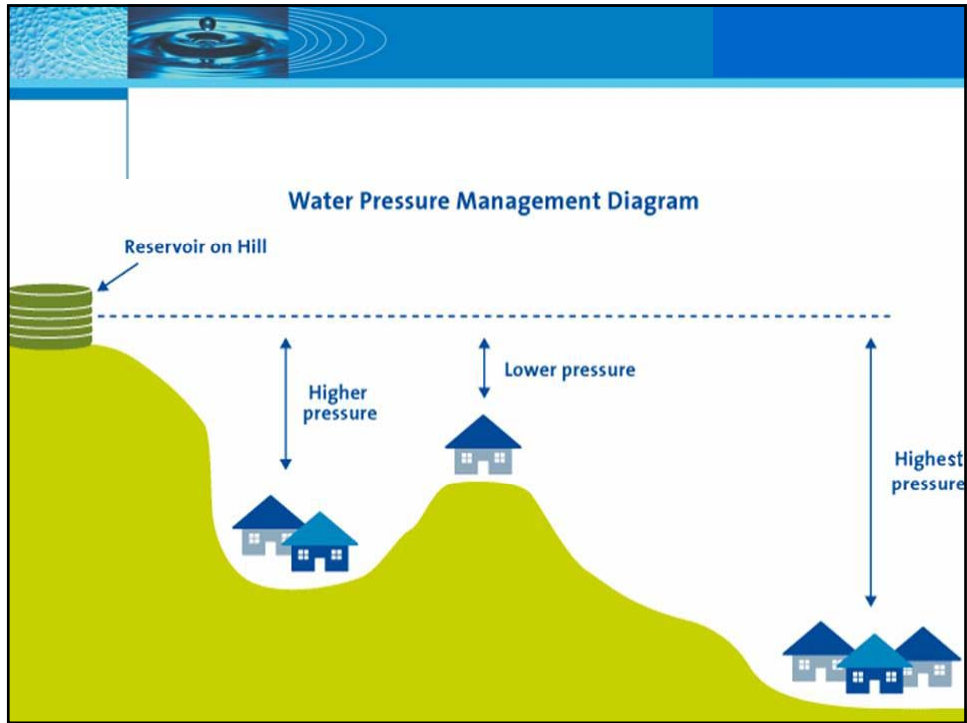
Save 60 million litres of water per day
 through pressure and leakage
 management across the SEQ region





SEQ Pressure and Leakage Management Project

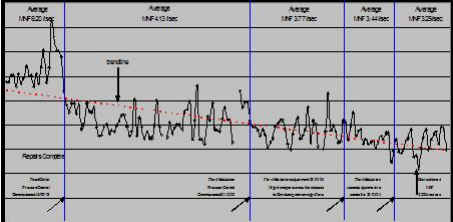

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Pressure Reducing Valve (PRV) Installation

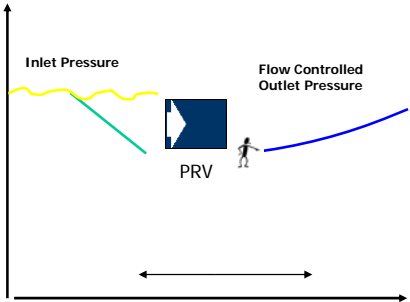



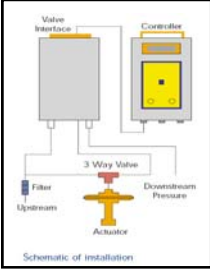
Average INF522sec	Average INF4133sec	Average INF3779sec	Average INF3441sec	Average INF3259sec
				
Notes to Consider				
Position	On the Main	On the Main	On the Main	On the Main
Flow Direction	From High Pressure	From High Pressure	From High Pressure	From High Pressure
Service	General	General	General	General

SEQ Pressure and Leakage Management Project

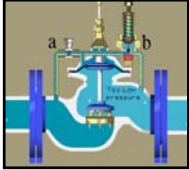




Flow Modulation Control








At night time when demand is at its minimum pressure can be reduced considerably



SEQ Pressure and Leakage Management Project



Active Leak Detection and Repair

The infographic features a blue background with a water tap and a gauge. The gauge shows a reading of 48 ML/day, with a target of 60+ ML/day by 2008. The text 'The Outcome' is centered at the top of the infographic area.

The Outcome

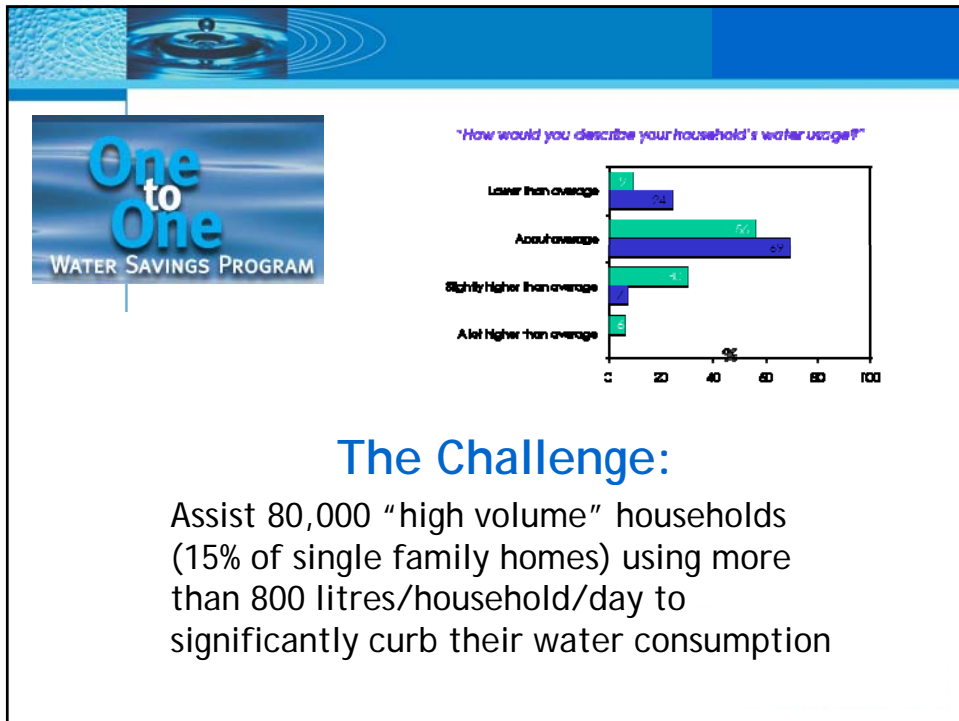
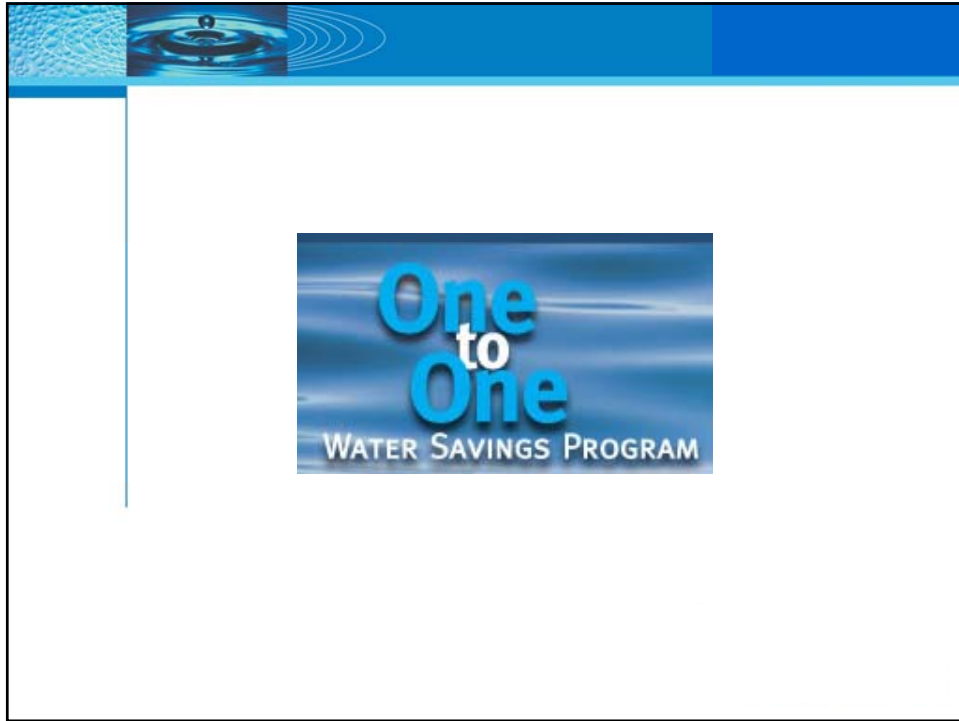
- 47.8 ML/day saved at Oct 2008
- 64 ML/day savings by 2012
- 16,020 ML saved since 2006
- 138 DMAs complete; 322 commenced
- \$70 million expenditure to date
- Largest project of its kind ever

60+^{BY} ML 2008

Regional savings to date:
48 ML/day


SEQ Pressure and Leakage Management Project


Council of Mayors Queensland
Queensland Government
LGI Infrastructure Services




The Challenge:

Assist 80,000 "high volume" households (15% of single family homes) using more than 800 litres/household/day to significantly curb their water consumption








Program budget: \$8 million


Primary delivery mechanism:

- Mandatory completion of 58 question water use survey
- Customized water saving plan sent back based on response

Radically condensed timeframe
(6 months concept to completion)




Behavioural






Indoor

Outdoor



Technological



The Outcome:

- 92% compliance with survey submission requirements
- A reduction in water use by this segment of 30.1ML/day
- 70% of households were using less than 800L/property/day post program
- 45% of targeted households were efficient (ie. at or below 140L/p/d) post program compared to 7% pre program
- On a per person basis the HWU consumption reduced by 40% compared to the general population's reduction of 22% for the same period.
- Groundbreaking intersection of mass customisation and CBSM

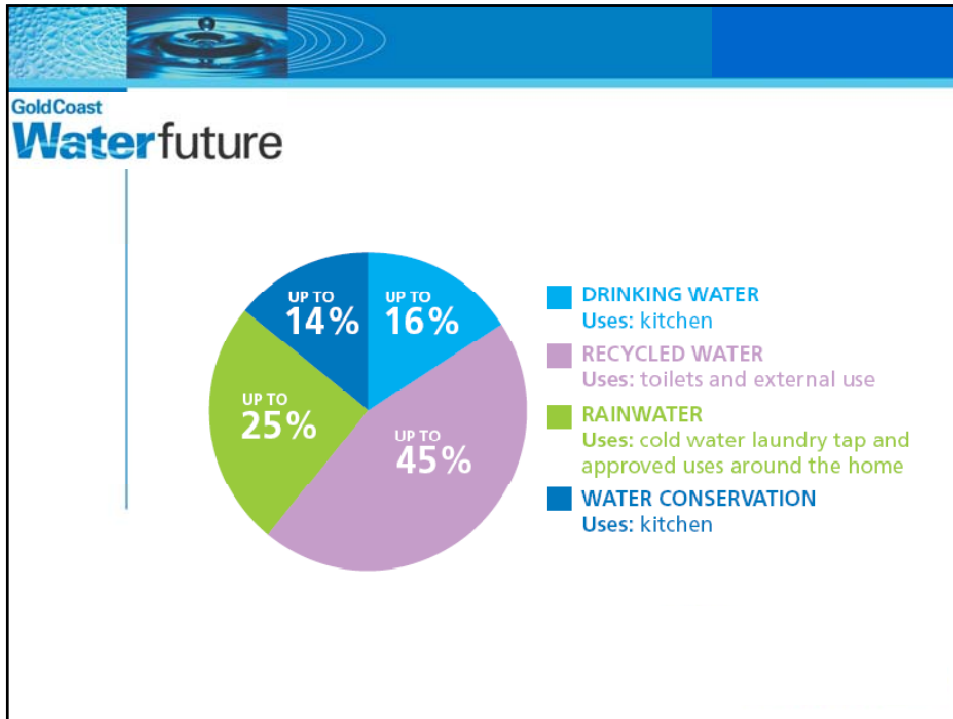


GoldCoast Waterfuture




GoldCoast Waterfuture

- Class A+ Recycled Water Treatment Plant (supply by 2009 to toilet & outdoor)
- Mandatory rainwater tanks (laundry cold water & outdoor)
- 3500 dual reticulated homes already built
- Growing by ~120 homes/month.
- Home to 120,000 people by 2056



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- ### The Situation Today
- Dam levels currently at 73.68%
 - Restrictions relaxed slightly
 - Residential consumption still well below the new 170 litres/person/day target
 - Supply-side measures coming on-line; some deferred at least temporarily
 - Most demand-side projects scaling back; others continue unabated
 - Major crisis averted... for now



Lessons

- Our assumptions about water supply security can change very, very quickly
- When the time comes... be ready (both with data and planning)
- Steal shamelessly
- Establish governance systems early
- Think bigger

