

Drought, Climate, and Water Brisbane, Australia

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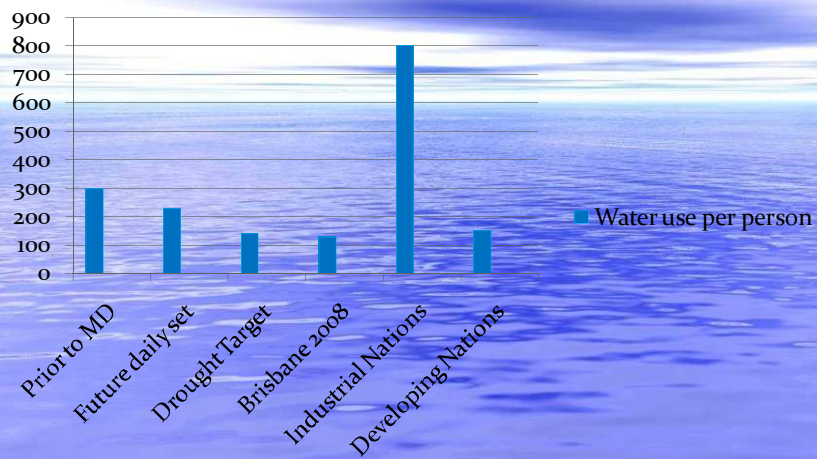
Presentation Outline

- How we define **drought**?
- Global water usage?
- Australia's climate and variations
- Brisbane's water uses
- **Drought** response/mitigation in Brisbane
- How YOU can help

What Is Drought?

- When our demand for water exceeds our supplies.
 - what are your demands?
 - what are your supplies?
- Understanding, preparation, and response to **drought** requires an appreciation of how, when, and where water is used in our world.
- Close-up on Brisbane, Australia.

Water use per person Brisbane and World

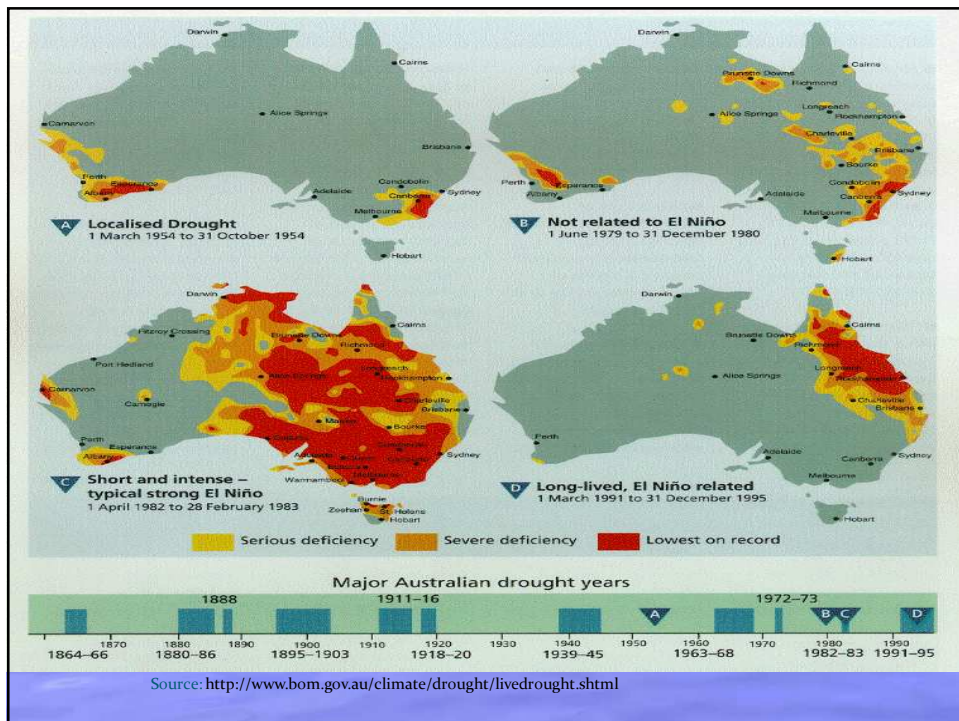
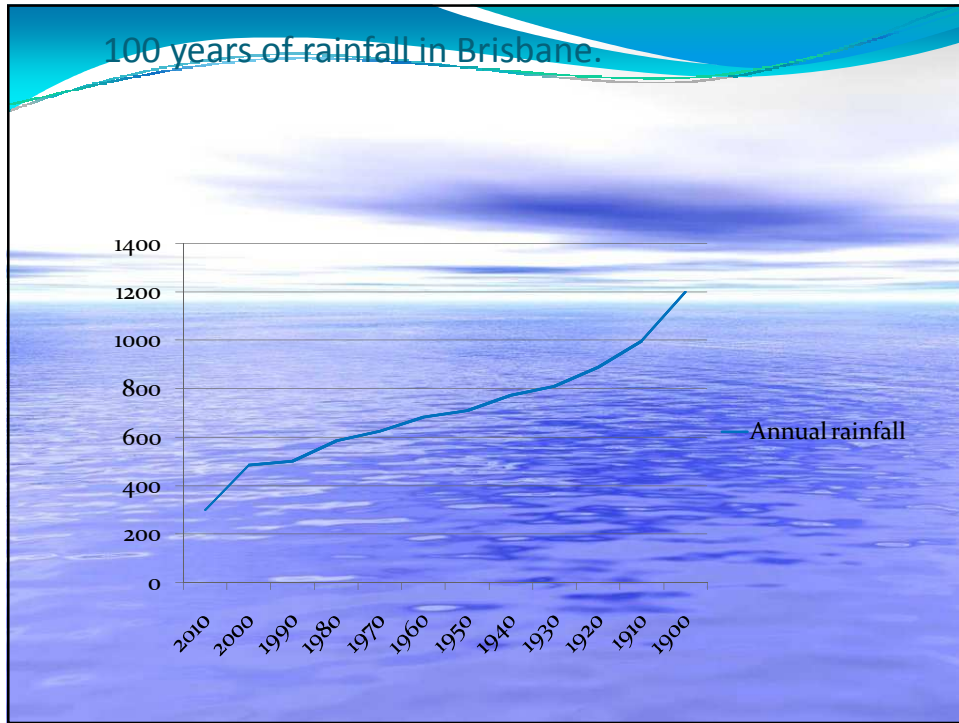


Global Water in past 100 years

- Past 100 years
- World population increased 4 times!
 - World water consumption increased 6 times!
 - Industrialized Nations use 600-800 L per capita
 - Developing Nations use 60-150 L per capita
 - World population expected to be over 10 billion within next 10 years.
 - Brisbane's population expected to grow from 1.8 million to over 6 million within 40 years.

Australia is living with drought

- World's largest inhabited "desert" is Australia.
- Australia has world's most variable rainfall climate!
- Over long term, 3 years out of 10 are drought.
- Severe drought once every 18 years
- Cause is Southern Oscillation, known as "El Niño."

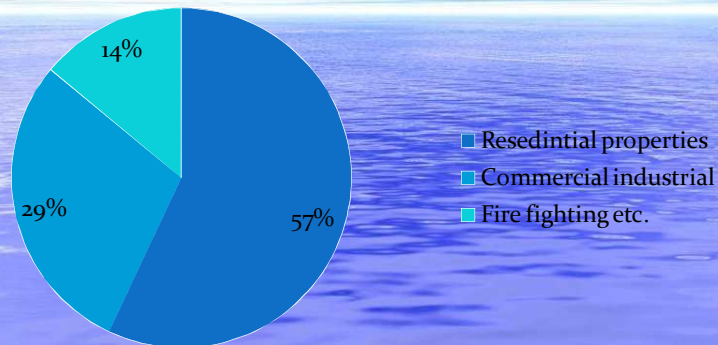


How Brisbane gets its Water?

- The current “Millennium” Drought is the worst on 500 year historical record in Australia.
- By 2056 Brisbane MUST diversify water supply
 - Today, 95% reliance on dams and weirs for water.
 - Future, 40% of water will come from at-home savings strategies such as greywater and rainwater tanks, and desalination, nanofiltration, and PRW (Purified Recycled Water)

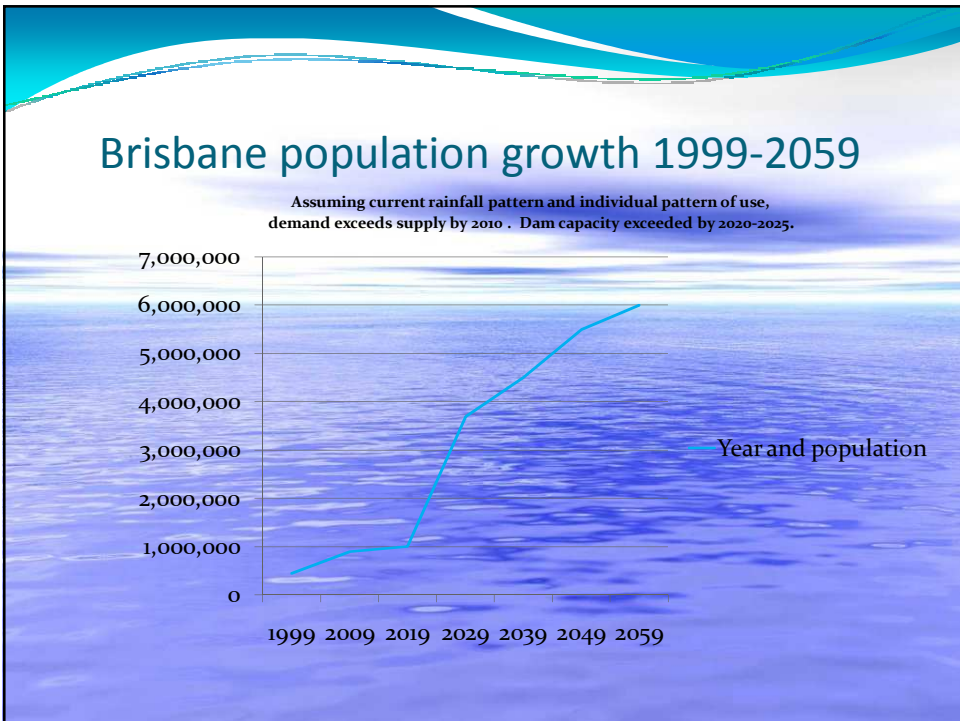
Water use in Brisbane

99% of potable used for activities other than drinking.
75% of water from dams allocated to urban use.



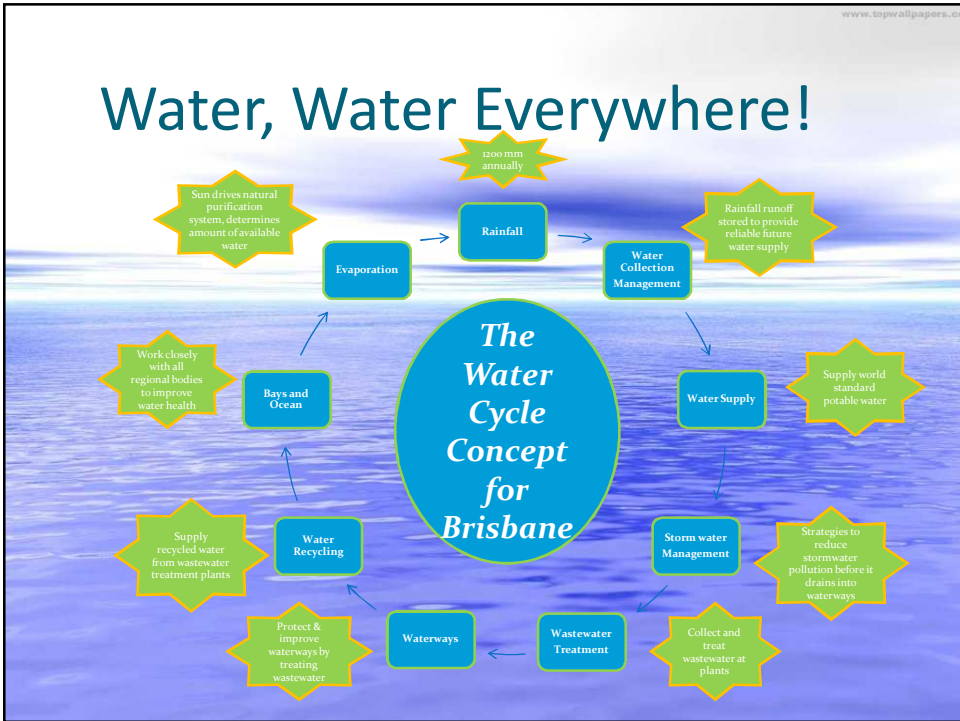
Water 4Today, Water 4Tomorrow?

- Each week 1,000 people move to Brisbane
- Brisbane current population = @1 million.
- By 2026 Brisbane area will have 3.7 million.
- By 2026 Brisbane total water supply capacity of dams will be exceeded.
- Within 40 years, population will be over 6 million!



Vision for Brisbane

- By 2026 Brisbane’s goal is to be a water smart, completely self-sustainable city.
- The Water Cycle will provide an enduring source of clean water for human and ecological needs.
- Program called “Total Water Cycle Management “
- Making “new” water for a sustainable Australia...

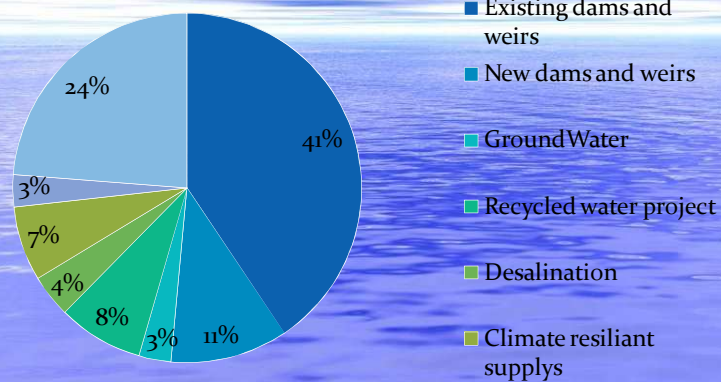


Total Water Cycle Management

- Water cycle vision for Brisbane pledges to make best use of water from all stages of cycle.
- Balances existing water supply with demand to secure “new” water for Brisbane.
- Future focus on PRW (Purified Recycled Water and desalination schemes.)
- Everyone, everywhere will have water, ALL the time!

Brisbane “climate resistant” projected water supply by 2056

Water supply



39 Billion Thank You's in 2008

- Brisbane Residents Save 39 Billion liters of water in 2008!
- People make water saving part of every day lives
- 2008 Average Daily Consumption 129 L per person!
- Down from 296 L per person pre-drought!
- Way to Go Brisbane!

How much did Brisbane save? !

- 15,581 full Olympic swimming pools
- 80% of total capacity of Borumba Dam
- 4.9 % months of residential water supply!

Average Household saved 48,240 L of water!

5360 buckets of water!

201 green water tanks!

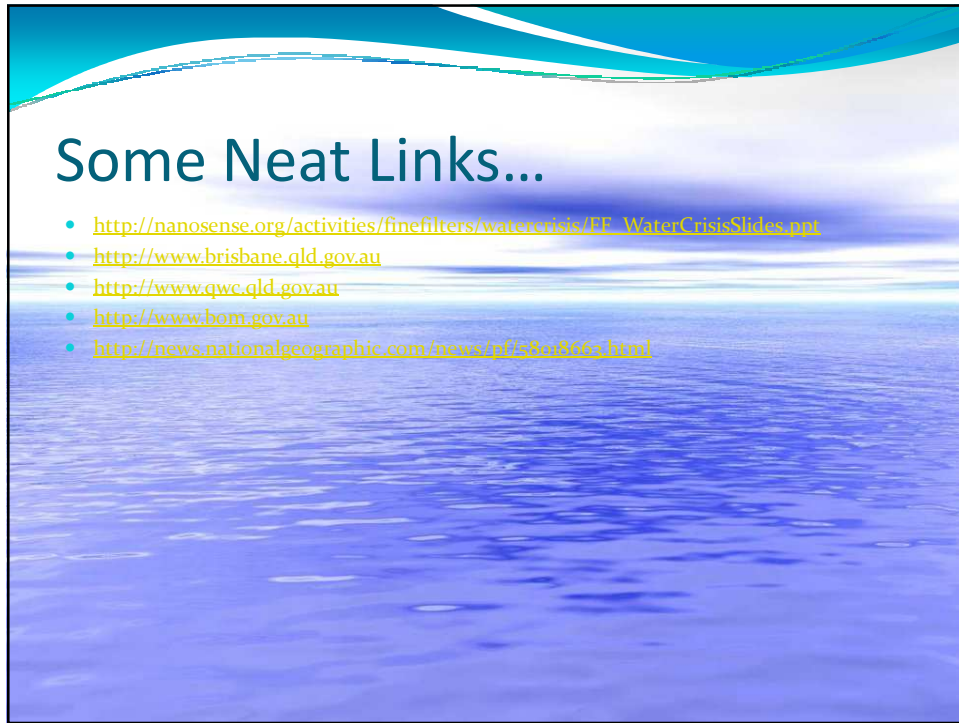
128,540 soda bottles! 64,320 large glass bottles!

We need to Watch Every Drop

- Everyone can make a difference.
- YOU can make a difference!
- Why? Because simple adjustments = huge savings
- Individuals and Communities in Brisbane are working together **today** to provide quality, secure, and reliable water supply for **tomorrow**.
- “Water Today -4- Tomorrow”!

Secure 4 today-- Prepare 4 tomorrow!

- In the words of President David Crombie of the Australian National Farmers Federation ,
 - “It is time to invest in drought-resistant practices today and, over time, reduce the need for drought relief. This is a generational shift in thinking. But it's a necessary, commonsense and forward-looking approach if we are to move from drought relief to drought preparedness” .
 - “We CAN drought -proof Australia!” October, 2007



Some Neat Links...

- http://nanosense.org/activities/finefilters/watercrisis/EE_WaterCrisisSlides.ppt
- <http://www.brisbane.qld.gov.au>
- <http://www.qwc.qld.gov.au>
- <http://www.bom.gov.au>
- <http://news.nationalgeographic.com/news/07/07/070808663.html>