

## BRISBANE, AUSTRALIA

<http://www.brisbane.qld.gov.au>

## CARY, NORTH CAROLINA

<http://www.townofcary.org/depts/pwdept/water/waterconservation/overview.htm>

### The Vision for 21<sup>st</sup> Century Water

Brisbane's 50 year "Water Today for Tomorrow" program focuses on moving away from current reliance on dams and weirs (from 95% to 40%) to a very diversified position that combines improved measurement techniques (basic at home strategies, grey water use, harvesting water) with climate resilient resources (purified recycled water, desalination, nanofiltration) !

Cary's goal is to extend the useful life of their main water source, Jordan Lake; delay costly future construction or expansion of water and wastewater treatment facilities; reduce the amount of treated wastewater discharged into the Neuse River Basin; and reduce per capita water consumption 20 percent by 2015 (from 1996).

### Water Availability, Rainfall & Drought

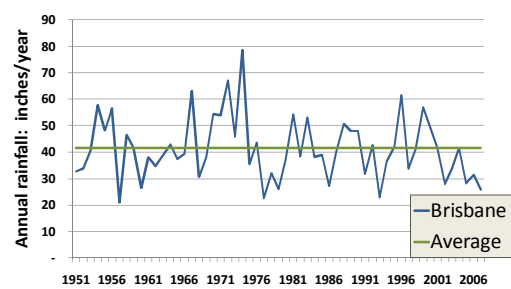
In 2008, 95% of reliance for water is on dams, weirs and the Moreton Bay. Future dam reliance will be only 40%.

Cary's main water source is Jordan Lake, which is a shared source with many other communities.

Australia is a desert! Over the long term, 3 years out of 10 are drought. There is a severe drought once every 18 years.

The 1999-2002 droughts were the most intense in 60 years! 2007 was the driest year in Cary history.

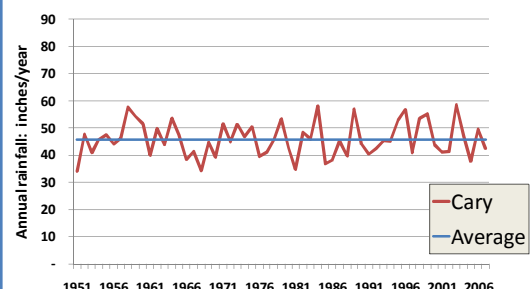
#### Average Annual Rainfall in Brisbane



Average 1951 to 2007: Brisbane 41.5 inches

Data: Australian Government Bureau of Meteorology  
<http://www.bom.gov.au/>

#### Average Annual Rainfall in Cary



Average 1951 to 2007: Cary 45.9 inches

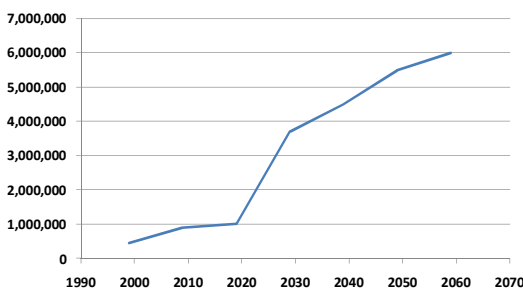
Data: Dynamic Drought Index for Basins in NC and SC  
<http://www.dnr.sc.gov/drought/>

### Population Increases, Demand Grows

1,000 people move to Brisbane every week. Population is 1.8 million and it may grow to 6 million by 2056. Brisbane is the fastest growing community in Australia.

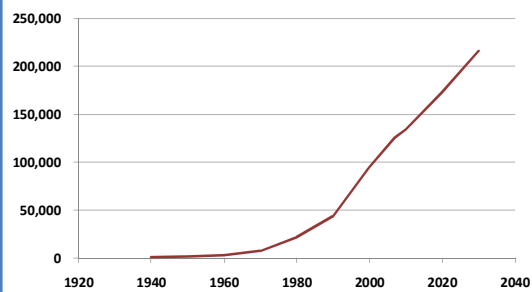
Cary is the 5<sup>th</sup> fastest growing community in the USA!

#### Expected Population Growth in Brisbane by 2059



Data: ??

#### Expected Population Growth in Cary by 2030



Data: US Census and Town of Cary 2002 Water Usage Plan  
<http://www.ncwater.org/>

Assuming current rainfall pattern and individual pattern of use (approximately 183 liters/person/day), demand exceeds supply to 2010. Dam capacity exceeded by 2020-2025.

Assuming no changes in water allocations and a projected 11% decrease in per capita water use, Cary's water demand is expected to grow from 50% of supply in 2010 to 78% in 2030. Current water use is approximately 260 liters/person/day.

### Key 21 Century Programs

- Brisbane's own water cycle will provide an enduring source of clean water.
- Lower reliance on dams from 95% to 41%.
- Up to 30% of water may come from simple, at home saving strategies.
- Education of all citizens is the key.

- Water-Wise Program, "Let's be Water Conscious" education tips on conserving water indoors and outdoors.
- Long term education to reduce per capita use to prepare for long-term needs. Cary is a partner in the EPA WaterSense Program.
- Many Rebates, Incentives, Workshops, Education opportunities!

