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# Waterfuture

## Gold Coast Drought

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# Waterfuture

## Today

- Water Future
- Current Drought Management



### Our existing water storages

- 99% of water sourced from Hinze Stage 2
- 35MI per day from Wivenhoe Dam
- Little Nerang Dam provides a back up - only holds 2 months of water

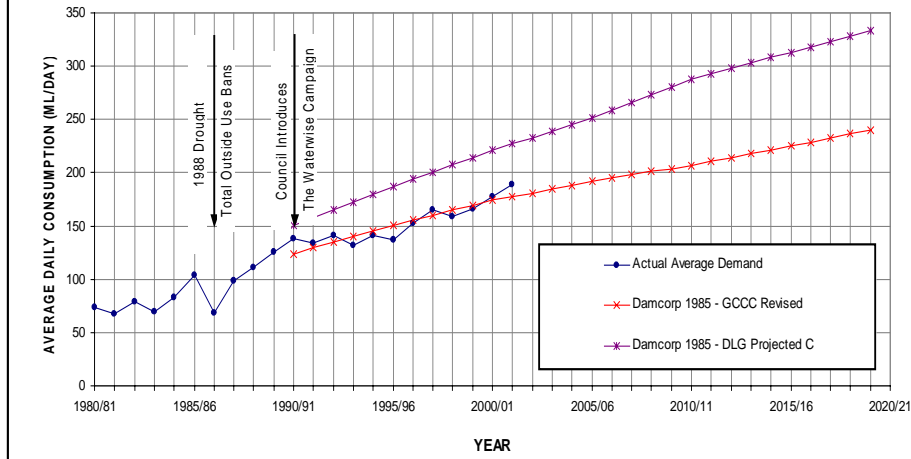


### On the Gold Coast

- Population set to grow from 450,000 to 1.2 million by 2056
- 50 year plans in place to service this growth
- Experiencing the worst drought on record



## WATER CONSUMPTION PROJECTIONS TO YEAR 2021



## Basis of Hinze Dam design

- Designed on 102 years of rainfall records
- 6ML per day environmental release
- Restriction regime:
  - Reduce consumption by 25% @ 50% capacity
  - To be further cut by 50% @ 25% capacity



## Challenges to Gold Coast's Planning

- Changes in catchment hydrology
- Increases in environmental flows
- Risk of relying on a single supply source
- Health of our waterways
- Economic/environmental cost of inter- catchment transfers
- Community expectations for change



## Understanding our current position



### The way forward

- Future surface water storages in question
- Next bulk supply source required in 5 years
- Desalination may be a consideration in the future
- Demand management and source substitution may account for in excess of 25% of our future water requirements



### Pimpama Coomera Water Futures Project

- Pilot study of a Greenfield development precinct with a future population of 150,000
- Informed community wide involvement in the decision making process is critical
- Options Report now complete and out for public feedback



### Pimpama Coomera Water Futures Project

- Critical that the project has clear objectives:
  - Maintain the water balance for the region
  - Reduce whole of life costs of service delivery
  - Improve waterway health
  - Reduce GHG emissions
  - Ensure fit for purpose water quality
  - Minimise flood damage



### Stakeholder involvement

- Land owners
- Green groups
- CRC for Coastal Management
- State Gov agencies
  - Old Health
  - EPA
  - DNRM



## Scope of deliberations

- Dual reticulation
- Rainwater tanks
- Smart sewers
- Tariff reform
- WSUD for stormwater
- Aquifer storage
- Pressure control
- Alternative fire fighting
- Sewer mining
- Energy recovery
- Policy reform

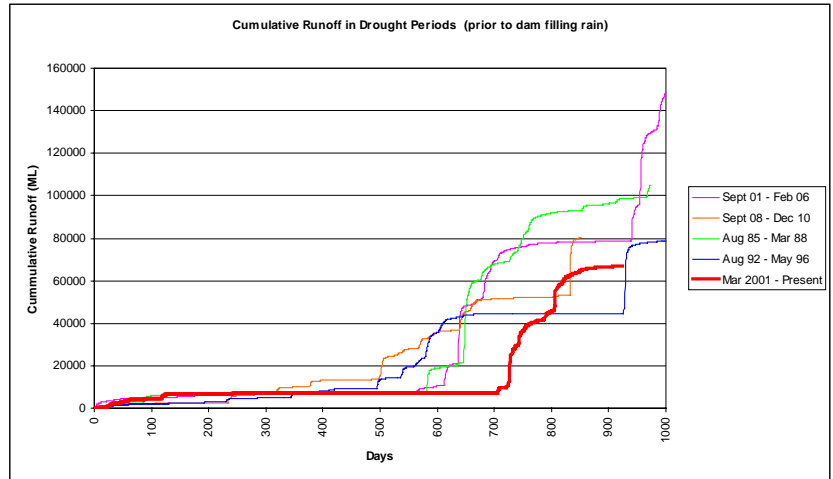


## The Gold Coast drought

- Worst on record
- Hinze Dam all-time low 29% in February 2003
- Replenished to 52%
- Currently 47%



### Drought response planning



### Drought Security Plan

- Drought response being managed under the following activities
  - Planning and prediction
  - Restrictions
  - Marketing and communication
  - Water conservation initiatives
  - Operational issues
  - Benchmarking
  - Emergency bulk supplies



### Planning and prediction

- Water source planning review
- Infrastructure planning
- Dam level predictions
- Consumption predictions
- Weather predictions



### Restrictions

- Restrictions themselves
- Policing
- Authority to do so
- Exemptions
- Enquiries





*Old Advancetown Rd 2000 and 2002*

### Current restrictions

- Level 4A
- Sprinkler ban
- Odds/evens system for hosing, but not between 7am and 4pm
- Target 170MI per day
- Restrictions in other parts of Australia



### Marketing and communications

- Advertising (TV, radio, print, buses, billboards, road signs, Main Roads etc)
- Editorials, press releases, etc
- Community groups
- Events
- Issues management



### Water conservation initiatives

- Recycled water
- Dust suppression
- Incentive scheme
- Water audits
- Beach showers



### Operational issues

- Dirty water response
- Water leak service level
- Water quality issues
- Water pipe construction



### Benchmarking

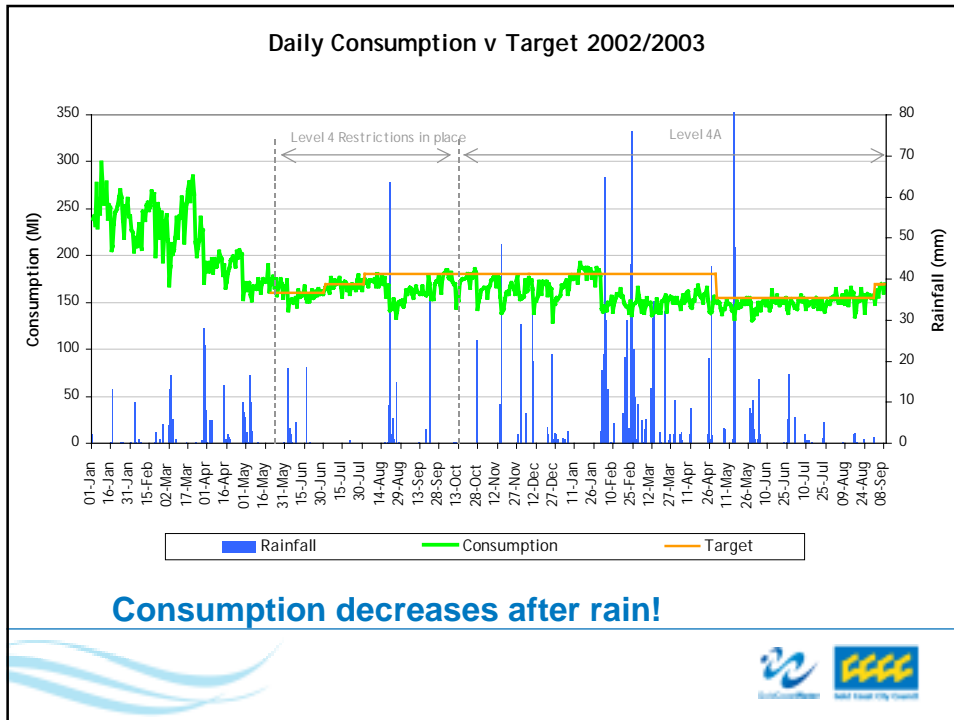
- Perth and Barwon
- Collaborations around the country
- Queensland Local Governments



### Emergency Bulk Supplies

- Wivenhoe
- Tweed
- Restrictions





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## Conclusion

- We must change the way we think about water and ensure
  - We understand our current position
  - Diversity
  - Integration
  - Informed community wide decision making