

What can Texas & the rest of the Western US States learn from Australia's Water Reform Experience?

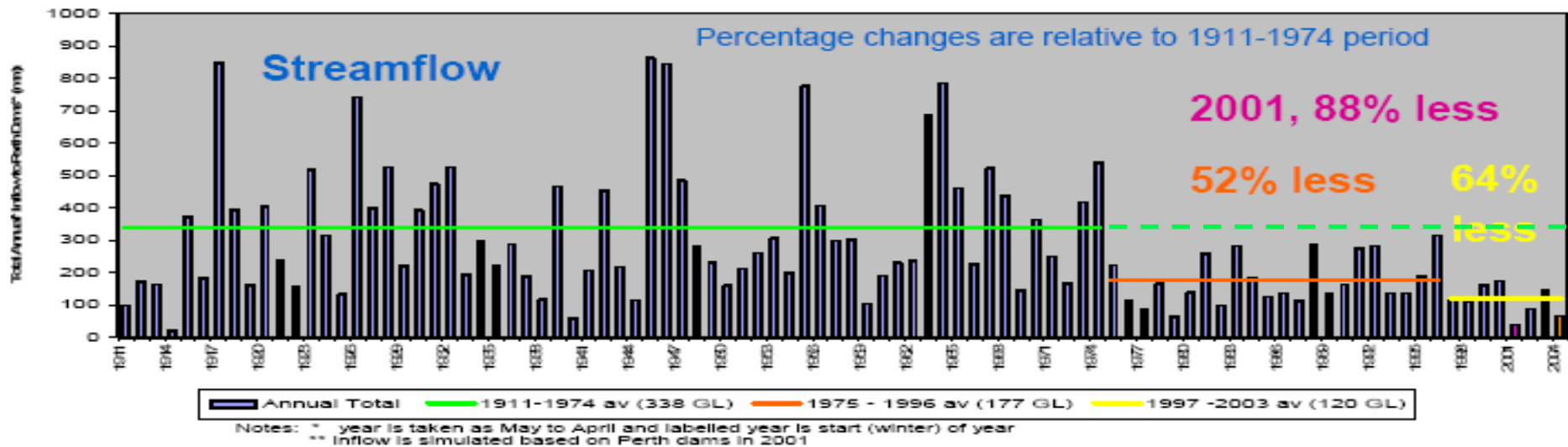
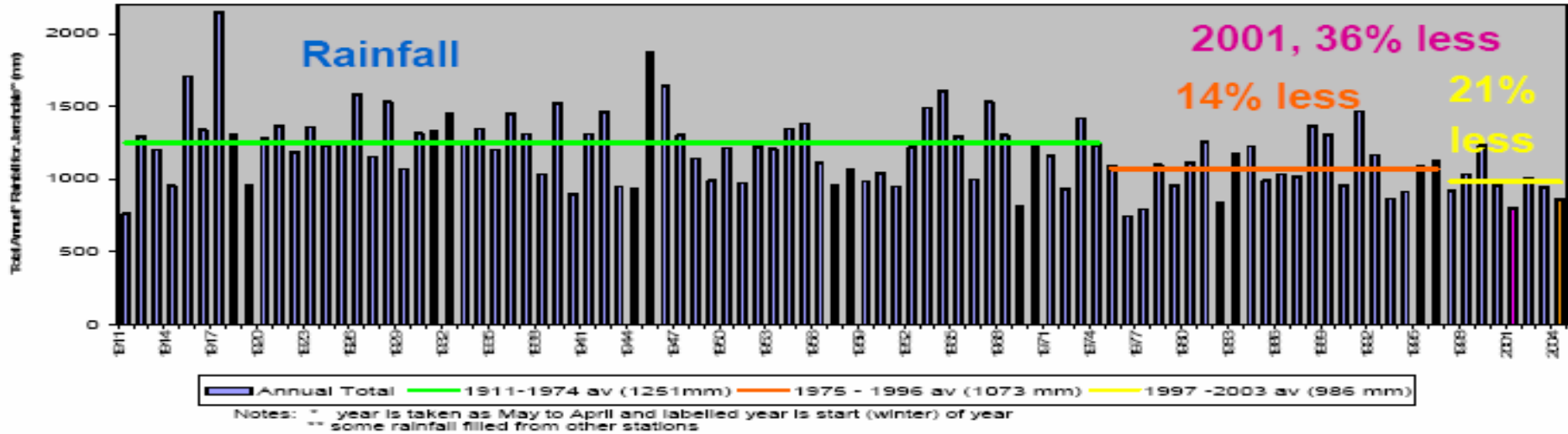
Professor Mike Young

Gough Whitlam and Malcolm Fraser Chair in Australian
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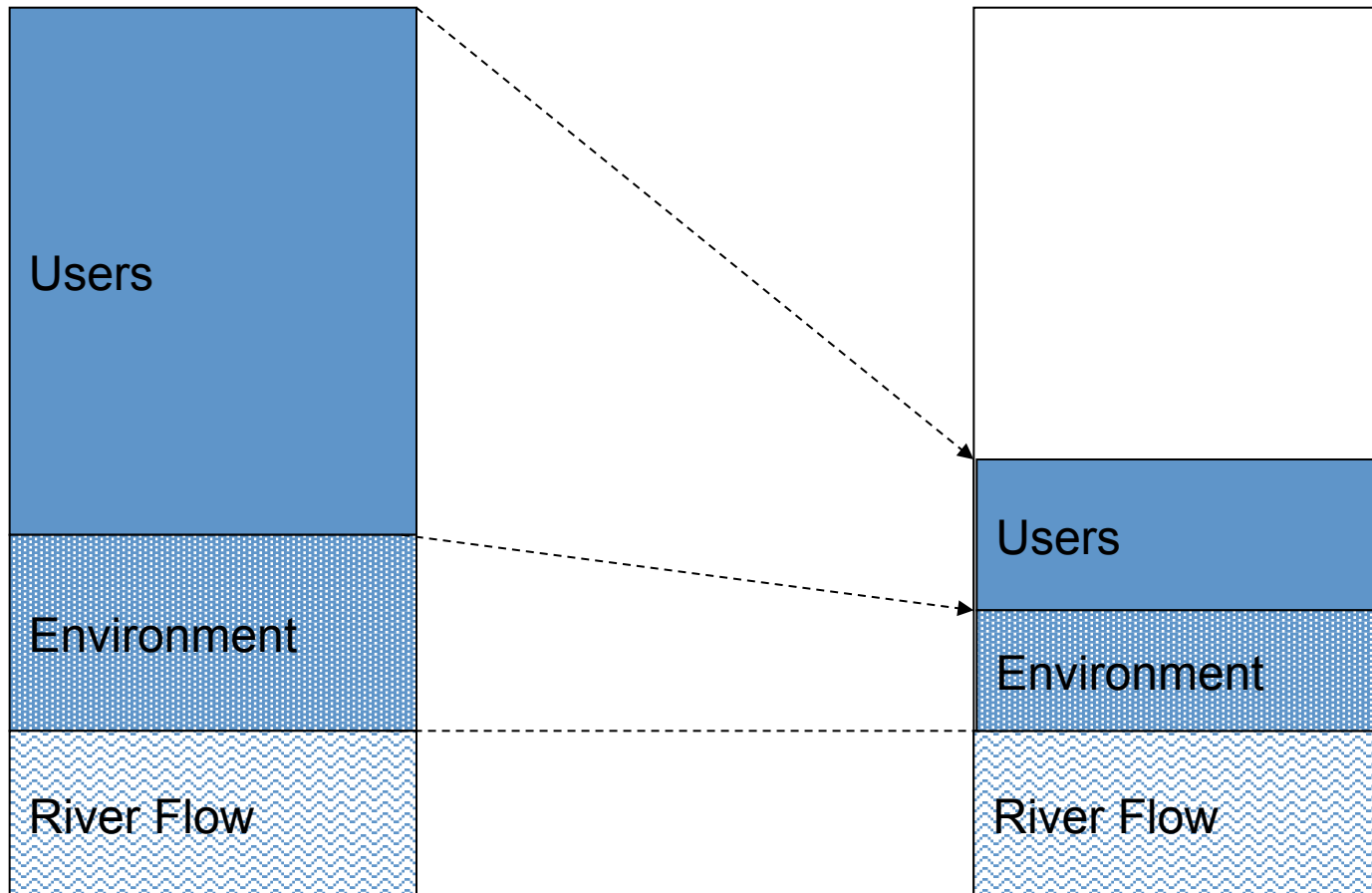
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Adverse climate change can be sudden!



With half as much water
you have much less to use

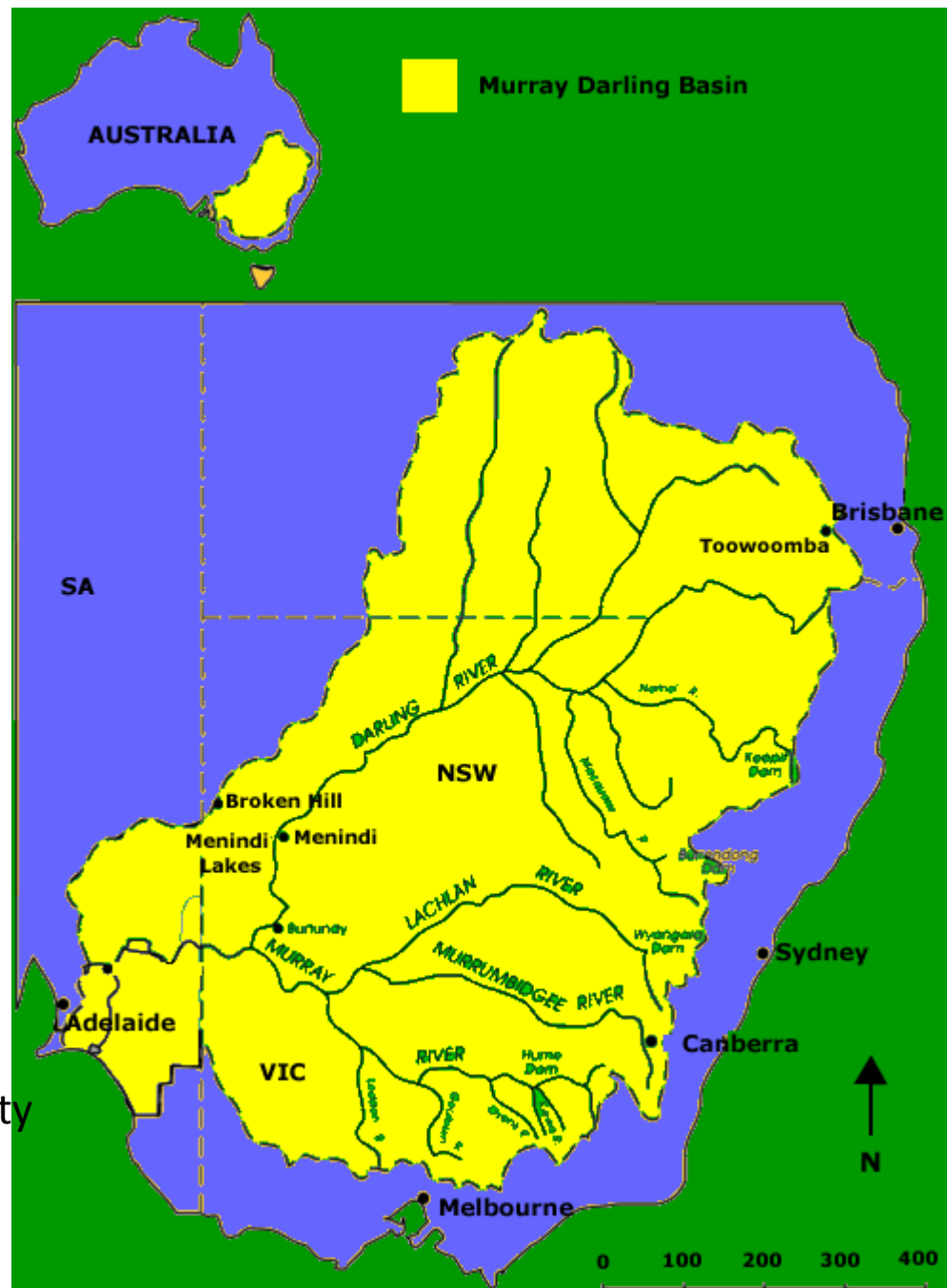


What did Australia do?

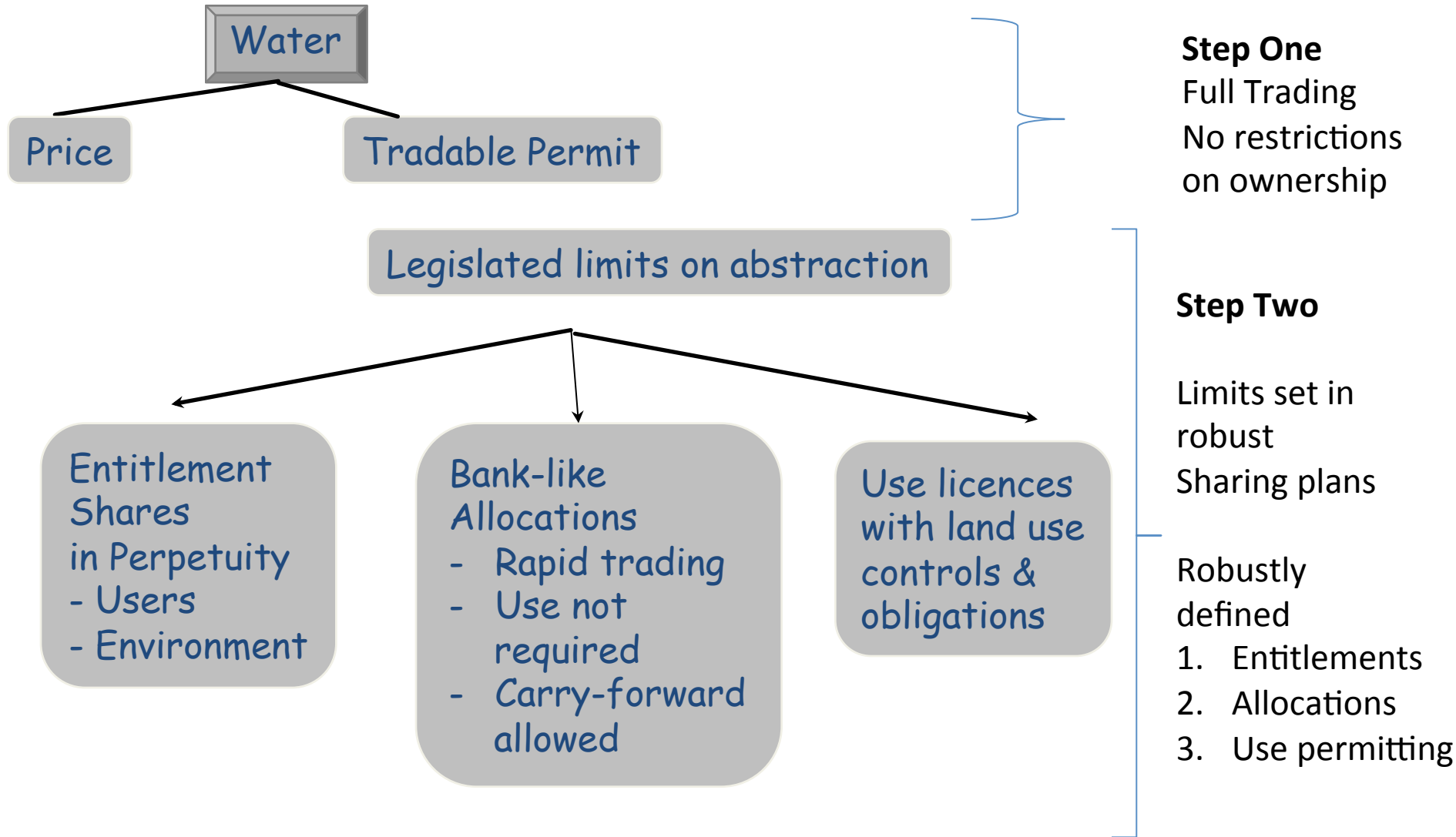
1. Australia is the driest inhabited continent in the world
2. It decided to turn its old, antiquated licensing systems into robust water entitlement and allocation regimes that would withstand the test of time
3. At the start of this century, it experienced a near decade long drought
4. With the bones of a robust regime in place, it emerged as a world leader in water management
5. Australia is now confident about its ability to withstand the next drought with minimal damage to its economies and its water dependent ecosystems!

Australian Water Reform

- 1885 Deakin – Don't use
US prior app. system
- 1994 Competition Policy
Binding limits on use
- 1996 Mandatory removal of
Trading restrictions
- 1998 Interstate water trading trial
- 2000 Unbundling into shares, etc
- 2002-9 Severe drought
- 2004 National Water Initiative
- 2008 Independent MD Basin Authority
Began Buying Env. Water
- 2010-13 Basin Plan development
& adoption



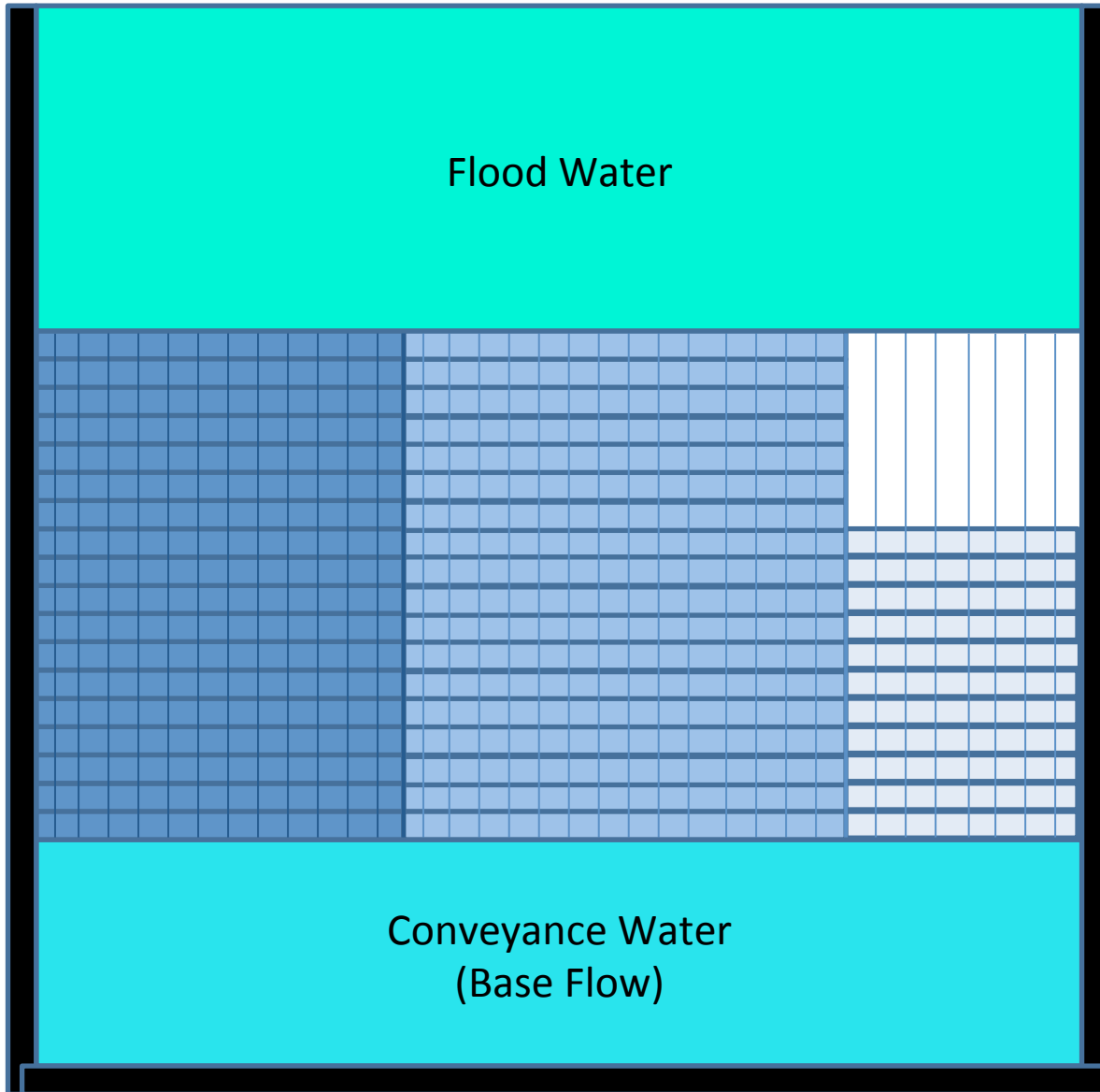
Unbundling water licences



No. 1 Priority
Shares

No. 2 Priority
Shares

No. 3 Priority
Shares



Flood Water

Flood
Water

Diversion Limit

Shared
Water

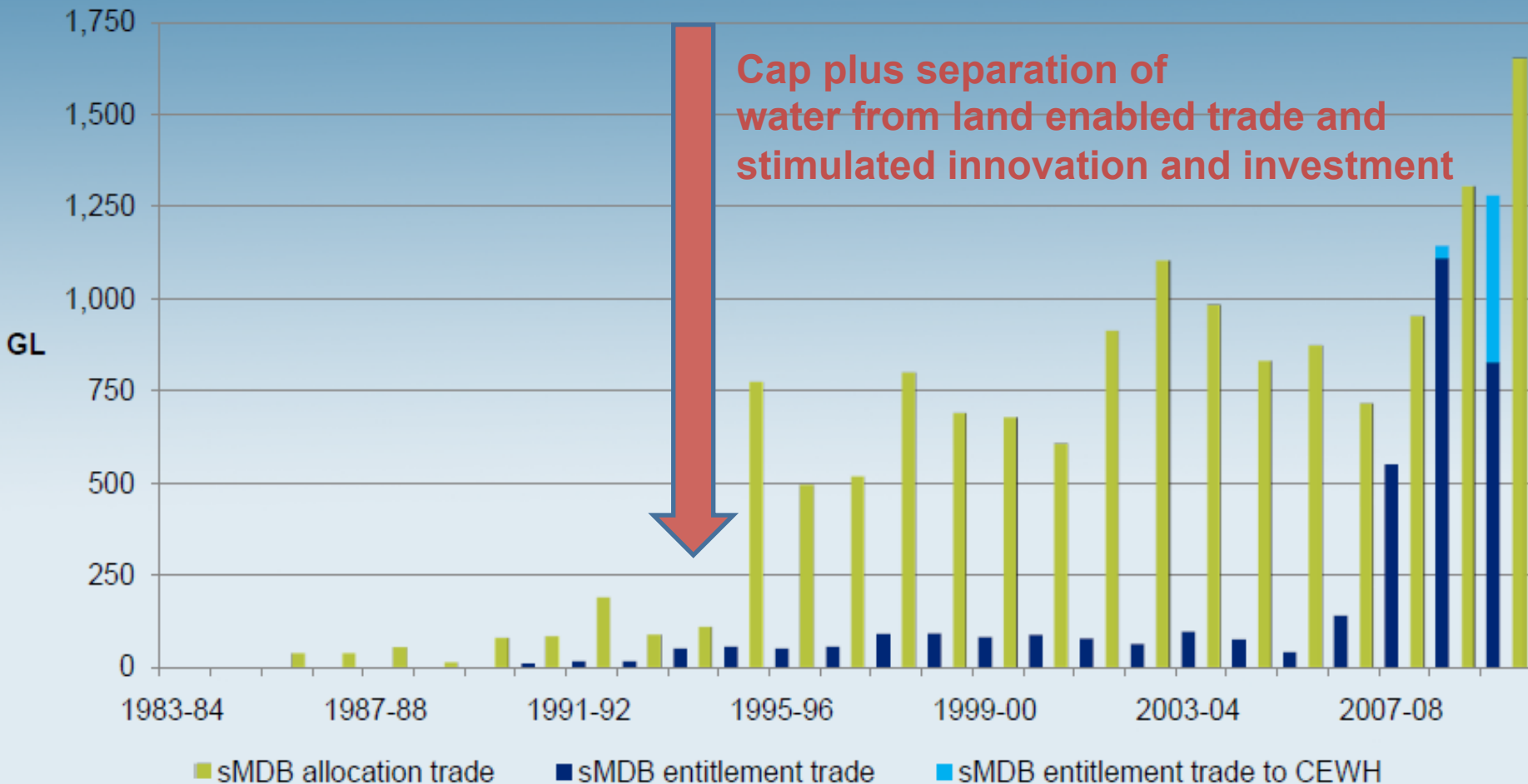
Conveyance Water
(Base Flow)

Conveyance
Water

What happened?



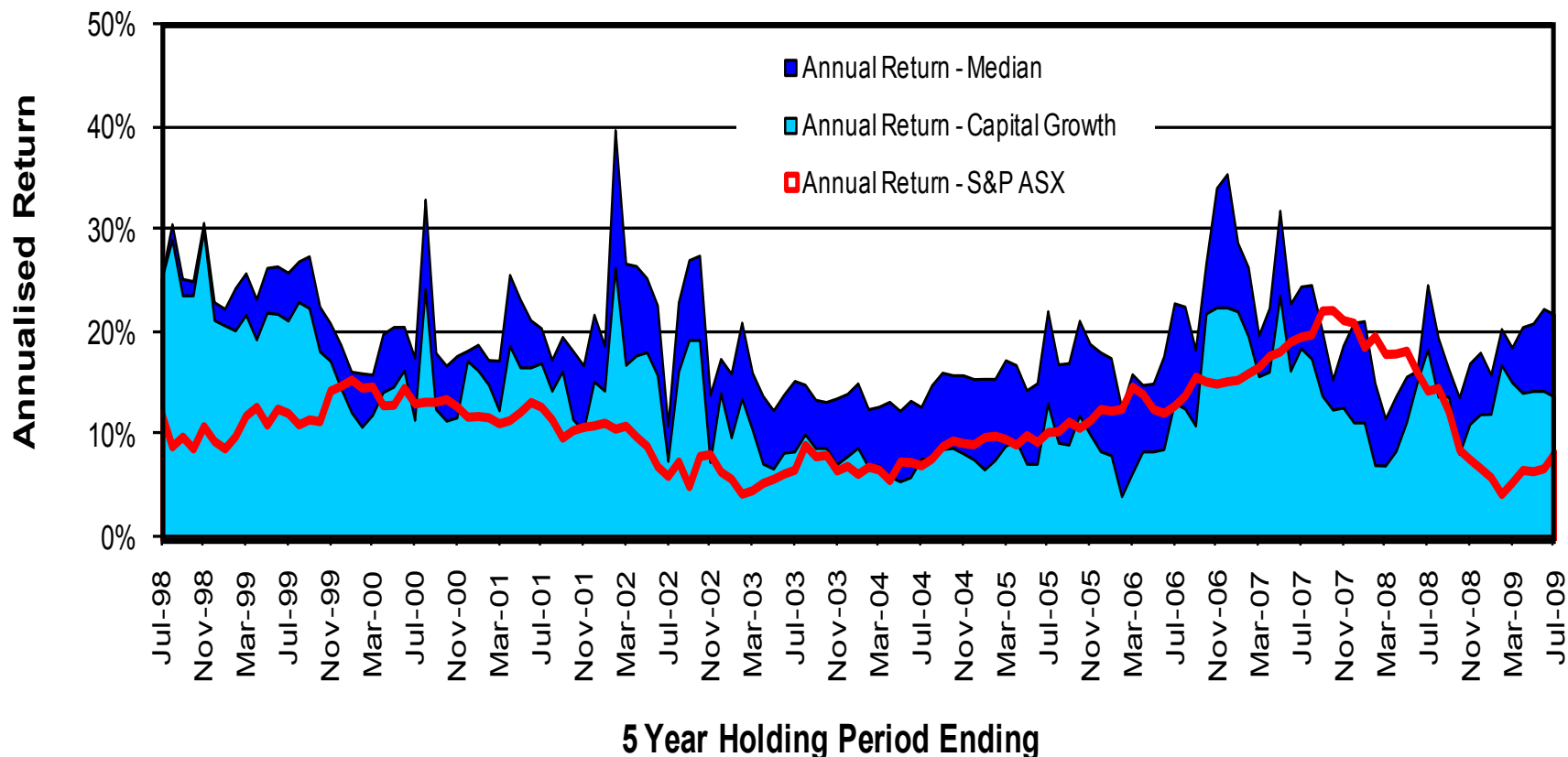
Entitlement and allocation trade - southern MDB 1983-84 to 2009-10





Large volumes of water reallocated

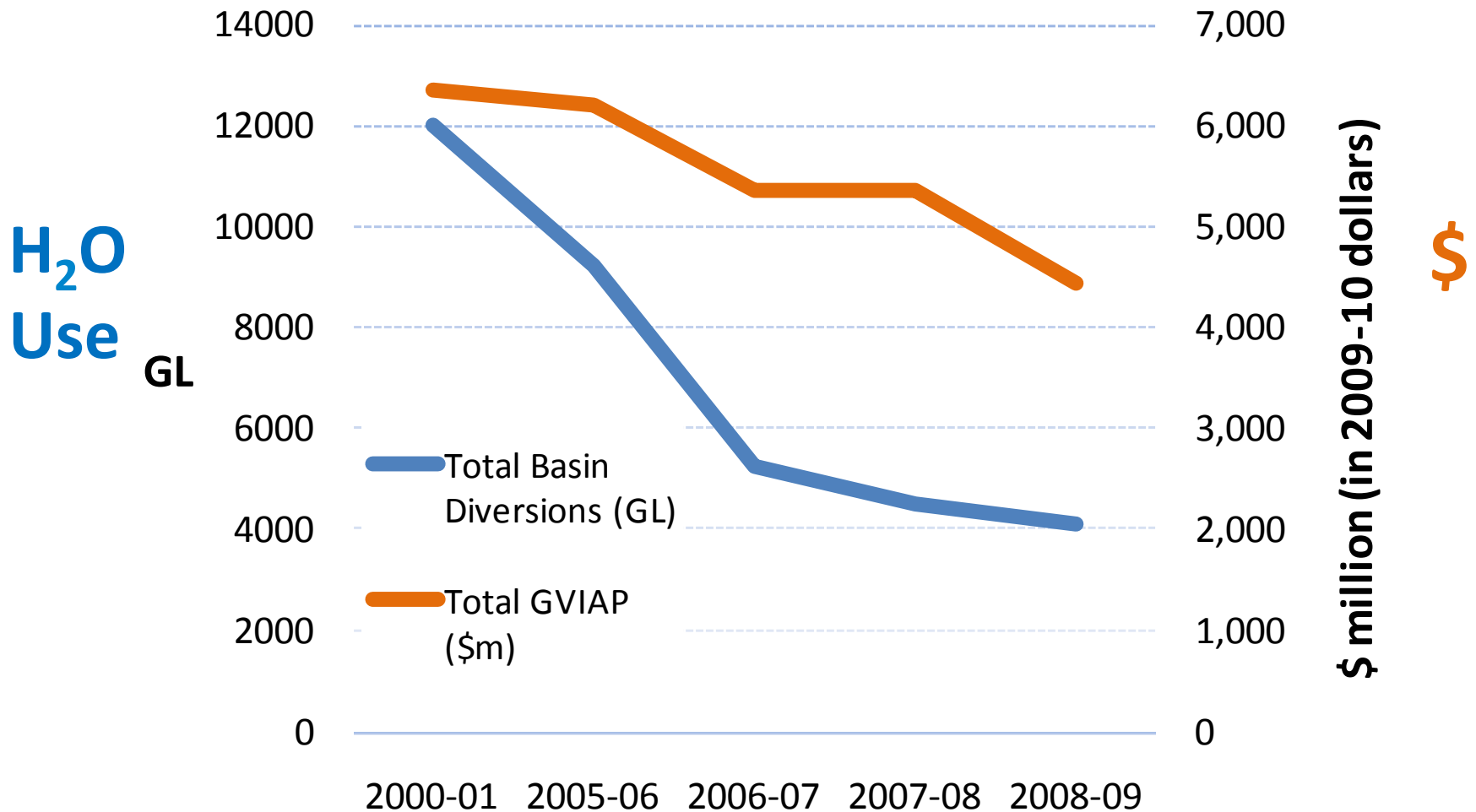
Private benefits of robust water reform

Total returns - Median allocation and entitlement prices compared to capital growth, and the S&P ASX Accumulation Index Returns



-  Return to Share Ownership – Innovation and voluntary adjustment
-  Return to using allocations

Impact of Long Drought



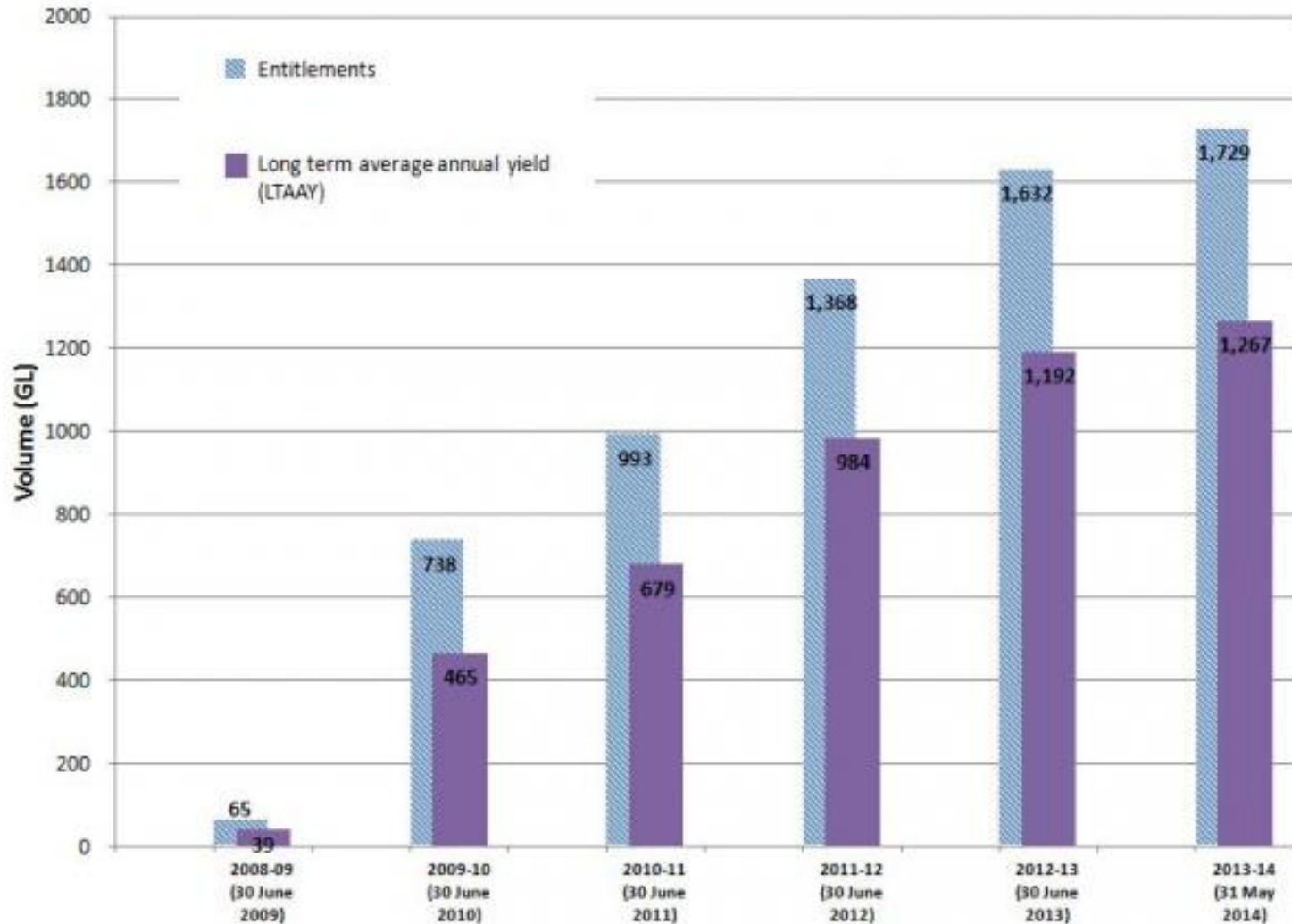
Key features that drove investment and innovation in MDB

1. Establishing regime region by region and then assembling into basin plan
2. Grandfathering of all existing users
3. Assigning entitlements to individual users not districts
4. Establishing two water markets
 - Water shares
 - Water allocations
5. Assigning 100% of supply risk to users (shareholders)
6. Removing requirements to use water
7. Unbundling use controls from share and allocation arrangements
8. Limiting the number of security pools and making allocations fungible
9. Guaranteeing registers and making shares mortgagable
10. Getting politicians, lawyers and administrators out of the ongoing adjustment
 - Limit legal appeals and politics to plan development
11. Full cost charging for infrastructure management and water supply
 - Corporatized supply and service delivery
 - Then gave water supply companies to shareholders
12. Issuing shares to the environment
 - Now an equal player
 - Environmental water efficiency
13. Establishing a robust market-based salinity offset program

Environmental water holding, 2014

1,729 GL = 1,401,700 acre-feet

Commonwealth Environmental Water Holdings



Environmental Water Management

- Established Environment Trust to hold entitlements rather than relying on plans that assign a prior right.
- Now holds 1,729 GL, will end up holding around 1/3 of all entitlements
- Now using, carrying over and even selling allocations
- Discovering how to get more environment per drop

Is Texas missing an opportunity?

- The current allocation regime appears to have been designed for another era
- Australian experience suggests that a state of the art regime could produce significant returns for
 - The environment
 - All water users
 - Communities
- Could build a voluntary transition pathway to a new regime

Transition Arrangements

1. Adopt new legislation enabling progressive conversion with trials in few well chosen systems
2. Prepare new water resource sharing plans
3. Convert significant proportion of “rules-based” water to environment as shares
4. Allow voluntary conversion to new water sharing regime
5. Typically three share pools
 - Pre 1900 rights => High Security Share Pool
 - 1990 to 1945 => General Security Share Pool
 - Post 1945 rights => Low Security Share Pool

Interested in more information

1) Watch my presentation on water reform opportunities for Texas. Is it missing an opportunity?

<https://www.youtube.com/watch?v=q7oubZaDv-U>

Subscribe to my droplet series

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