

# An Australian Poem

I love a sunburnt country  
A land of sweeping plains  
Of ragged mountain ranges  
Of droughts and flooding rains

Dorothea Mackellar

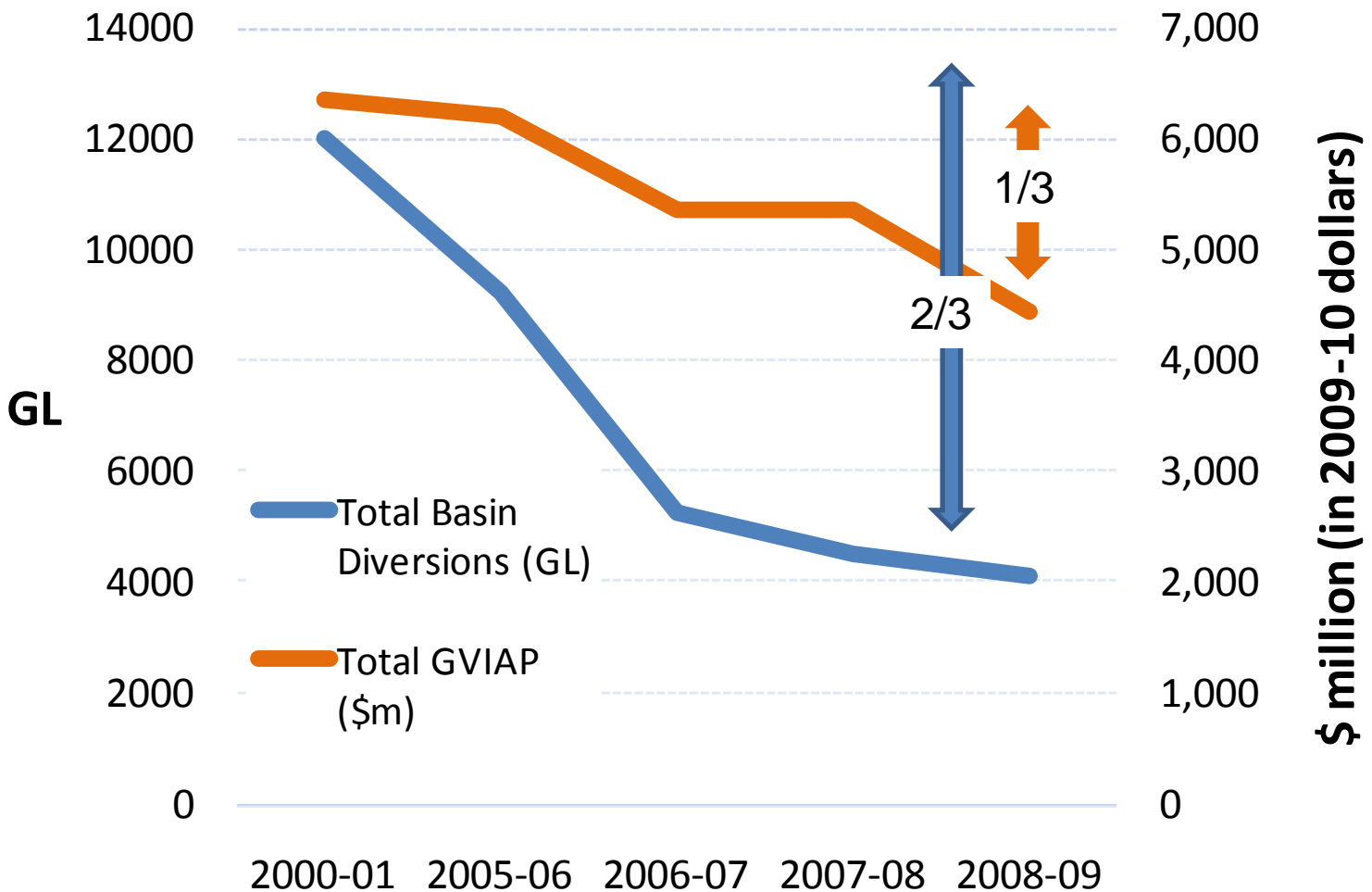
**“Unbundling Water Rights”  
A Blueprint for managing water  
scarcity**

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Nicholas Institute for Environmental  
Policy Solutions

# Australia's Millennium Drought



# An emerging Blueprint => 4 points

1. Small expertise-based boards
2. Statutory water-resource plans
3. An unbundled water right system
4. Centralized share register and water accounting systems

Recommending pilot-testing in

- Diamond Valley
- Humboldt River System

# Unbundling water rights

- Unbundling water rights
  1. Unit Shares
  2. Seasonal allocations
  3. Beneficial use approvals and works approvals
- Establishes two water markets
  1. Shares
  2. Allocations

# Statutory Plans

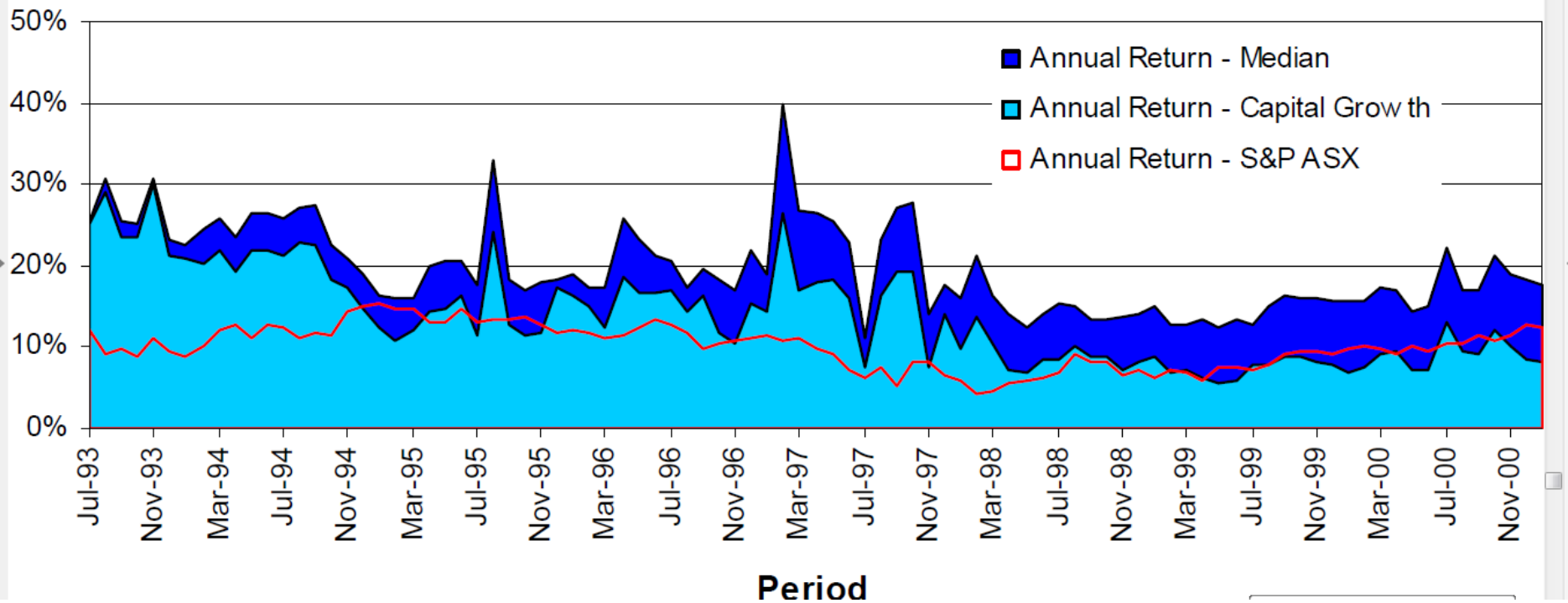
- Defines entitlement and allocation system to be used in each system
- Set sustainable diversion limits
- Establish rules for
  - accounting for relationships among connected surface and groundwater systems
  - when, how and how much water to allocate to shareholders
  - exchange rates and trade restrictions
- Allows the environment to be a shareholder
- Efficient management of third-party issues

# Share Registers and Water Accounts

- Torrens-Title like share registers
  - Guaranteed integrity
  - Low cost mortgaging => Innovation
- Bank-like water accounts
  - Debits and credits
  - Allocation announcements recorded as credits
  - Use debited as it occurs
  - On line transfers

# Improving Water Rights

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





# Diamond Valley Implementation

1. Appoint 5 member expertise-based Board
2. Appoint Community Reference Panel
3. Prepare draft and then final plan
  - Transition pathway to sustainable yield (20 yrs?)
  - Work out share conversion regime
  - Establish register and water accounting systems
  - Allow use, trading and saving under new system
4. As a trial, offer an exit ramp after 5 years

# Humboldt Basin Implementation

- New Humboldt Basin Authority
- Prepare detailed plans for each reach & ground water resource
- Convert to shares
  - Reach by reach
  - Groundwater resource by groundwater resource
- Begin with within reach trading
- Prepare Basin-wide plan that establishes rules for accounting for hydrological connections between reaches and ground water resource

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