

# Water Reform: Learning from Australia

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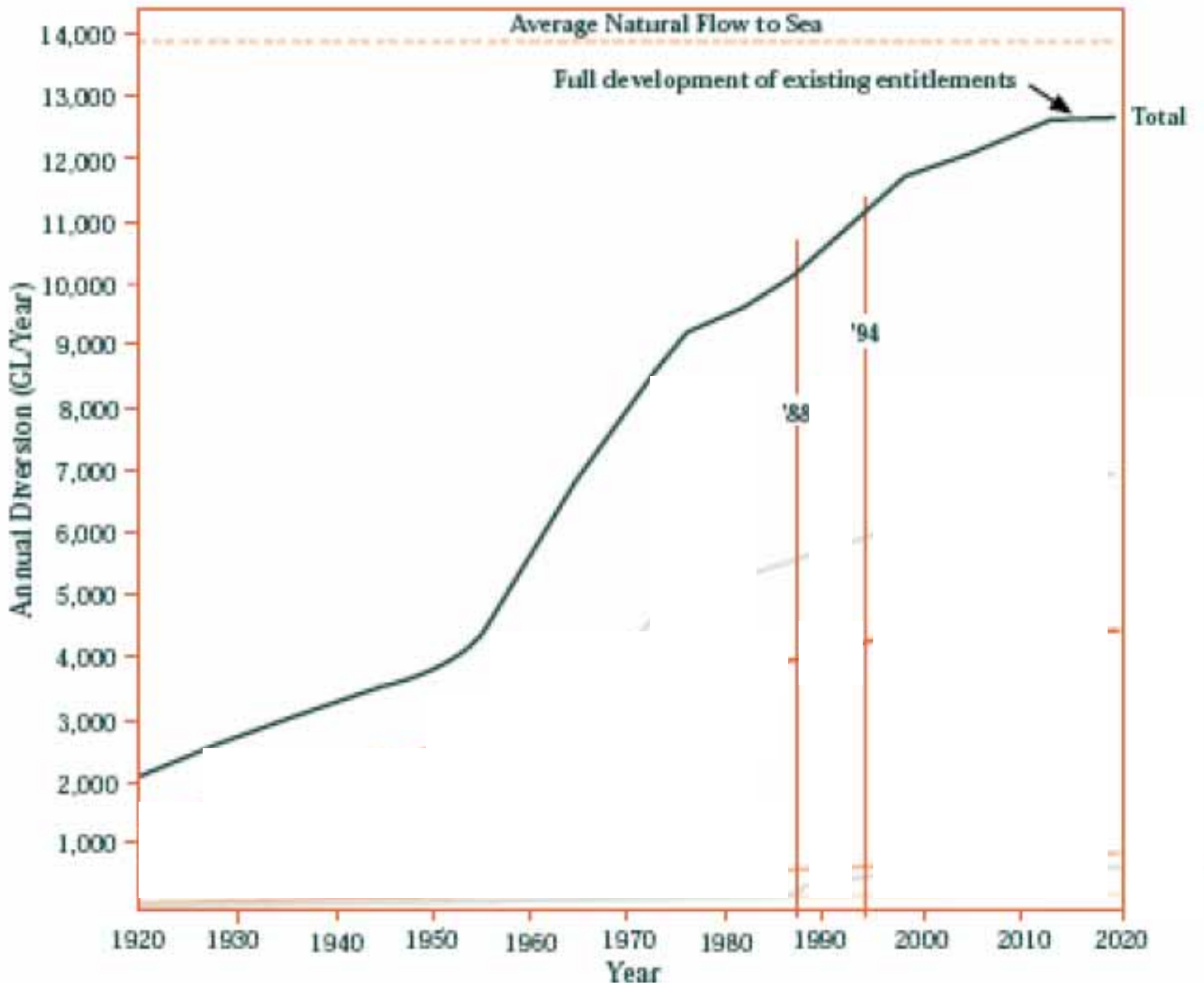
***Irrigation New Zealand Conf,  
14 October 2008***

# Which future is best?

- One that gets the fundamentals right, now?
  - A system that can be confidently explained as able to cope -- whatever future arrives
- One that commits all to more decades of reform and uncertainty?
  - Incremental progress
  - No guarantee of resolution of current problems

# Definitions

- System
  - Catchments, rivers, groundwater, etc
- Regime
  - Rules, rights, obligations, administration
- Entitlements
  - Long-term property right
- Allocations
  - Water available for extraction
- Use approval
  - Consent to apply water to land



# Australian water reform

<b>Year</b>	<b>Major policy initiative</b>
1994	COAG Water Reform Framework within National Competition Policy
1995a 1995b	MDB Cap introduced Water reform implementation linked to competition payments
1998	MDBC commenced Pilot Interstate Water Trading Trial
2001	National Action Plan for Salinity and Water Quality
2002	Living Murray – getting the environment a larger share
2003	National Water Initiative agreed, in principle
2004	National Water Initiative finalised
2007-8	Commonwealth Water Act

- “We don’t have all the answers – nobody does – but before we start laying bricks and mortar, we have got to get the foundations right, otherwise the cathedral will tumble with the smallest of tremors.”

Peter Cullen

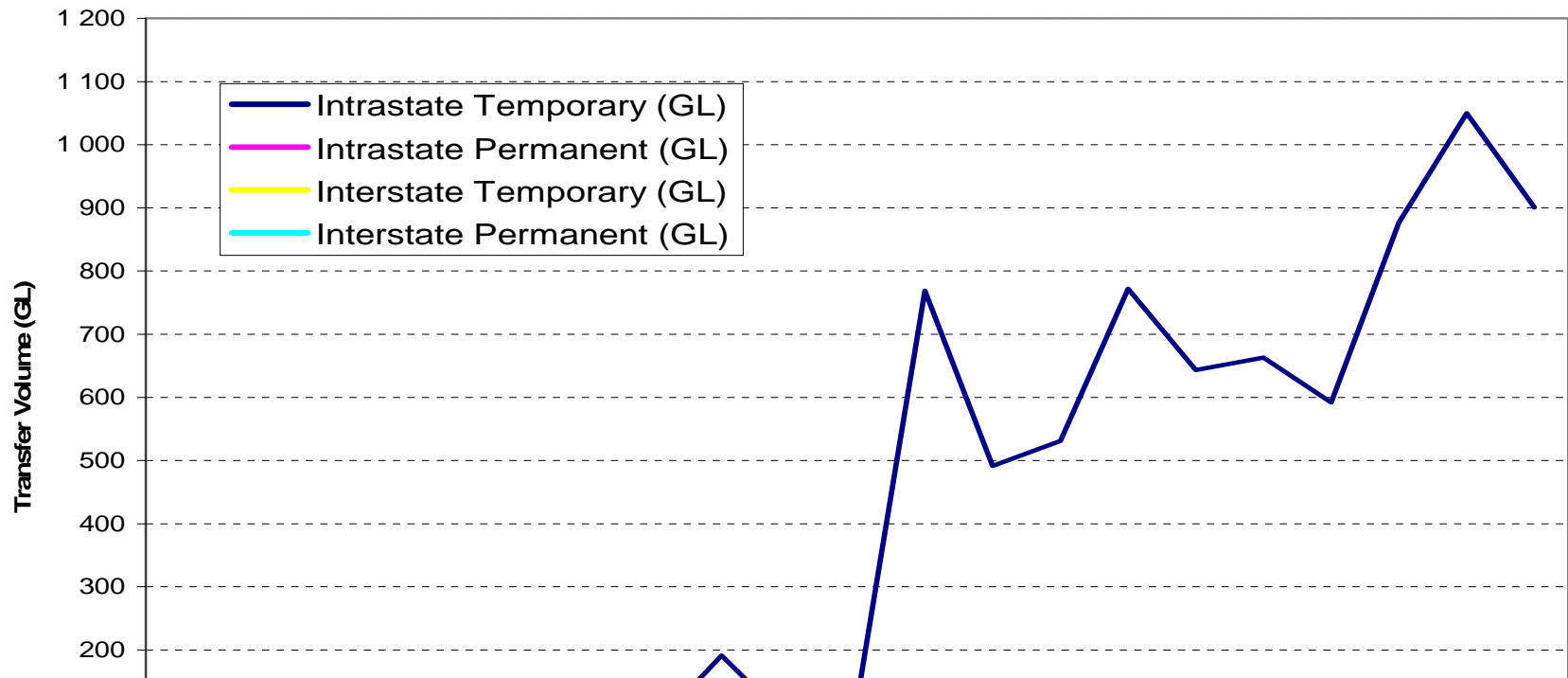
Wentworth Group of Concerned Scientists

# Things Australia got right

- Freeing up trade before the drought
- Setting a cap
  - Totally stopping the allocation of any more consents (too late but better late than never)
- Defining entitlements as shares
  - Moving on from entitlement security
- Giving control of irrigation schemes to irrigator-owned companies
- Salinity trading
  - Requiring damage to be offset

# Scarcity and Trading

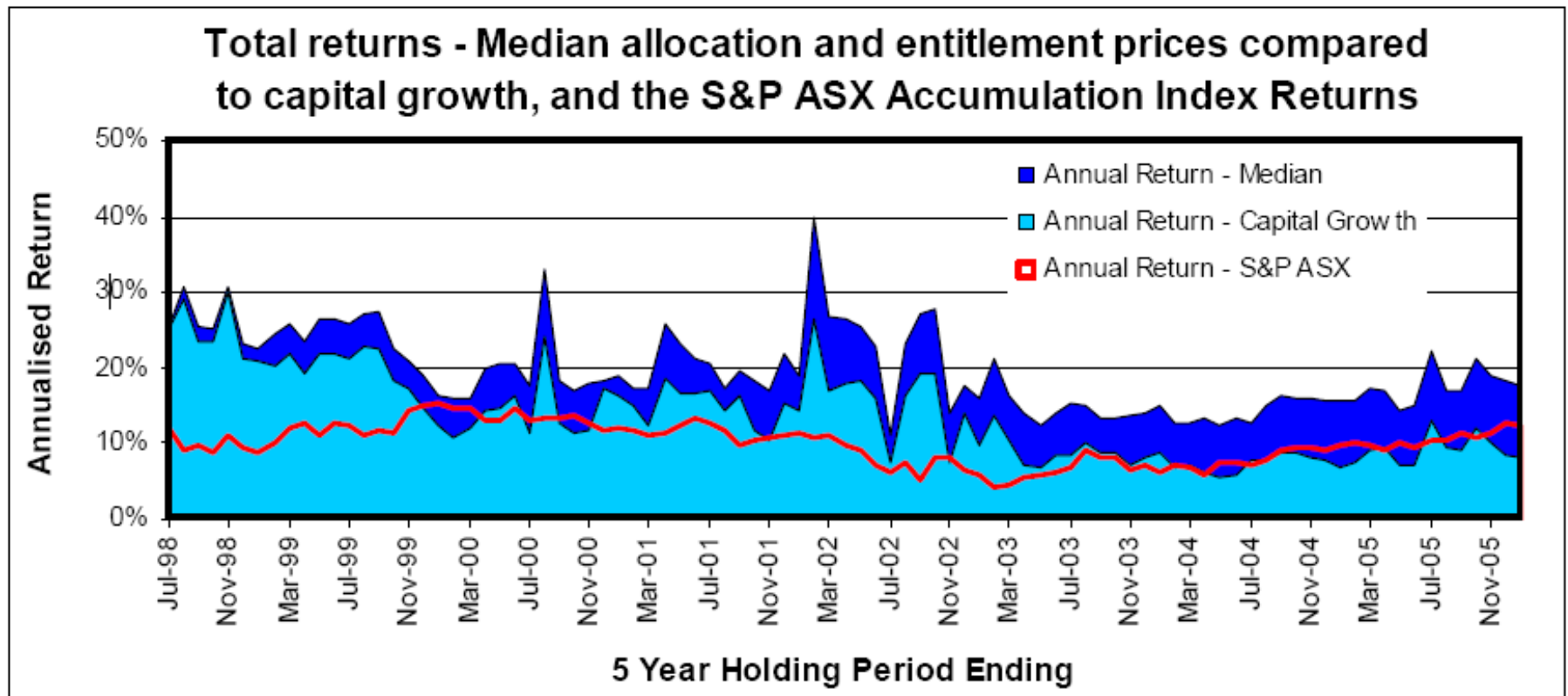
Murray-Darling Basin Water Entitlement Transfers - 1983/84 to 2003/04



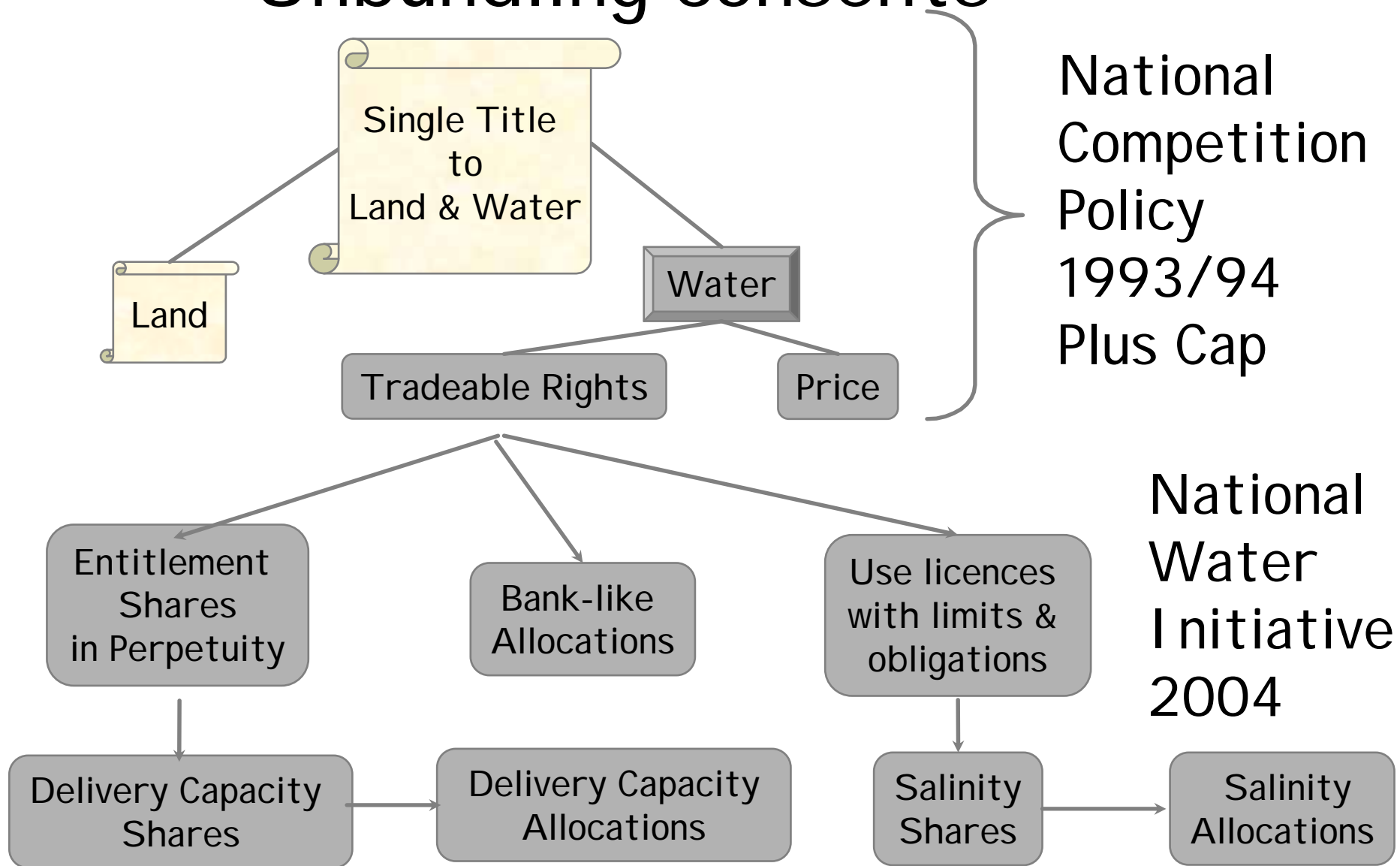
Trading has enabled

- Adoption of new technology and “Greenfield” development
- Rapid structural adjustment in times of extreme adversity

# Benefits of trading



# Unbundling consents

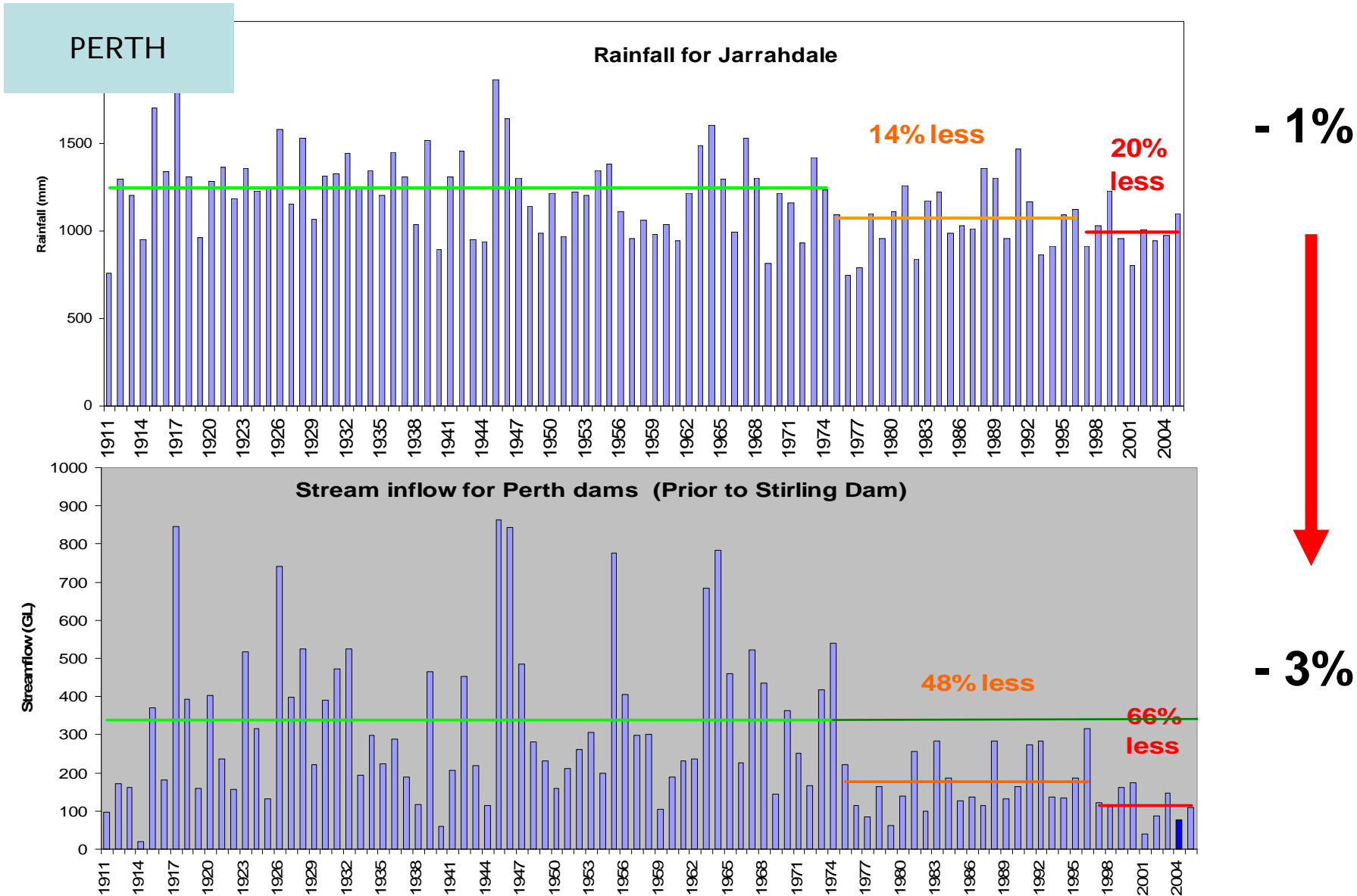


Costs of not getting fundamentals right

# Lessons

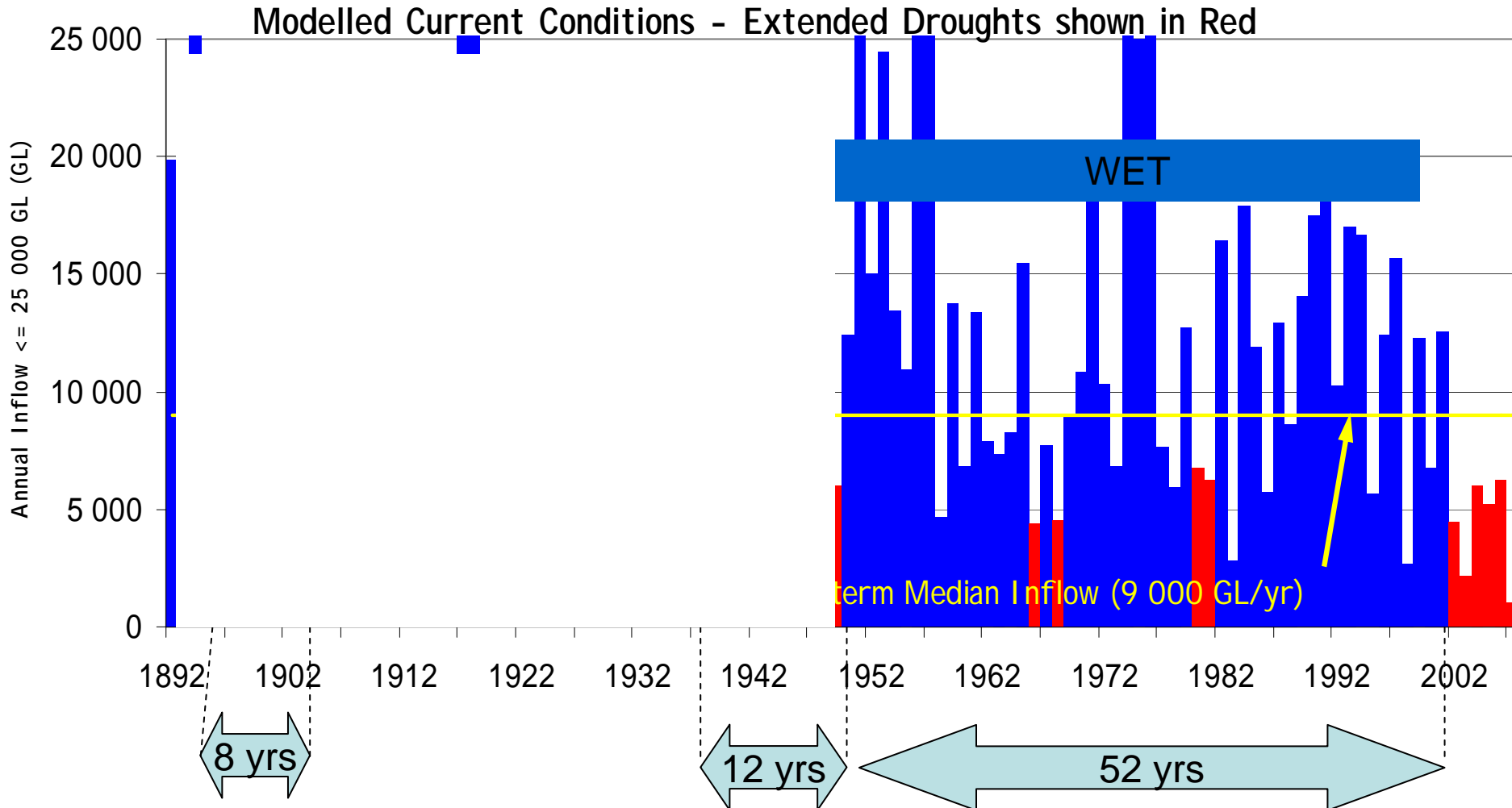
- Markets are servants not masters

# Sudden shifts caught us by surprise

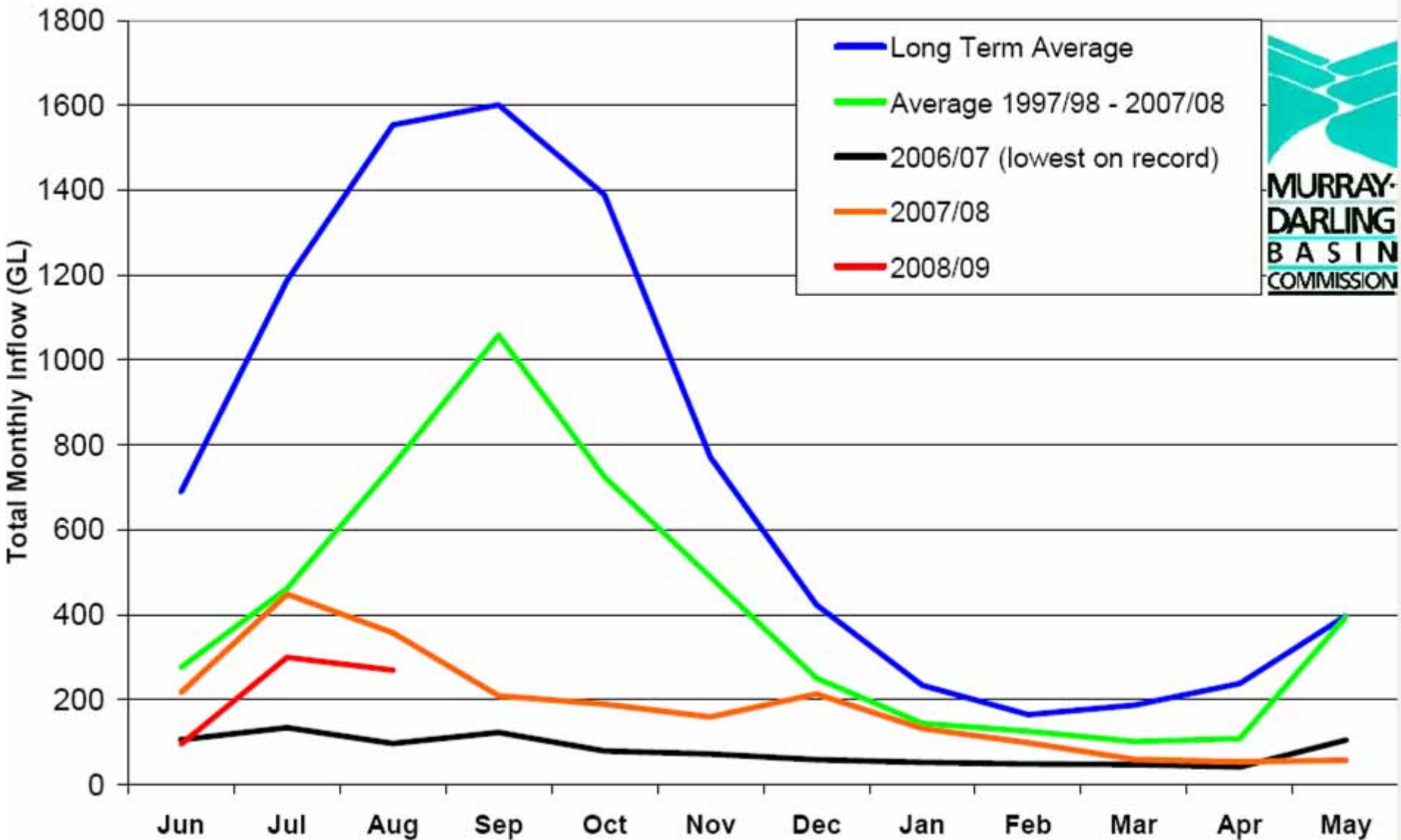


# Planning for long dries

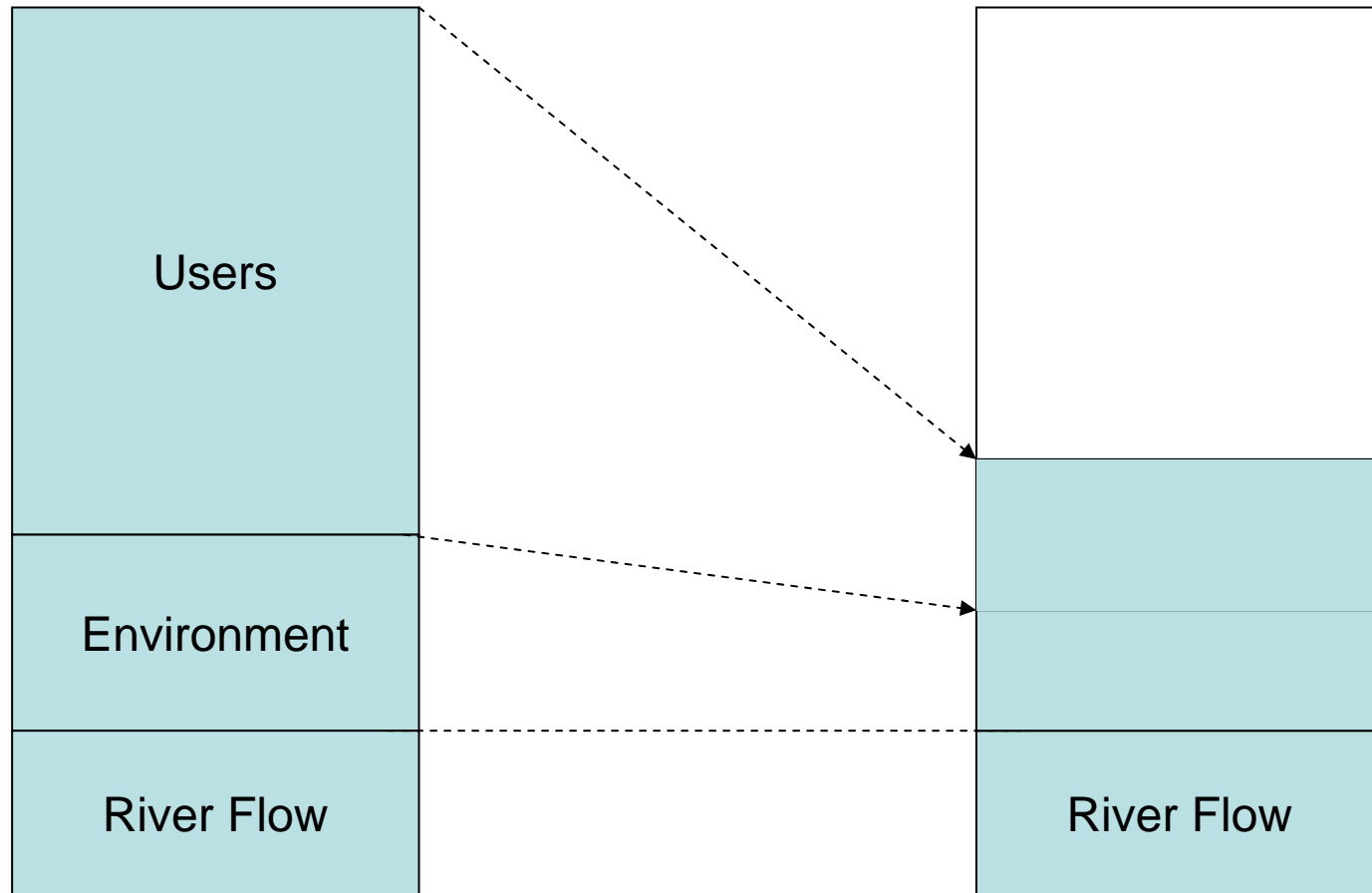
## Total River Murray System Inflows (including Darling River)



# River Murray inflows



# With half as much water



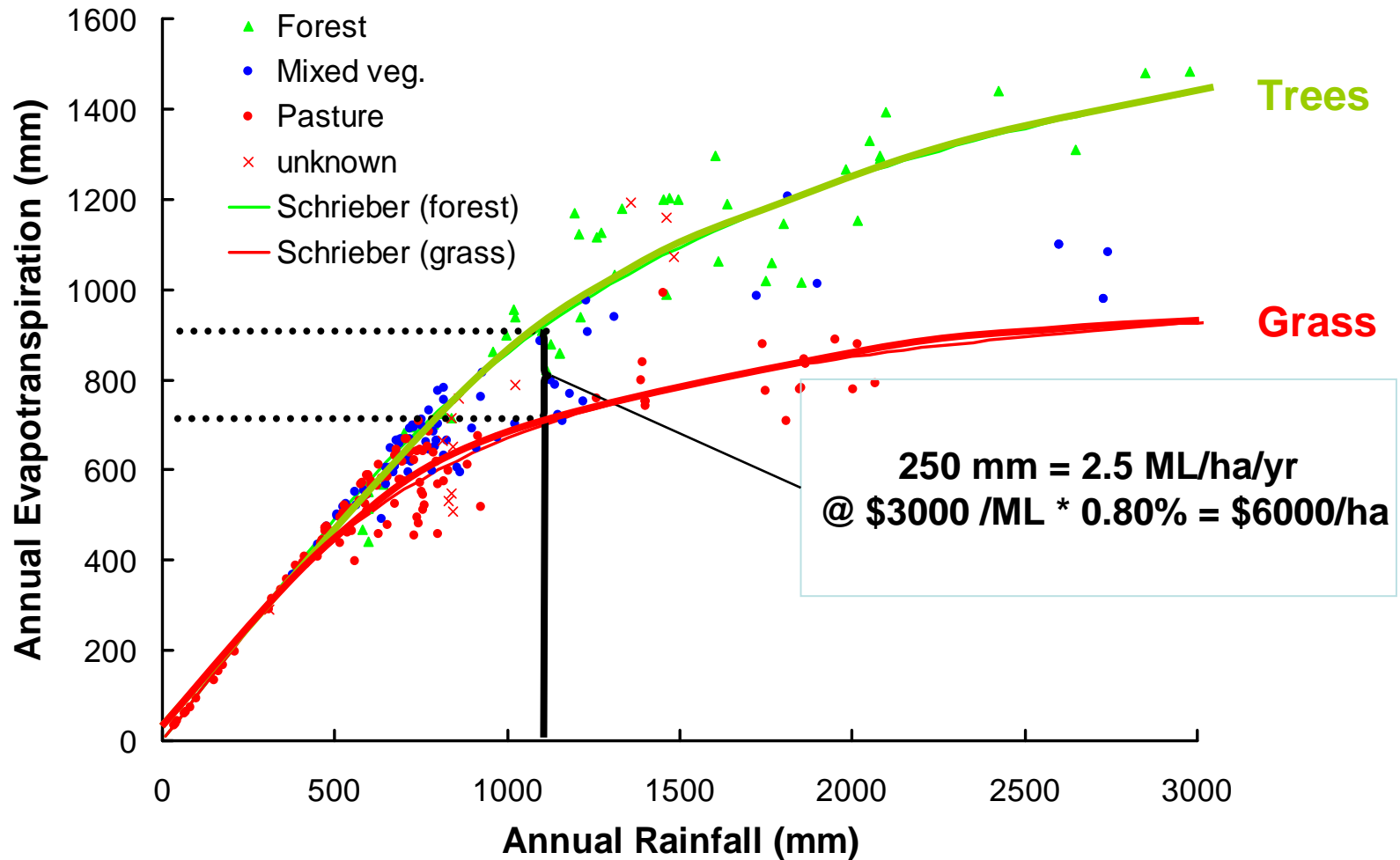
**Trading has been an essential – without it few would have survived  
Carry forward is proving critical too**

# Water accounting mistakes

- When one person is allowed or takes a larger share, someone else must get less!
- Return flows
  - Increases in efficiency have eroded everyone's stake in the system
- Ground – surface water interaction
  - Should groundwater entitlement holders have river system shares & vice versa?
- Effects of forestry on run off and recharge

**=>Water entitlements and allocation systems must be consistent with hydrological realities**

# Water accounting mistakes

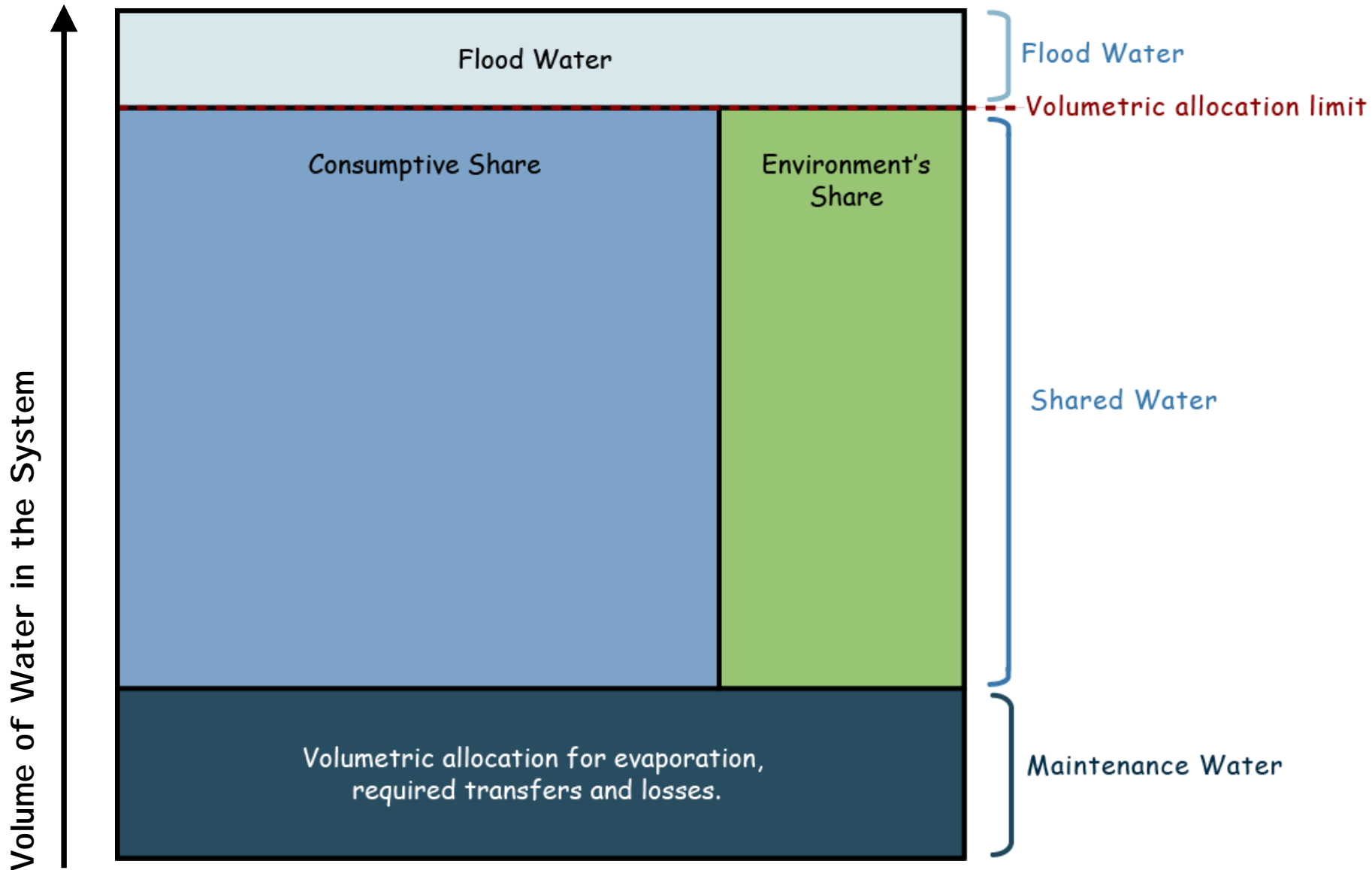


# Sharing regimes

# Generalised framework

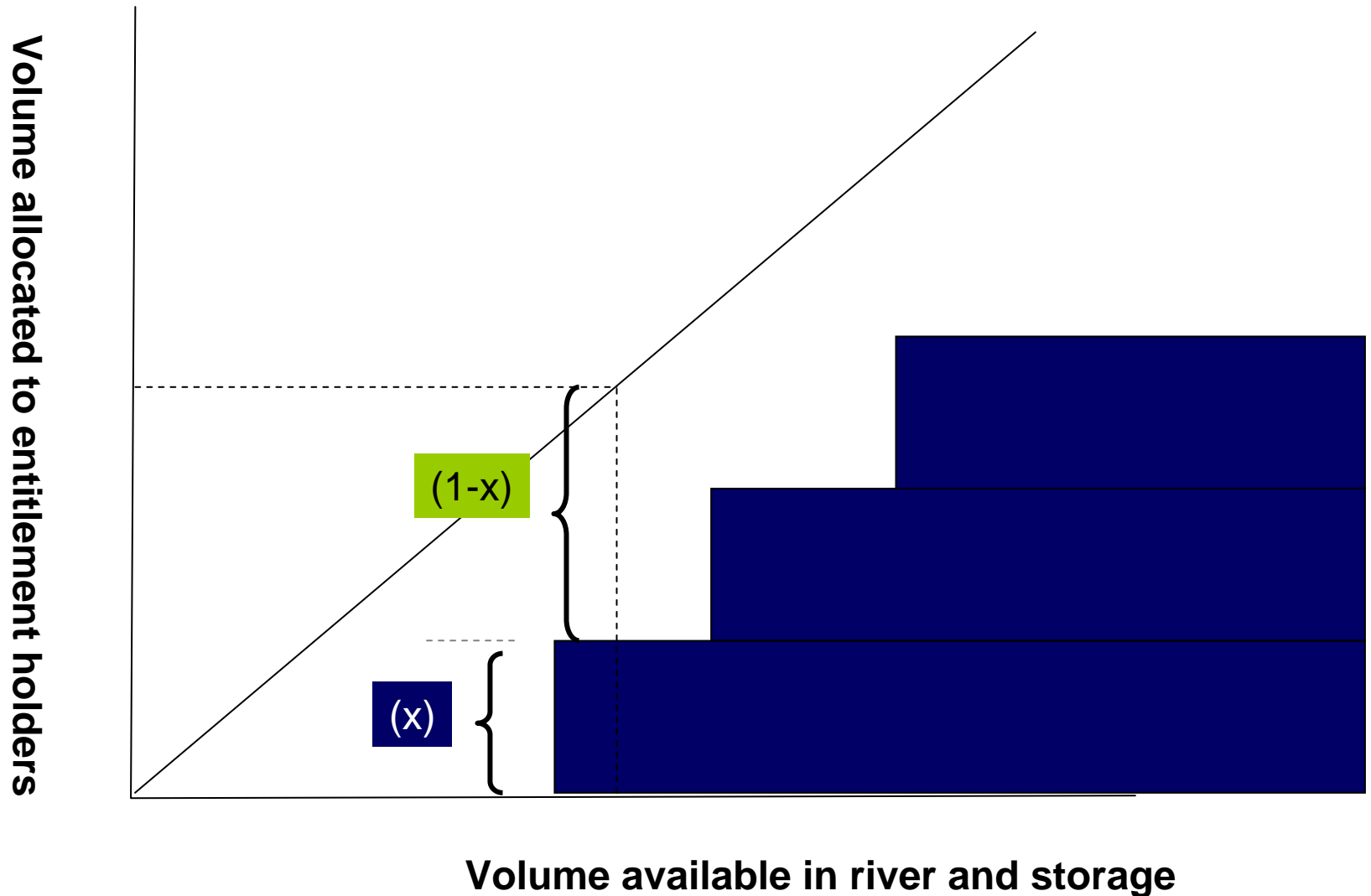
Scale	Policy Objective		
	Distributive Equity	Economic Efficiency	Environmental Externalities
System-wide Management (Strategy)			
Individual users (Using the market)			

# A robust sharing regime and allocating regulated water systems



**Give the environment an equivalent entitlement**

# An unregulated systems



# Consent systems

# Lessons from across the trench

## 1. Sharing regime arrangements

1. System connectivity – manage GW and SW as one
2. The sustainability limit – cap the total entitlement pool
3. Unmetered uses – include them
4. The environment's share – define it and allocate water to it
5. Climate change – design for an adverse shift
  - differentiate between river & environmental water

## 2. Consent arrangements

1. Shares – issue them in perpetuity
2. Registers – establish them and validate them early
3. Meters – use them
4. Trading – get the costs and time to settle a trade down
5. Inter-seasonal risk management – allow markets to optimise carry forward and aquifer storage
6. Use approvals – give them in advance

# A way forward

1. Develop a principled and visionary national water reform agenda for this century
  - Focus on the reform sequence early
  - Plan to stay out of trouble
2. Require each region to develop a robust entitlement regime.
  - One that can be explained confidently as likely to work.
3. Issue entitlement shares and make allocations in a manner that has
  - Hydrological integrity
  - Environmental integrity
  - Economic integrity
4. Develop share and allocation trading protocols
  - Don't freeze out innovation – allow trade, expect and facilitate change
5. Unbundle consents for control
  - Give yourself enough levers to be able to manage the complexity
6. Minimise the role of courts

The foundations

to your cathedral

are waiting to be built!

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