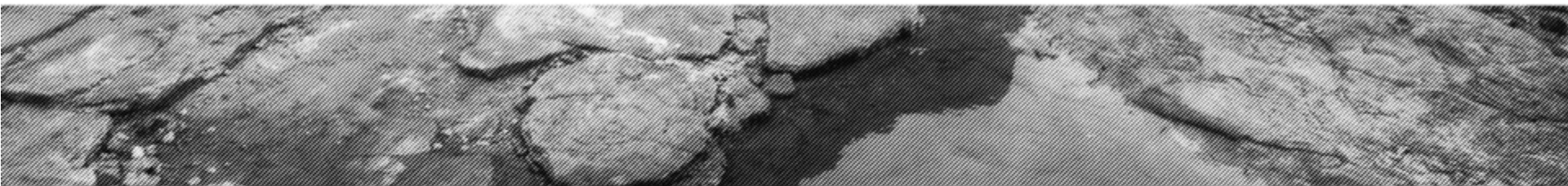




The National Water Initiative and Climate Change in South West Western Australia: Implications for Water Law Reform

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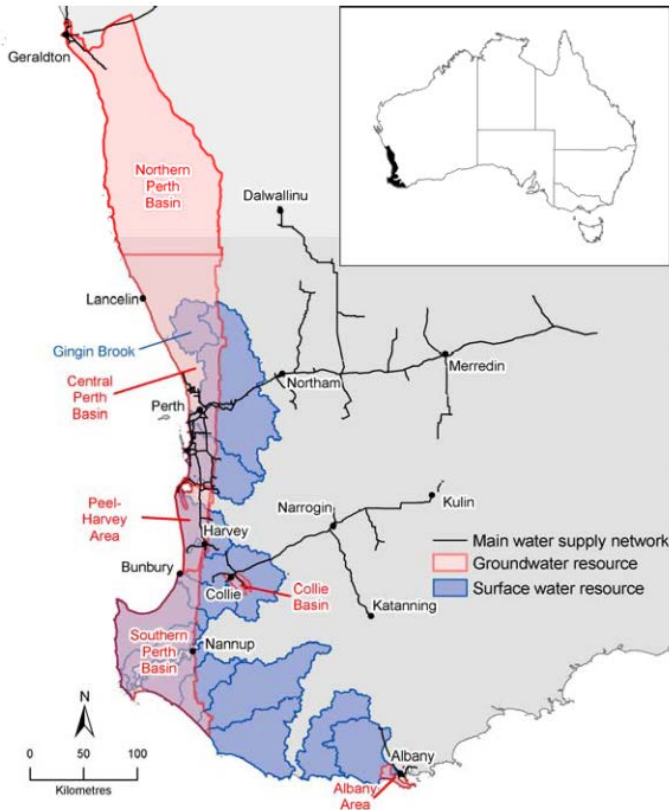
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Outline of presentation

- The South West: climate change and water management challenges
- Three areas of reform that may help meet these challenges:
 - Improved water planning
 - A new water entitlements regime
 - Water markets

South West WA



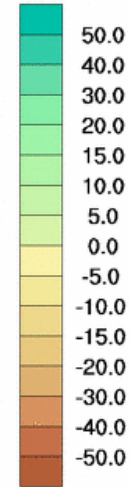
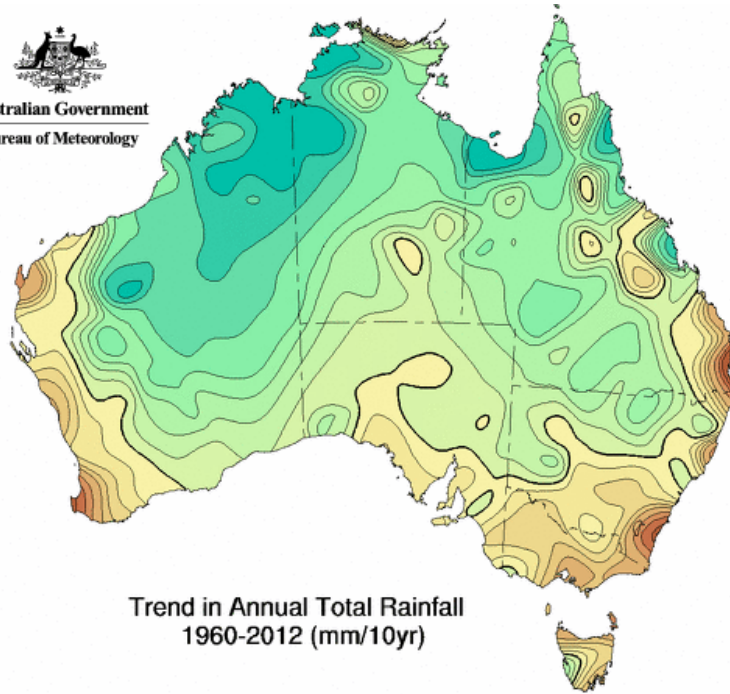
- Water resources provide economic and social benefits through urban uses (45% of water use), irrigated agriculture (38%), mining (7%) and industry (5%)
- Water also sustains the natural environment, including internationally-significant wetlands
- Challenge to meet increasing water demand in drying climate

CSIRO (2009)

Rainfall trends



Australian Government
Bureau of Meteorology



Trend in Annual Total Rainfall
1960-2012 (mm/10yr)

Human-induced climate change

“The observed patterns of large-scale atmospheric change associated with SWWA rainfall reductions are consistent with what would be expected in an atmosphere influenced by increasing greenhouse gas concentrations.”

Indian Ocean Climate Initiative (2012), 9-10.

Likely future for the south-west

- CSIRO has modelled water yields and demands to 2030
- Reduced water yields:
 - average surface water yields could be 24% lower
 - average groundwater yield 2 to 7% lower, but up to one third in Gnangara, Blackwood, Albany
- Increased in water demand of about 35%

CSIRO (2009)

Can our water laws cope?

- Our water laws need to be ‘fit for purpose’ for the challenges of the south-west:
 - Sustain natural environment while meeting demands for consumptive use
 - Deal with existing over-allocation, and avoid future over-allocation
 - Promote productive and efficient use of water

Three NWI reforms that might help

- Improved water planning
- A new entitlements regime
- Water markets

Water planning in a drying climate

Future adaptation responses may involve making difficult ‘triage’ decisions in managing water-dependent ecosystems. They may include decisions about whether to continue to water already degraded sites that are unlikely to survive due to climate change.

National Water Commission (2012), xiv



Water planning: relevant NWI commitments

- NWI commitments on water planning include:
 - Providing for ‘secure ecological outcomes by identifying the environmental and other public outcomes proposed during the life of the plan, and the water management arrangements required to meet those outcomes’ (para 37(i))
 - Identifying risks that could affect the size of the water resource available for consumptive use, including ‘the impact of natural events such as climate change’ (Schedule E)

Water planning: current provisions

- RIW Act planning provisions are untested: inserted 2001, but never used
- Planning provisions only provide general guidance on the contents of a plan
- Plans are merely relevant considerations for licensing decisions
 - RIW Act, sch 1, cl 7(2)(g)(iii)

Water planning: relevant reform proposals

- Reforms will provide ‘transparency and security for environmental water’
- Plans will describe the effects or potential effects of climate variability or change, and how they will be managed

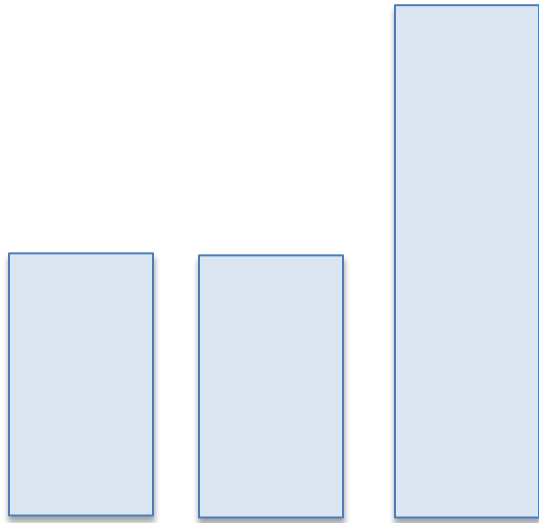
Transparency and security for environmental water

- Some legislative options:
 - Plan must identify environmental outcomes and water to be set aside
 - e.g. *Natural Resource Management Act 2004* (SA) s76(4)
 - Priority for environmental water over consumptive use
 - e.g. *Water Management Act 2000* (NSW) s5(3), 9, 20(2)(f)
 - Allocation limits must be environmentally sustainable
 - e.g. *Water Act 2007* (Cth) s23(1)
 - Licensing decisions must be consistent with a plan
 - e.g. *Water Act 1989* (Vic) s3

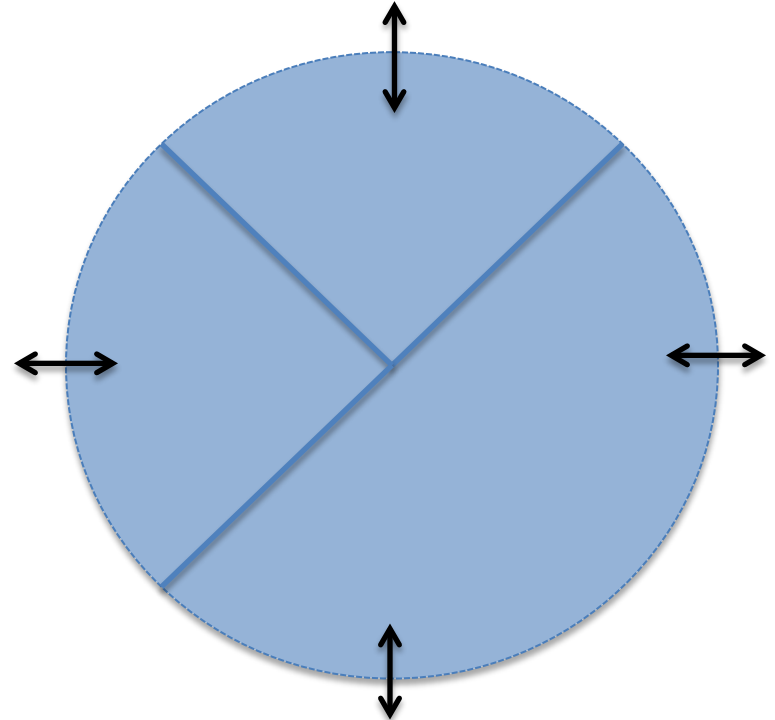
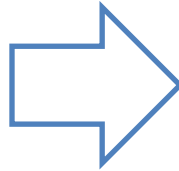
Addressing over-allocation through water planning

- Plans may include the 'specific methodology for recovering over-allocated systems' (Position Paper p23)
- Should entitlements be reduced under the current Act?
 - RIW Act, sch 1, cl 24 and cl 39
- If over-allocation is addressed under the new statutory plans, should compensation be paid?
 - NWI paras 45, 97, 46
 - *Water Management Act 2000* (NSW) s87, 87AA

NWI entitlements regime



Short term licences to access a fixed volume



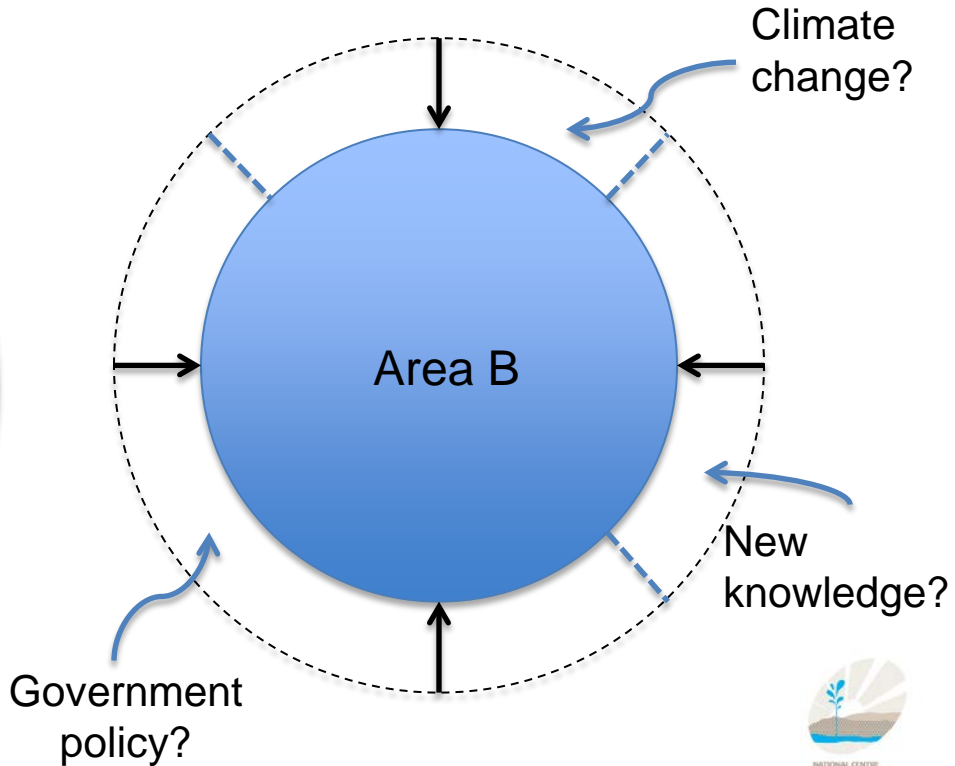
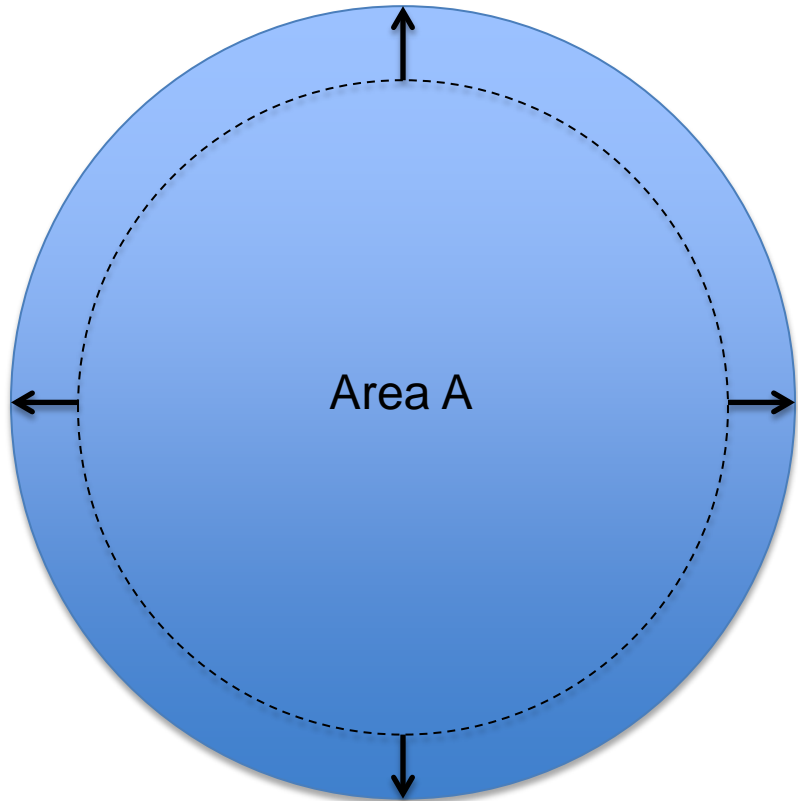
Perpetual entitlements to access a share

Risk assignment: reductions in consumptive pool

- Specific risk assignment rules (in absence of agreed alternative approach)

Risk	Responsibility for risk
Weather, climate, natural events	Holders of water access entitlement
Changes of government policy	Relevant government
Improvements in knowledge of water systems	Shared between entitlement holders, State/Territory and Cth Governments

Issues with risk assignment rules



Water entitlement reform proposals

- Licences may be granted for up to 40 years
- ‘Share’ entitlements can be introduced through statutory water allocation plans
- Modified NWI risk assignment rules to be enshrined in legislation

Comment on entitlement reforms

- 40 year fixed volume licences a risk in a drying climate
- ‘Share’ entitlements (or licences with effective process for variation of volume) should avoid over-allocation
- Proposed risk assignment rules complex and difficult to implement

Water markets in a drying climate

Water markets have proven to be effective in reallocating water to its highest valued uses, particularly during severe droughts. Because climate change is likely to lead to both rapid and cumulative changes in water supply and demand, water markets will be an important adaptation mechanism to ensure that maximum value is obtained from Australia's scarce water resources.

National Water Commission (2012), 63.

Water markets: NWI commitments

- To the extent practicable, unallocated water should be released through market-based mechanisms
 - NWI para 72
- Facilitate the operation of efficient water markets and opportunities for trading
 - NWI para 58(i)

Release of unallocated water

- Current approach: licence generally granted for free on a ‘first in-first served’ basis.
 - But note RIW Act sch 1 cl 40
- Position paper: flexible approach

Water trading

- Current approach: trading is possible, but restrictions apply (e.g. landholder eligibility requirement)
- Position paper: simplify the assessment process and establish generic trading rules
- Should new businesses or water trusts without an interest in land be able to trade?

Conclusion

- Stronger planning provisions, share-based entitlements and water markets should help meet challenges of a drying climate
- Will the new Act just be a better ‘toolbox’, or will it ensure sustainable management of our water resources?

Further information

- Further information on the project 'A Regulatory Framework for Management of Groundwater in a Drying South-West Climate' is available at
 - <http://www.law.uwa.edu.au/research/water-resources-reform/regulatory-framework-for-management-of-groundwater>
- The project is supported by Commonwealth research funding provided through the National Centre for Groundwater Research and Training:
 - <http://www.groundwater.com.au/>

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