

Recent Australian experience

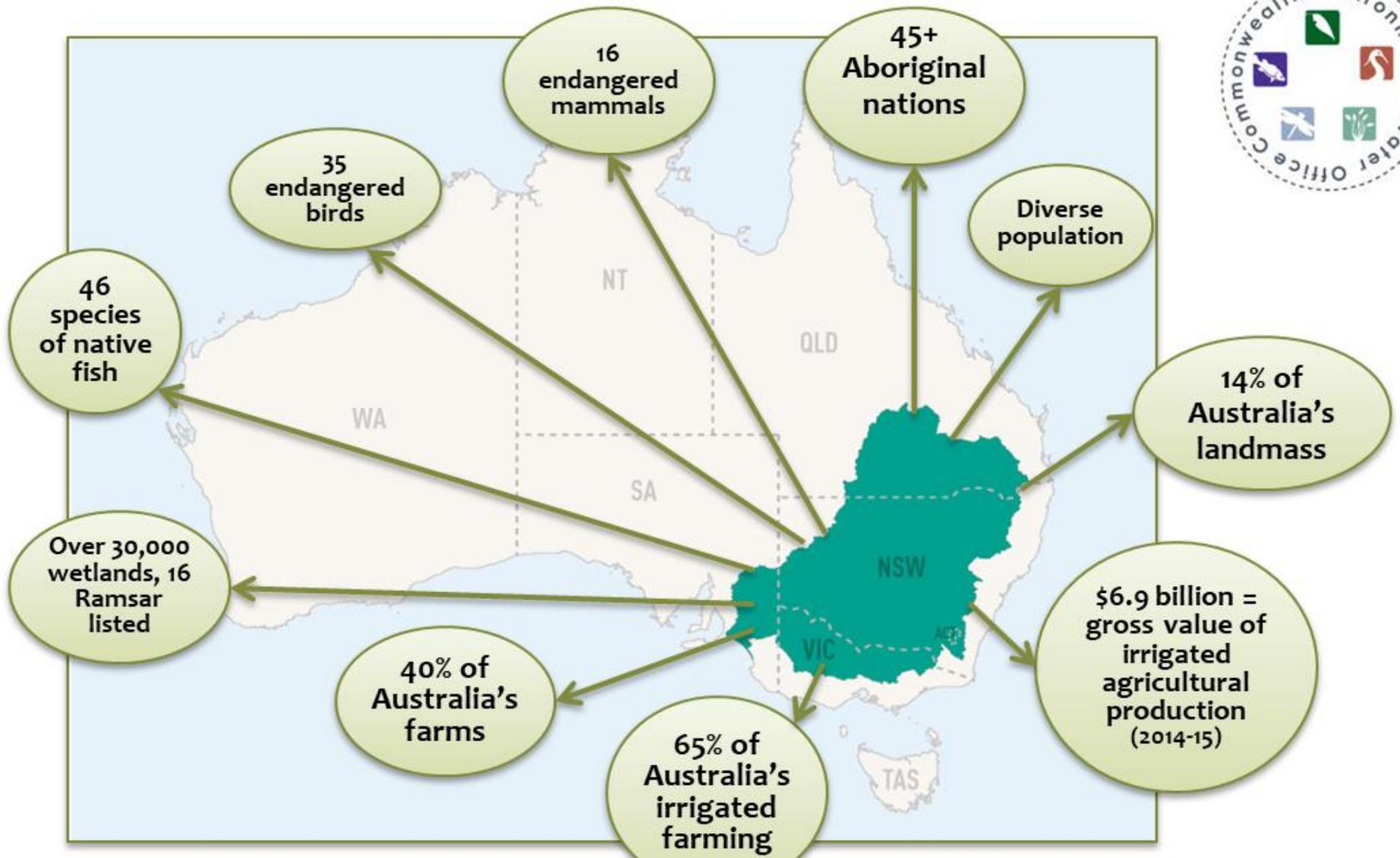
Water resources and aquatic ecosystems
management in a changing climate.

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Murray-Darling Basin



Question 1

What kind of nature based solutions can help to reduce the natural risks related to water and climate change (floods, droughts, soil erosion...)?

The MDBA has been subject to 100 years of water reform. Most recently in response to the massive Millennium Drought.

Huge federal government intervention

“I announce today a \$10 billion, 10 point plan to improve water efficiency and to address the over-allocation of water in rural Australia, particularly in the Murray-Darling Basin...

We must strike a sustainable balance between the demands of agriculture, industry and towns on the one hand and the needs of the environment on the other.....”

***John Howard, Prime Minister of Australia
January 2007***

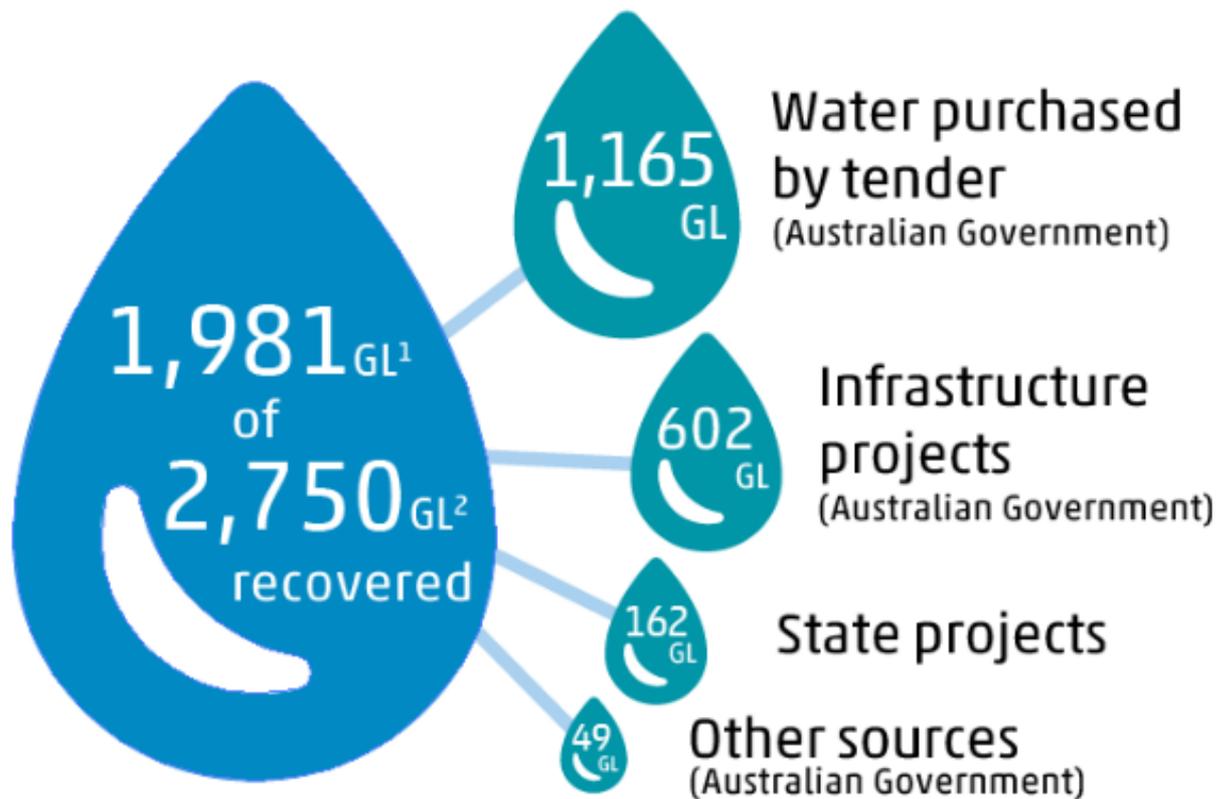
2007 to 2017

10 years of investment in key policy outcomes

- 1. Adjusting the balance of consumptive use vs environmental use by buying water from willing sellers (no compulsory purchases)*
- 2. Making the irrigation regions and industries more resilient to a variable water supply (climate change) by investing in efficiency and productivity.*

Commonwealth Environmental Water Holder now the largest owner of water in the MDBA.

Progress towards the 2019 surface water recovery target,
figures as at 30 June 2016



1 This figure is based on contracted water recovery and so includes commitments to acquire entitlements. Note that the smaller numbers are rounded to the nearest GL. As at 30 June 2016 the total recovered was 1,981.4 GL.

2 The recovery target could change due to the sustainable diversions limit adjustment process and the northern Basin review.

Question 2

What are the criteria to be followed in order to ensure rapid, efficient and sustainable nature based solutions?

Good information allows effective adaptive management. Management with inadequate information exposes people and organisations to greater levels of risk.



Australian Government

Bureau of Meteorology

Australia is a federation and water is primarily a state responsibility

But in 2008 BOM was given responsibility and funding for compiling and delivering comprehensive information about water resources across Australia.

Partnerships and good information allows adaptive management for multiple benefits

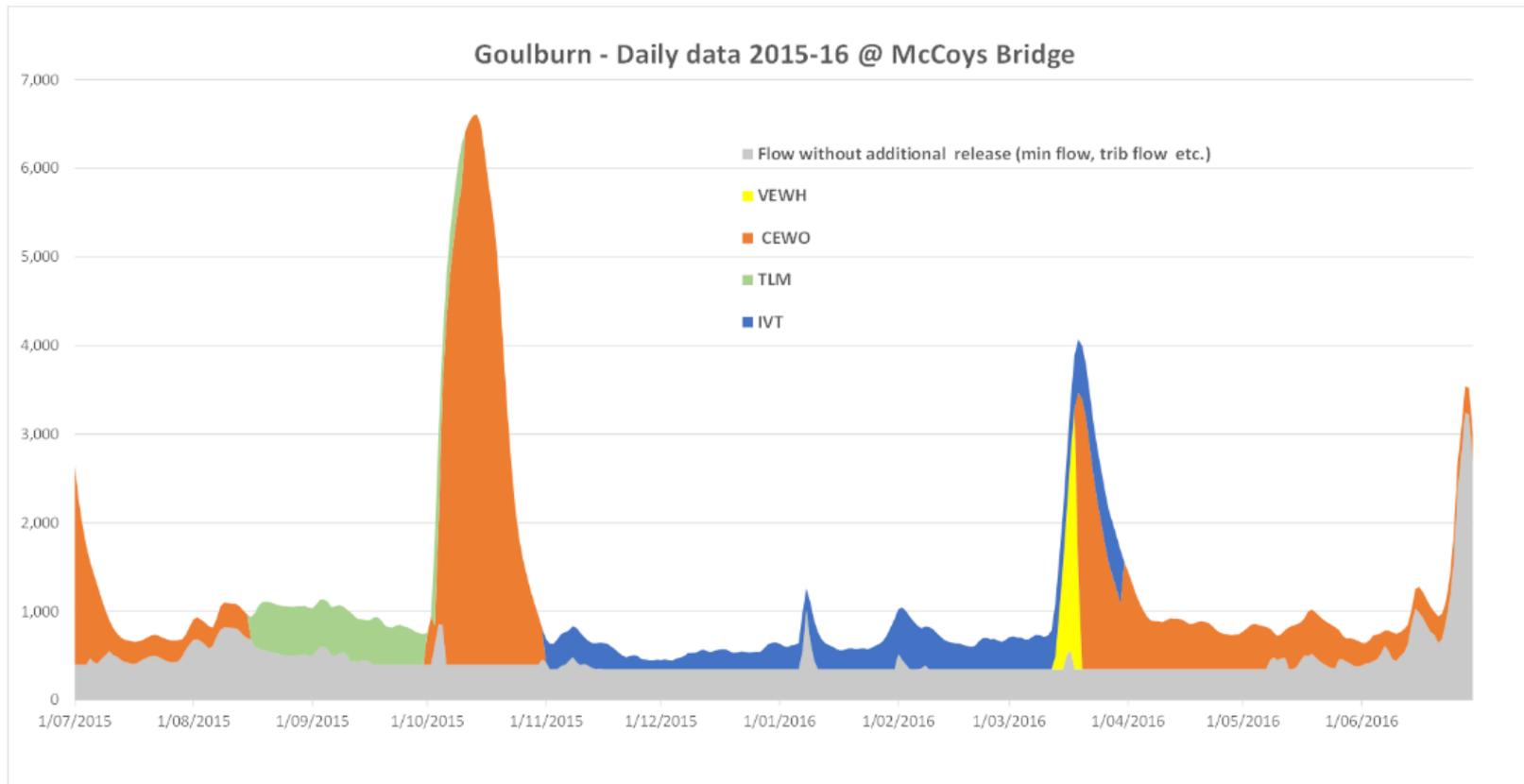
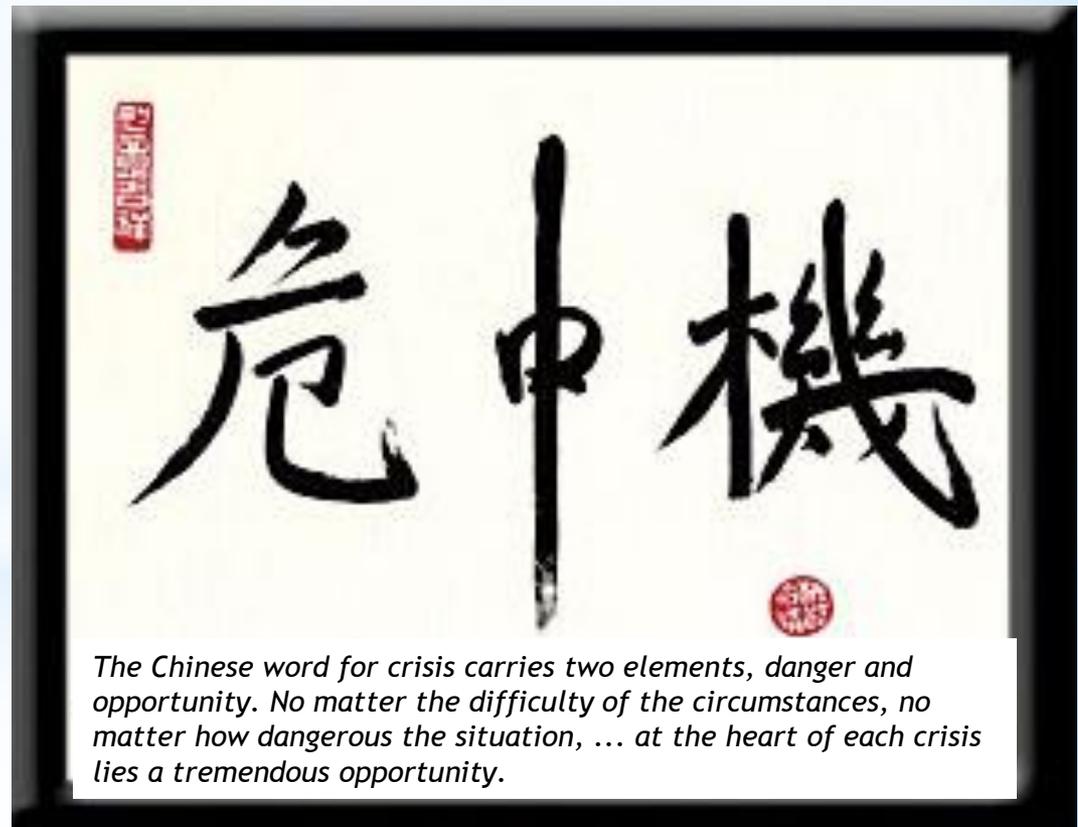


Figure B3. Hydrograph for the Goulburn River (at McCoys Bridge) from July 2015 to July 2016 (source, CEWO), showing the delivery of environmental water from the Commonwealth Environmental Water Office (CEWO), The Living Murray (TLM), Victorian Environmental Water Holder (VEWH) and Inter Valley Transfer (IVT).

Lessons from history

Crisis's like Drought and Floods create opportunities for significant change

But you need to be prepared or the opportunity will be lost.



The Chinese word for crisis carries two elements, danger and opportunity. No matter the difficulty of the circumstances, no matter how dangerous the situation, ... at the heart of each crisis lies a tremendous opportunity.