The Colorado and Murray–Darling Basins

a comparative study of managing water scarcity

The Colorado River Basin (United States) and the Murray-Darling Basin (Australia) share an overlapping history in water management and water law.

The project is to be based at the University of Colorado Boulder to explore shared water management challenges in these two basins, including institutional form, climate change and involvement of indigenous peoples in water management.

This work will include geographical and longitudinal historical perspectives drawing on the history of 130 years of exchanges on water management between the United States and Australia which has informed developments in both river basins.

The goal of the proposed comparative study of these issues is to prepare an analysis to inform future policy prescriptions in both countries.

COLORADO

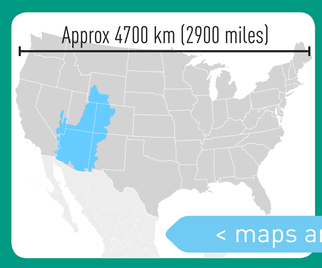
Elwood Mead (1858–1936)

Engineer who made the desert bloom

Wyoming, US: State Irrigation Engineer 1888–1899

Victoria, Australia: Chairman, State Rivers & Water Supply Commission, 1907–1915

Western United States: Commissioner, Bureau of Reclamation, 1924–1936



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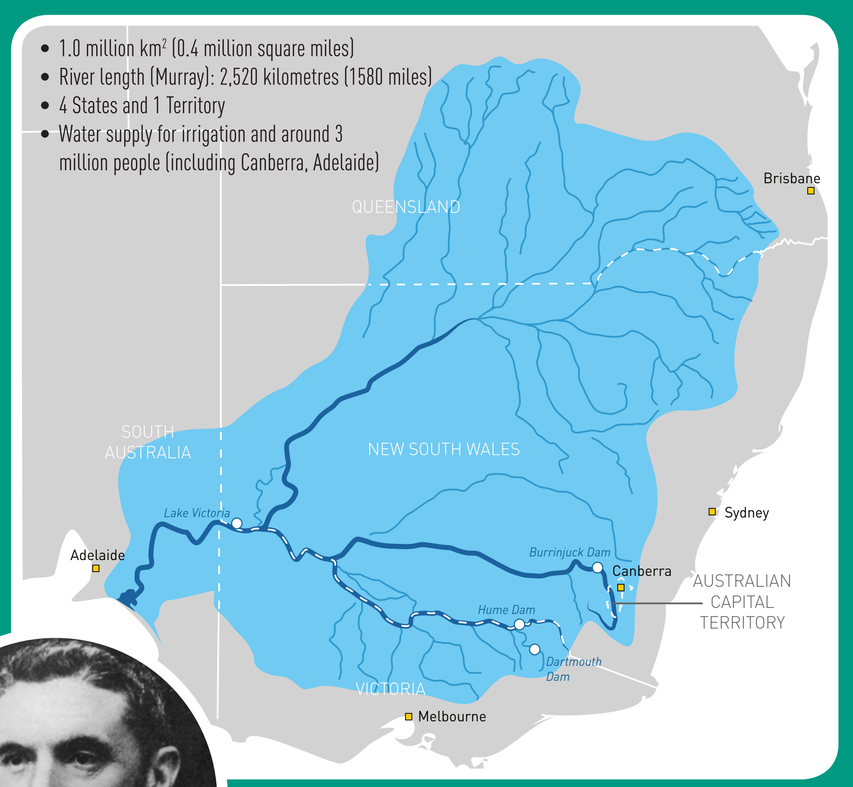
Knowledge exchange

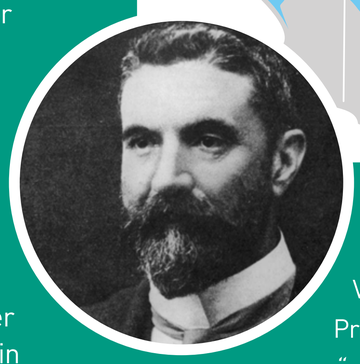
There have been ongoing exchanges on semi-arid water management between the United States and Australia over the last 130 years.

Early exchanges are often referred to in a general sense but otherwise present a largely untapped resource from the perspective of detailed water management research.

Of particular interest is the opportunity to contemplate the historical perspectives and impressions of the authors, and compare the current reality with the outcomes expected or implied. This is particularly relevant to both river basins given severe drought conditions in the last decade, and a future where water scarcity is expected to be more common.

MURRAY–DARLING





Alfred Deakin (1856–1919)

The father of irrigation

Victorian Minister for Public Works and Water Supply

Prime Minister three times between 1903 and 1910

"...the close resemblance... renders the parallel between southern Australia and the western States of America as complete as such parallels can be." (1885)


Imperial Valley irrigation area (www.tailwindsplease.com)

Institutional form

The different approaches taken in the western United States and Australia to water sharing between states and between significant stakeholders will be examined as will the institutions created to support these approaches. The differing approaches in the western United States and Australia should provide the basis for a fascinating comparison.


Murrumbidgee irrigation area (Michael Bell)


Lake Mead during drought in 2009 (Wikimedia CC)

Climate change

Climate change predictions for both basins similarly paint a picture of a future with water availability being more variable and generally lower in an overall sense. The policy response to these threats is the central challenge in both river basins and comparisons and differences in these responses will be explored.


Lake Dartmouth during drought in 2009 (Irene Dowdy)


Hualapai youth enjoying the Colorado River (Arizona College of Public Health)

Involvement of indigenous peoples

The role of Indigenous peoples in water management, at state and federal level, will be explored. Of particular interest will be examination of the issues associated with the doctrine of federal reserved water rights in the United States, with a focus on the element of these rights associated with American Indian reservations. The role of Indigenous peoples in water management is an important future issue in Australian water management and examination of these issues in the Colorado River Basin context is expected to be particularly interesting.


Indigenous ceremony (Ali Sanderson)

Australian Government

MURRAY–DARLING BASIN AUTHORITY

The Murray–Darling Basin Authority is an Australian Government agency, based in Canberra, responsible to the Minister for Water. The Authority aims to achieve a healthy working Murray–Darling Basin through the integrated management of water resources, for the long-term benefit of the Australian community.

The Chairman of the Authority is the Honourable Craig Knowles.

Dr Tony McLeod is the General Manager of Water Resource Planning at the Murray–Darling Basin Authority.

He completed his PhD at the University of Melbourne in 1993, focusing on water resource management in northern Victoria. He has worked water management for the New South Wales and Australian Federal governments and has been with the Murray-Darling Basin Authority since 2008.

In recent years he has been involved in the development and implementation of the Water Act 2007, amendments to the Act in 2008 based on the referral of Constitutional power to the Australian Federal Government and also the 2012 Murray-Darling Basin Plan. In 2014 he was awarded a Public Service Medal for his role in the instigation and development of the Murray–Darling Basin Plan.

As a 2014 Fulbright Senior Scholar he will study at the Getches–Wilkinson Centre for Natural Resources, Energy and the Environment at the University of Colorado, Boulder, from August to December 2014.

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