

Water Banking for Drought Resilience

What is water banking?

Water banking stores water in underground aquifers rather than in above-ground reservoirs. Banking water during wet years provides irrigators, town supplies and the environment with a buffer during dry years.





Source: <u>https://www.csiro.au/en/about/challenges-missions/drought-resilience/water-banking</u>





Why should we investigate water banking in the Murray-**Darling Basin?**

The potential for water banking has not been fully realised across Australia. CSIRO has identified 4km³ of potential storage in the Murray-Darling Basin. During period of water scarcity, utilising this storage can counter the drop in agricultural production (while maintaining water for town supplies and the environment).

The OneBasin CRC has an opportunity to develop and deliver an ambitious 10-year high impact research program to put water banking as a water management tool on the map in Australia.

How will we approach this opportunity?

Phase 2 Phase 1 Phase 3 Policy review and identification of possible sites Pilot sites in partnership with research, Implementation of water banking scheme(s)

- Review and assessment of Murray-Darling \bullet Basin scale opportunities for water banking for irrigators, town supply and environmental benefit
- Development of portfolio of prospective demonstration sites.

government, and end users

- Scoping of site I: "Water Banking for communal benefit: industry/town supply"
- Evaluation of site II "Water Banking for • environmental benefit"
- This is a future phase and has not been scoped as part of this project.

Project leads:

- Ilka Wallis and Howard Fallowfield (Flinders University; expertise in hydrogeology/hydrochemistry and public health related to Managed Aquifer Recharge [MAR])
- Andrew McCallum (NSW Department of Climate Change, Energy, the Environment and Water; expertise in water strategy and resources management)

Project team:

- Joseph Guillaume (Australian National University; expertise in water resources management and productive agriculture)
- Andrew Ross (Australian National University; expertise in water policy, economics and MAR feasibility)
- Willem Vervoort (Sydney University; expertise in productive agriculture)

Project advisory committee:

- Kym Walton and Seth Westra (One Basin CRC)
- Declan Page (CSIRO)
- Representative to be appointed (Murray-Darling) Basin Authority)
- David "Tarnda" Copley (First Nations Representative)
- Juliette Woods (SA Department for Environment and Water; expertise in water policy and resources management)
- Yvette Colton (Aither; expertise in water policy and resources management)
- Keith Thompson (Coleambally Irrigation; expertise in potential study site)
- Simone Stewart (SA Department for Environment and Water)
- Kurt Schwabe (University of California)
- Constantin Seidl (University of Adelaide)

