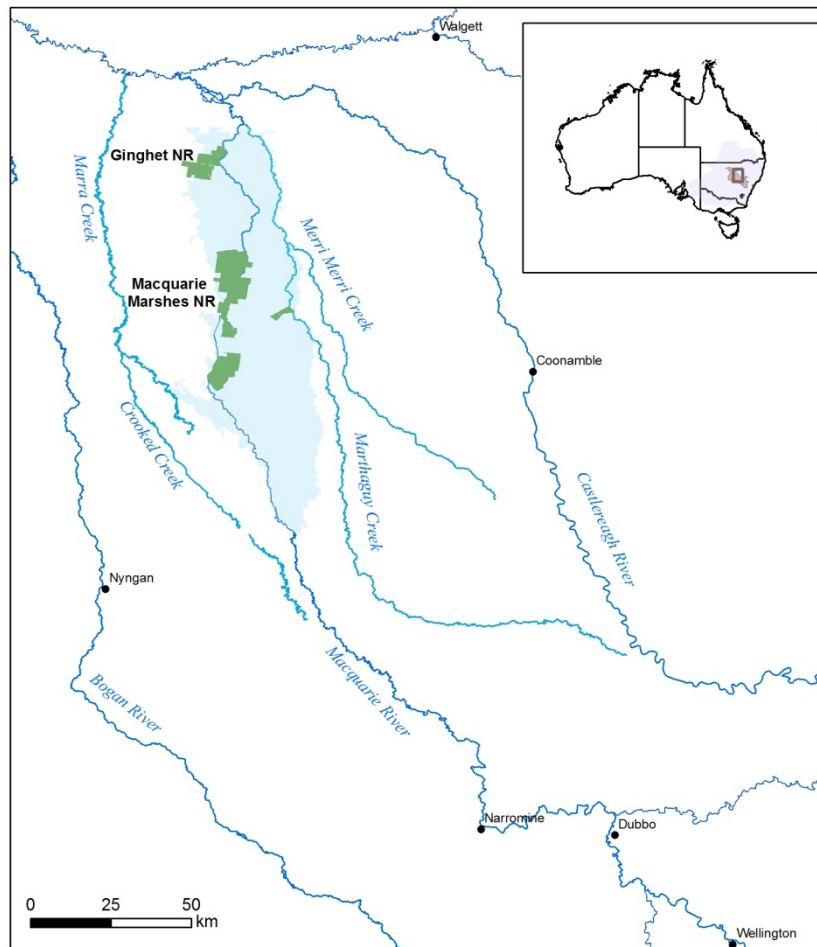


Achieving Conservation Outcomes in Temporary Wetlands in Eastern Australia

**Maintaining condition of key habitats
during the dry phase**

Peter Berney – NSW National Parks and Wildlife Service



Macquarie Valley Rivers and Wetlands

-  Macquarie Marshes
-  NPWS Reserves
- Major Towns
-  Main Rivers & Creeks





Image by Josh Smith



Image by Josh Smith

Impacts of water resource development on wetlands in the northern Murray-Darling Basin

- **Reduced frequency and duration of small to medium flows**
- **Reduced spatial extent of inundation in all but the largest flows**
- **Deterioration in condition of key wetland plant communities e.g. river red gums**
- **Increasing abundance of terrestrial taxa in wetland plant communities**

The Water Management Framework

Murray-Darling Basin Plan



NSW Water Management Act (2000)



Water Sharing Plan - A regulation under the Act - (10 year term)



Environmental Water Advisory Group (EWAG)
Makes recommendations to the Minister & if in line with the Act –
Minister accepts recommendation



Environmental Water Manager – NSW Office of Environment and Heritage

Environmental Water Delivery Planning

- Long-term environmental watering plans – identify assets to target
- Annual environmental watering plans – match water availability with specific targets and their water requirements usually vegetation communities
 - example targets include reed beds, water couch meadows, red gum woodlands and lignum shrublands
- Event delivery management – monitoring flows to ensure limited off-target impacts and that there are no impediments limiting flows to target sites

Objectives for environmental water use

- **Very dry – avoid deleterious changes to key environmental assets**
- **Dry – protect and ensure capacity for recovery of key assets**
- **Median – Maintain ecological health and resilience across key and secondary assets**
- **Wet – improve ecological health and resilience of all assets in wetlands**



Image by Josh Smith



Image by Josh Smith

Future Challenges

- **Monitoring is undertaken to determine flow volumes delivered and the biotic responses achieved**
- **Limited water available and the challenge remains for increased efficiency and effectiveness in delivery of environmental water**
- **Where are the thresholds for condition change?**