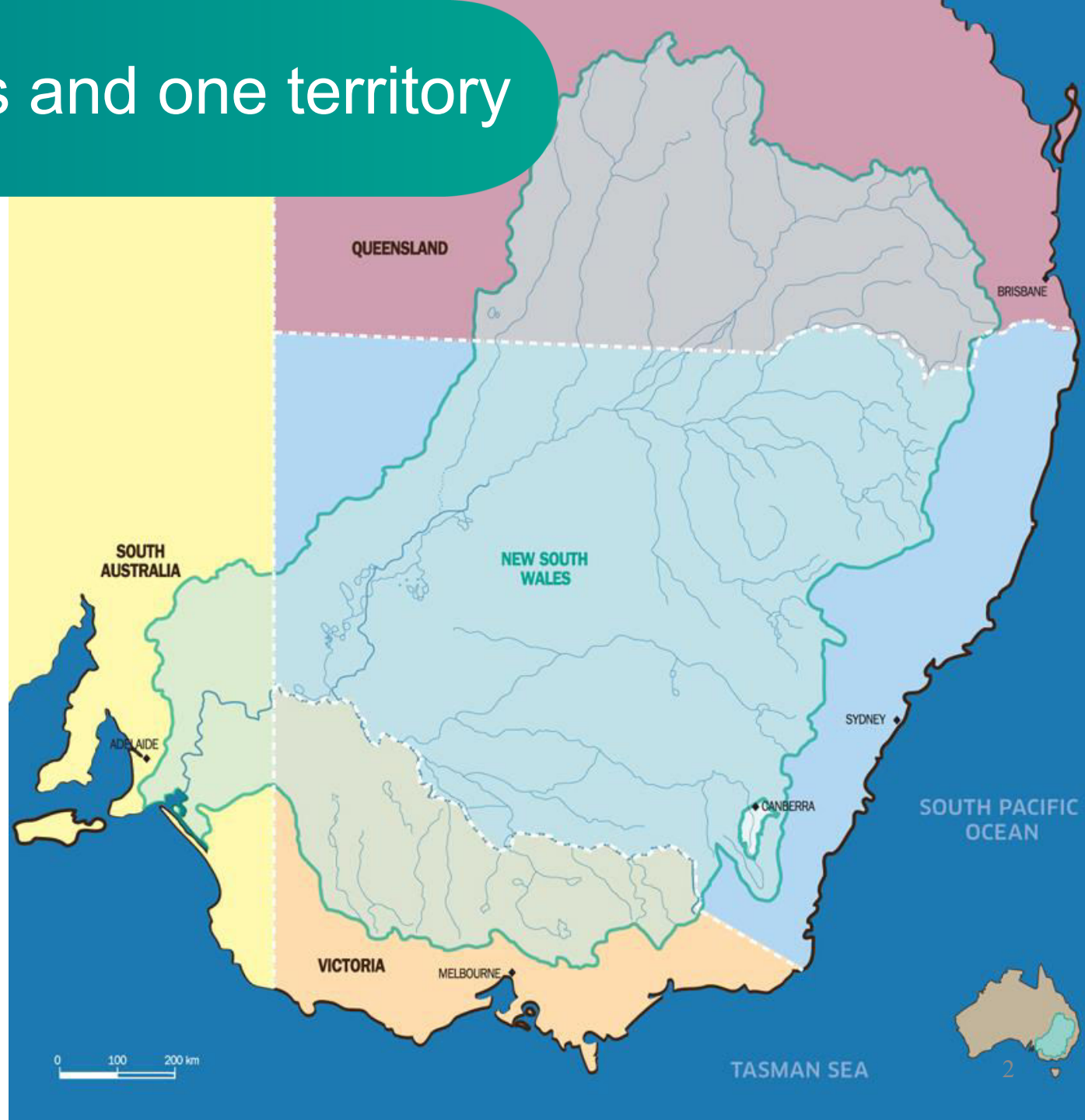




# **Navigating from abundance to scarcity: Three decades of water governance reform in the Murray-Darling Basin, Australia**

Prof. Gary Jones  
Chief Executive, eWater Australia  
Adjunct Professor, University of Canberra  
Visiting Professor, University of New South Wales

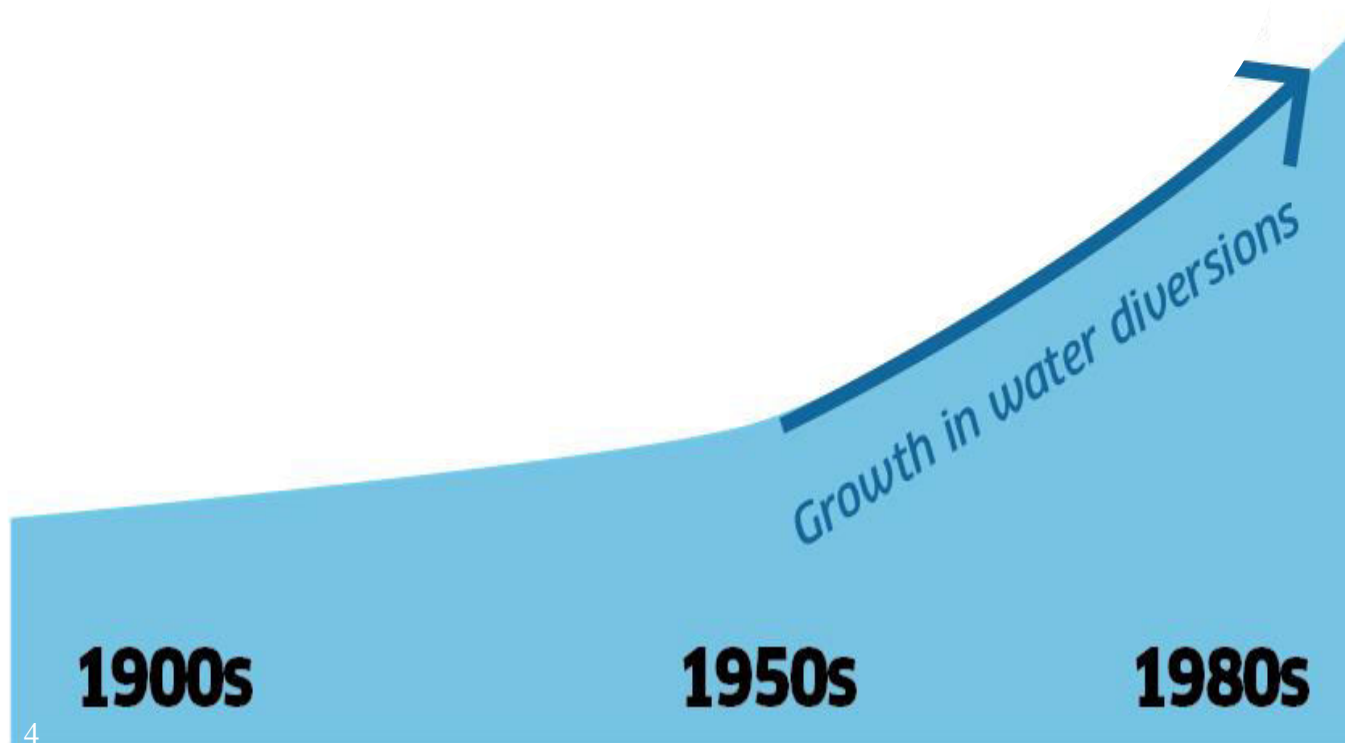
# Four states and one territory



# 1915 River Murray Waters Agreement



# Rapid growth in water extraction



# Rapid growth in water extraction

Murray Mouth closes

Disconnected wetlands  
and floodplains

Increased salinity

*Growth in water diversions*

**1900s**

**1950s**

**1980s**



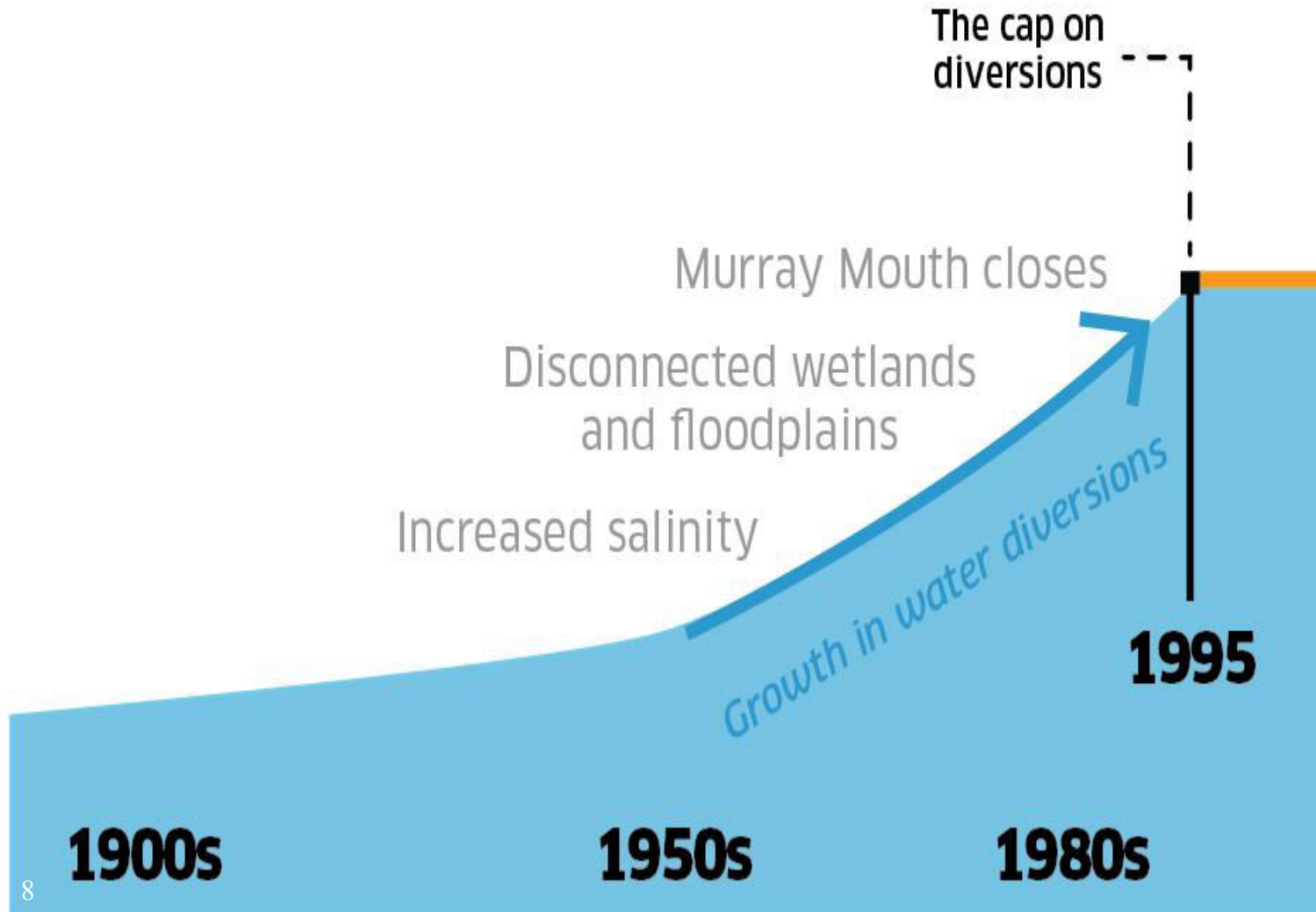
Land clearing and poor irrigation practices causing salinity



# River mouth sedimentation and closure



# Cap on diversions

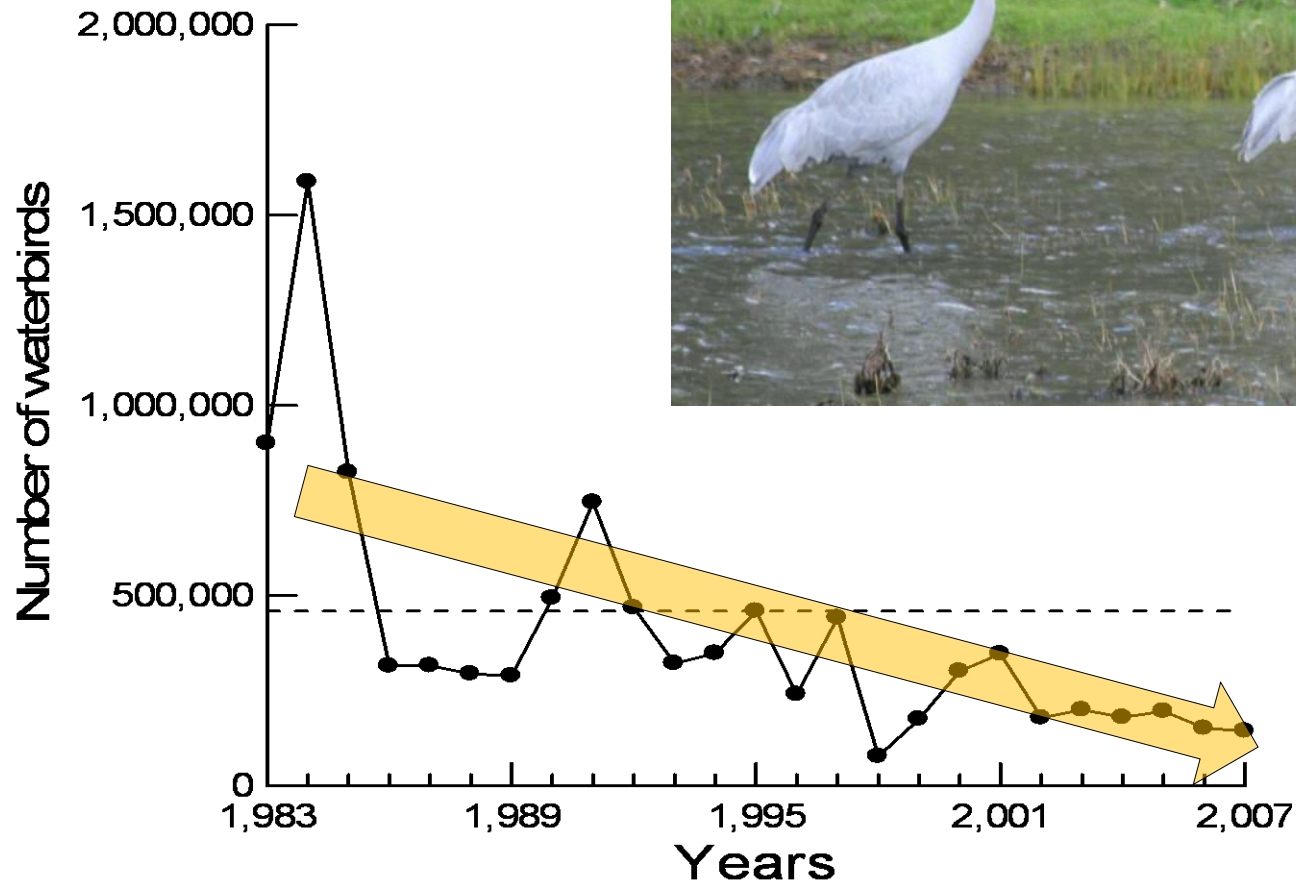




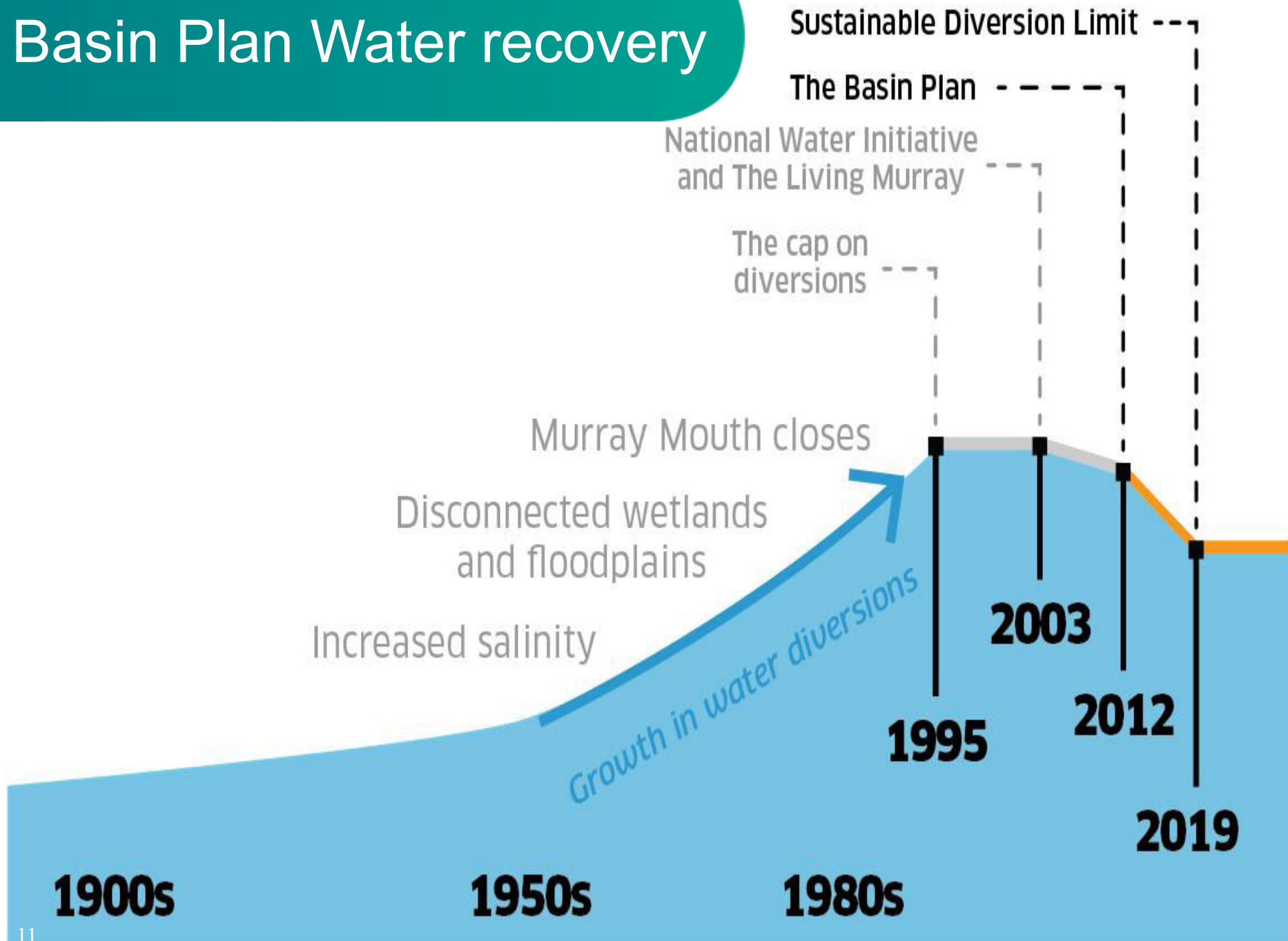
Toxic algal blooms  
caused by prolonged  
low flows



Decreased flooding leading to  
loss of  
Water Birds from floodplain  
wetlands



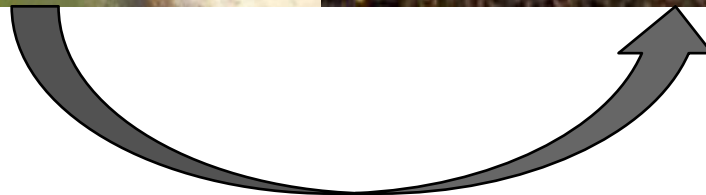
# Basin Plan Water recovery



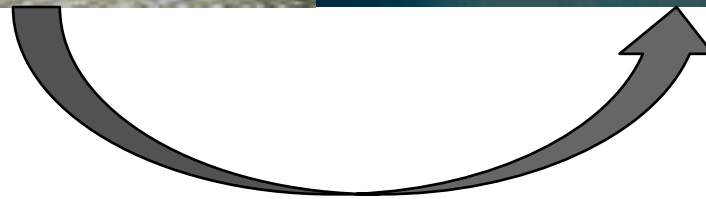
# Key Governance Reforms in MDB

- Building political and public commitment to act
- Sharing of data, information and knowledge
- New policies, legislation, strategies and plans, coordinated at National and State levels as necessary
- New economic, legal and regulatory instruments and approaches driving implementation
- Government institutions realigned and strengthened
- Monitoring and reporting of policy implementation: ensuring plans and agencies held accountable

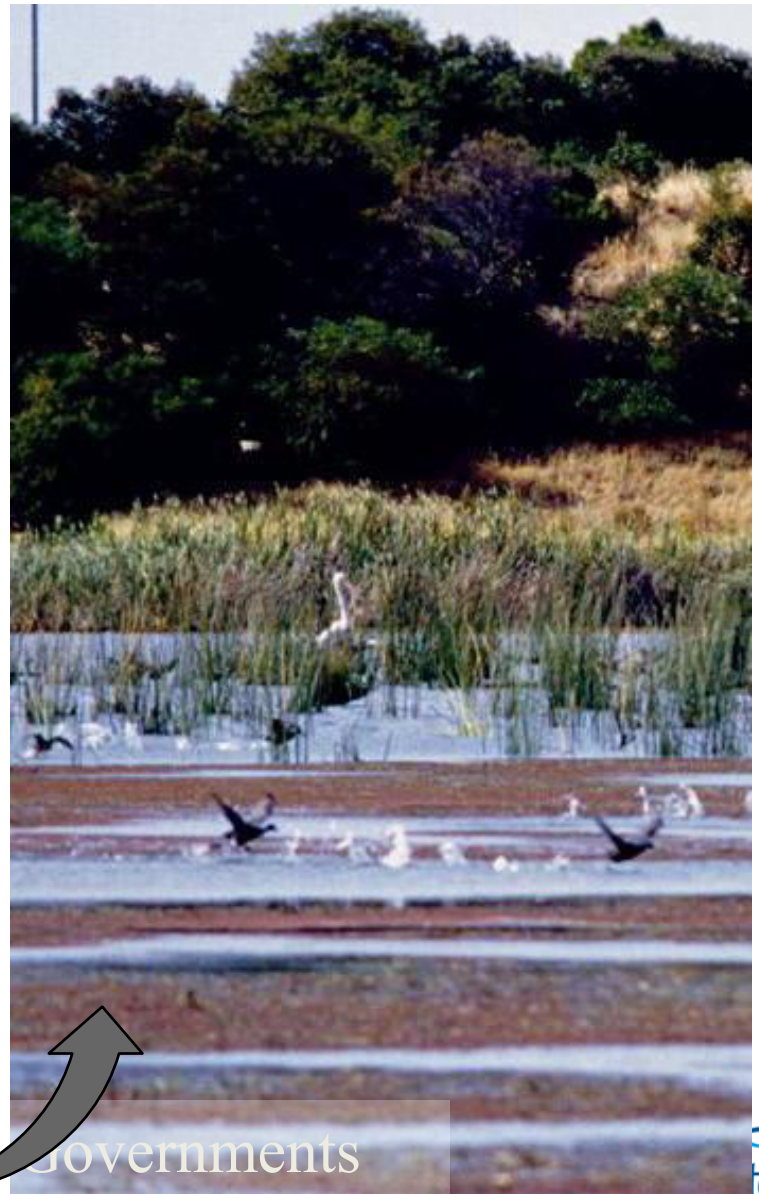
# Water trading from lower value to higher value irrigation



..... from irrigation to cities



# ...and from irrigation to the environment



...purchases by governments

# Conjunctive surface- and ground-water use





# Critical events and other influencing factors

- Extreme climate events especially drought
- Environmental catastrophes
- Political and organisational leaders & leadership
- Effective trans-boundary governance
- Adoption of a holistic river-basin approach
- Major financial investment

Good governance is critical, but ....  
money often catalysed reform

**Water for the Future fund (2007)**

\$12.9 billion to 'buy' water reform  
(c. \$560 per person)

Funding to fundamentally change

- water use allocation
- water use efficiency

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