
Response to Drought in South Australia

DEPARTMENTAL PERSPECTIVE

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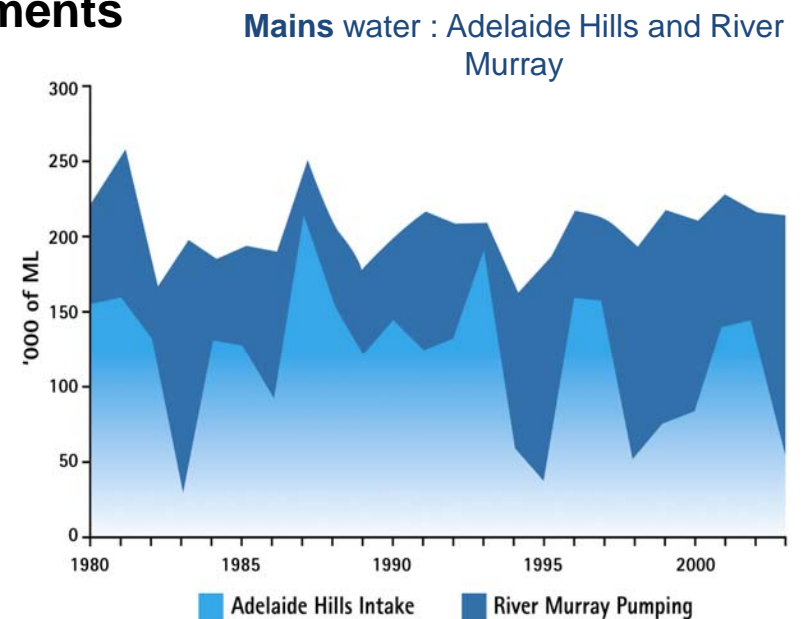
WATER IS GOOD

1. Hume Dam & Reservoir



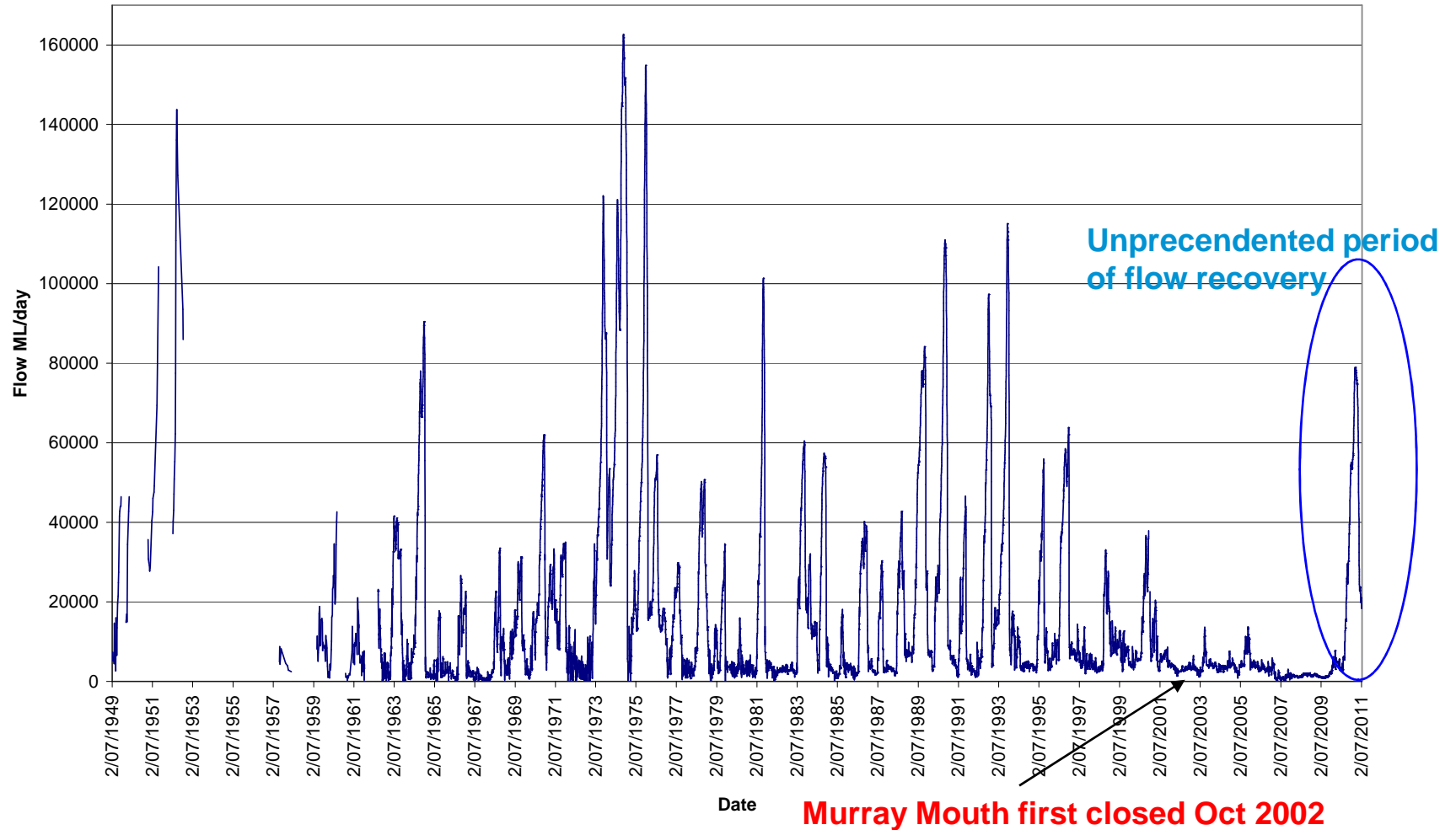
2. Adelaide's Water Security

- **Historically Adelaide's supply was considered secure:**
 - Mount Lofty Ranges storages averaging 60% of supply
 - River Murray supplements local catchments
- **This is changing:**
 - Drought
 - Climate change
- **Other Australian cities – 3-4 years storage**
- **Adelaide – about 12 months storage**
- **Next 25-50 years expected to have more variable and reduced flows in Mount Lofty Ranges and Murray-Darling Basin**



3. Pulse of a dying River ?

Flow downstream of Lock 1
1949-2011





4. Open Murray Mouth

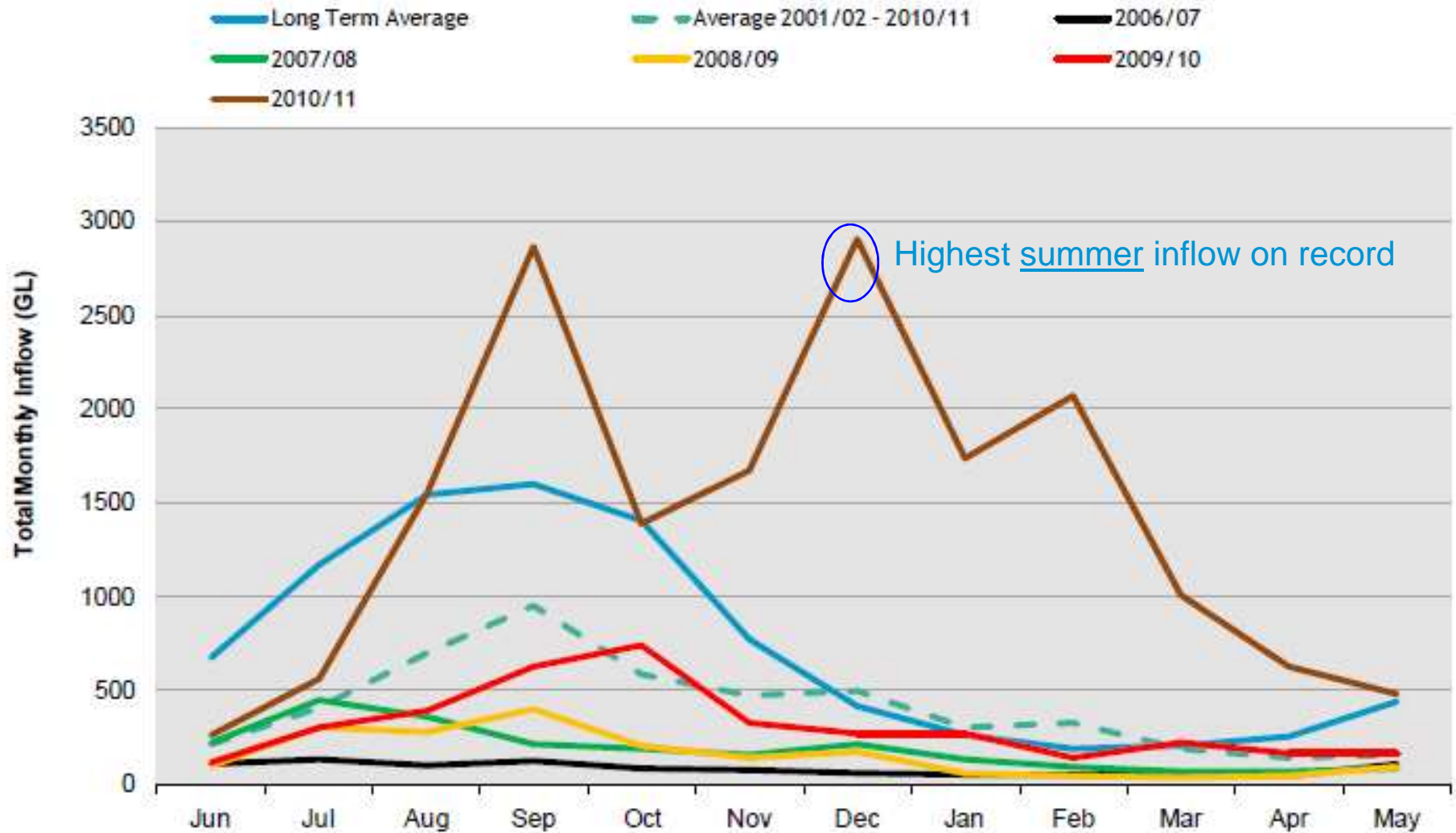
5. Early Warning Signs (Murray Mouth virtually closed - 01 October 2002)



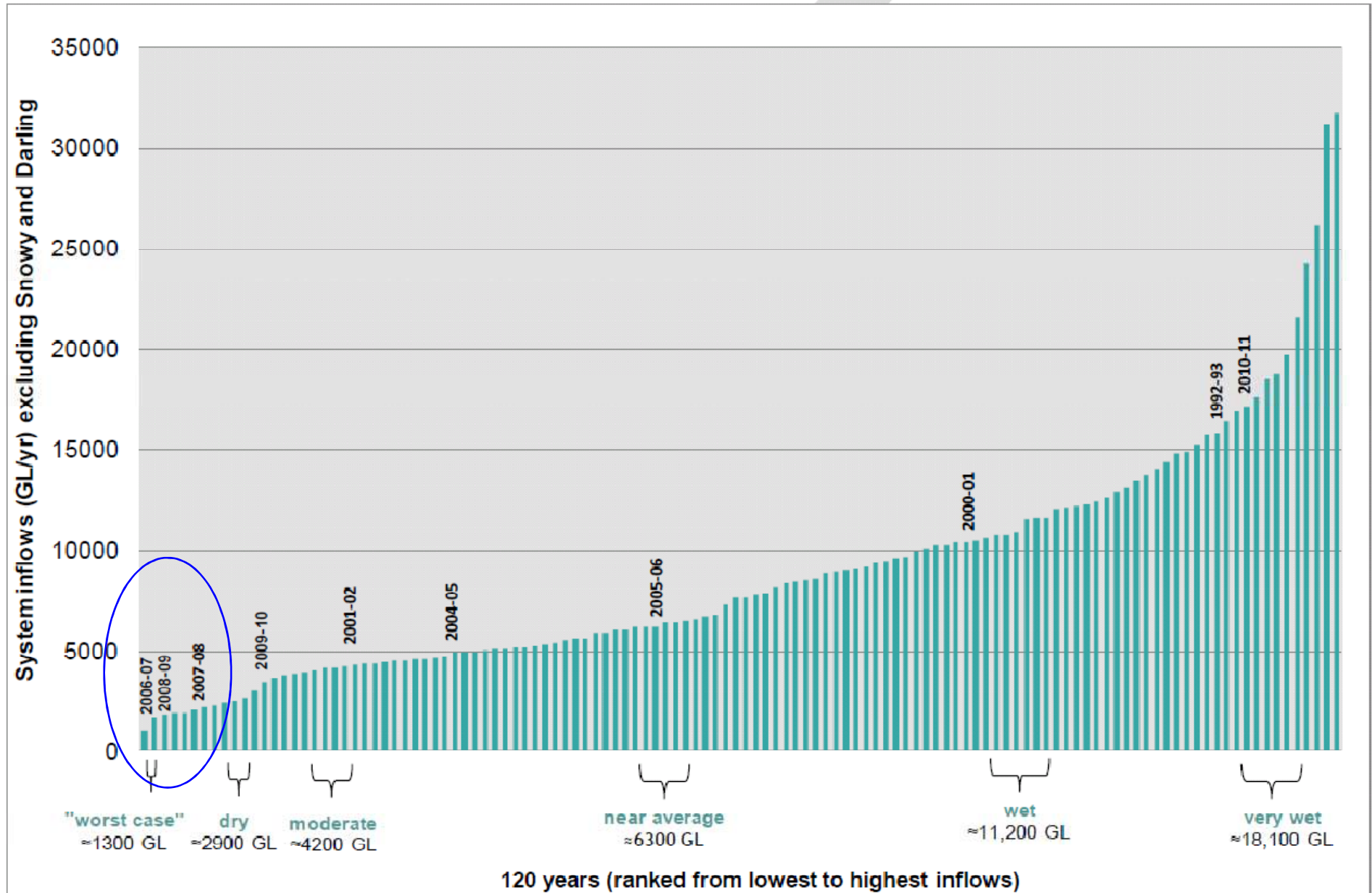
6. Murray Mouth Dredging



7. River Murray System Inflows



8. Ranked Historical River Murray System Inflows



9. River Murray Irrigation Allocation History (SA)

Year	Opening Allocation %	Final Allocation %
2003-04	65%	95%
2004-05	70%	95%
2005-06	70%	100%
2006-07	80%	60%
2007-08	4%	32%
2008-09	2%	18%
2009-10	2%	62%
2010-11	21%	67%
2011-12	100%	100%



10.

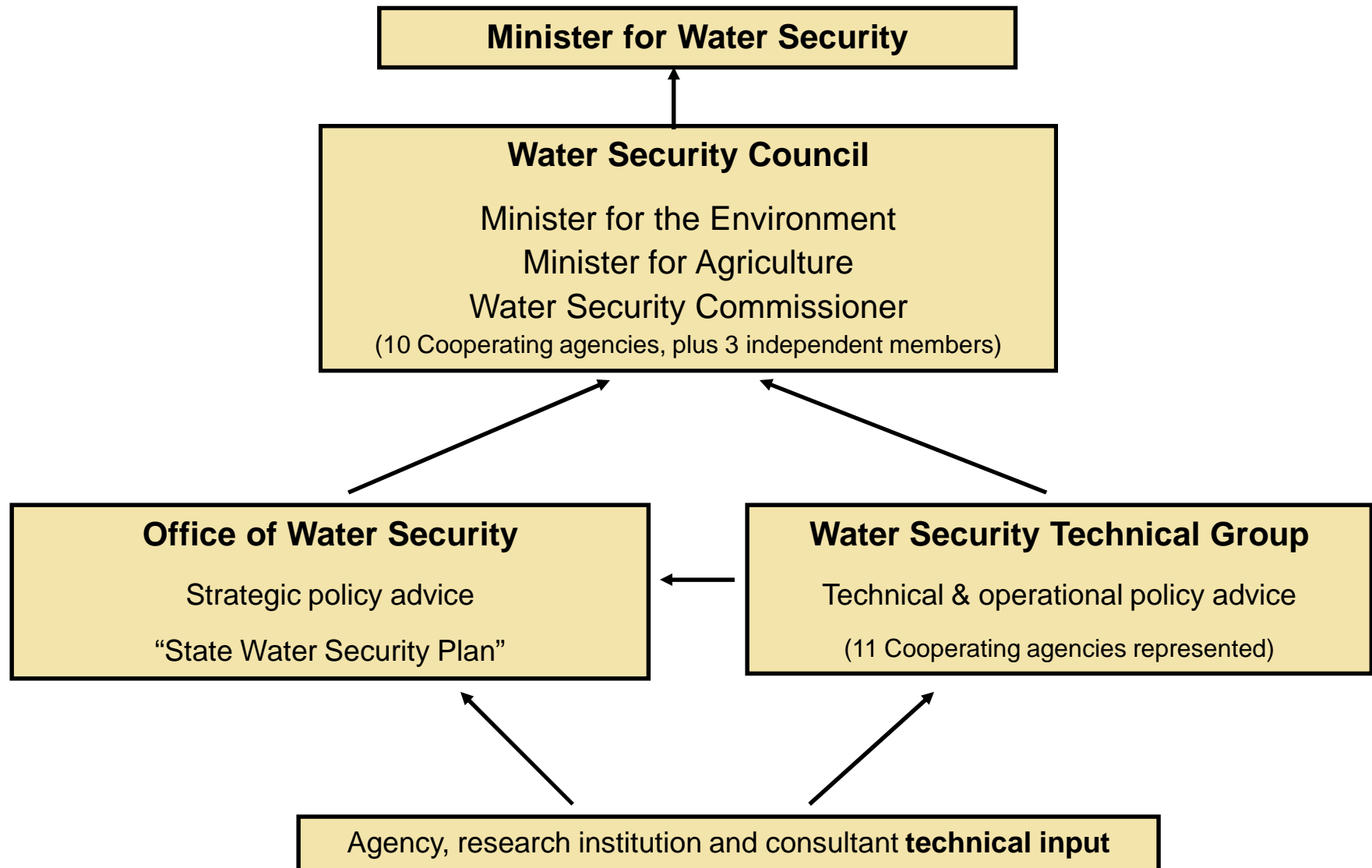
Levee Bank Damage



Riverbank Collapse



11. WS Initiative Governance, advice and coordination



12. Drought Response Strategy Goals

Primary Goal

To maintain the supply of potable quality water to meet the Critical Human Needs of all South Australians living in the (River Murray) Water Security Zone, at all times, during the Water Security Planning Period.

Secondary Goal

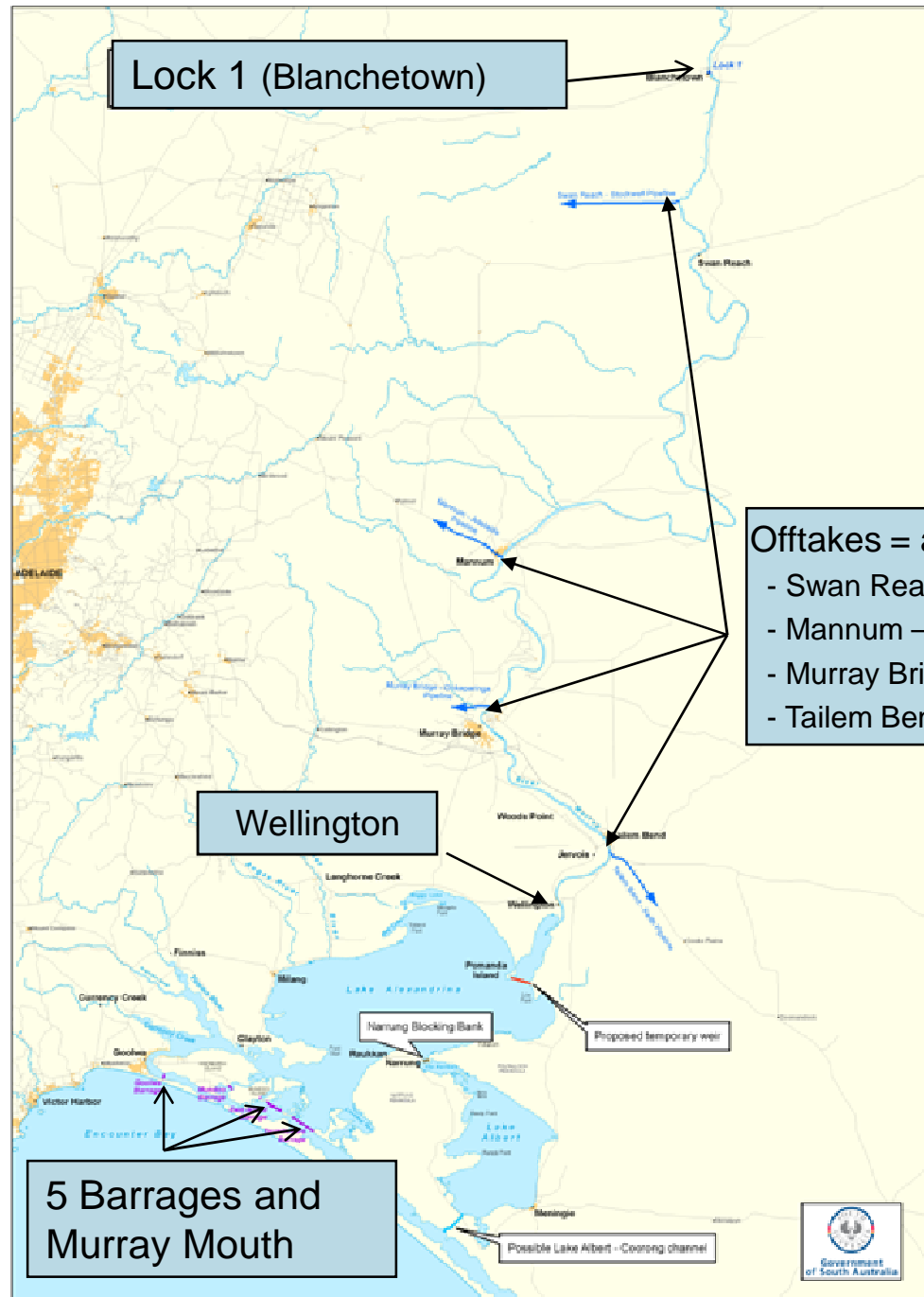
Once Critical Human Needs have been guaranteed for the current year, additional River Murray flows are to be shared between:

- a strategic reserve for CHWN the next water year
- the environment;
- irrigation;
- external domestic uses, and
- to adjust any special accounting surplus / deficit.



13. Importance of Barrages Weir Pool

Lock 1 to Barrages
= 274 km



Offtakes = approx 90% of SA popⁿ

- Swan Reach – Stockwell
- Mannum – Adelaide
- Murray Bridge – Onkaparinga
- Tailem Bend - Keith

14. Lake Alexandrina

Historical water level and salinity

