

Why the End of the River Needs Water Too

And why not an estuarine environment”?

An Estuarine Environment

- ▶ DEFINITION

- ▶ **estuary** – a bay or inlet, often at the mouth of a river, in which large quantities of freshwater and seawater mix together. These unique habitats are necessary nursery grounds for many marine fishes and shellfishes

Open the Barrages – what happens

- ▶ The key to a healthy estuarine environment is the mixing of large quantities of both fresh and sea water
- ▶ Over last 10 years opening the barrages would have resulted in an influx of sea water without sufficient fresh water flows to form an estuary
- ▶ Salt would continue to accumulation in the lower lakes from introduction of sea water, transported salt from across the basin, concentration through evaporation and a lack of flushing flows
- ▶ With insufficient fresh water flushes salinities would increase well above sea level
- ▶ Insufficient fresh water flows = a **dead sea** environment... not an estuarine environment

Open the Barrages (cont)

- ▶ Research indicates a real risk that introduction of seawater could have exacerbated the acid sulphate problem (Science inconclusive?)
- ▶ Would need a structure to prevent highly saline water from moving upstream putting drinking water supplies to Adelaide and country towns at risk
- ▶ Suitable site for a permanent structure could not be identified
- ▶ Temporary structure massive expense – would not withstand a medium flood

2002



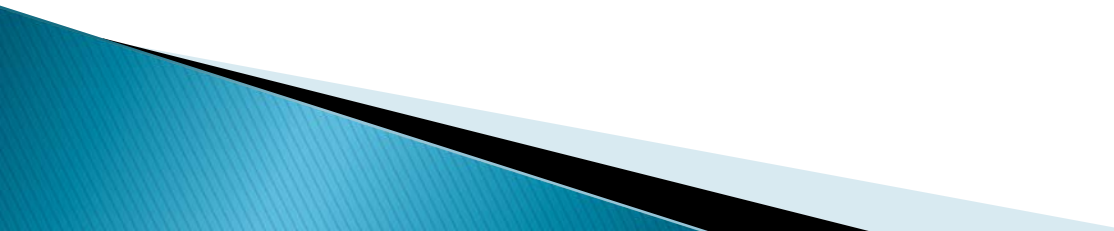
2004



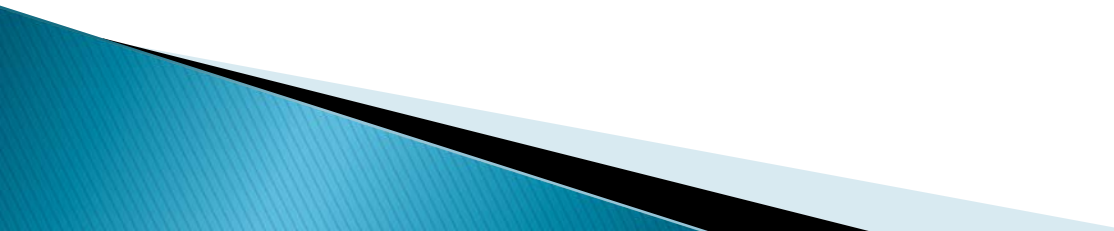
Issues for South Australia

- ▶ The Plan and its implications:
 - Storage for SA
 - Reserves
 - Critical Human Needs and drought – Alternative supplies.... SA Water
 - Irrigator opportunities... how do we support the stayers?
 - Carryover
 - Irrigator long term security of supply
 - SA has done the hard yards to upgrade infrastructure already – no recognition

The Journey

- ▶ We have a long way to go... but the journey is well worth the effort
 - ▶ Future generations are depending on us – they can't speak up
 - ▶ We must get it right – or as right as the best available data at the time can provide for
 - ▶ And we must make sure adaptability is built in to the process so that as the data evolves into new knowledge the plan can respond.
- 

Everyone is an Expert

- ▶ The Government is not trusted
 - ▶ Decisions need to be made
 - ▶ Public experts have no scrutiny regarding credentials'
 - ▶ Controversial opinion has much greater media coverage than boring fact
 - ▶ Science needs to be active in the debate
- 

What Next

- ▶ We all have a responsibility to be active in the debate
 - ▶ A program for social and economic adjustment needs to be established quickly so the plan is not totally derailed
- 