

## A Compromise Solution?

Reading the submissions so far it seems that there is still a great divide between the need for water upstream and the water required to keep the Lower Lakes and Coorong reasonably “fresh”. Both sides of the argument have merit in the short term although climate change will change many aspects in the longer term.

At the moment the flow over the Lower Lake Barrages is only about 1000 GL/y and dredges have been used for the last 10 months to keep the Mouth open. The salinity in the Lower Lakes and Coorong is still “satisfactory” even with these low flows.

The Plan calls for a flow over the Barrages of 5100 GL/y to keep the Lower Lakes and Coorong fresh and the Mouth open.

Modelling however indicates that a flow over the Barrage of only about 2000 GL/y is required to keep the Lower Lakes fresh (<1000 EC) and therefore this and the remainder (3000 GL) is to keep the Mouth open.

Assuming that when wetter conditions return, we continue dredging, then a saving of up to 3000 GL/y could possibly be available for upstream purposes.

The cost of the dredging could be paid by the sale of the 3000 GL which even at \$100 per megalitre would deliver a profit to pay for other river improvements.

This short term compromise would seem to offer benefits to all parties. The upstream users who require more water will in affect pay for the dredging to keep the Mouth open and other river improvements whilst the Lower Lakes and Coorong are still kept “fresh”.

It must be emphasised that neither this compromise nor the basin Plan allow for future climate change and sea level rise affecting the Lower Lakes and change in river flows.

Planning for these future changes must be commenced now and should include inter alia:

- information dissemination to the public regarding the impact of climate change,
- discussions regarding the future operation and modification of the Barrages,
- the possibility of an additional lock (Lock 0) between Wellington and Tailem Bend,
- additional modelling regarding the interaction between the river and ocean and the impact of climate change.

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### References

Heneker, TM, 2010. Development of Flow Regimes to Manage Water Quality in the Lower Lakes, South Australia. SA Govt, Dept for Water

Siebenritt et al, 2014. Building resilience to a changing climate: a climate change adaption plan for the South Australian Murray-Darling Basin. Prepared for the SAMDB NRM Board.

