

“Managing the Murray Darling Basin from Lock Zero”

Advisory Group

- A navigable River from the Murray’s source to the sea –

“Plan for the Worst hope for the Best.”

“A Nation that fails to plan intelligently for the development and protection of its precious waters will be condemned to wither because of short-sightedness. The hard lessons of history are clear, written on the deserted sands and ruins of once proud civilisations.” Lyndon B. Johnson, 36th President of the United

(Boating Industry, Houseboat Industry, Lower Murray Irrigators, tourist reliant businesses & other private businesses, boat owners, private marine craft operators, Marina Operators, marine craft repairers and slipway operators, fisherpersons, Mannum Big River Fishing Competition and other various groups including councilors, ratepayers of river councils and many other groups and individuals).

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Whilst a freshwater solution is in the best interests of the Murray Darling Basin and of course the River Murray we feel the chances of this occurring naturally are become increasingly distant. For that reason we are advocating the Federal Government commission an ‘EIS’ - “Environmental Impact Statement” into the construction of a permanent Lock (with Lock Chamber, Fish Passages/Ladders, Spillway and opening from the bottom – similar to Torrumbarry) and this be undertaken immediately.

We are not advocating the immediate construction of a Lock but are seeking as a matter of urgently a thorough scientific “Environmental Impact Statement” be undertaken to explore all options for the future and as an **EIS for the Opening of the Barrage Network Separating Lake Alexandrina and the Coorong** is being undertaken at the present time why could the two not be combined?

This could contribute to significant savings and each could compliment the other increasing their future value for not only Lakes Alexandrina, Lake Albert and the Coorong (the most important Ramsar – wetlands of International significance - site in Australia) but the entire Murray Darling Basin

At no time do we advocate invasive seawater being allowed to enter the Coorong, Lake Alexandrina or Lake Albert and if this were the advocated by an EIS we would be totally opposed.

In seeking an EIS we are in no way at odds with the MDB Authority or are we attempting to in any way usurp their authority as we await the fruits of their deliberations with cautious anticipation.

“Service is the price you pay for the space you occupy on this earth”

The below information has been compiled by Peter R. Smith on behalf of the, **“Managing the Murray Darling Basin from Lock Zero” Advisory Group** and is information we believe supports our call for the Federal Government to commission an ‘Environmental Impact Statement’ into the construction of a permanent regulator/ flow restrictor/lock on the Lower River Murray near Wellington as our response from the South Australian Government has been completely negative.

So far,

On behalf of the above Advisory group I have met with Hon Paul Caica MP the South Australian Minister for the River Murray and I must disappointedly report that the South Australian Government’s view is that if a restriction to flow is to be constructed in the Lower River Murray it will be temporary and will not contemplate an EIS.

We see this as short sighted and the beginning of a slow death of not only the River Murray but the Basin as rivers don’t die from the source but their mouth.

The facts,

Whilst it is great to see a significant amount of water highlighted for South Australia we must not take our eyes off the overall problems facing the Murray Darling Basin, the River Murray and the Lakes Alexandrina and Albert and the Coorong as the proposed or believed flows into South Australia from the huge rains in the Eastern States will not be sufficient to allow the Murray’s Mouth to be opened or even restore, pool level, to the Lakes and the Coorong.

Flows and Entitlements,

The average flow into South Australia since 1950 has been **8,435-gigalitres** and looking back to the nineties (90’s) the average flow into South Australia was **9,800-gigalitres** and by early this century that had diminished to **4,800-gigalitres** and for the last three or so years (No water has flowed out to the sea since late in 2006) that amount has been less than our entitlement of **1,850-gigalitres** though this year we may receive our entitlement.

In 2003/4 when Professor Tim Flannery brought the Museum road show to Mannum and during conversations with Tim and some of his scientific staff a figure of **5,000-gigalitres** was bandied about as the minimum flow needed into South Australia to ensure total River health and enable the Murray Mouth to remained open (rivers die from the mouth up).

‘Climate change’ the pending disaster,

If we look at the ‘climate change’ predictions for up to 2030, we are told/warned that the average mean temperature across the Basin will/could rise by 4-degrees and we are also told that for each 1-degree runoff into the Basin will be lessened by 15%.

Let’s take a look at the ramifications of that change in temperature (plus 4-degrees) across the Murray-Darling Basin.

As can be viewed ‘climate change’ predictions will lessen by significant amounts the inflows into the Murray Darling Basin meaning the amount of flow into South Australia (the end of the MDB) could be diminished by a catastrophic amount for the future of the River Murray below Lock 1 (at Blanchetown) Lakes Alexandrina and Albert and the Coorong (a Ramsar site).

“Help save the Murray Darling Basin use water wisely”

Now looking at the figures

The average over the last decade of the 21st century, **9,800-Gigalitres**,
 Our long (60-year average) term average has been **8,435-Gigalitres**,
 The first 5-years of this century **4,800-Gigalitres**,
 Then South Australia's entitlement flow **1850-Gigalitres**.

Temp increases predicted by 2030 in G's	9,800	8,435	4,800	1,850
1st degree (15%)	<u>1,470</u>	<u>1,265</u>	<u>720</u>	<u>277</u>
	8,330	7,170	4,080	1,573
2nd degree (15%)	<u>1,250</u>	<u>1,075</u>	<u>612</u>	<u>235</u>
	7,080	6,095	3,468	1,338
3rd degree (15%)	<u>1,062</u>	<u>914</u>	<u>519</u>	<u>200</u>
	6,018	5,181	2,949	1,138
4th degree (15%)	<u>902</u>	<u>777</u>	<u>442</u>	<u>169</u>
	5,116	4,404	2,507	969
	<u>767</u>	<u>660</u>	<u>375</u>	<u>144</u>
	4,349	3,744	2,132	825
A loss of %	56%	56%	56%	56%

Of course the above are only predictions due to 'climate change' and here I should say we hope the sceptics are correct so any improvements we make will be a bonus.

NOW let's look at the SA diversions and transmission flow requirement!

Whilst our irrigators (SA's) 2009/2010 entitlement is **650-Gigalitres** (which includes carry-over) I will use as the figure of the average of all South Australian Surface Water Diversions from 1997/1998 to 2008/2009 that figure being **614-Gigalitres**.

	4,368	3,744	2,132	820
Less that 614-Gigalitres	<u>614</u>	<u>614</u>	<u>614</u>	<u>614</u>
	3,754	3,130	1,518	206

The other gigalitre amount that we must also consider is that amount (at this time **693-Gigalitres**) for transmission flow ensuring SA's water can be delivered to the mouth of the River Murray.

	3,754	3,130	1,518	206
Less that 693-Gigalitres	<u>693</u>	<u>693</u>	<u>693</u>	<u>693</u>
	3,061	2,437	825	minus 487

If the four average inflow amounts into South Australia are significantly reduced by the predictions/forecasts for 'climate change' SA will still require the South Australian Surface Water Diversions **614-Gigalitres** and finally the **693-Gigalitres** required for transmission flow to ensure the River Murray in SA is to survive.

It must be realised that those remaining predicted amounts are what remains for water to ensure the River Murray and the environment remains alive and sustainable and how much would flow over Lock 1 is anyone's guess.

If we take another look at our four (4) flow scenarios that we began with: -

- The **1,850-Gigalitres** is now reduced to **820-Gigalitres** flowing into South Australia from which we (SA) still need our diversion requirement though we are informed this is to be reduced in the MDB Authority Plan (Sustainable Diversion Limits). From that **820-Gigalitres** which would all not be flowing over Lock 1, the Metro-Adelaide and Associated Country Areas – Average **122-Gigalitres** – will still needed to be delivered from the pumping stations downstream of Blanchetown though that would be impossible without more than just transmission flow.

We would surmise the River Murray below Lock 1 would be no longer, therefore the removal of barrages and returning that section of the River Murray to as it was before the white man settled - tidal flow - may be the only option.

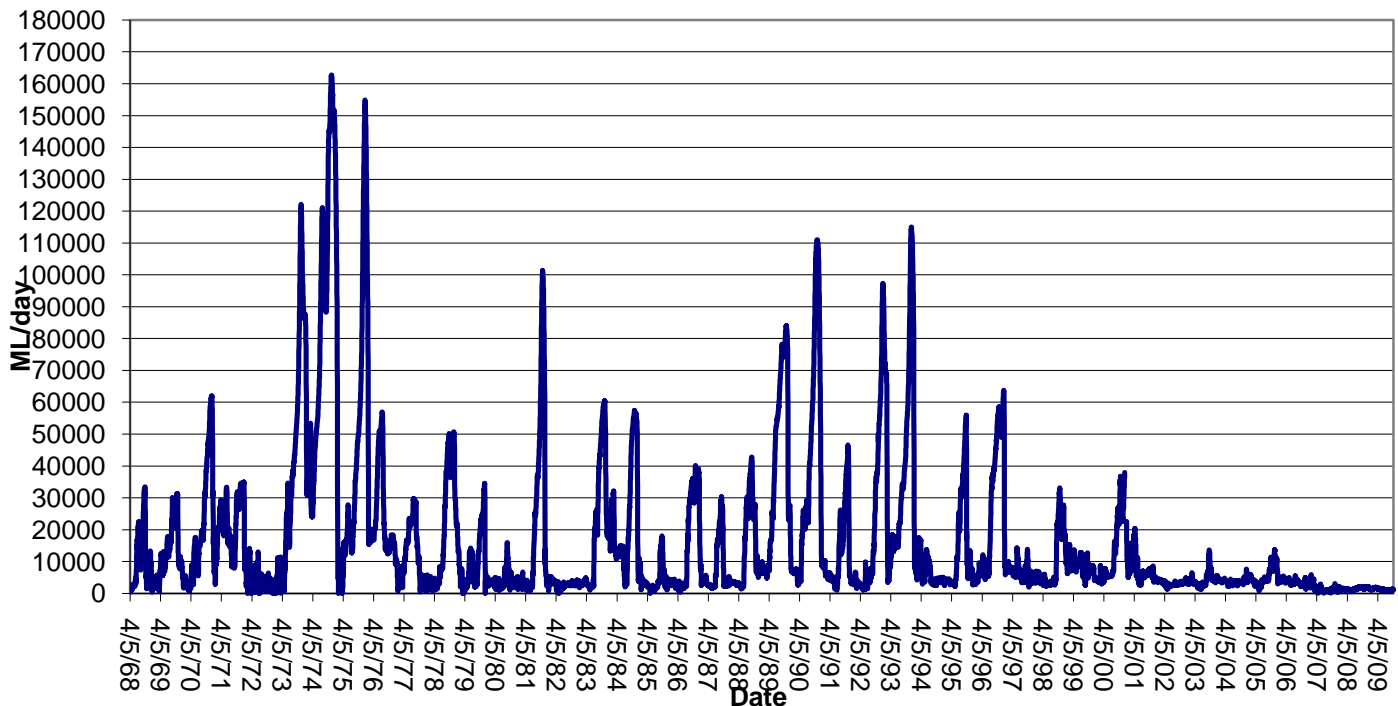
If that were the case therefore all diversions would need to be accessed from above Lock 1 and that cost would be massive – (much more than constructing a Lock – “Lock Zero”) cheaper to ensure a sufficient flow over Lock 1.

- The **4,800-Gigalitres** is now reduced to **2,132-Gigalitres** flowing into South Australia from which we (SA) still need our diversion requirement though we are informed this is to be reduced in the MDB Authority Plan (Sustainable Diversion Limits). From that **2,132-Gigalitres** which would all not be flowing over Lock 1, the Metro-Adelaide and Associated Country Areas – Average **122-Gigalitres** – will still needed to be delivered from the pumping stations downstream of Blanchetown. We doubt that would be enough to maintain the requirements for the required pumping from the River Murray and the environment needs of the River, Lake Alexandrina, Lake Albert and the Coorong and though it is far better than the above scenario one thing is for sure there would be no room for increased growth.
- The remaining two scenarios **9,800 and 8,435-Gigalitres** are now **4,349-Gigalitres and 3,744-Gigalitres** flowing into South Australia, if either of these amounts were to remain possible the entire Murray Darling Basin would be out of trouble and there would be no need for any actions but sadly these scenarios appear to be out of reach.

We would conclude from the above figures/information and other information to hand that we must be vigilant and be prepared for the future with less water available from the Murray Darling Basin, so as to assure preparedness all options for saving the Murray Darling Basin must as a matter of urgency be explored.

By the below chart it can be seen how the flows over Lock 1 have decreased since 1968 and especially since 1996 and there is nothing giving us hope this will improve.

Flow Passing Lock 1 1968-2009



Conclusion,

We believe that a scientifically conducted EIS would/could investigate the many aspects of the advantages and any major disadvantages of a permanent construction, a Lock with a Lock Chamber, Fish Passages (Ladders), Opening from the Bottom with spillways to maintain/monitor the River's level and a constant flow into Lakes Alexandrina, Albert and the Coorong.

We at no time wish to separate permanently the River from the Rivers' Mouth but to be able to when possible pulse water into the Lakes and the Coorong and as much as possible allow water to flow out of the Mouth, through the Barrages.

Our belief is that if the River Murray Pool Level could be maintained at minimum of 0.4-metre above AHD this would ensure all irrigators could access their entitlement, ferries could resume normal operation, all boat ramps could revert to use and use by conventional two wheel drive vehicles, all adverse advertising could be turned around ensuring firstly all marine craft on the river could resume normal business including the large craft which are now in doubt for the coming tourist season as they cannot access any slips below Lock 1- and cannot travel through Lock 1 meaning they may soon have to cease operating, a \$126M loss of income.

There are massive amount of problems below Lock 1 and if the repairs are not done soon and the problems continues to occur repairs may become impossible.

Another problem (in many cases a hidden problem) are the socio-economic effects which in a number of case have not only culminated in family breakups but in a few severe case persons who have lost all hope have committed suicide.

A recent survey in the Lower Murray showed a loss of tourist trade of as much as 35% with many businesses going to the wall which has had another massive flow on effect on communities.

We see an Environmental Impact Statement with the correct terms of reference being able to answer all the necessary questions as to management of the River Murray and therefore the Murray-Darling Basin all the way to the source, looking at all socio-economic advantages and dis-advantages, all effects on irrigation and the continuance of all irrigation and associated industries, the continuance of vital public and private services, the ability to maintain all tourism associated industries and one other over-riding important facet of management the continued management of South Australia's storages Dartmouth Dam the Hume Weir and Lake Victoria. In seeking an EIS we are ultimately seeking the umpire's ability to arrive at a decision and we will be compelled (if the correct terms of reference are set) to abide by that decision as will those who are not only opposed to any construction in the Lower River Murray below Tailm Bend but also an EIS – what are they afraid of?

We realise that the Murray Darling Basin and the River Murray are listed in the most ten degraded river systems in the World and also in the ten most regulated rivers in the World but fervently believe that if the River Murray is not managed from the Lower River Murray with some water passing through the Murray Mouth the death of the river is imminent.

Finally if the planned growth in the Australian population is to occur we MUST be able to ensure adequate water is available.

[Looking at some of hundreds of recent headlines we believe supports our call.](http://www.smh.com.au/environment/water-issues/deliverance-from-queensland-floods-was-too-optimistic-20100518-ycah.html)

<http://www.smh.com.au/environment/water-issues/deliverance-from-queensland-floods-was-too-optimistic-20100518-ycah.html>

[Deliverance from Queensland floods was too optimistic](#)

The record-breaking March floods in Queensland will deliver less water than first thought to the lower part of the Murray-Darling Basin, the NSW Office of Water has warned. Downstream basin states NSW, Victoria and South Australia have been hoping for a boon after the massive floods in south-east Queensland this year. While the states will still get substantial flows, it will be less than first expected. In a report released late last week the NSW Office of Water finds the Menindee Lakes in western NSW - which holds water that will be later sent downstream to Victoria and South Australia - is three-quarters full. Initial estimates of the effect of the March floods suggested the lakes, which hold up to 1800 billion litres, could fill and even overflow.

<http://www.smh.com.au/environment/water-issues/water-reforms-will-mean-pain-wong-20100520-vhpa.html>

[Water reforms will mean pain: Wong](#)

Water reforms will mean some pain for Australians, Water Minister Penny Wong says. "And you can expect that everyone is going to feel some pain," she said.

<http://www.abc.net.au/rural/news/content/201005/s2904675.htm>

[Slight worsening of drought in NSW](#)

There's been a slight increase in the area of NSW affected by drought. The latest figures show 9.4 per cent of the state is drought declared. That's up from 7.3 per cent last month. Parts of the Central West, Tablelands and New England regions have moved from being marginal to satisfactory.

[The Australian](#)

[Its official: the drought is finally over](#)

The drought is officially over, and farmers in southeast Australia can afford a wry smile. But the Bureau of Meteorology has warned that despite above-average rains last month, on top of the big wet earlier in the year, there is a still a long-term rainfall deficiency and more is needed to fill dams and run the rivers of the Murray Basin. The Murray-Darling Basin Authority reports the active storage in its dams is now at 30 per cent capacity, nearly half the long-term average.

<http://sj.farmonline.com.au/news/nationalrural/agribusiness-and-general/political/big-water-cuts-coming/1836390.aspx?src=enews>

[Big water cuts coming](#)

Irrigators will be forced to take cuts to their water use under changes to how the Murray-Darling Basin is managed, Water Minister Penny Wong has foreshadowed. Senator Wong told a water conference that the Murray-Darling Basin plan, under development, would be tough and "one of the largest adjustments Australia has ever seen." A draft version of the plan will set out caps on how much water can be taken from the Murray-Darling river system by irrigators. "... It is only reasonable to expect that irrigators will face significant cuts in their water use," Senator Wong said. "And you can expect that everyone is going to feel some pain.

We are undergoing a major change in how we use water ..." Opposition water spokesman Barnaby Joyce, the National Farmers Federation and the Productivity Commission have claimed that the targets unfairly favour the environment and do not take into account the needs of rural communities and farmers.

<http://news.smh.com.au/breaking-news-national/floods-a-let-down-for-murraydarling-20100526-wedu.html>

[Floods a let down for Murray-Darling](#)

Authorities have confirmed this year's record-breaking Queensland floods won't meet expectations, with only a small part of the deluge to reach the bottom of the Murray-Darling Basin. From December last year to March, 6700 gigalitres of water passed through the north's major rivers, and of that, about 2100 gigalitres was set to reach the Menindee Lakes, a budget estimates committee was told on Wednesday.

The Menindee Lakes in NSW are on the Darling River, about 200 kilometres upstream of the Darling and Murray River junction.

<http://www.abc.net.au/rural/news/content/201005/s2911964.htm>

[Queensland floodwaters won't reach Murray mouth](#)

The Murray Darling Basin Authority says none of the water from the Queensland floods will reach the mouth of the Murray.

<http://www.theaustralian.com.au/news/nation/murray-mouth-needs-flood-in-southern-basin/story-e6frg6nf-1225872740609>

[Murray mouth needs flood in southern basin](#)

It would take a flood along the Murray River to rescue South Australia's Lower Lakes and finally restore a natural flow out to the ocean.

<http://www.adelaidenow.com.au/news/opinion/editorial-elitist-school-system-threat-to-education/story-e6freabl-1225876208305>

[A line choking Lower Murray](#)

The national takeover of the Murray-Darling Basin by the Federal Government began as a noble ideal, but one that has been undermined ever since. In the months since states signed away their rights to individual control of the river system, Queensland has activated dormant water entitlements and turned them into licences, NSW has watered down a commitment to stop so-called floodplain "harvesting" and Victoria's extraction of \$1 billion from the Federal Government to improve water efficiency has been exposed as a sham.

Today *The Advertiser* reveals yet another hurdle the once-healthy river faces. Hard as it may be to believe, the Murray-Darling Basin Authority doesn't actually control all the water in the river system.

The health of the river is now being undermined by nothing more significant than a line on a map. Because of this boundary the authority says it cannot be responsible for guaranteeing flows to the Lower Lakes and the Coorong.

Surely this could, and should, be changed with the stroke of a pen as one more essential step towards national control of such a significant natural asset.

That means guaranteeing the flow over Lock 1 as that is the only way water can be guaranteed for Lakes Albert, Alexandrina and the Coorong.

If there were ever a better reason for an EIS as we are requesting could someone please explain.

THIS IS A NATIONAL DISGRACE!

A sad and sorry state!

The END of the River Murray that we have grown too know our once mighty River Murray!



Snapshots in time

1978



In 1981 the Murray Mouth closed for the first time in recorded history. It was closed for 3 months before being opened by dredging.

1989

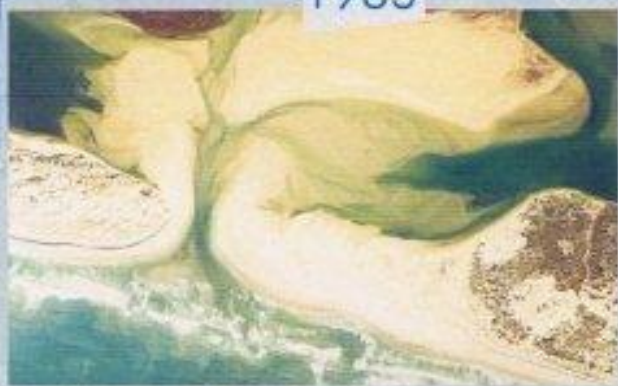


1981



1995

1983

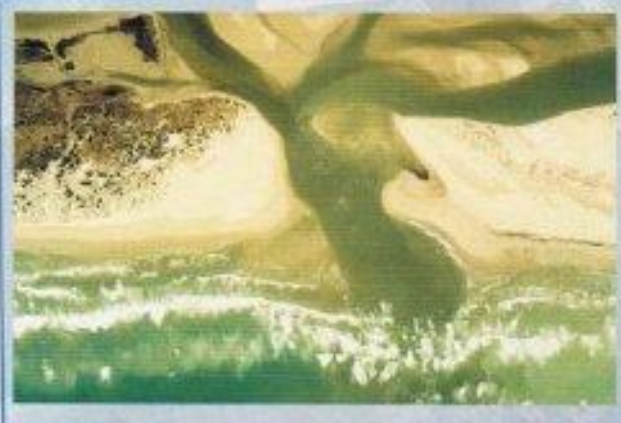


1997





1998



2001



2000



2002

Currently the Murray Mouth is threatened with closure for the second time in recorded history

1999



The Colorado prior to the Hoover Dam.



Since the building of the Hoover Dam the Colorado much like our once Mighty River Murray has been decimated by over extraction (photo on right hand side) upstream, excess irrigation has not only destroyed the Colorado but thousands of square miles of once irrigated primary production land.

When the water runs out so does the ability to produce the result “a wasteland”.

The Colorado only occasionally reaches the sea, dying from the mouth.

Is this what we want for our once iconic River?

On behalf of, **“Managing the Murray Darling Basin from Lock Zero”** Advisory Group,

Independent Spokesperson:

Peter R. Smith OAM

Immediate Past South Australian Vice-President Murray Darling Association,
Member; Lower River Murray Drought Reference Group,
Vice-President Murray Watch SA,
Ex-elected Member Mid-Murray Council,
Volunteer ‘Climate Change’ Presenter;
Trained by Australian Conservation Foundation and Al Gore.

Photographic evidence supporting our call for an Environmental Impact Statement can be viewed by accessing the link below.

The below link should be finalised and accessible by 5th July 2010

www.psmithersmyriver.com/lockzero