

# AUSTRALIA'S RIVER



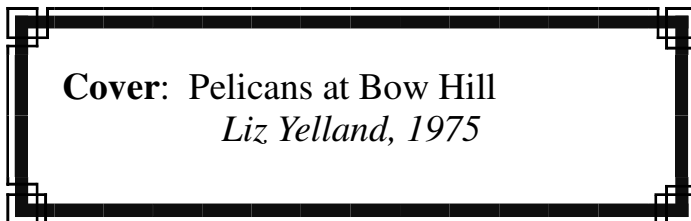
**A SPECIAL LOCAL KNOWLEDGE EDITION  
OF  
LAKES NEWS**

River, Lakes and Coorong Action Group Inc.  
*Keep our waters alive!*

Edited by Diane Bell, Keith Walker and John Yelland

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**LAKES NEWS is produced  
by members of the  
Committee of the RLCAG.**

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The opinions expressed herein  
are not necessarily those of the  
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indicated.

## WHO IS THE RLCAG?

Formed in January 2007, the RLCAG Inc is a non-partisan community group living and working around the estuary at Lake Alexandrina and the Murray Mouth. Membership embraces a wide range of occupations, including irrigators, farmers, fishers, boat builders, local business people, engineers, scientists and clergy, brought together by concern for the rapidly deteriorating health of our river. The RLCAG is a member of Waterkeepers Australia, a group whose aim is to encourage the protection of waterways.

Committee meetings of the River, Lakes and Coorong Action Group are held fortnightly.

The annual membership fee is \$1.00 per person, starting at the AGM in May each year.

### OUR AIMS:

*To protect, conserve and enhance the biodiversity of the River Murray, Lakes and Coorong.*

*To liaise with appropriate bodies over the management of the River Murray, Lakes Alexandrina and Albert and the Coorong, and their immediate surrounds, in particular the issue of over-allocation of water.*

*To educate the Community in River Ecology.*

### Current Committee is:

- |                                      |                   |
|--------------------------------------|-------------------|
| * <b>Chair:</b> Anne Hartnett        | * Diane (Di) Bell |
| * <b>Secretary:</b> John Yelland     | * Trevor Giles    |
| * <b>Treasurer:</b> David Knappstein | * Henry Jones     |
| * Bruce Allnutt                      | * Liz Yelland     |
| * Chris Bagley                       |                   |

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# CONTRIBUTORS

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**Lesley Fischer** is an ex dairy farmer and irrigator who lives between the shores of Lake Albert and the Coorong. She has watched her environment, her family business and that of her community, both rural and town, suffer the stresses of an uncertain future.

**Henry Jones** has been fishing the Coorong and adjoining river and lakes for 45 years, as did three previous generations of his family, and is a highly respected voice on issues concerning the River Murray, Lakes and Coorong. He has served on the Murray Darling Basin Community Reference Group, Murray Darling Basin Native Fish Strategy Committee and the River Murray Advisory Committee.

**Kerri Muller** holds a PhD in wetland ecology and has 17 years practical experience in Natural Resource Management. Kerri has worked with community and industry groups, Government Agencies and research institutions.

**The Ngarrindjeri Heritage Committee**, chaired by Elder Tom Trevor has responsibility for matters arising from or related to the Aboriginal Heritage Act.

**RLCAG.** Members of the River, Lakes and Coorong Action Group Inc work together to write articles for

the Lakes News, policy documents and press releases. Over the past few months, when there has been a flurry of referrals under the Environment Protection, Biodiversity Conservation Act that invite public comment, the RLCAG has hosted “drafting sessions” for members and other interested parties. Documents are circulated and refined by email before being distributed more widely.

**Terry Sim** was born and raised in Milang, on the shores of Lake Alexandrina. After a career working as chief curator of the fish collection for the Museum of South Australia, Terry now documents the social history of the Coorong and Lakes system at the mouth of the River Murray.

**Keith Walker** is an environmental consultant and Adjunct Associate Professor in the School of Earth and Environmental Sciences at The University of Adelaide.

**John Yelland** was born and raised on Point Sturt, on the southern shores of Lake Alexandrina. An Electronics Engineer, John worked in media and computers in universities in Adelaide and Melbourne. John and Liz returned to the family farm in 1998, renewing a passion for local history and local knowledge.

**Liz Yelland** grew up among the limestone, ephemeral wetlands and coastal salt pans of Eyre Peninsula. She graduated in Applied Physics and worked for many years in scientific research before returning with her partner John to Point Sturt. She is now a practising artist with a passionate interest in the local environment.

## Useful website addresses:

River, Lakes and Coorong Action Group:  
<http://www.stoptheweir.com>  
<http://www.riverlakescoorong.com.au>

Water levels and quality in the Lakes:  
[http://www.dwlbc.sa.gov.au/murray/rivercond/lower\\_lakes.html](http://www.dwlbc.sa.gov.au/murray/rivercond/lower_lakes.html)  
<http://e-nrims.dwlbc.sa.gov.au/monitoring/lakes/>

Waterkeepers Australia  
<http://www.waterkeepers.org.au/>

EPBC referrals  
<http://www.environment.gov.au>

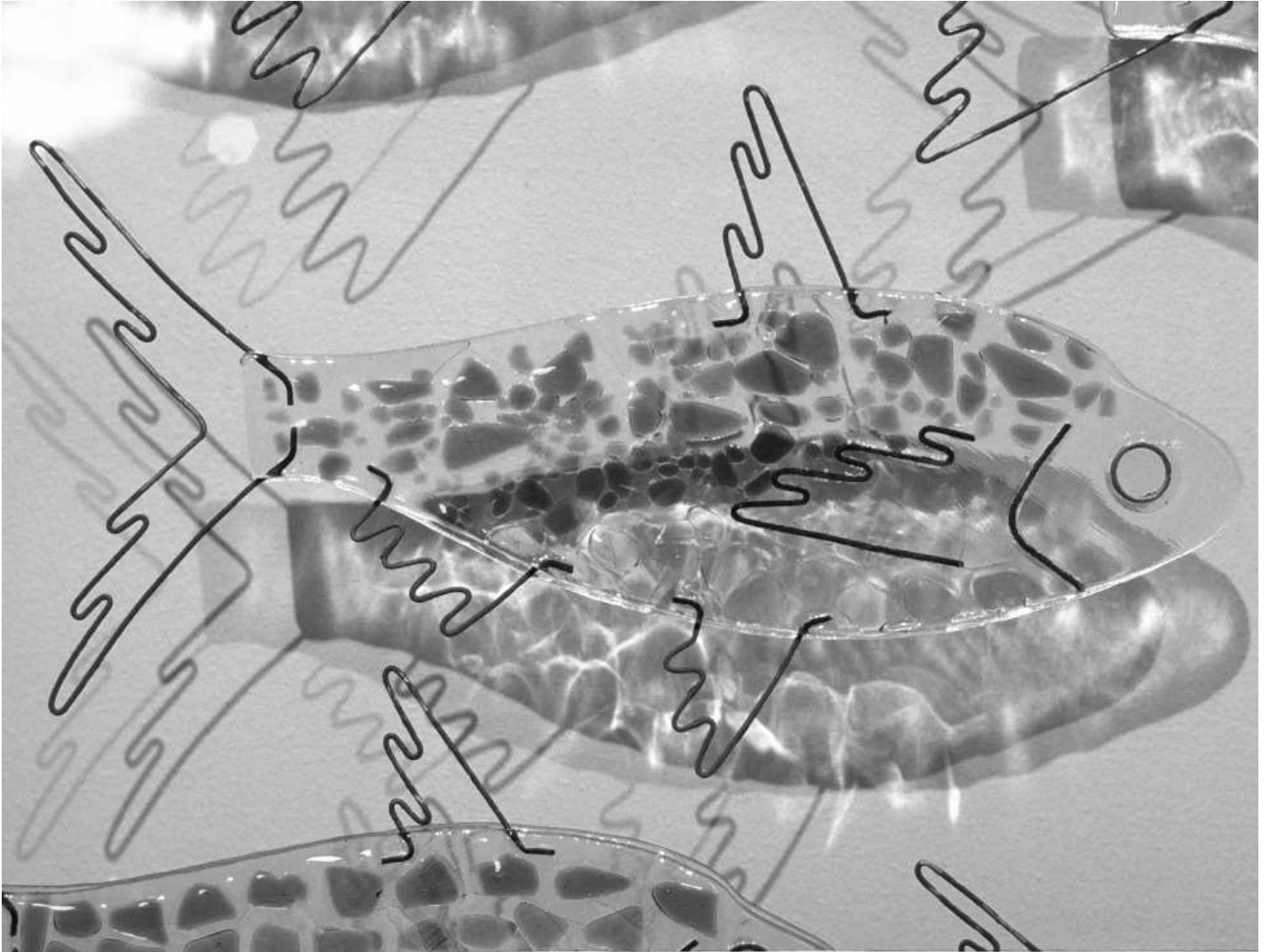
Vesper Tjukonai at Narrung:  
<http://narrung.blogspot.com>

Milang Old School House Community Centre  
<http://www.moshcc.com.au>

Lower Lakes and Coorong Infrastructure Committee  
<http://www.coorong.sa.gov.au/site/page.cfm?u=188>

Ramsar Snapshot Study - Final Report  
<http://www.environment.gov.au/water/publications/environmental/wetlands/ramsar-snapshot-study.html>

Senate: Lower Lakes and Coorong Inquiry  
[http://www.aph.gov.au/SENATE/committee/rrat\\_ctte/lowerlakes\\_coorong](http://www.aph.gov.au/SENATE/committee/rrat_ctte/lowerlakes_coorong)



*Thukeri Fused glass and copper wire*  
Liz Yelland 2003

# *Thukeri* Story

A long time ago two Ngarrindjeri men went fishing in Loveday Bay near Lake Alexandrina to catch the *thukeri mami* (bream fish). They set off in their bark canoe to catch the big fat *thukeri*. They fished and fished until their canoe was nearly full. One of the Ngarrindjeri men said, “Hey brother, we have plenty of *thukeri*. Let us paddle to shore before we sink.” But the other Ngarrindjeri man said, “No let us catch more and more” and they kept on fishing until the canoe was overfull and ready to sink and then they decided to paddle to shore. As they paddled to shore they saw a stranger coming towards them and they said, “This man might want some of our *thukeri*”, so they covered up the *thukeri* with the woven rush mats.

When they were approaching the shore, the stranger said to them, “Hey brothers, I’m hungry. Have you got any fish to share?” But the two Ngarrindjeri men said, “No, we haven’t got many fish. We only have enough to feed our families.” So the stranger began to walk away. Then he turned and said, “You have plenty of fish and because you are greedy and don’t want to share, you will not enjoy the *thukeri* fish ever again.”

As the stranger walked away the two Ngarrindjeri men laughed at him.

When the two Ngarrindjeri men unloaded the *thukeri* on to the banks to scale and clean them, they looked, their nice big fat *thukeri* were bony and full of bones. They didn’t know what had happened. The two Ngarrindjeri men went home to the campsite in shame and told the Elders what had happened. The Elders were angry and said, “The stranger was *Ngurunderi*, our Spirit Ancestor and because you two were greedy and told lies and would not share, he has put a curse on our *thukeri mami* (bream fish). Now all the Ngarrindjeri people will be punished for what you two have done.”

Courtesy of The Ngarrindjeri Heritage Committee

*Thukeri* is often called Bony Bream but is now standardised as Bony Herring.

# A Fresh History of the Lakes

By Terry Sim and Kerri Muller



Contrary to widespread belief today, Lakes Alexandrina and Albert were not salty estuaries in pre-European times.

In their natural state, the lakes were predominantly fresh, with River Murray water discharging from the mouth and keeping the sea at bay.

The fresh water supported thriving ecosystems in and around the lakes, with enormous flocks of ducks, swans, migratory waterbirds, magpie geese and broilgas. Deep, dense stands of reeds and water plants extended far into the water. Long-necked turtles,

yabbies, mussels, schools of hardyhead and pygmy perch thrived. Lignum bushes and tea-trees crowded close to the shore. Murray cod and callop shared the fresh, clear water flowing to the mouth with congolli and estuary perch.

This prolific life allowed the Ngarrindjeri people to maintain permanent settlements in the region. Early European settlers relied on the lakes as a supply of good quality water and on the fringing reedbeds as stock feed.

*'The river is being so drained by irrigation works and its level is so steadily sinking that the lower stretches are becoming almost tidal, and the sea water is finding its way far up stream.'*

The Southern Argus, editorial in 1912



By the late 1880s, upstream water extraction for irrigation combined with drought had reduced flow in the River Murray. The amount of water running out of the mouth was no longer enough to hold back the sea. The lakes could not be relied upon for the supply of fresh water. Murray cod and other fish once caught in their thousands began to disappear. Lake edge stock feed was lost.

After generations of discussion, construction of the Murray Barrages began in the 1930s, to prevent entry of the sea into the lakes. By 1941, these structures had created a stable, freshwater lake system.

Reedbeds along the shoreline and pockets of swamps and fringing vegetation now provide a mix of important habitats.

*'There in the distance was the lake... We were soon tasting the water—it was fresh, and it was not salt; it had a vapid sweet taste but it quenched our thirst.'*

Hamilton, one of the Overlanders, writing in 1839



*'Sir, Few South Australians realise how important the Murray barrages are to this State... if we do not stop the flow of fresh water out and salt water in, we will hereafter have the sea up to Swan Reach.'*

The Advertiser, letter from T. Charles Good, 1933

# A FRESHWATER SYSTEM

## A FRESH HISTORY - TIME LINE:



1870s Jetty at the Narrows between Narrung and Point Malcolm

*Ken Strother Collection*



1902 Drying wool at Point McLeay after washing in the lake

*Ken Strother collection*



1930s The 'Tarella' side-paddle steamer took members of the River Murray Commission to the mouth to inspect proposed sites for barrages.

*Ken Strother collection*

*These pages also available as an A4 handout from the RLCAG web sites.*

**1820s** Sealers, whalers and inhabitants of Kangaroo Island tell of the existence of a freshwater lake on the mainland.

**1837** Strangways and Hutchison travel up river from near the Mouth to Point Sturt/Point McLeay "water here was so pure that we filled our kegs". Cock, Finlayson, Barton and Wyatt travel down the Bremer to Lake Alexandrina where "the lake appears to be of vast extent, the waters being quite sweet and fresh."

**1889** South Australia complains of water extraction by New South Wales and Victoria. Local Member, Mr. A.H. Landseer, said the lower river and lakes country was being destroyed "by the encroaching of seawater for want of sufficient fresh water down the river to keep it back during low water."

**1892** Irrigation scheme for land from Milang to Angas Plains suggested. For the last two weeks of May, fishermen at Milang send 12,000 pounds of cod (~5,500 kg) to the Adelaide Fish Market.

**1902** Wool washing at the Point McLeay Mission ceased due to increasing salinity of Lake Alexandrina.

**1903** Bores and wells need to be sunk around the lakes to provide water "where hitherto there has been an unlimited quantity of beautifully fresh water in the lakes."

**1912** Due to effect of north winds at Wellington, the lowest river ever seen by white man was experienced in March. A "nauseous, green slimy scum that killed sheep and dogs" causing problems at Poltalloch and other properties.

**1915** Salt water in the river at Mannum. Willows at Wellington found to be dying as a result of salt water being there in the previous year.

**1930** Deputations meet with Minister of Agriculture regarding maintaining fresh water supplies in the lakes. He was told that land "values had been much higher on account of the fresh water facilities. Land owners felt... they were likely to be robbed of their riparian rights by substitution of salt water for fresh."

**1933** Several farmers at Point Sturt said that many years ago the frontages were reeds, today frontages are sheets of water. The reeds were killed by saltwater. J.T. Cowan of Poltalloch said "prior to locking the lakes were never really salty enough to damage stock."

**1935** *The Mail* "Work That Will Absorb 700 Men. Murray Scheme Jobs"

"Construction of the barrages will cost £600,000. They will take three years to complete, and will restore to settlers along the Lower Murray approximately the same fresh water conditions that existed before irrigation began to drain off huge quantities higher up the river."

**1939** *Southern Argus* "Great progress is being made at all sections of the barrages. Work at Mundoo, Boundary Creek and Ewe Island has been completed, and only Goolwa and Pelican Point remain to be finished."

**1940** *Southern Argus* "Goolwa News. Work at the barrage is practically completed... and it is now a real pleasure to see the effect of them on the fresh water."

These pages are an extract from the book "A Fresh History of the Lakes: Wellington to Murray Mouth" by Terry Sim and Kerri Muller, 2004. It has recently been reprinted and is available at the Natural Resource Centre, Strathalbyn. Contact: Tony Randall (08) 8536 4551

You can also download a pdf from the RLCAG web site.

# FRESHWATER MUSSELS TELL A TALE

Atop the limestone cliffs at Point Sturt there are many shell fragments of the freshwater mussel *Velesunio ambiguus*. This species is common in the lake today, although many mussels have died in the last two years, as the lake level has receded and salinity has increased.

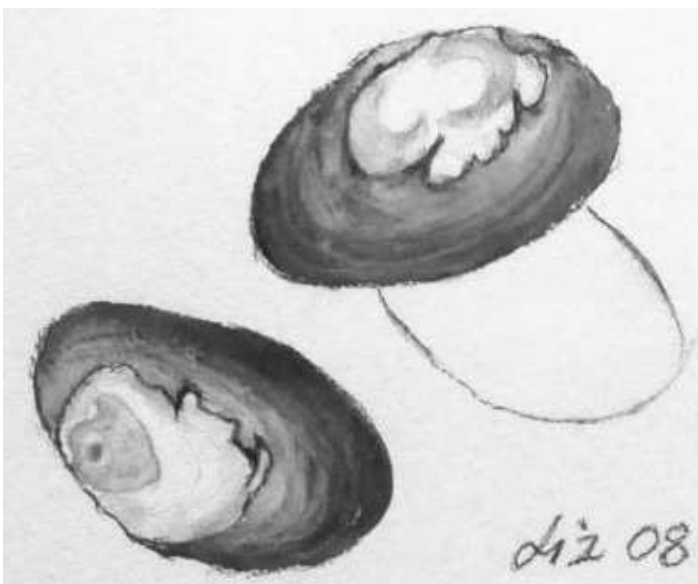
Point Sturt was a popular camping area for Ngarrindjeri people, according to the nineteenth-century missionary George Taplin. The people would gather the mussel shells and roast them in the ashes of a fire until the valves gaped and the soft body could be scooped out and eaten.

At some places along the Murray, middens of discarded shells are metres deep and cover very large areas, clearly the residue of feasting over many generations. Dating of some of these deposits (from associated charcoal or bone) indicates ages of up to 6000 years. The Point Sturt shells are highly decomposed, suggesting an age of some thousands of years, but this has not been confirmed by dating. This species of mussel tolerates salinities up to 4000-5000 mg/L, and the presence of large numbers therefore confirms that the environment at the time they were gathered was fresh water.

*Keith Walker*

*Information on salinity tolerance:*

Walker K.F. 1981. Ecology of freshwater mussels in the River Murray. *Australian Water Resources Council Technical Paper* 63: 119p.



*"Cockles" Coloured Pencil & Acrylic  
Liz Yelland 2008*

# LAKE LEVELS

Those of us who live around the Lakes and were born after 1941 when the barrages were completed, have only experienced the water levels at nominally "pool level" i.e. plus 0.75 m above AHD (sea level). Even so, we are used to seeing the water move up and down with changing seasonal and wind conditions, "It's a bit low", we would say, when we saw swans standing up to their ankles on a sand bar or "It's a bit high", when the fringing samphire wetlands glistened with water and ibis and spoon-bills gathered to feed on frogs. We watched the Kindaruar Lagoon alternately fill through its pelican-lined channel and then dry, its exposed mud floor covered with waders.

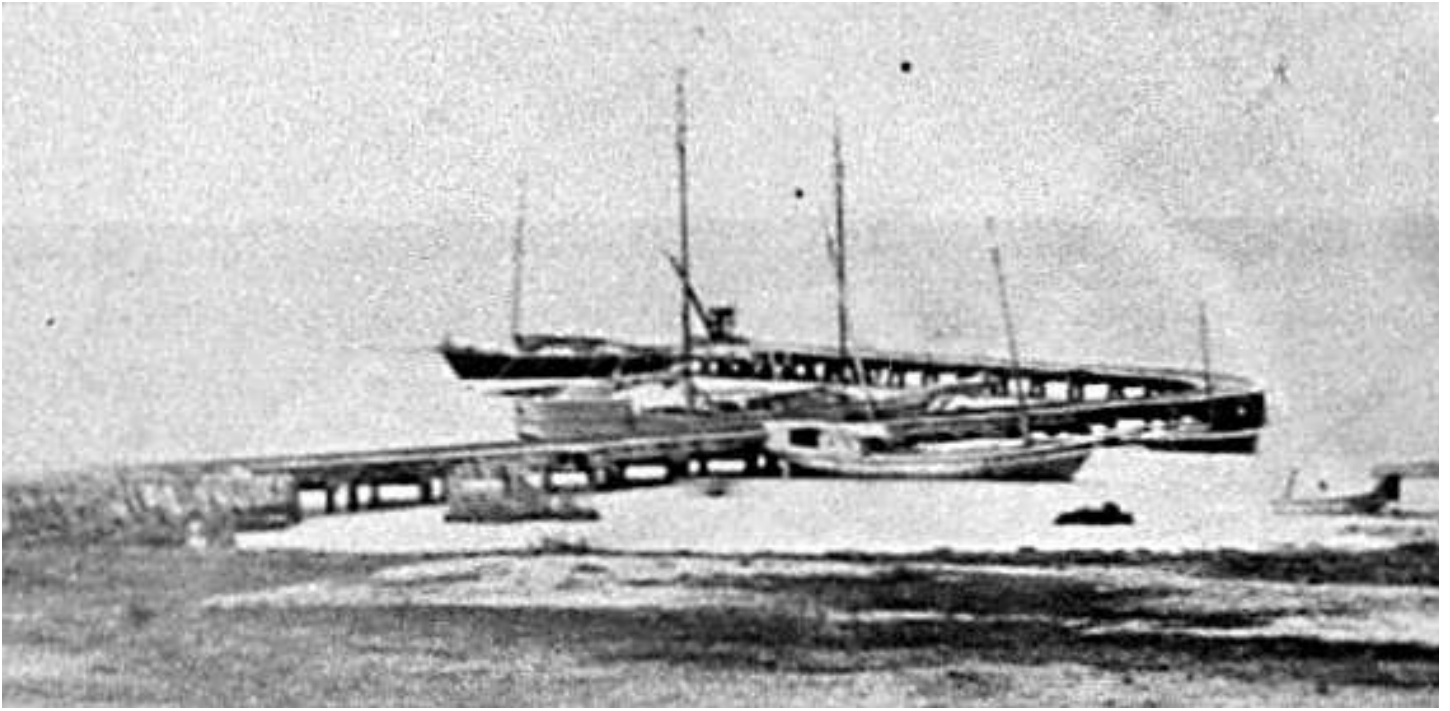
But nobody in either white or Ngarrindjeri collective memory has ever experienced the lake levels to be as low as they are now, more than a metre below sea level.

What were the lake levels like in the days before the barrages? One can surmise that during years of severe drought they would have been close to sea level, during floods, up to 1.2 m higher (1956 flood level), and in conditions of normal river flows at a variety of levels in between.

We can learn a lot about the historic prevailing water levels by studying old photos of the Milang jetty. The one on the next page, taken in the 1870s before the railway arrived, shows several sailing boats, one a two-master, moored at the jetty about halfway to the start of the curve. The water level appears to be lapping at the jetty abutment and the rather bare shore. There must have been a reasonable water depth (where now it is bone dry) since the boats are obviously floating. In fact the level and depth appears very similar to the modern +0.75m pool level. As children in the 1960s, we attended "learn to swim" classes in the area next to the sailing boats.

The jetty is seen here in its original length and clearly shows its interesting curve. This curved section was demolished following severe damage in the 1956 flood, and the current jetty ends just on the corner.

Milang in its early days was a busy port and needed to remain open at all times. Sailing boats and paddle steamers from Milang to Meningie through



Milang Jetty c1875 (detail) Photo courtesy Joyce Hopgood

the Narrung Narrows were part of the overland passenger and mail route to the Coorong, to settlements around Naracoorte and Bordertown and beyond to Victoria, until the railway was built through Murray Bridge in the 1880s.

The jetty and its tramway embankment were built high, enabling its use to continue through flood conditions. To cater for the opposite extreme, low water in drought, the curved section at the jetty's end followed a deeper pool and channel capable of handling shipping in the driest conditions. This channel and pool, inside a now raised sand bank, are still visible today, even at our current extremely low water conditions.

Crossing our property at the southwest corner of Lake Alexandrina, is the central depression of an ephemeral creek bed, connecting the Lake with a series of claypans stretching inland between Pink Gum scrub sandhills. The road to Milang, across this creek and its surrounding swamp, was often boggy or underwater. Great-grandfather Yelland and his brothers built a "corduroy road" causeway out of logs where the road crossed the swamp and also another similar construction on an access track within the farm. The main road was later rebuilt, but the farm section remained in use until it was covered



"Corduroy" and limestone ford across an ephemeral creek built on Yelland's farm c1870, seen here through shallow water in 2007.  
John Yelland

by the rising waters, after the barrages were built in 1940. I rediscovered it while wading on foot to repair a fence in the Lake in 2003. It was then under about 0.5m of water.

It was one of the first old landmarks to surface when the lake began to drop in 2007. From this we can deduce that Lake Alexandrina could commonly have been at a level approximately 0.25 to 0.3 m above sea level.

John & Liz Yelland

# ANOTHER WEIR FOR THE LOWER MURRAY?

What happens to a river when it is impounded by a weir? In a dry climate, in a region of salty groundwater, on a river with variable flows and a gentle slope, a broad floodplain and many wetlands and woodlands? And what of 10 weirs in close succession?

The Lower Murray weirs originally were designed to aid navigation, but nowadays they maintain water supplies for irrigation. They were a bold venture in their day, 80-odd years ago, but whatever benefits they brought have not been without cost to the environment.

The weirs have separated the river from its floodplain, when these are two parts of one ecological system. The floodplain wetlands and woodlands are degraded and many of the native flora and fauna are in decline. Many wetland plants and animals have found a new home in the slow-flowing margins of the weir pools, and water plants now grow on river banks that were once bare. The floodplain is starved of water.

The river itself has become a more favourable habitat for alien species like carp and willows than for the native Murray cod and river red gum. Some species that were once common, like the Murray crayfish, have declined or disappeared.

The Murray is now adjusting its gradient by eroding sediments from below the weirs and depositing them above the next downstream weir, slowly reforming the channel as a 550 km long staircase with 3-metre risers. The river no longer has sufficient flow to flush the channel, and sediment is accumulating. This has encouraged the build-up of acid sulfate soils in riverine wetlands and the lower lakes.

Nor is the river able to purge the salt that is accumulating in the floodplain soil. Salty water in the river channel today merely hints at a greater problem that will become more apparent in future, as salinity levels in soil and water increase.

The pools formed by the weirs are quite a different environment from a free-

flowing river. As the discharge has fallen away, more as a consequence of excessive diversions than drought, the pools have come to resemble slow-flowing wetlands. Slow-moving water, warm temperatures and nutrients conspire to promote algal blooms, causing water-supply problems and threatening fish and other aquatic animals.

These kinds of problems are parts of a legacy that will dominate our future relationship with the river. We ought to have learned from the experience, but the proposal to build still another weir downstream of Wellington suggests that we have not.

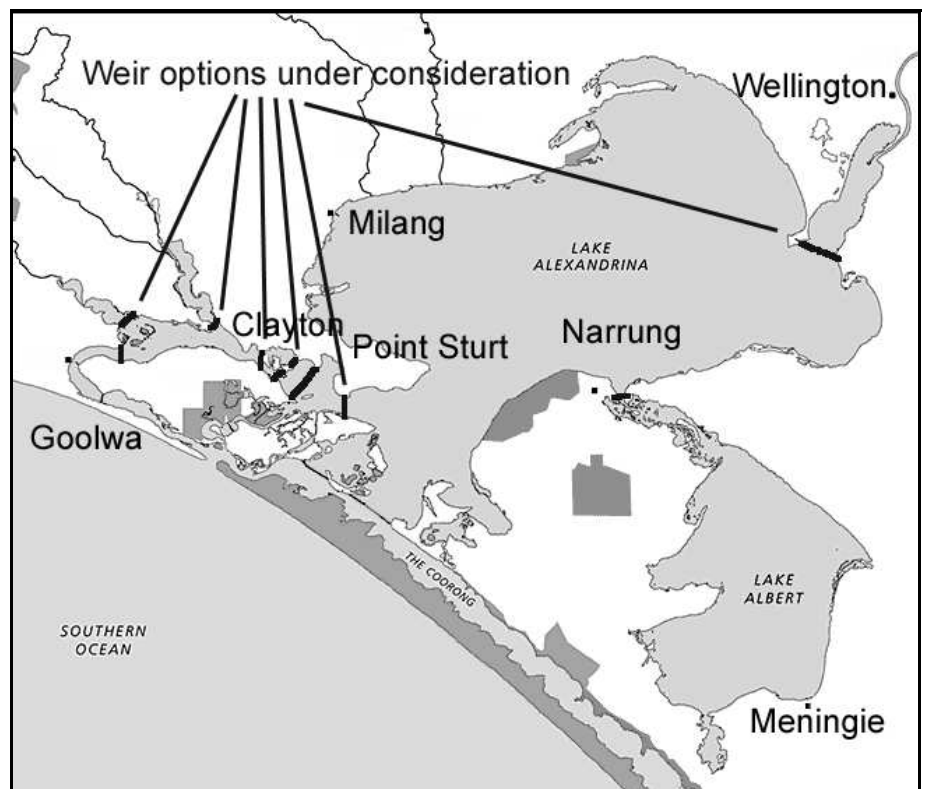
Another weir would pose a grave risk to a floodplain-river ecosystem that very nearly has passed the point of no return.

*Keith Walker*

\* See Walker, K.F. 2006 *Serial weirs, cumulative effects: the Lower Murray Australia* in R.T. Kingsford (ed.), *Ecology of Desert Rivers*, pp. 248-279, Cambridge University Press.

*This is a case study of the 830 km tract of the Murray below the Darling junction.*

*The full article is posted on [www.stopheweir.com](http://www.stopheweir.com).*



Options being considered by the SA Government for weirs on the Goolwa channel and the Murray at Pomanda Island downstream of Wellington.

Information from DWLBC, January 2009

# A JIGSAW PUZZLE?

River red gums along the Murray feature in an evocative painting, “Barmah Forest”, set on canvas by Lin Onus in 1994. Scattered among the ancient trees are misshapen jigsaw pieces that have been lifted from the canvas and could not be fitted back into the big picture. The image of disrepair resonates for many environmental issues, including the present crisis near the Murray Mouth.

Drought has hit hard along the lower river, Lakes Alexandrina and Albert and the Coorong. Flows have dwindled, the lakes are receding and becoming more saline, acid sulfate soils are exposed around the shores, the river mouth would close but for constant dredging and parts of the Coorong have turned to brine. There is frustration for many, hardship for farmers and anguish for Ngarrindjeri people. There is concern about water supplies for Adelaide and rural towns, about the effects on the regional economy and, not least, the environment. The wetland ecosystem is on life support.

There have been many signs that a crisis of supply and demand was imminent. The first recorded closure of the river mouth in 1981 should have been a wake-up call, but instead allocations were increased, basin-wide. State and federal governments ought to be held to account, but our politicians have found it easy to renounce history, or to invoke the blame game with their colleagues and with other states.

As we respond to the immediate problems, let us not overlook the need for a more considered plan for the future. Let us not scatter the pieces of the jigsaw any further.

The South Australian government has responded to the Lower Lakes crisis by announcing several proposals, among them:

- \* a causeway and weir across the Murray at Pomanda Island, near the river’s entry to Lake Alexandrina, to provide a reserve water supply for Adelaide and rural towns;

- \* one or more weirs in the Goolwa channel to create a freshwater refuge in the area where Currency Creek and the Finniss River enter Lake Alexandrina; and

- \* a plan to introduce seawater to Lake Alexandrina.

There are also suggestions - so far without official support - to disconnect Lake Albert from Lake Alexandrina, and to pump hyper-saline water from the Coorong to the sea.

Each of these proposals, official and otherwise, deserves close scrutiny. All involve large-scale engineering interventions, and little effort has been made to evaluate alternatives.

Once a proposal has state-government endorsement it is referred to the federal Minister, who decides whether or not an Environmental Impact Statement is required. The protocol is determined by the federal Environment Protection and Biodiversity Conservation Act (1999).

The state government’s multiple proposals obscure an important point. The river, lakes and Coorong are a Ramsar Wetland of International Significance, according to a commitment that Australia made in 1985. It is a single wetland complex, containing parts that are inter-linked.

If those parts were isolated from each other, the region would lose most of its ecological integrity. If they are managed separately, the task of conserving the environment, according to the spirit of the Ramsar convention, will become immeasurably more difficult.

Natural resource management is founded in the science of ecology, where the first rule is that complex systems cannot be understood by dividing them into pieces. Ecology could claim to be “the science of the big picture”.

Why then are we presented with piecemeal plans to address the Lower Lakes crisis? Members of the public have been asked to respond to several proposals launched in rapid succession over the holiday season.

Why is there so little indication of how one proposal might impact upon another? The case for the Pomanda weir, for example, will gain strength if seawater is also brought into Lake Alexandrina, because saline intrusions could contaminate water intended for domestic supply.

Crisis or not, we need an integrated plan for our responses. How credible can the process of environmental impact assessment be without it? How might the plans for seawater and weirs limit our options for better management in future?

Onus’ painting from Yorta Yorta country signals the dangers of fragmentation of the environment and our relationship with the land and water. The government’s proposals to overcome the Lower Lakes crisis are questionable because they have been developed in haste and fail to see that the goal should be to engineer not the environment, but our relationship with the environment.

Other, less draconian solutions could ensure that we can all enjoy “the big picture” for years to come. Some possibilities are outlined in a Low Intervention Strategy developed by the River, Coorong and Lakes Action Group Inc.

*Diane Bell & Keith Walker*

\* First published as “Why make a jigsaw puzzle of the Lower Murray?” in *ON LINE Opinion - Australia’s e-journal of social and political debate*. Posted Monday, 2 February 2009

# A WEIR OR TWO

On 12 January 2009, the “Discussion Paper: Options for Managing Acidification Risk and Establishing a Freshwater Ecology Refuge in the Goolwa Channel and Tributaries” was posted on the Department of Water, Lands and Biodiversity Conservation website. [http://www.dwlbc.sa.gov.au/assets/files/proposed\\_refuge\\_project.pdf](http://www.dwlbc.sa.gov.au/assets/files/proposed_refuge_project.pdf)

It outlined a series of seven options for weirs in the Goolwa Channel and regulators on the Finnis River and Currency Creek, plus a “Do Nothing” option. The “Low Intervention Strategy” of the River, Lakes and Coorong Action Group was posted as a separate plan, the “Talking points” were deleted and a cover sheet with the caveat that “The views and proposed actions do not necessarily represent those of all members of the LRMDRG [Lower River Murray Drought Response Group], or those of the Government of South Australia” was added.

Public meetings at Goolwa and Clayton were scheduled for January 15<sup>th</sup>. This was the first official communication the community had on the matter. In the three days between the posting of the Discussion Paper and the meetings, some twelve community members read and critiqued the document.

We consolidated the comments and prepared a handout that included the comments and the full text of the Low Intervention Strategy. (see page 20)

Our comments focussed on the particulars of the Discussion Paper, but are relevant to other interventions proposed for the Lower River Murray, Lakes and Coorong.

1. *Imagine:* Think of our environment. What will the River, lakes and Coorong look like in a few years, if plans for weirs and seawater flooding proceed?

2. *All things are connected:* Complex problems cannot be solved by chopping them into pieces, but this is what the SA Government strategy is doing. Lake Alexandrina and Lake Albert are to be sacrificed. Where is the plan for the whole system?

3. *A freshwater solution?* Where in the options is there a push for more fresh water? There is talk of a freshwater ‘recovery’ but no explanation of how that will be achieved. Fresh water could be brought down in stages.

4. *1000GL of fresh water?* The immediate requirement to maintain the lakes above crisis levels without engineering or seawater solutions is much less. 175GL in addition to the prescribed 350GL of dilution flow already allocated would see us through to winter 2010. A level of 0.3m AHD or less would save water and still be consistent with maintaining a viable ecological community in the lake.

5. *Consultation means engagement, not instruction:* The proposals will affect all who live around the lakes and Coorong. Why are these meetings being held only in Clayton and Goolwa? Why are they so late in the decision-making process? Why has local knowledge not been sought throughout the process?

6. *Alternatives:* There are alternatives to engineering solutions, but they are being downplayed. The *Common Sense Community Action Plan* (CSCAP) developed by the River, Lakes and Coorong Action Group Inc. was intended as an alternative. Some elements of this plan have been incorporated into DWLBC options; others have been ignored. The CSCAP is consistent with the response of Ngarrindjeri people, who do not support any options for a weir in the Goolwa channel.

7. *Bioremediation:* In keeping with the Discussion Paper’s dictum that we should address the most pressing issues first, base decisions on science and avoid irreversible damage, the first action should be to proceed with planting on exposed shores. Why is this not being funded and fast-tracked? Community groups have begun their own bioremediation actions and are planning more.

8. *Benefits:* The Discussion Paper muddles the need to protect the environment through the drought (that is, to maintain a capacity for recovery) with “benefits” that would flow from the proposed weirs. Benefits claimed for silver perch are fanciful because they do not occur in that area. Orange-bellied parrots are transient visitors at best.

9. *Drought and over-allocation:* The Discussion Paper acknowledges that the crisis was apparent two years ago, but also claims that it has not been

# AND A COUPLE OF REGULATORS

possible to plan a response before this. In fact, the signs of crisis have been accumulating for years. Drought is blamed and over-allocation is not mentioned.

10. *Ramsar*: South Australia has never met its Ramsar obligations in this region, and will move further away from doing so if the engineering plans are enacted. Australia will be shamed internationally.

11. *Acid sulfate soils and acidification*: Acid sulfate soils (ASS) are widespread in the region but they can be treated. Some are self-remediating, and local people report signs of natural regeneration all around the lakes. Where are the high-risk spots and how are they are being remediated? Again, why are methods for bioremediation not being implemented now? Where is the plan for dealing with ASS during and after recovery?

12. *Unintended and unknown consequences*: A weir(s) would have adverse environmental effects including water quality problems (nutrients, algal blooms, salinity), sedimentation, impeded fish passage and lake circulation. Inadequate understanding of the impacts is acknowledged in the Discussion Plan (e.g. models incomplete, triggers not established, plans not finalised, increased salinity, seepage, ground water and connectivity little understood; removal of all materials not possible). Would these effects be offset by the claimed benefits?

13. *Stream communities can survive*: Allowing the streams to disconnect is a better management option than another weir(s). The flora and fauna are adapted to low summer flows. Some invertebrates move away; others retreat to the subsurface gravel. Fish, frogs, crayfish and other fauna are able to survive in pools, although they would benefit from protection (e.g. exclusion of alien fish, especially carp, invasive plants, grazing stock, diversions, isolation of acid sulfate soils). Intermittent streams are quickly recolonised when flow resumes. Sub-populations of two EPBC fish species (Murray hardyhead, Yarra pygmy perch) are understood to be held in captivity for later translocation.

14. The ‘assumptions’ in the Discussion Paper are not reflected in the options provided. The standard for assessments in the Discussion Plan is “best guess”. Is this good enough, when the risks are so great?

On 19 February 2009, Minister Karlene Maywald announced that the SA Government would be asking the Murray-Darling Basin Authority “to commission urgent works to help prevent acidification and irreversible ecological collapse of the Goolwa Channel and wetlands near the Currency Creek and Finnis River”.

The articles of Henry Jones and the Press Release of RLCAG of 22 February 2009 take up the issue of acidification and ecological collapse.

As of 4 March 2009, the matter has not been referred under EPBC.

RLCAG

## The Ramsar Convention

The Convention on Wetlands (Ramsar, Iran, 1971), better known as the Ramsar Convention, is an international treaty that focuses on the conservation of internationally important wetlands. It also promotes the wise use (defined by the Convention as "...sustainable utilisation for the benefit of humankind a way compatible with the maintenance of natural properties of the ecosystem") of wetlands through both international cooperation and action at a national level as a means of achieving global sustainability.

The Convention was signed in 1971 at a meeting in the town of Ramsar, in Iran. In June 2002, more than 120 countries were Contracting Parties to the Convention. Australia was among the first five.

<http://www.dec.wa.gov.au/management-and-protection/wetlands/ramsar-convention.html>

*Incidentally the Goolwa channel will not disconnect this half year as we have been told many times.*

Henry Jones,  
February 2009

Culgoa Barcoo  
Birrie  
Bokhara  
Narran

*The Murray-Darling Basin Authority will be asked to commission urgent works to help prevent acidification and irreversible ecological collapse of the Goolwa Channel and wetlands near Currency Creek and Finnis River.*

Hon. Karlene Maywald,  
Minister for the River Murray,  
19 February 2009

Commoroon Creek Mara

The Federal Environment Minister, Peter Garrett, wants the South Australian Government to provide more information about its plans for the Lower Lakes.  
ABC Radio,  
25 February 2009

Castlereagh

*Taking into account the area of the Currency Creek, Finnis River and Tookayerta Creek/Black Swamp catchments, it is recommended that monitoring be completed at two levels (detailed monitoring and spatial monitoring).*

Fitzpatrick et al.  
CSIRO Report,  
January 2009.

Murrumbidgee

Moulamein Creek

Marne River

Bremer River

Angus River

Finnis River

QUEENSLAND

*I love a sunburnt country,  
A land of sweeping plains,  
Of ragged mountain ranges,  
Of drought and flooding rains.*

Dorothea McKellar (c1908)

Marthaguy

Widgee Creek

**Let's go shopping for a solution**

- \* Temporary weirs, regulators, bunds, pumping, dredging < \$ 400 million
- \* Temporary Water > \$300 per ML x 200 GL for the Lakes => \$60 million
- \* Bio-remediation \$10 million+

*\$10 million for bioremediation projects around the Lower Lakes*  
Senator Hanson-Young,  
13 February 2009

Erac Creek

SOUTH AUSTRALIA

Ward

Langlo

Paroo

Beechal

Blackwater Creek

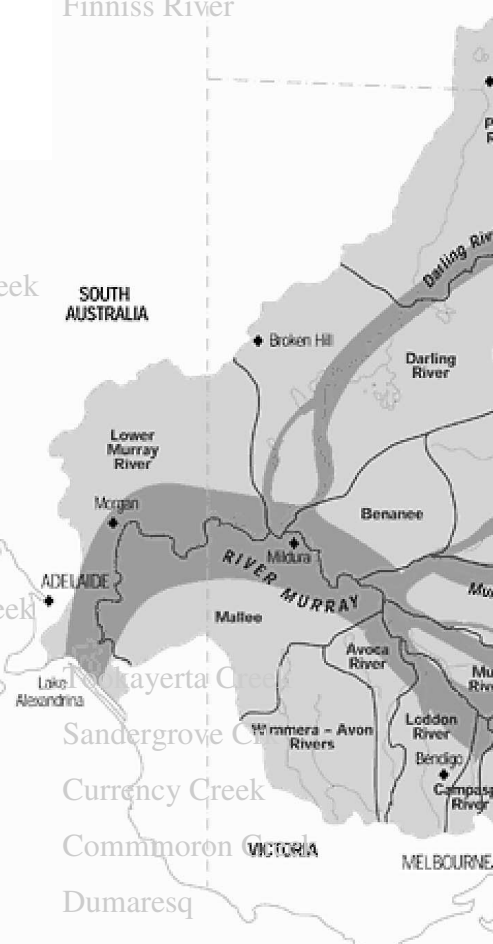
Powell Creek

Aramac Creek

Thomson river

Kulkyne Creek

Darling River



Dumaresq

Macintyre

Gil Gil Creek

Gwydir

Moonie

Warrambool

Plan Creek

Namoi River

Macquarie Marshes

Balonne

Macquarie

Creek

Senator Nick Xenophon secured \$900 million for the Murray-Darling Basin.  
13 February 2009

Bogan

Neabul

Mungalalla

Angelalla

Coogoon

Maranoa

Warrego

Nive

Poopello Lake

Menindee Lakes

Tandour Lake

Lake Popitah

Travellers Lake

Lachlan River

**Drainage area of the Murray Darling Basin.**  
Line thickness indicates average yearly discharge.

Macintyre

Does the cap breach section 92 of the Constitution? Is it an impediment to interstate trade? Constitutional lawyer John Williams says there is “an arguable case”. *The Australian*, 17 February 2009

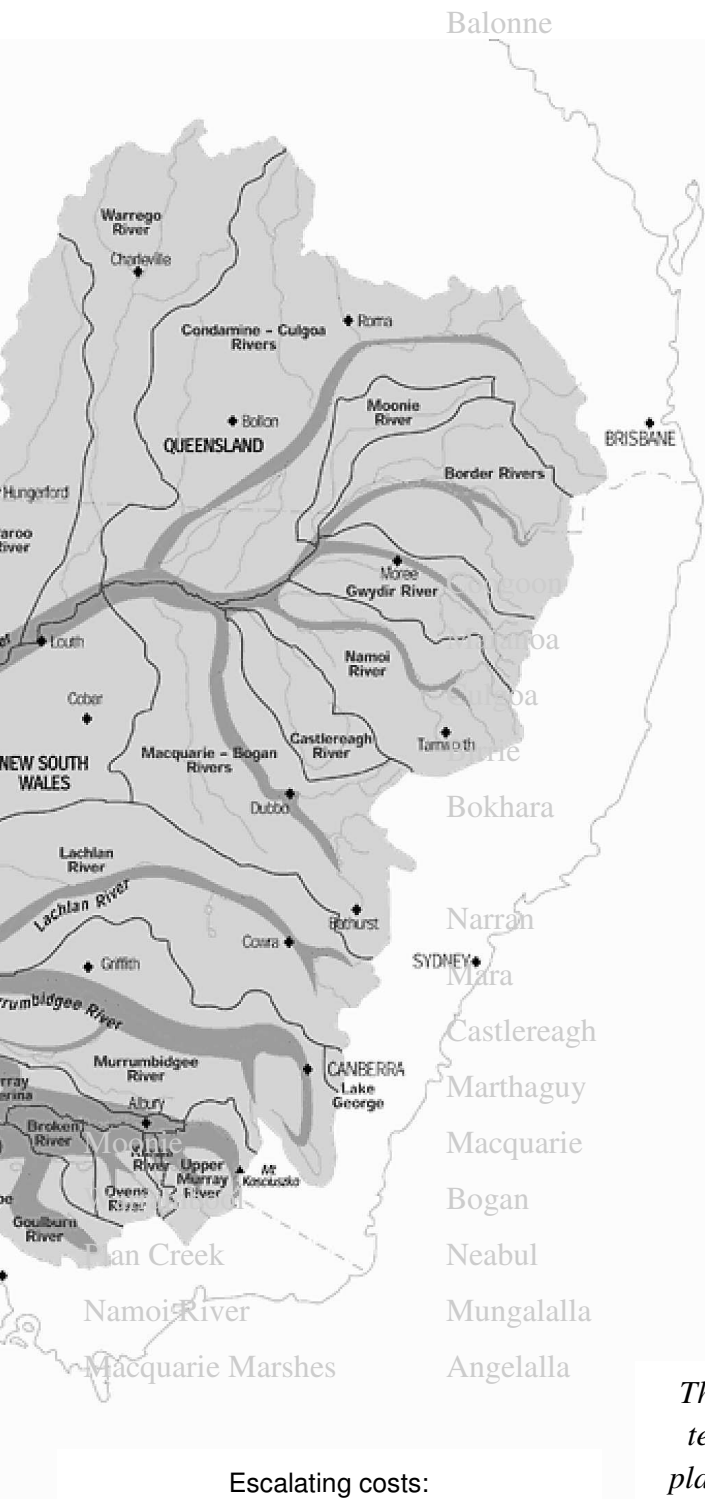
Gil Gil Creek  
Gwydir

Warrego  
Nive  
Barcoo

\$200 million has also been promised to the Rann Government for the Coorong and Lower Lakes.

*This money should be spent on buying water and an employment program to replace much needed vegetation and mulch around the Lakes...not more rocks, concrete and engineering disasters.*

Wilderness Society,  
2 February 2009



Widgee Creek  
Erac Creek  
Ward  
Langlo

Blackwater Creek  
Powell Creek  
Aramac Creek  
Thomson river

*A “sea-water” rescue would be the worst possible action to take for the lakes. They have not been sea-water for the last few thousand years.*

Geologist Victor Gostyn  
ABC Radio,  
26 February 2009

Kulkyne  
Creek  
Darling  
River  
Poopello  
Lake

Paroo

Menindee Lakes

*Our continent is falling apart and it is not caused by drought – it is caused by poor policies and poor management. The Wentworth Group of Concerned Scientists (2002)*

Beechal Creek

Tandour Lake

*The Government does not want to build a temporary weir. We are undertaking the planning for the worst-case scenario in the hope that it will never eventuate.*

Minister Karlene Maywald,  
3 February 2009

Lake Popitah  
Travellers Lake  
Lachlan River  
Murrumbidgee  
Moulamein Creek  
Marne River

Escalating costs:

A temporary weir below Wellington  
November 2006 = \$20 million  
March 2007 = \$100million  
March 2009 = \$250million+/- 30%

# NARRUNG NARROWS

## The consequences of blocking the flow

The car ferry that connects communities across the Narrung Narrows between Lakes Alexandrina and Albert no longer runs regularly. The water that once gushed through the 13 km of the Narrung Narrows is now kept artificially flowing by pumping of water from Lake Alexandrina over a man-made wall/bund into Lake Albert. Locals warned that ecological disaster would be a consequence of blocking the flow. Their knowledge was not heeded.

In 1966, the Government built the Causeway that effectively cut the flow by half between the two lakes. This Causeway highlights why I believe that, unless there is real evidence that the construction of more weirs, regulators, will not impinge and create another problem, there should not be any more man-made constructions.

With the construction of the Causeway, the sheltered area on the Lake Albert side revegetated with reeds and the silting of the Narrung Narrow increased to the point that this area between the two lakes began to choke.

Around 2004, the Meningie Narrung Lakes Irrigators group applied to have culverts put under the Causeway to allow extra flow-through. But there was a misunderstanding as to who was responsible for the ownership of the Causeway. Was it Transport SA or was it the Council? Nothing got done.

In early 2008, the SA Government became increasingly concerned that the level of Lake Albert

would fall below -0.5m AHD, at which point they predicted the water would acidify. Water was needed. Their solution was to build a wall/bund across the Narrows and to pump water from Lake Alexandrina over to Lake Albert.

We were initially told the wall/bund had to go in immediately, because there was not enough time to dredge the Narrows to remove the silting or clogging that had occurred.

In April 2008, a wall/bund was constructed from the end of the causeway, back around to the Narrung shore line. This effectively cut off any natural flows between the two lakes. Pumps have been set up on this wall/bund and they have been pumping water from Lake Alexandrina into Lake Albert.

Today, the level of Lake Alexandrina has fallen and the pumps are drawing in the silt together with the water to the point that the ferry has been grounded and the area on Lake Alexandrina side has completely silted up. This has necessitated dredging out in Lake Alexandrina to enable the ferry to operate and for the flow of water to be channeled in to the pumps.

It appears the Government did not consider the natural effect that the wind has on the exchange of water between the lakes. With the building of the Causeway in 1966, the winds were stopped from doing what nature intended. I believe that is when the silting began to build up in Lake Albert and the Narrung Narrows and with the building of the wall/bund this has now been compounded.

On the positive side, the pelicans are really enjoying the new food supply that is virtually on tap. They stand on a sand bar that has formed in a half moon shape by the silting and the flow of water from the pumps.

What is this telling us? There is no free flow of water. It appears to be forming its own dam and silting up.

Is this the precursor to the Pomanda Weir? if so, we are going to be in trouble.

*Lesley Fischer*



Constructing the "bund" at Narrung Narrows. March 2008  
*Lesley Fischer*

# THE CONSEQUENCES



Pumping into Lake Albert from Lake Alexandrina. February 2009 *Diane Bell*

Looking back over Lake Alexandrina, showing silting up of the ferry site. The timber wall is a wave barrier to protect the ferry. There is a dead pelican at the suction point where the pipe goes into the water. I hear that quite a few are caught from the suction of water flow to the pumps.  
5th February 2009 *Lesley Fischer*



Narrows Bund cracking down the centre of the wall. The edges are also at risk of collapsing.  
5 February 2009 *Lesley Fischer*



Dredging at Narrung, Lake Alexandrina side, using a ferry as a barge. 21 February 2009 *Lesley Fischer*

# WHERE IS THE SCIENCE?

## The River, Lakes and Coorong Action Group Wants to See More Science

Press release 22 February 2009

Minister Karlene Maywald and Alexandrina Council Mayor Kym McHugh in their press releases of 19 February express concern regarding the imminent risk of acidification in Goolwa Channel, Finnis River and Currency Creek. Both look to temporary barriers as solutions. Both cite scientific evidence in support of such actions.

The evidence appears to be CSIRO Land and Water Science Report CLW 01/09, a preliminary report on the impacts of acid sulfate soils in the Goolwa Channel, Currency Creek and Finnis River areas. See

<http://www.dwlbc.sa.gov.au/murray/drought/index.html#GoolwaChannelFinnisRiverandCurrencyCreek>.

The report stresses that the work is incomplete and that its conclusions are tentative. It describes the results of sampling along the Finnis River and Currency Creek arms of Lake Alexandrina, but does not comment on processes whereby the lake water might become acidic (the “lateral transport of acids and solutes”). It recommends more monitoring.

River, Lakes and Coorong Action Group Inc member and Finnis resident, Professor Diane Bell asks, “How can we be fully confident of the science?” “Where is the evidence that the acidic soils are actually going to affect the water?”

“As a social scientist, I would be looking for a detailed study, where the sampling sites would be selected on a random basis, to eliminate possible bias. In the CSIRO report there is no mention of statistical methods, or replication, or variability within and between sites.

It concerns me that on the basis of observations at selected sites, large areas have been designated as ASS.”

John Yelland, RLCAG Secretary and Pt Sturt resident says, “We know that many of the “ecological refuges” identified in January are now dry, including Dunn’s Lagoon near Clayton. We also know that there are ‘refuges’, sustained by fresh ground water, that are threatened by saline water. The lake is now so low that pumping to fill the Goolwa channel will be impractical by the time the barriers are built. It is getting more saline all the time.”

The advice from the RLCAG is treat the “hot spots”, monitor the soil and water, stop the sand drift with targeted planting, accelerate the bioremediation program and use the \$26million set aside for engineering inventions to get more fresh water down the River. See the Low Intervention Strategy of the River, Lakes and Coorong Action Group Inc.

(page 20)



Planting at Clayton, December 2008

John Yelland

# AUSTRALIA'S RIVER

The Department of the Environment, Heritage, Water and the Arts tells us\*

*The Murray-Darling Basin is one of Australia's largest drainage divisions and covers one-seventh of the continent. It is ranked fifteenth in the world in terms of length and twenty-first in terms of area. The Murray-Darling Basin includes the three largest rivers in Australia; the Murray River, the Darling River and the Murrumbidgee River.*

We ask: Do we fully understand the connectedness of the system? What of the connectedness of the Great Artesian Basin and the Murray-Darling Basin?

See <http://groups.google.com/group/australian-water-network/web/murray-darling-basin-1?hl=en-AU>

*The Murray-Darling Basin is very important for its biodiversity. At the time of European settlement, about 28 per cent of Australia's mammal species, about 48 per cent of its birds and some 19 per cent of its reptiles were found there. There some 30,000 wetlands in the Murray-Darling Basin, and 15 have been listed under the international Convention on Wetlands (Ramsar Convention, Iran, 1977).*

We ask: Is Australia ready to be shamed internationally for allowing these sites to deteriorate? When will critical environmental needs of our wetlands be addressed? [http://www.heritageatrisk.org.au/Lower\\_Lakes\\_and\\_Coorong\\_2008.html](http://www.heritageatrisk.org.au/Lower_Lakes_and_Coorong_2008.html)

*The Murray-Darling Basin is also very important for rural communities and Australia's economy. Three million Australians inside and outside the Murray-Darling Basin are directly dependent on its water. About 85 per cent of all irrigation in Australia takes place in the Murray-Darling Basin, which supports an agricultural industry worth more than \$9 billion per annum.*

We ask: What is the future of the communities that rely on Lower Lakes and Coorong if they are allowed to continue to die?

*At the 3 July 2008 meeting of the Council of Australian Governments (COAG), the Prime Minister, Premiers of New South Wales, Victoria, South Australia and Queensland and the Chief*

*Minister of the Australian Capital Territory signed an Intergovernmental Agreement on Murray-Darling Basin Reform.*

We ask: When will the reform reach the Lower River Murray, Lakes Alexandrina and Albert and the Coorong? The region is in crisis. Huge ancient red gums are dying. The eroded and cracked river banks are slumping. Wetlands, the nurseries for the life of the ecosystem are parched. Farmers are desperate, communities demoralised, the economic outlook is bleak. What happens in the Lower Lakes cannot be quarantined from the rest of the system. The River may flow through three states, but it must be understood and managed as a complex interconnected system. It is Australia's river.

*Diane Bell*

\* Italicised text is from

<http://www.environment.gov.au/water/mdb/index.html>

## **The Stimulus Package and Australia's River**

The Murray-Darling Basin is now on the national agenda. The stand taken by South Australian Senator Nick Xenophon in refusing to vote for the \$42 billion economic stimulus package unless the package provided for the Murray-Darling Basin focussed the attention of the nation on the River. By lunch time on February 13, Nick Xenophon had negotiated \$900 million for the Murray-Darling Basin - \$500 million for water buybacks, \$200 million in community grants and \$200 million for stormwater harvesting - and the package passed. The day before, South Australian Greens' Senator Sarah Hanson-Young had secured \$10 million for bioremediation projects around the Lower Lakes and, in her words "thrown a lifeline to both these internationally significant wetlands and the communities that rely on them". Both have taken the time to visit the region, get to know the people and issues. We invite other decision-makers to visit and learn about this region. We ask that they invest in the future of Australia's River.

# A COMMON SENSE COMMUNITY ACTION PLAN

## LOW INTERVENTION STRATEGY

The Common Sense Community Action Plan (CSCAP) took shape through a series of conversations, initially with Henry Jones, Diane Bell, Keith Walker and Paul Davis, then with members of the River, Lakes and Coorong Action Group and other interested groups. It has been widely circulated and endorsed or adopted by a number of groups.

We advocate the return of freshwater flows to the Murray Mouth. Until this happens, we propose a *Low Intervention Strategy* to reduce the risk of acidification and allow nature a chance to recover. The strategy, shown here in outline, is a first step toward a greater plan that would address economic, environmental and social issues for the future of our region.

### ***People and environment***

Drought is no stranger in the Murray-Darling Basin, but this one has prevailed for nearly 10 years and is exacerbated by over-allocation and poor management. Salinity levels are already high, and are likely to worsen over summer and autumn. People are hard-pressed. Plants, birds, fish and other animals are stressed and dying.

The looming crisis requires a rapid response, but not one that would destroy our Wetland of International Significance, recognised under the Ramsar Convention.

### ***Acid sulfate soils***

As water levels fall and soils are exposed, there is a risk of acidification in Lake Albert, Lake Alexandrina and its tributaries.

We do not doubt that there is a risk, but ask whether it could be managed without the need for large-scale engineering. There may be occasional fish kills and other effects, but there would also be periods of recovery, when animals and plants from the river and tributaries could recolonise affected areas.

We suggest that the risk could be reduced by wetting, planting, liming and mulching, and by preventing soil disturbance in identified “high-risk” areas.

### ***Our position***

The only sure remedy is to allow flows from the river to flush the sediment to sea, as happened before weirs and barrages were built.

The proposed new weirs would be costly, temporary structures that would accumulate

### ***Toward A Low Intervention Strategy***

1. *Work with local communities*
2. *Respect the knowledge and ideas of **all** local people*
3. *No sea water, no more weirs*
4. *Invest in mitigation, especially in high-risk areas, by planting, mulching and liming and ensuring minimal soil disturbance*
5. *Maintain sanctuaries for freshwater and terrestrial flora and fauna*
6. *Protect endangered species*
7. *Reduce diversions from the tributary catchments that flow into the Murray-Darling system*
8. *Urge Adelaide to use water more wisely*
9. *Buy water for the environment*
10. *Ensure the Lakes and Coorong retain a capacity for recovery*

sediment and perpetuate the acid soils problem.

Weirs already in place along the Murray have damaged the environment; more weirs would compound these effects.

Pumping to Lake Albert is strictly a short-term option. An alternative is needed.

We support the proposal to pump hyper-saline water from the South Lagoon of the Coorong to the sea.

We are eager to contribute but consultation has been inadequate. We have many skills and a sound knowledge of our environment. *This is our home.*

*RLCAG*

# SOME TALKING POINTS

- We propose a softly-softly approach where high-risk areas would be targeted for planting, liming, mulching and other treatment to ensure minimal disturbance of acid sulfate soils. *We ask the state government: why would this not work?*
- There is \$200M federal funding for long-term measures, but most of the \$250M cost for short-term responses will be borne by the state. *What level of mitigation could be achieved for this money?*
- Plans for pumping and engineering works are being developed as stand-alone proposals. *Why are the proposals being treated this way? Why are they not referred to as one plan, with regard for the Native Title Act, the Environment Protection & Biodiversity Conservation Act and the Ramsar Convention?*
- Flow through the Murray Mouth indicates a sustainable relationship between people and the river. *When will the new Murray-Darling Basin Authority act to restore flows to this region?*
- Acidification is portrayed as a catastrophe to be avoided at all costs, yet experience in other regions (e.g. New South Wales) shows that recovery is possible. *What would be the actual consequences of acidification in this region?*
- Adelaide's *per capita* water consumption in 2006-2007 was 102 KL, compared to 61 KL for Brisbane. *Why is Adelaide not on tighter restrictions? Is the Pomanda Island weir really necessary to augment the city supply?*
- The Pomanda weir would be an extremely costly structure (\$250M) that is expected to sink into the sediments within a few years, and what remains then would need to be removed. The pool will be prone to algal blooms and elevated turbidity and salinity. *Is this a wise investment?*
- The Pomanda and Clayton weirs would isolate the main body of Lake Alexandrina, and it would become too salty to support freshwater animals and plants. *Is this acceptable?*
- The Ngarrindjeri people share our anguish, as their country (*ruwi*) and totems (*ngatji*), such as the pelican, Murray cod and turtles, are stressed. *What can the traditional owners teach us about caring for the land and water?*
- Would you like to add to these points? Please let us know your ideas.

Visit: [www.stopheweir.com](http://www.stopheweir.com)

RLCAG



Natural regeneration of lake shore, Point Sturt, November 2008

*John Yelland*

# PROTECTING THE ENVIRONMENT: THE EPBC ACT IN ACTION

## *About the Act*

The *Environment Protection and Biodiversity Conservation Act 1999 (EPBC)* is administered by the federal Department of the Environment, Water, Heritage and the Arts (DEWHA). It is the keystone of the Government's environmental legislation, providing a framework to protect listed flora and fauna, migratory species, ecological communities and heritage sites. These are called *Matters of National Environmental Significance*.

The objectives of the EPBC Act are to:

- \* Provide for protection of the environment, including *Wetlands of International Importance* recognized under the Convention signed in Ramsar, Iran, in 1971;
- \* Conserve biodiversity;
- \* Provide a streamlined national environmental assessment and approvals process;
- \* Enhance the protection and management of important natural and cultural places;
- \* Control the international movement of plants and animals (wildlife), wildlife specimens and products made or derived from wildlife; and
- \* Promote ecologically sustainable development.

## *When does a project need to be assessed?*

The Act is invoked when a development proposal has the potential to affect one or more Matters of National Environmental Significance. When a person (a "proponent") wants a project cleared under the Act, s/he must refer it to DEWHA for assessment. This *Referral* is released for public comment.

## *How is a project assessed?*

There are five levels of assessment, depending on the significance of the project and supporting information. The Minister assesses the technical data from the proponent and comments made by the public before deciding whether or not the project should proceed and, if so, whether conditions should apply. If the project is declared to be a *Controlled Action*, then an Environmental Impact Statement (EIS) is required.

## *What of the proposals concerning the Lower Murray and Lakes?*

- \* A proposal to construct a causeway in preparation for a weir across the Murray at Pomanda, below Wellington, was approved without further assessment.
- \* The proposal for the Pomanda Island Weir itself was declared a Controlled Action in July 2007. The EIS should be released for public comment by mid-March 2009.
- \* The proposal to open the barrages and bring seawater to Lake Alexandrina was declared a Controlled Action on 23 January 2009. Public comments were invited in regard to Guidelines for the EIS, now in preparation.
- \* Proposals for weirs in the Goolwa Channel and regulators on the Finnis River and Currency Creek require Referrals, and are yet to be considered.
- \* The existing bund across The Narrows between Lakes Alexandrina and Albert was not referred under EPBC. The program of pumping water to Lake Albert is due for review in mid-2009.
- \* There is no formal plan to protect the Coorong.

The River, Lakes and Coorong Action Group and SA Senator Sarah Hanson-Young have called on the State Government to provide an integrated plan for the region. In late February 2009, Federal Minister Peter Garrett wrote to Premier Mike Rann, also asking for such a plan.

*Diane Bell*

This article is based in part on information at

<http://www.environment.gov.au/epbc>

# MADNESS!

I have spent my life in detailed observation of the environment and what I now am being asked to accept is madness. I know these waters. I see the damage being done to the environment on a daily basis. How can the bureaucrats and scientists who are charged with caring for the environment have got the management of the Lakes Alexandrina and Albert so wrong?

If the decision makers said that they are going to build the Clayton, Finniss and Currency Creek weirs to provide water to float boats in the Goolwa area, because for Heavens sake Goolwa does need water, it would be easier to take. But to say that these weirs will save the environment makes no sense to me or to many others. The weirs will cut the system into pieces. Break up connectivity with weirs and there will be major fish kills.

Let there be no doubt the Finniss River and Currency Creek are the safest havens in the Lakes for endangered species because they are spring fed and the springs run all the year round. In the lower reaches, where there are acid sulfate affected areas, it would make sense to treat the “hot spots”. There are a number of options including mulching, planting, controlled wetting and liming and we have already seen the success of Mother Nature in covering acid sulfate soils around the Lakes.

In July and August of 2008 good rains in the Eastern Mount Lofty Ranges enabled good environmental flows down both the Finniss River and Currency Creek. These flows saved the Lakes last year, provided relief for



Nature taking over acid sulfate soils, Lake Albert.

*Di Bell*

turtles from the dreaded deadly tubeworms, and induced many native species including birds, fish and invertebrates to breed.

The proposed weirs will stop this natural flow that Mother Nature has designed, a flow that keeps our Lakes alive and healthy. The weirs will provide a perfectly designed pond where introduced carp and redfin will flourish. Carp that will devour all the food and redfin that will eat the endangered species.

Irrigators from upstream of South Australia are pleading to sell their water at reasonable prices but our State Government has shown no interest in buying that water to save the lakes.

Australians can be wonderful. We have seen that in the help for Victoria’s bush fire victims. But our magnificent Lake Alexandrina is being abandoned by Australia including our Governments. It is a slow and painful demise. I wait with bated breath for Australians to come to the rescue of Australia’s river and to help our Lake.

*Henry Jones, Clayton*

# THE MURRAY-DARLING BASIN AUTHORITY

## A Short History of Water Governance in the Murray-Darling Basin

The River Murray Commission (RMC), later the Murray-Darling Basin Commission (MDBC) and recently the Murray-Darling Basin Authority (MDBA), marked fundamental changes in the governance of water resources in the Murray-Darling Basin. These are the agencies of agreements that determine how water resources are shared among the Basin States. The States have the primary powers, under the Constitution, and the Commonwealth, for the most part, has had a secondary role.

From 1917, the RMC was responsible for regulating river flows to provide for a fast-growing irrigation industry and to maintain navigability for a fast-declining riverboat industry. It administered the *River Murray Waters Agreement* of 1915, and presided over an era when the sight of water spilling onto floodplains and out to sea was a spur to dam builders.

As diversions increased and control over flows tightened, especially after the Second World War, unforeseen environmental consequences began to emerge. The most obvious was salinisation of land and water but other, more cryptic changes were underway in the physical and biological environment. One consequence was that the range and abundance of many native plants and animals began to decline.

“Environmental awareness” gradually took hold in the 1970s and 1980s, and the paradigm began to shift from resource development toward resource management. A Murray-Darling Basin Ministerial Council assumed control and established a Community Advisory Council with a broader perspective on community, economic, political and environmental issues. In 1983 the RMC gave way to the MDBC, with a new, albeit limited, responsibility for environmental management.

In 1995, the MDBC introduced a “Cap” to limit Basin-wide diversions to levels that prevailed in 1993-94 (see [http://www.mdbc.gov.au/nrm/the\\_cap](http://www.mdbc.gov.au/nrm/the_cap)). The Basin Cap, (not to be confused with the 4% Cap that limits the water that can be traded out of an irrigation district) has been a qualified success but, in retrospect, the environmental share already was too low and the system’s resources were over-allocated among consumers, particularly the irrigation industry.

Other important still-current initiatives began in the years that followed. River ecosystem ‘health’ emerged as an issue, leading to the *Sustainable Rivers Audit* and *The Living Murray* initiative, in concert with the *Native Fish Management Strategy* and other programs. Nevertheless, the overall downward trend continued.

A strategy of brinkmanship, managing resources in a Basin prone to a variable climate and highly variable flows, has an inevitable outcome. Drought ushered in the new millennium, with an intensity to rival those at the time of Federation and again during the Second World War. This time, the effects were deepened by well-entrenched demands from the irrigation industry and other consumers. The drought persists today and, although it is real, it is made worse by over-allocation. And, of course, it appears to foreshadow a long-term change in the climate, associated with global warming.

The looming water crisis caused policy makers again to reconsider. In January 2007, the government announced a \$10 billion *National Plan for Water Security* to complement reforms introduced by the Council of Australian Governments (COAG) in 1994 and the National Water Initiative (NWI) in 2004. The Plan proposed spending to improve water-use efficiency and to purchase water and rights to counter the problems of over-allocation. It was conditional, however, on the States agreeing to new arrangements for governance.

The federal *Water Act 2007* became effective in March 2008, with amendments in place to:

- \* *Reform the MDBC as the MDBA.*

The Authority commenced operations in December 2008. It is required to monitor water resources, review state water-resource plans, engage with the community and to produce a *Basin Plan* that will set sustainable limits on diversions from surface water and groundwater, ensuring that there is sufficient water for “critical human needs”. The Authority reports to the Minister for Climate Change and Water, Senator Penny Wong.

- \* *Establish a Commonwealth Environmental Water Holder.*

As part of the Basin Plan, the MDBA will develop an Environmental Watering Plan, in consultation with the Water Holder, to protect or restore environmental assets. As the States will retain their existing environmental entitlements, federal and state initiatives will need to be coordinated.

- \* *Apply market-based rules to trading in water and water rights.*

These rules were established by COAG and the NWI, and are to be administered by the Australian Competition and Consumer Commission.

- \* *Authorise the Bureau of Meteorology to collect and publish water data.*

This will include a National Water Account and periodic reports on water use and availability. The Bureau will also set national standards for water accounting.

In the eyes of many, the prevailing drought was a critical test for the new Authority, but it has declined to act, at least in regard to the Lower Lakes. It is not clear why a Basin Plan should be delayed until 2011, when the Authority has evolved directly from the MDBC and the underlying issues have been well-

understood for many years. In a time of crisis, an Interim Basin Plan, including an Interim Environmental Watering Plan, would have been appropriate. Other provisions of the Water Act are not yet binding on the States; rather, they are being phased in. In future, another critical test of the new Authority, in the longer term, will be its ability to manage environmental water, particularly across State borders.

We have moved closer to the fully-independent Basin-wide authority that has often been called for over the years, but the States have by no means relinquished all of their powers. The States will retain control over tributaries, and for Water Allocation Plans in local catchments, and a large measure of control over management of water for the environment. The old tyrannies are still apparent in the political impasse over provision of water to the Lower Lakes, the means used by Premier John Brumby to block Senator Nick Xenophon’s move to bring forward spending on Basin issues, and a declaration by State Opposition Leader Mr Lawrence Springborg that, if elected, he would consider withdrawing from the Basin agreement if it did not serve Queensland’s interests.

Now, as in the past, the rate of institutional change does not match the rate of change in the environment. Although a step forward is better than a step backward, how much longer can we gamble?

As the late Peter Cullen said, “praying for rain is not a sustainable strategy”.

*Keith Walker*



Lake shore, Point Sturt, 2006. *John Yelland*

## **Our Lands, Our Waters, Our People,**

(Our *Ruwe*, Our *Nguki*, Our *Ngarrindjeri*)

*Ngurunderi*, our great spiritual creative of the *Kaldowinyeri* (Creative Era), charged us, the Ngarrindjeri People of the River Murray, Lakes and Coorong Region with the Cultural and Spiritual responsibility to care for Ngarrindjeri *Ruwe*. Ngarrindjeri respect the gifts of Creation that *Ngurunderi* passed down to our Ancestors, our Elders and to us.

Ngarrindjeri must follow the Traditional Laws; we must respect and honour the lands, waters and all living things. *Ngurunderi* taught us our *Miwi*, which is our inner spiritual connection to our lands, waters, each other and all living things, is passed down through our mothers since time immemorial.

# AUSTRALIA'S RIVER SYSTEM KNOWS NO STATE BORDERS

## **Australians are facing a national environmental disaster**

**Over-allocation** is destroying the Murray-Darling Basin system of rivers and creeks, lakes and groundwater. The current drought exacerbates the impending disaster.

**We know** that the Murray-Darling system is an integrated, living system that cannot successfully be managed on a state by state basis.

**We know** that the health and wellbeing of the people and communities along our rivers and lakes depends on the health of this river system.

**We have** broad knowledge based on direct experience of the River, Lakes and Coorong and are angry at the lack of real engagement with our local communities.

**We call** upon the government to engage with a wide range of scientific disciplines about the ecology of the lower system.

**We know** that the Lower Lakes and Coorong have been a predominantly fresh water system for some 7500 years.

**We are opposed** to destroying internationally recognised Ramsar wetlands by bringing in seawater and by cutting them off from the rest of the system.

**We recommend** that acid sulfate soils be treated with bioremediation. Treat the hot spots.

**We are opposed** to more weirs and damming because of the resulting environmental degradation.

**We ask:** Who owns the River? In whose interests is it being managed?  
Where is the long range plan for the whole Murray-Darling Basin?

**We call** for state and federal governments to act in the interests of all Australians.

**As a matter of urgency** we call for:

- \* A full, transparent and public water audit of the whole system;
- \* A new Murray-Darling Basin Agreement that binds all States and an independent statutory authority that has jurisdiction over all water sources in the Murray-Darling Basin to be fully operational by 2010;
- \* A sharing regime for all waters in the Murray-Darling Basin that gives first priority to the health of the system as a whole by allocating the first share to the maintenance of the system;
- \* The government of Prime Minister Kevin Rudd to invoke its powers under the Constitution to acquire sufficient fresh water for the River system to ensure the health of Lakes Alexandrina, Lake Albert and the Coorong wetlands, and this health is to be determined by end of River flows at the Murray Mouth.

*We are concerned members of communities around the lower Murray River, Lake Alexandrina, Lake Albert and the Coorong. We are landholders, fishers, graziers, farmers, scientists, tourism operators, irrigators, environmentalists, writers, artists and many others with a considerable long-term collective knowledge of the area. We are keen to work with government and with other groups who wish to work on sustainable solutions to the ecological and environmental issues connected with our river systems.*

**The Water Table Collective, PO Box 307, Strathalbyn SA 5255. T: 0427 554 194**

**Join an event, take action, visit us: [www.stopheweir.com](http://www.stopheweir.com) e: [stopheweir@mac.com](mailto:stopheweir@mac.com)**