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#### 17 September 2008

Ms Jeanette Radcliffe
Committee Secretary
Senate Rural and Regional Affairs and Transport Committee
Department of the Senate
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Jeanette,

### Re: Senate inquiry into water management in the Coorong and Lower <u>Lakes</u>

Please find enclosed The Coorong District Council's submission to the Senate inquiry into water management in the Coorong and Lower Lakes.

Council is grateful for the opportunity to be able to make this submission and looks forward to seeing the outcomes of the inquiry.

I can be contacted on (08) 8575 1008 or 0428 321 185 should you wish to discuss this matter.

Yours sincerely,

Tim Drew

CHIEF EXECUTIVE OFFICER

Telephone: 08 8757 2100 Facsimile: 08 8757 2222



# **Submission to Senate Inquiry into Water Management** of the Lower Lakes and Coorong

September 2008



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#### 1 Summary

The Coorong District Council, along with Alexandrina Council, represents the many communities of the Lower Lakes and Coorong area, the focus of the current Senate inquiry into water management.

Since mid-late 2006, our communities have been confronted by the ravages of either drought, or lack of available water, the latter due in no small part to the mismanagement of the water resources of Murray-Darling Basin system.

The lack of water in the Lower Lakes and the Coorong has had many devastating effects. The once-thriving dairy industry, worth over \$20m per annum to the local economy, has all but disappeared; irrigation around the Lower Lakes has ceased, as access to water has dried up; vast portions of the bed of Lake Albert have been exposed for the first time in living memory, bringing with it the threat of acid sulphate soil development; the southern lagoon of the Coorong, once a haven to many species of migratory wading birds, has become a stinking, stagnant backwater on the brink of ecological collapse.

The Coorong District Council is seeking the following to avert potentially devastating, long-term ecological collapse of the Lower Lakes and the Coorong:

- 1. Up to 200 gigalitres of water to be delivered to the Lower Lakes in the immediate short-term.
- 2. A permanent 6.1% reduction in water licence allocations across the entire Murray-Darling Basin system.
- 3. The abolition of water trading caps across geographically defined areas.
- 4. Deeper and wider dredging of the Murray Mouth to improve water flows to the Coorong, particularly the Southern Lagoon.
- 5. Continuation of pumping of water from Lake Alexandrina to Lake Albert.
- 6. Recognition that the Lower Lakes are a predominately freshwater system and that the introduction of significant amounts of sea water is not a viable short or long term solution.
- 7. The permanent allocation to the environment of one-quarter of all water resources across the Murray Darling Basin system.
- 8. Removal of all legal or legislative impediments preventing the Commonwealth seizing control of the entire Murray Darling Basin system, including all state-controlled tributaries and water resources.
- 9. Suspension or forgiveness of the 52 gigalitres of water that South Australia currently owes NSW and Victoria.
- 10. Temporary leasing of water by the Commonwealth to return water to the environment in the short-term.



#### 2 Background

The Coorong District Council is the largest Council, by geographic size, in South Australia. Covering an area of 8,836 km², the Council area encompasses vast areas of cropping and grazing land, a significant proportion of the Coorong National Park, Lake Albert and a substantial portion of Lake Alexandrina (the Lower Lakes), as well as the lower reaches of the River Murray.

The main town in the Council area is Tailem Bend, with a population of approximately 1,500 people, it lies 97 kilometres south-east of Adelaide, situated on the River Murray and the Princes Highway.

The second-largest town in the Council area is Meningie, with a population of approximately 900 people, it is situated on the south-east shores of Lake Albert, approximately 150 kilometres south-east of Adelaide.

The population of the Council area is 5,670, as recorded in the 2006 census.

The River Murray, Lower Lakes and the Coorong are of particular significance to the Ngarrindjeri people, who have inhabited the area continuously for many thousands of years. Much of the culture and traditions of the Ngarrindjeri people are directly related to these sites and to the water contained in them.

The Lower Lakes and the Coorong are recognised as a Wetland of International Importance under the Ramsar Convention. The Ramsar Convention is an international nature conservation treaty.

The Lower Lakes and Coorong were designated as a wetland under the Convention in 1985. A requirement of the Convention is that listed sites are to be managed in a way that maintains their ecological character.

The wetlands also provide a haven for migratory birds from many different countries. Australia is a signatory to at least two treaties with other nations in recognition of the importance of these wetlands for migratory birds.

The Lower Lakes and the Coorong are also icon sites under the Living Murray Initiative.

Since mid-late 2006, much of the Council area has been subject to either drought or lack of access to water. This situation has had serious ramifications for the Council area as a whole, particularly the area around Meningie and the Narrung peninsula.

Until recently, the Lower Lakes and the Coorong had supported a thriving dairy industry, irrigated horticulture, fodder production and beef cattle production. Each of these industries have been negatively impacted by the lack of access to water from the Lower Lakes, a situation brought about by both drought and the mismanagement of water resources across the whole Murray-Darling Basin system.



Property values in the area have declined markedly over the last 12 months, in many cases, by up to 50%. The local economy has suffered, due to the closure or relocation of most of the 17 dairies in the local area.

Enrolments at the Meningie Area School have declined by over 20% since 2005, primarily due to young families leaving the district as job opportunities have diminished.

The lack of access to water has had negative impacts in a range of other ways, including the ability of Council to generate rate revenue at a level which will allow it to provide the range of quality services to which the community has become accustomed.



## Volume of water which could be provided to replenish the Lower Lakes and Coorong

Council believes that there is an immediate short-term need to deliver 200 gigalitres of water to the Lower Lakes to prevent the onset of ecological collapse.

This amount of water, in addition to the 350 gigalitres of dilution flows already allocated, would enable Lake Albert and Lake Alexandrina to be maintained at a level above the point at which acid sulphate soils could develop.

If, as suggested under section 4.1 of this report, there was a reduction of 6.1% in allocations across the entire Murray Darling Basin, up to 700 gigalitres would be available for the environment.

Of this 700 gigalitres, only 200 gigalitres would be required to be delivered to the Lower Lakes, allowing the other 500 gigalitres to be allocated to other parts of the system under stress.

In order to minimise transmission losses associated with the delivery of 200 gigalitres to the Lower Lakes, it would be important that this water is 'stepped' down the system, being held in upstream storages and released in a controlled manner.

Releasing the water in this manner would also enable the delivery of water at the most critical times over the next 6 months and could be matched to the rate of evaporation losses from the lakes.

It is important that this water is sourced in the short term and that its delivery commences as soon as possible. Evaporation from the lakes increases during the spring and summer months and when combined with the overall lack of inflows into the Murray-Darling Basin system, the levels of the Lower Lakes can be expected to fall quite quickly.



#### 4 Options for sourcing and delivering this water

#### 4.1 Reduction in water licence allocations

In order to return more water to the environment and the Lower Lakes and the Coorong, in particular, Council believes that there should be an immediate reduction of 6.1% in water licence allocations, across the board.

This reduction in allocations should be applied equally to each and every licence holder in the Murray-Darling Basin. This is the only equitable way of reducing entitlements for all licence holders, with the water to be returned to the environment.

It is estimated that this initiative could return up to 700 gigalitres of water to the environment, on a permanent, on-going basis.

#### 4.2 Abolition of water trading caps

Council believes that water trading caps within irrigation districts, regions, States or other geographic areas should be abolished.

Entities with water licences and/or allocations should be able to freely trade those licences and/or allocations across any geographic borders. This would allow the water trade market to determine how and where water should be traded and potentially allow for more water to be delivered to the lower reaches of the River Murray, the Lower Lakes and the Coorong.

The restraint of trade imposed by such caps may well be in breach of the Constitution and relevant provision of the Trade Practices Act.

Council would like to see unrestricted trading of water across geographical and State boundaries.

#### 4.3 Dredging of Murray Mouth (To improve the health of the Coorong)

In order to provide adequate water of a reasonable quality for the Coorong, it is suggested that dredging of the Murray Mouth could be made wider and deeper. This would enable increased exchange of water between the Coorong and the ocean, thereby improving the level and quality of water in the Coorong.

With favourable wind patterns, it could reasonably be expected that significant flows of water through the Murray Mouth to the southern lagoon could occur on a regular basis.

Council believes that more funding should be allocated to the dredging of the Murray Mouth to support this initiative.



It is also suggested, as a complementary measure, that pumping of water from the southern lagoon of the Coorong to the ocean would improve water quality by allowing for increased flows of water from the Murray mouth and the northern lagoon.

Council is not seeking the delivery of fresh water to help replenish or revitalise the Coorong.

### 4.4 Pumping of water from Lake Alexandrina to Lake Albert (To prevent the development of acid sulphate soils (ASS))

Council is supportive of the continued pumping of water from Lake Alexandrina to Lake Albert as a proactive measure to prevent the development of acid sulphate soils.

It is anticipated that this measure will now be able to continue until approximately March 2009. The pumping of water from Lake Alexandrina

Council does not support the transfer of water from the Coorong to Lake Albert for this purpose, regardless of the method of delivery. Water from the Coorong is hyper-saline (up to 7 times saltier than the sea) and it is unknown, without the benefit of scientific research, what the implications of such a proposal would be.

Given the relatively small channel connecting Lakes Albert and Alexandrina (commonly known as the Narrows), it would take an unacceptably long period of time for saline water to be flushed from Lake Albert to Lake Alexandrina and then out to sea.

Lake Albert is also relatively shallow and prone to high levels of evaporation. Both these factors further increase the possibility of adverse consequences arising from the introduction of large quantities of hyper-saline water to this environment and effectively render the lake one giant salt pan.

There is anecdotal evidence of significant amounts of vegetative regrowth on parts of the bed of Lake Albert which have been exposed due to low water levels.

Little if any, research has been undertaken to ascertain the positive impact that this vegetative growth will have on the prevention of acid sulphate soil development.

Current research underway in this regard is in its early stages and more time is needed for the results of that research to come to fruition and to be analysed and understood.



#### 4.5 Opening of the barrages to introduce sea water

Council strongly opposes the opening of the barrages and the introduction of sea water into Lakes Alexandrina or Albert. There is little, if any, understanding as to the implications of this proposal.

Local knowledge suggests that the spring series of king tides will commence in mid-September and continue to mid-December, which could potentially lead to huge quantities of sea water entering the lakes, should the barrages be opened during this period.

If the barrages were to be opened during this period, it could be expected that the Lower Lakes will be subject to inundation by large volumes of sea water, with long-lasting and severe consequences. The nature and extent of those consequences are not well understood at the present time.

What is known is that the introduction of significant amounts of sea water would lead to a fundamental altering of the ecology of the lakes and their tributaries. Contrary to some reports, the lower lakes have never been an estuarine environment, which is supported by the CSIRO report, Water Availability in the Murray, published in July 2008, which provides this historical context:

"Cease-to-flow conditions occur at the Murray River mouth 1 percent of the time under without-development conditions; under current development conditions flow ceases 40 percent of the time."

This key point is supported by the following statement contained in A Fresh History of the Lakes: Wellington to the Murray Mouth, 1800s to 1935:

"Short-lived intrusions of saltwater would occur during periods of low flow down river resulting in a lowered level of water in the lakes. Even in times of these low flows, it would appear that only small areas of the Lakes (immediately around the Murray Mouth and into the channels towards Point Sturt for a short distance) were affected."<sub>2</sub>

Therefore, the introduction of large quantities of sea water would be a significant change to the management arrangements for the lakes and may not even have the desired effect of reducing the development of acid sulphate soils.

It is also likely that large-scale salt water intrusions through the barrages would be in contravention of Australia's obligations under the Ramsar Convention.



Under the Convention, any designated Wetland of International Importance, such as the Lower Lakes and Coorong, must be the subject of a management plan. Such a management plan has been developed for the Lower Lakes and Coorong.

Under that management plan, the vision for the Lower Lakes and Coorong is for the:

"Conservation of the Coorong and Lower Lakes Ramsar Wetlands by incorporating the world's best practice in integrated natural resource management to:

Conserve the environmental and ecological attributes of the wetlands for the benefit of future generations."<sub>3</sub>

Given that the Lower Lakes have always been a predominantly fresh water system, it is extremely doubtful that the introduction of large volumes of sea water would be consistent with the vision of maintaining the environmental and ecological attributes of the wetland.

Council requests formal recognition and acknowledgement from the Commonwealth that the Lower Lakes have been and should remain predominantly fresh water wetlands.

#### 4.6 Capturing of unregulated flows

Under current water-sharing arrangements, the unregulated flows of water from tributaries in Victoria and New South Wales are not made available to the Murray-Darling system (with the exception of the Kiewa River).



Council believes that these unregulated flows should be made available to the whole Murray-Darling system and that they should be set aside for environmental purposes, in federally-controlled environmental storages.

#### 4.7 Suspension/forgiveness of SA payback water

South Australia currently owes New South Wales and Victoria approximately 52 gigalitres of water it accessed over and above its entitlement during periods of record low inflow into the river system.

Council believes that the payback of this water should be forgiven or suspended by the other states and returned to the environment. Should conditions allow this water to be repaid in future years, a short term suspension of this debt would allow the extra 52 gigalitres to remain in the South Australian end of the Murray-Darling system and be used to maintain lake levels.

It is not expected that any of this water would be directed to the Coorong, but would be used solely for the purpose of replenishing the lakes.

#### 4.8 Temporary leasing of water

The temporary leasing of water is an option which should be explored by governments in order to address the immediate short-term needs to maintain lake levels.

Significant volumes of water are traded on the open market each year, there should be no reason why governments cannot enter the market to lease water on a short term basis.



## 5 Legislative or regulative impediments to Commonwealth's ability to obtain and deliver water

Council is of the view that the biggest legal or regulative impediment to the Commonwealth obtaining and delivering water to the Lower Lakes and the Coorong is the lack of regulation of water resources.

In particular, Council believes that unregulated flows from tributaries currently under the control of the states, should be regulated and should be the jurisdiction of the Commonwealth government.

This would give the Commonwealth the ability to determine the best use of those resources, which could include an immediate delivery of water to the Lower Lakes.

If given the power to regulate all water resources in the Murray-Darling Basin system, the Commonwealth would be able to better determine the water-sharing arrangements that would apply to those resources.

Council believes that the environment should be considered to be an equal partner in any water sharing arrangements and should therefore receive a quarter of the allocations, with the remaining three quarters to be shared amongst the states.

In addition to being granted the power over all water resources, the Commonwealth should also be given the power to determine how those water resources should be used.

There should be an immediate moratorium placed on any new development of permanent plantings in the Murray-Darling basin. This would include stone fruit, citrus fruit, vines and nuts.

In addition, there should also be a moratorium on any new development of onfarm water storages or water delivery systems, such as dams and irrigation channels.

Most importantly, the Commonwealth should seize control of the entire Murray-Darling Basin system, all its tributaries and all its water resources as a matter of urgency.

The timeframes associated with the implementation of the new national plan will do little to overcome the critical short-term issues associated with the drought and over-allocation of water resources.

If necessary, the Commonwealth should take the matter to the High Court, using the precedent set in the Franklin Dam case, in relation to invoking the external affairs powers of s51(xxix) of the Constitution.



In addition, the Commonwealth could also refer to the precedent set in the same case, in that statutory authorities are classified as trading corporations under s51(xx) of the Constitution and therefore subject to regulation by the Commonwealth.

This gives the Commonwealth the power to regulate the activities of all statebased statutory authorities involved in the management (or mismanagement) of water resources.



#### 6 Other related matters

#### 6.1 Local impact of lack of water availability

As mentioned in the summary and background, there have been a range of local impacts arising from the lack of water availability around the Lower Lakes.

The \$24m dairy industry has been all but wiped out in two years, taking with it over 120 jobs from the region. This has also resulted in tens of millions of dollars worth of on-farm assets being left stranded and not being used in any productive capacity.

The local school has lost over 20% of its enrolments due to young families leaving the district to seek opportunities elsewhere.

The real estate market has experienced a decline of 20% over a two year period, in an environment of otherwise rising property valuations. The valuation of properties has declined, in many cases, by up to 50% in a single year.

The local business community, heavily dependent on the dairy and other agricultural activities based around the Lower Lakes, has in many cases experienced a decline in turnover of up to 50%.

Local recreational and sporting groups, the hub of the community, are struggling to maintain facilities as their access to water has dried up.

Finally, the overall health and well-being of the community has been adversely affected as a result of the combination of all of the above factors.

The sustainability of the once-vibrant region around Meningie and the Narrung Peninsula is under threat, due to the drought and the mismanagement of water resources across the entire Murray-Darling Basin.