



MURRAY **FUTURES**

Lower Lakes & Coorong Recovery

Community Consultation Report
The Coorong, Lower Lakes and Murray Mouth:
Directions for a Healthy Future

June 2009



Government of
South Australia

WATER  GOOD

Contents

EXECUTIVE SUMMARY	3
GLOSSARY.....	5
1. INTRODUCTION.....	6
2. BACKGROUND TO THE COMMUNITY CONSULTATION	7
3. CONSULTATION METHODOLOGY	7
3.1 COMMUNITY ENGAGEMENT STRATEGY	7
3.2 PROMOTION OF CONSULTATION OPPORTUNITIES.....	8
4. COMMUNITY RESPONSES	9
4.1 COMMUNITY INFORMATION SESSIONS.....	9
4.2 FEEDBACK ON COMMUNITY INFORMATION SESSIONS.....	13
4.3 TARGETED MEETINGS	14
4.4 CONSULTATION WITH NGARRINDJERI.....	15
4.5 LISTENING POSTS.....	15
4.6 WRITTEN SUBMISSIONS.....	16
4.7 ON-LINE SURVEY.....	16
5. CONSULTATION FINDINGS	17
5.1 COMMUNITY FEEDBACK ON THE DIRECTIONS DOCUMENT	17
5.2 COMMENTS FROM COMMUNITY INFORMATION SESSIONS - 'POST IT' NOTES.....	18
5.3 COMMENTS FROM COMMUNITY INFORMATION SESSIONS - MEETING NOTES	19
5.4 COMMENTS FROM TARGETED SESSIONS & LISTENING POSTS.....	20
5.5 COMMENTS FROM WRITTEN SUBMISSIONS	21
5.6 COMMENTS FROM ON-LINE SURVEY	23
6. CONCLUSION	25
APPENDICES.....	26
APPENDIX 1 PROMOTION - DISTRIBUTION POINTS.....	26
APPENDIX 2 PROMOTION - MEDIA COVERAGE.....	26
APPENDIX 3 PROMOTION - ADVERTISEMENTS & WEB COPY	26
APPENDIX 4 COMMUNITY INFORMATION SESSIONS - NOTES.....	26
APPENDIX 5 COMMUNITY INFORMATION SESSIONS - POWERPOINT PRESENTATION.....	26
APPENDIX 6 COMMUNITY INFORMATION SESSIONS - FEEDBACK SURVEY	26
APPENDIX 7 TARGETED MEETINGS - NOTES	26
APPENDIX 8 TARGETED MEETINGS - (EXAMPLE) POWERPOINT PRESENTATION	26
APPENDIX 9 WRITTEN SUBMISSIONS - LIST	26
APPENDIX 10 WRITTEN SUBMISSIONS - SUMMARIES.....	26
APPENDIX 11 ON-LINE SURVEY REPORT (FROM EHRENBERG-BASS)	26

Executive Summary

The South Australian Department for Environment and Heritage (DEH) is developing a Long Term Plan for the Coorong, Murray Mouth and Lower Lakes (CLLMM) region in partnership with the community, scientists and industry. This is part of the South Australian Government's \$610million Murray Futures program, funded by the Australian Government's Water for the Future program. The purpose of the plan is to support post-drought recovery and develop a sustainable future for the region in a future of increased climate variability. The plan will encompass the environmental, social, cultural and economic values that are important to the region. It is being developed over three stages over the course of the year. The final plan will be completed in October.

This *Community Consultation Report* provides an overview of community comment on the *Coorong, Lower Lakes and Murray Mouth: Directions for a Healthy Future* document. The *Directions* document was developed by the CLLMM Project Team to provide a basis for discussion on development of the Long Term Plan.

During April to June 2009, the CLLMM Project Team conducted a community consultation process. This was designed to provide a variety of opportunities for community members and organisations to contribute their ideas about the *Directions* document. This community input will be integral to the process of developing the preliminary Long Term Plan, expected to be released for public comment in July.

The objectives of this report are:

- To meet funding agreement requirements with the Australian Department of the Environment, Water, Heritage and the Arts (DEWHA) for the *Feasibility Study for Long Term Management of the Coorong, Lower Lakes and Murray Mouth*.
- To provide evidence that a diligent, transparent and effective process of consultation and processing of comments has occurred.
- To describe how the *Community Consultation Plan for the Long Term Plan for the Coorong, Lower Lakes and Murray Mouth* was put into action.
- To describe how the ideas and comments received from the public were processed.
- To provide a summary of all comments received during the period of public consultation.
- To document written comments from consultation meetings and community submissions relevant to *Directions for a Healthy Future*.
- To describe how community input is being used during the transition from the *Directions* document to the Draft Long Term Plan (Version 1).

The CLLMM Project Team was guided through the consultation process by the *Community Engagement Strategy*. The goal of this strategy is to optimise community engagement with both the development and implementation of the Long Term Plan. The Project Team received ideas and comments from a large number of interested community stakeholders, through a variety of consultation mechanisms:

- 212 people in total attended the *Community Information Sessions* held in 5 locations throughout the region.
- 93 people participated in *Targeted Meetings* with 9 key organisations.
- 67 people commented through one of 9 *Listening Posts* set up throughout the region.

- 75 written submissions were received - 64 from individual community members, and 11 from organisations.
- 236 people contributed through an on-line survey.

The *Community Information Sessions* were widely advertised. These meetings were carefully designed so that people could gain information relevant to them about the issues incorporated in the *Directions* document. Specialist panels were provided to respond to questions asked. A range of opportunities were provided for participants to input their ideas at the meetings. Participants were also informed about how to submit written comment to the Project Team. Responses to a survey distributed and collected at 3 of these meetings indicate participant satisfaction with the structure, organisation and general quality of the Community Information Sessions.

Targeted Meetings were conducted by organisations with interests and expertise which significantly relate to the *Directions* document. Senior CLLMM Project Team members gave a presentation, and contributed to each of these meetings. Comments arising from meeting discussions were documented and processed.

Consultation activities were further extended in the region through the use of *Listening Posts*. These booths were available for 2-4 weeks, often in smaller communities. Community members were able to pick up the *Directions* document and related information at each Listening Post. CLLMM Project Team members attended the Listening Posts at advertised times to enable the general public to discuss issues or present ideas in relation to the *Directions* document.

The on-line survey was developed by the Project Team in association with Ehrenberg-Bass Institute for Marketing Science at the University of South Australia. This provided a further avenue for people to contribute to the development of the Long Term Plan.

Throughout the consultation process, community members could download the *Directions for a Healthy Future* document and other relevant factual information, from the DEH website. This site also provided information about meeting and Listening Post times and locations, and encouraged written comment.

All information gathered from the community by these varied means was then processed. Material was organised ready for retrieval, grouped according to particular aspects of the *Directions* document. At the time of writing, information continues to be processed, assessed and integrated as the first version of the Long Term Plan is being written.

This report provides a detailed overview of comments which directly related to *Directions for a Healthy Future*. These are presented in relation to:

- Core Elements (*Directions*, pages 12-13).
- Suggestions for a more complete *Directions* document.
- Management Actions (*Directions*, pages 32-44)
- Map 1 (*Directions*, page 21)
- Proposed improvements to words, sentences and paragraphs.

Comments were received which addressed a range of other issues. In particular, some proposed major engineering projects (e.g. north to south pipelines, canals, channels and twin lakes projects). Others commented on the relationship between issues raised in the *Directions* document and other related plans (eg. the Ramsar Agreement) and organisations (e.g. the Murray Darling Basin Authority). These are noted, but not covered in detail, in this report.

Glossary

CLLMM	Coorong, Lower Lakes and Murray Mouth
CLLMM Project Team	The CLLMM Project Team in DEH
DEH	Department for Environment and Heritage (South Australian Government)
DEWHA	Department of the Environment, Water, Heritage and the Arts (Australian Government)
<i>Directions for a Healthy Future</i> or the <i>Directions</i> document	<i>Murray Futures, Lower Lakes and Coorong Recovery. The Coorong, Lower Lakes and Murray Mouth: Directions for a Healthy Future</i> (May 2009).
Long Term Plan	The plan being developed as part of the <i>Feasibility Study for Long Term Management of the Coorong, Lower Lakes and Murray Mouth.</i>
DWLBC	Department of Water, Land and Biodiversity Conservation (South Australian Government)

1. Introduction

This Community Consultation Report describes the processes used to gather public comment on the document entitled *Murray Futures, Lower Lakes and Coorong Recovery. The Coorong, Lower Lakes and Murray Mouth: Directions for a Healthy Future* (May 2009).

The *Directions* document (as it is generally referred to in this Report) was produced by the Coorong, Lower Lakes and Murray Mouth (CLLMM) Project Team in the Department for Environment and Heritage (DEH), South Australia. It was written to provide a stimulus for a range of individuals and organisations to raise questions and express their views. It also provided a useful framework for gathering, assessing and ordering community comments. Where appropriate, these will be integrated into the Long Term Plan for the Coorong, Lower Lakes and Murray Mouth.

This Report demonstrates how the CLLMM Project Team distributed the *Directions* document, ensured that the relevant communities knew about the consultation and were provided diverse opportunities to participate in the consultation process.

Once received, comments were summarised and categorised according to key areas covered in the *Directions* document. This ensured participant comments were captured and that all ideas were assessed. Where feasible, these ideas will be incorporated into the ongoing development of the Long Term Plan by the CLLMM Project Team.

Objectives for this Community Consultation Report are:

- To meet funding agreement requirements with the Australian Department of the Environment, Water, Heritage and the Arts (DEWHA) for the *Feasibility Study for Long Term Management of the Coorong, Lower Lakes and Murray Mouth*.
- To provide evidence that a diligent, transparent and effective process of consultation and processing of comments has occurred.
- To describe how the *Community Consultation Plan for the Long Term Plan for the Coorong, Lower Lakes and Murray Mouth* was put into action.
- To describe how the ideas and comments received were processed.
- To provide a summary of all comments received during the period of public consultation.
- To document written comments from consultation meetings and community submissions relevant to *Directions for a Healthy Future*.
- To describe how community input is being used during the transition from the *Directions* document to the Draft Long Term Plan (Version 1).

2. Background to the Community Consultation

The Coorong, Murray Mouth and Lower Lakes (CLLMM) region is an ecological asset of state, national and international importance. The Coorong and Lakes Alexandrina and Albert Ramsar site has been designated as a Wetland of International Importance under the Ramsar Convention. This recognises its essential habitat function for migratory birds, including threatened and endangered species.

The region is of immeasurable cultural significance to its Traditional Owners, the Ngarrindjeri.

The health of the Coorong, Lower Lakes and Murray Mouth is of vital social and economic importance to the generations of farmers, fishing families and others who have established homes and livelihoods in the region.

Reduced River Murray inflows combined with heavy extraction demands and drought have taken a grave toll on Lakes Albert and Alexandrina and the Coorong in respect of increasing salinity and the exposure of acid sulfate soils.

DEH, as part of the Murray Futures Project funded by the Commonwealth Government, is working to develop a Long Term Plan for the CLLMM region. The Long Term Plan will detail remediation strategies to restore ecological integrity and function to the system. It will also include strategies to develop resilience in the face of climate change, predicted inflows and other variable environmental factors.

3. Consultation Methodology

3.1 Community Engagement Strategy

A Community Engagement Strategy for the Development of the Long Term Plan for the Coorong, Lower Lakes and Murray Mouth (June 2009) has been developed. The goal of the strategy is to effectively engage the community in the development and implementation of the Long Term Plan. It also aims to ensure that affected communities and individuals have a good understanding of relevant science and management options.

The Strategy recognises that local communities have unique knowledge and expertise that could assist with the development of a viable Long Term Plan for the CLLMM. Therefore, it was decided to engage with the community early in the process, to ensure that these competencies were recognised and understood by DEH staff and systematically considered and applied throughout the development process. Ultimately, the Community Engagement Strategy sought to ensure the widest and strongest community input available.

During the consultation process, people were specifically invited to provide comment on:

1. Whether the Core Elements of *Directions for a Healthy Future* include the issues the community believes need to be addressed.
2. The accuracy of information contained in the *Directions* document.
3. The completeness of information provided in the document.
4. The appropriateness of the environmental management options presented.
5. Any environmental management options not included in the document.

The company *Meeting Success* was engaged to provide community consultation services to the Long Term Plan development process. Meeting Success worked collaboratively with the CLLMM Project Team to add value to their work within the region and its diverse communities. This document describes and overviews consultation activities including:

- Five (5) Community Information Sessions.
- Responses from Community Information Session feedback surveys.
- Nine (9) Targeted Consultation Meetings.
- Listening Posts located throughout the CLLMM Region (particularly in smaller communities).
- Other means of connecting the public with the *Directions* document, including the internet and mass media.
- The management of comments received from the variety of consultation processes and community stakeholders.
- A compilation of direct references to *Directions for a Healthy Future* made in throughout the consultation process.

3.2 Promotion of Consultation Opportunities

Media Coverage

Radio and print media covered issues and activities related to the *Directions* document and the community consultation process. Wherever possible, mass media was used to stimulate community interest in participating in consultation meetings and/or providing written comment.

A list of all radio and print media which included the key words 'directions', and 'Long Term Plan' were reviewed. Those pertinent to the consultation process are provided in Appendix 2.

DEH Website

The *Directions for a Healthy Future* document, post card and other relevant materials were available on the DEH website for the duration of the consultation phase of the project. Community members and organisations were encouraged to make written comment to the CLLMM Project Team through:

- The website - www.murrayfutures.sa.gov.au
- Email - cllmm@deh.sa.gov.au
- Free call 1800 226 709 during business hours

- Free post to:
Coorong, Lower Lakes and Murray Mouth Projects Team
Department for Environment and Heritage
Reply Paid 1047
Adelaide SA 5001

4. Community Responses

The following table outlines communications from the general public, in response to DEH promotion of the consultation process:

Number of phone calls to LTP hotline	45
Number of emails to cllmm@deh.sa.gov.au from unique individuals	63
Number of Community Information Session registrations via phone or email	28
Number of submissions received by email	56
Number of submissions received by letter	19
Total number of submissions received	75
Number of unique visitors to the Murray Futures website	634
Number of visits to the Murray Futures website	1069
Number of page views on the Murray Futures website	5095
Number of unique visitors to the CLLMM website	1043
Number of visits to the CLLMM website	1630
Number of page views on the CLLMM website	5143
Members on Stakeholder Database	1456

4.1 Community Information Sessions

These Community Information Sessions were planned and executed as set out in the document *Community Consultation Plan for the Long Term Plan for the Coorong, Lower Lakes and Murray Mouth*.

The purpose of the Community Information Sessions was to add value to the *Directions for a Health Future* document, through:

- Ensuring stakeholders were well informed, by providing them with the information necessary to access, understand and respond to the *Directions* document.
- Providing a range of opportunities for community members to participate in discussion and lodge comments directed at moving toward a viable Long Term Plan for the CLLMM.

A panel of five or six specialist resource people attended each session to provide information. The panel was drawn from the following:

Brenton Gear	DEH	Acting Director,
--------------	-----	------------------

		Coorong, Lower Lakes and Murray Mouth Projects
Russell Seaman	DEH	Environmental Manager
Hon Dean Brown	Drought Reference Group	Premier's Special Advisor on Drought
Paul Harvey	Private Consultant	Former Manager, River Murray Program, DWLBC
Dr Murray Townsend	DEH	Manager Coastal Management
Bill Paterson	South Australian Murray Darling Basin Natural Resources Management Board	Presiding Member
Piers Brissenden	DEH	Assistant Director, Coorong, Lower Lakes and Murray Mouth Projects
Andrew Beal	DWLBC	Chair, South Australia Water Security Technical Group
Peter Alexander	DEH	Regional Conservator, Mt Gambier

Community Information Sessions were advertised in newspapers, the DEH website and the Coorong, Lower Lakes and Murray Mouth Project (DEH) email Bulletin. A copy of these advertisements are included in Appendix 3.

The agenda for meetings at Meningie, Murray Bridge, Goolwa and Adelaide was largely consistent. However, the process was modified over time, based on participant feedback. The outcome was that there was progressively less input from DEH staff and more time allowed for interaction - between community members themselves; and between community members and the specialist panel.

At the request of community members there was some variation to the agenda at the Milang Community Information Session. At the Milang Session, more time was allowed for discussion and community members (rather than DEH staff) facilitated small groups. As a result, fewer DEH staff attended the Milang meeting than the other four meetings.

Consultation Agenda

The panel of specialists was introduced early in each meeting prior to a short presentation over-viewing the *Directions for a Healthy Future* document (see Appendix 5).

Participants formed groups of eight with a trained DEH facilitator. The task of the group facilitator was to write questions on large Post-it notes. These questions were sorted and answered by the specialist panel.

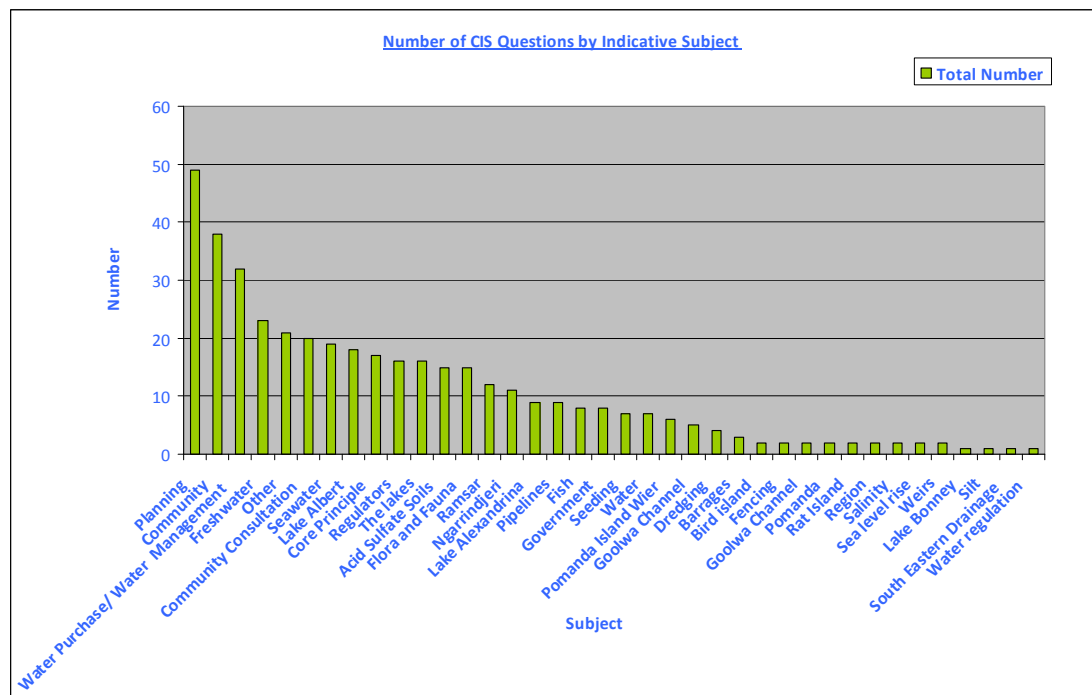
As group facilitators wrote questions, these were continuously collected and placed on a wall. Specialist panel members gathered and discussed who would be the most appropriate panel member to answer each question. Similar or related questions were grouped together. Duplicated or overlapping answers were avoided.

Following the small groups, the meeting re-gathered and the specialists answered questions in an open manner.

DEH provided a light meal or refreshments at the end of each Community Information Session. Community members were invited to stay after the meeting to informally discuss issues and/or ask questions of the specialists. Many members of the public accepted this invitation.

This meeting format allowed community members the opportunity to ask questions, hear answers from people with specialist knowledge, and engage with them further. This format successfully achieved its goal of sharing information. A large number of questions (410 in all) were answered. (Appendix 4 lists the wording of each question submitted to the specialist panel). Panel members and community members generally responded favourably to this format. Results of the feedback surveys on the Session process are included in Appendix 6.

The broad indicative categories of questions have been summarised. Below is a graph which groups all questions raised at Community Information Sessions under indicative subject headings:



People planning to attend a Community Information Session were invited to pre-register via email at clmm@deh.sa.gov.au or to register through a DEH 1800 number hotline. Registrations were sought to ensure that venues had sufficient capacity, there were sufficient group facilitators and the catering was adequate. Registrations were also accepted on entry, and all registrants were offered:

- A hard copy of the document *Coorong, Lower Lakes and Murray Mouth: Directions for a Healthy Future*.
- A paper summary of the main PowerPoint presentation on the *Directions* document.
- A meeting feedback survey (implemented at three of the five meetings).
- A simple A4 sheet so that a *headline* comment could be recorded with additional details, and handed to DEH staff as a comment at the meeting.

- Postcards inviting those attending to subscribe to DEH CLLMM email Bulletin.
- The option for people to provide an email address so that they could receive CLLMM project updates by email.

Participants were able to make comments by a variety of means including:

- At the meeting, via *headlines and details* pro-forma.
- By email or email with attachments.
- By speaking with a DEH staff member at a community Listening Post and having comments recorded on request.

The distribution arrangements for the *Directions* hard copy document (43 pages) are detailed in Appendix 1. The *Directions* document was also made available through the DEH website from Monday 4 May and in hard copy from Friday 8 May. The first Community Information Session was held on Tuesday 12 May.

Community Information Sessions Conducted

Meningie

Meningie Football Club, Tuesday 12 May, 7.00pm-9.30pm
50 registered attendees

Murray Bridge

Murray Bridge Town Hall, Thursday 14 May, 7.00pm-9.30pm
22 registered attendees

Goolwa

Goolwa Community Hall; Saturday 16 May, 2.00pm-4.30pm
52 registered attendees

Milang

Milang Community Hall, Tuesday 19 May, 7.00pm-9.30pm
56 registered attendees

Adelaide

Arkaba Hotel, Glen Osmond Road, Fullarton, Adelaide Thursday 21 May 7.00- 9.30pm
32 registered attendees

A total of 212 people attended the 5 sessions.

4.2 Feedback on Community Information Sessions

Meeting feedback sheets were widely distributed at the Murray Bridge, Goolwa and Adelaide Community Information Sessions. The feedback sheet was not prepared in time for the Meningie Meeting; it was decided not to ask people to complete a feedback sheet at Milang, due to the late finish of the session. (Feedback surveys were not utilised at Targeted Meetings, because the format of these meetings was different to the process used for Community Information Sessions).

Meeting	In attendance	No of surveys returned
Murray Bridge	22	7
Goolwa	52	15
Adelaide	32	13
Total	106	35

The feedback survey is reproduced, and its findings summarised, in Appendix 6.

Responses to the survey were generally positive. More than 80% of participants *agreed* or *strongly agreed* with positive statements about - meeting presentations, small group workshops, questions to the specialist panel and general feedback. A review of all comments written on the feedback sheets indicates that of those who responded, significant affirmation was given to the meeting procedures adopted.

The following is a short list of respondents' feedback:

Comments or suggested improvements in the presentations:

- Less technical jargon.
- More linked to the document pages.

Comments or suggested improvements on the workshops:

- Include Ngarrindjeri rep on panel and youth input.
- Tighter control of discussion groups.
- Frustrated that money is being spent for innumerable talks and discussion papers — time goes on and nothing seems to be done.
- More time needed.

What were the most satisfying aspects at the meeting?

- Discussion time with sticky notes.
- Well done — keep up the info.
- Ability to get some detail.
- Good quality staff.
- Great to have clear explanations from experts.
- Very lucky to have such a broad range of participants.
- Facilitator helped to get a broader perspective.
- Opportunity to learn other viewpoints.
- Hearing others' concerns.
- Experts from various fields.

How should we do things differently next time?

- Tighter group meeting control.
- Engaging youth.
- More publicity.
- Leave out introductory explanation of DEH work.
- Should hear from people/farmers/irrigators/businesses affected by the crisis.
- Was OK as is.

4.3 Targeted Meetings

Seven (7) targeted consultations were held. *Targeted Meetings* are defined as consultation with existing organisations who meet for purposes related to the Coorong, Lower Lakes and Murray Mouth recovery. CLLMM Project Team negotiated with officers from these organisations to provide an opportunity to:

- Distribute *Directions for a Healthy Future*.
- Provide an overview presentation at a scheduled meeting of the organisation. (An overview of the PowerPoint presentation on the *Directions* document is in Appendix 8.)
- Allow time for discussion.
- Invite written comment from the organisation or individuals in the organisation.

Meetings were attended by a range of DEH officials. The CLLMM Projects Director, Acting Director or Assistant Director attended Targeted Meetings and provided the overview presentation of the *Directions* document. The Manager, CLLMM Projects Policy and Planning participated in most Targeted Meetings.

Targeted Meetings were held between 21 April and 4 June and a total of ninety three (93) people attended. Questions, issues and comments raised at these consultation meetings are included in Appendix 7.

Targeted Meetings Conducted

Long Term Plan Reference Group

Mt Lofty House Crafers
Tuesday 21 April

Lower River Murray Drought Reference Group

Murray Bridge Local Government Rooms
Thursday 30 April

Scientific Advisory Group

NPEC Adelaide
Thursday 30 April

Local Government Briefing (Alexandrina Council, Rural City of Murray Bridge)

Coorong District Council
Tuesday 5 May

Long Term Plan Socio Economic Report

Regional Development Office, Murray Bridge
Tuesday 5 May

Lower Lakes, Coorong and Murray Mouth Icon Site Community Reference Committee

Langhorne Creek Bowling Club
Wednesday 13 May

South Australian Murray Darling Basin Natural Resources Management Board

SA NRM Board Office, Mt Barker
Thursday 21 May

4.4 Consultation with Ngarrindjeri

Ongoing meetings have been held between representatives of the Ngarrindjeri Regional Authority and government officials.

The State Government is close to finalising a formal Overarching Consultation Agreement with the Ngarrindjeri People in relation to consultation and negotiation on a range of environmental and cultural matters of joint interest. This will include a grant agreement to facilitate input by Ngarrindjeri People into the planning process for the development of the Long Term Plan for the recovery of the Coorong, Lower Lakes and Murray Mouth.

4.5 Listening Posts

Listening Posts were provided at public places at advertised times (shopping malls, general stores, community centres and libraries) in the region. The purpose of the Listening Posts was to hear community concerns and to record comments. Listening Post dates were publicised by posters and flyers in local shopping centres, through local media outlets and through local organisations. Listening Posts provided an additional consultation opportunity where individual concerns were heard and recorded. In particular, they provided smaller locations (Langhorne Creek, Strathalbyn and Clayton Bay) with a service.

A Listening Post structure was a Murray Futures' branded cardboard display (similar to a polling booth) holding multiple copies of *Directions for a Healthy Future* and postcards inviting people to sign up to CLLMM email bulletins and explaining how people could access further information (mainly through DEH). Listening Posts remained *in situ* for up to three weeks. They were staffed at advertised times by two CLLMM Project Team members for between two and four hours at a time. Conversation numbers were recorded. Distribution of post cards and *Directions for a Healthy Future* were not recorded but are known to be significantly higher than the conversation rate.

Date	Location	Conversations
May 12	Meningie Community Library, Meningie Area School	6
May 14	Centro Plaza, Murray Bridge	6
May 16	Goolwa Library Foyer	6
May 19	Langhorne Creek General Store	2
May 20	Woolworths Arcade, Strathalbyn	6
May 26	Goolwa Library	20
May 26	Meningie Library	2
May 26	Milang Old Schoolhouse Community Centre	5
May 26	'Sails' Store, Clayton Bay	4
Total		67

4.6 Written Submissions

The *Directions* document was available (both on-line and in hard copy) from Friday 8 May. Opportunities for comment nominally closed at COB on Friday 29 May. The public were invited to provide written comment sent as an email, as email with word attachments, or hard copy (using a free post address or fax).

Seventy three (75) comments were received by Thursday 11 June. Of these, sixty two (64) were individual comments and eleven (11) were from community or other organisations.

A list of people and organisations that contributed comments is available in Appendix 9.

When written comment was received, the contact details supplied were recorded, and a letter or email message acknowledging receipt sent. Comment was provided with a unique identifier and printed and stored in a folder ready for reading.

Following the consultation period comments were processed. Processing included:

- Reading all written comments closely.
- Producing a summary of each comment (in order to reduce the volume of text to a more manageable size).
- Entering this summary into an Access database memo field.
- Entering key words and other key identifier information into a second data base memo field.

Summaries and key identifiers for all written submissions received are in Appendix 10. At the time of writing, this information is in the process of being analysed and considered in depth by the CLLMM Project Team.

An Access data base was used because all comment summaries can be searched for by key words. Related comments can be assembled and assessed by assessors looking at a particular area. Specific references can be readily located for consideration.

The data base provides the means for specialist assessors responsible for the development of the CLLMM Long Term Plan Version 1, to:

- Assess issues raised and ideas presented in their focus area.
- Readily check for suggested text changes in the *Directions* document.

4.7 On-line Survey

An on-line survey was designed as an additional means for the community to have input into the Long Term Plan through giving feedback on the *Directions* document. The on-line feedback will be considered and assessed by the Project Team and where possible will be incorporated into the first version of the Long Term Plan.

The survey was prepared by Ehrenberg-Bass, Institute for Marketing Science at the University of South Australia in association with staff from the Department for Environment and Heritage.

The on-line survey sought to:

- Gauge the level of awareness and knowledge about the *Directions* document.
- Contribute to development of a stakeholder data base.
- Measure the level of support for the development of the Long Term Plan.
- Gather feedback on the issues contained in the *Directions* document.
- Gather feedback on the community engagement activities undertaken.

This survey was available to the public between 12 May and 24 May.

Findings were presented in relation to two populations. One population consisted of people who subscribed to the DEH CLLMM email Bulletins and responded to a specific request. The second population consisted of people who visited the DEH CLLMM website and sought out the survey.

5. Consultation Findings

5.1 Community Feedback on the Directions Document

This section of the Community Consultation Report summarises community comments from Community Information Sessions, Targeted Meetings and Listening Posts which specifically address the criteria listed (*Directions*, page 6).

All other written comments received by email or post in relation to *Directions for a Healthy Future* are being carefully assessed by a range of specialists. The seventy three (75) comments made suggestions aimed at contributing to a positive long term future for the CLLMM. Many of the written comments provided considerable detail, which will be addressed during development of the Long Term Plan.

Relatively few comments addressed particular sentences, paragraphs, sections or appendices of the *Directions* document. At the time of writing, the process of assessing comments both from meetings and written submissions continues. Below is a record of direct comments in relation to the *Directions* document from Community Information Sessions, Targeted Sessions and Listening Posts.

5.2 Comments from Community Information Sessions - 'Post it' Notes

Of the four hundred and ten (410) questions/comments on 'Post-it' notes at Community Information Sessions, fourteen (14) referred directly to the Core Elements listed in *Directions for a Healthy Future*, pages 12-13, or to the *Directions* document by name. These are arranged below under the relevant Core Elements. **The words used remain those provided by people through meeting processes with minor exceptions aimed at increasing clarity.** Each comment is being assessed by the Project Team, along with those derived from the written comments entered into the Access data base. Comments from notes taken at Community Information Sessions and Targeted Meetings are also included below.

Core Element 1: *A responsive management approach based on robust research, adequate monitoring and extensive community involvement*

- Community input - important for community to be listened to and responded to.
- Good communication with feedback to community from submissions.

Core Element 2: *Engagement of the traditional owners - the Ngarrindjeri*

- When will the community be aware of the Ngarrindjeri position on both long and short term planning?
- Important to consult with Ngarrindjeri, but very difficult and different process to engaging general public.

Core Element 3: *Freshwater provided to the Lakes*

- *How* will Core Element 3 become a reality when to date, we've failed to make it a reality?
- How are you going to provide freshwater to the Lower Lakes?
- The belief that 'fresh' is the natural state of the Lakes. And if so - what of the science?
- If Core 3 is satisfied, why is Core 6 necessary?
- Core Principles 3 & 5 based upon our (DEH) preferred option (value judgment).

Core Element 4: *The Murray Mouth open and connecting the Coorong to the sea*

- Include a self flushing flap valve to bring water in to the South Lagoon and exit through the mouth.

Core Element 5: *Accepting viable Lake levels, yet monitoring system connectivity*

- How will system connectivity be maintained, if engineering interventions are being proposed in the immediate future and will remain in place for possibly 5 years or more (Clayton/Pomanda weirs)?
- What is being planned to achieve this?
- This creates short term un-connectivity in system - how will this impact on long term achievements to this goal?

Core Element 6: *Managing localised threats, especially acidification*

No direct questions.

Suggestions for a more complete *Directions* document

Two questions suggested that the *Directions* document was incomplete:

- Is there need for a *worse case scenario* Core Element?
- Is the *Directions* document giving sufficient attention to the economic issues?

5.3 Comments from Community Information Sessions - Meeting Notes

People at the Community Information Sessions often made extra comments about the *Directions* document, which were not written on Post-It notes. These were recorded in meeting notes. Comprehensive notes were taken during each Community Information Session. These were read closely and references to Core Elements extracted.

Core Element 1: *A responsive management approach based on robust research, adequate monitoring and extensive community involvement*

- At the CIS Meningie Paul Harvey (specialist panel member) suggested bathymetry maps should be available on the World Wide Web.

Core Element 2: *Engagement of the Traditional Owners - the Ngarrindjeri*

- Include a Ngarrindjeri person on the panel of specialists.

Core Element 3: *Freshwater provided to the Lakes*

- Policy mechanisms, for example Murray Darling Basin Authority, provide fresh water for environmental purposes.
- Purchasing water entitlements (temporary and permanent water).

Core Element 4: *The Murray Mouth open and connecting the Coorong to the sea*

- Open mouth and flushing.
- Goolwa CIS proposal for Murray Mouth breakwaters. Already rejected in previous DWLBC Report. Should there be another review?
- Pumping hyper-saline out of South Lagoon.
- South Eastern Drains diversions.

Core Element 5: *Accepting variable Lake levels, yet maintaining system connectivity*

- Barrage operations to establish variable Lake levels.
- Reduce reliance upon Lakes for extractive purposes so that Lake levels can be lowered periodically.
- Provision of fish passage structures.

Core Element 6: *Managing localised threats, especially acidification*

- Acidification: bioremediation, pooling fresh, pooling salt.
- Fencing stock and rabbit control.
- Murray Bridge CIS Fencing emerged as an unclear issue. When will (should) fencing go in? Where in relation to the Lakes shoreline? At whose expense? Different kinds of fencing?
- Localised weed control.
- Wind erosion.
- Ecological refuges.
- Foxes killing birds on Bird Island was an issue raised at Goolwa CIS.
- Foxes killing tortoises on Lakes Shores at Milang meeting.
- A proposal at Goolwa CIS to use (promote, facilitate, support) the Murray River as a (nature link?) corridor, through Local Action Planning funding.

Suggestions for a more complete *Directions* document (mostly social and economic issues)

- Managing cars on Lake beds. (CIS Milang)
- Issues of mental health and economic development should be included.

- How to incorporate social and economic sciences into the Long Term Plan? (Milang CIS)
- How to engage young people into Long Term Planning processes?

5.4 Comments from Targeted Sessions & Listening Posts

The following is a summary of the key comments made which were related to the *Directions Document*.

Core Element 1: *A responsive management approach based on robust research, adequate monitoring and extensive community involvement*

Research

- Mosley and Seaman's seawater and acid soils research should be made available on web.

Community Involvement

- Fencing and funding of community groups.
- Fencing and direct consultation with stockowners whose property fronts the Lower Lakes.
- Use school newsletters as a communications means with parents.
- Use radio to disseminate information.
- Consider using church groups and industry groups as tools for consultation.
- It may be difficult to consult when people feel they are in a crisis.
- Scientific information needs to be readily available to community groups.
- Planting trials for native plants which will withstand climate change — develop a nursery with local schools, Ngarrindjeri or other groups.

Core Element 2: *Engagement of the Traditional Owners - the Ngarrindjeri*

- Ngarrindjeri Nation Sea Country Plan integrated into LTP.

Core Element 3: *Fresh water provided to the Lakes*

- Policy mechanisms, for example MDBA, provide fresh water for environmental purposes.
- Purchasing water entitlements (temporary and permanent water).

Core Element 4: *The Murray Mouth open and connecting the Coorong to the sea*

- Open mouth and flushing.
- Goolwa CIS proposal for Murray Mouth breakwaters. Audience says already rejected in previous DWLBC Report. Should there be another review?
- Pumping hyper-saline out of South Lagoon.
- SE drain diversions.

Core Element 5: *Accepting variable Lake levels, yet maintaining system connectivity*

- Barrage operations to establish variable Lake levels.
- Reduce reliance upon Lakes for extractive purposes so that Lake levels can be lowered periodically.
- Provision of fish passage structures.
- Re-vegetation for the provision of habitat for key species.

Core Element 6: *Managing localised threats, especially acidification*

- Acidification: bioremediation, pooling fresh, pooling salt.
- Fencing stock out, rabbit control.

- Complexities of fencing, shifting shore lines due to wind, fencing and seeding relationship and timing of fencing installation.
- Availability of fencing materials for re-use at Loxton or Berri.
- Funding of fencing, and funding for community groups.
- Localised weed control.
- Wind erosion (see fencing).
- Ecological refuges.

Suggestions for a more complete *Directions* document (mostly social and economic issues)

- Managing cars on Lake beds. (CIS Milang)
- Integration of the Long Term Plan with other plans including Mt Lofty Ranges Water Management Plans.
- Consider using alternative words to “drought” in documents. (There is no drought in Lower Lakes.)
- Final time frame of Long Term Plan is too far out — and not connected with people’s interests.
- Importance of high level leadership in managing issues (for example, the Premier).
- Integration of Long Term Plan with NRM plans, and with local government plans.
- Integrate the Long Term Plan with the Basin Officials Committee and the SAMDBA plan. Is there a shoreline business plan?
- Advice to regard the Murraylands socio-economic study as a model for use in LTP.
- Always mention Coorong and Lower Lakes (don’t drop the word *Coorong* to create a short hand).
- How to control dune buggies, 4WD and motor bikes on Lower Lakes?
- How to control the use of jet skis close to or in Ramsar wetlands?
- Build in social analysis, social planning and social support around the CLLMM.

5.5 Comments from Written Submissions

The following is a summary of the key comments made which directly addressed aspects of the *Directions* document.

Written comments on Management Actions

Comment No 16 (Appendix 10) the author provides further ideas in relation to Management Action No 29.

Comment No 47 (Appendix 10) The author generally supports management actions which result in increased freshwater flows to River and Lower Lakes:

- Management Action 16: Is dangerous - environmental and economic disaster.
- Management Action 17: Supported.
- Management Action 21: If permanent regulator at Narrung then at the southern end and thus preserve the Narrows habitat.
- Management Action 22: Supported.
- Management Action 31: Supported - Tourism economy benefits. Likely to educate visitors. Franklin Dam/Gordon River issue in Tasmania created awareness and support for the River. Similarly here.

Written comments on Core Elements

Comment No 51 comments that Core Element 3 lacks detail. It should say “sufficient freshwater to maintain the range of salinities that support the ecological communities of the Lakes and Coorong, that is freshwater, estuarine, saline, hyper-saline”. Suggests that Core Element 6 is a function of Core Element 1.

Comment No 54 affirms all Core Elements.

Comment No 56 asks that DEH first check Core Elements against the following:

1. Mitigation v adaptation: mitigation during climate change may enable ecosystems to adapt - but don't adapt in ways which require on-going mitigation.
2. Resilience v transformation: which is most appropriate? When? What is the resilience of an ecosystem to withstand a change in environmental drivers? When to develop a trajectory to a new more appropriate ecosystem forget.
3. Climate change v climate variability: track both evaluating expected outcomes, considering 'nested nature of system vulnerability and adaptive capacity. Security of the most resilient components. Manage to secure the strongest components working towards the weakest.
4. End of system forgets v a natural systems paradigm: NOT what we want it to get back to, BUT what would it look like if...?

Comment No 57 affirms all core elements but Element 1. Proposes an additional action - identify indicator species for benchmarking and management plans. Develop actions to support indicator.

Comment No's 39 & 46 discuss Map 1 (*Directions*, page 21), which uses different colours for different water bodies. The use of different colours suggests disconnection and it is preferable to use only one colour to emphasise connectedness.

Comment No 19 provides information for inclusion from *Birds Australia*. Provides a reference to newly published research; **Comment No 50** provides references to Australian native plants of economic value which could be considered for cropping in the region; **Comment No 52** provides a reference to the subsidence of land in or near the region.

Written comments suggesting changes to the text

Comment No's 47, 51, 63 are very detailed submissions that suggest changes to a considerable number of sentences and raise many issues. These have not been reproduced here due to the length and detail of the submissions.

Other significant themes

A number of themes were identified in comment from the community. These continue to be assessed. These comments made a contribution to the consultation process but did not directly address a core element, management actions or some other aspect of the *Directions* document.

- The need to consider all upstream influences (e.g. allocation, management actions and a “whole of basin” approach) when developing the long term plan
- The need for the plan to have effective links with the Murray Darling Basin Authority and basin allocation planning.
- suggestions for natural solutions to be considered over engineering solutions

- Suggestions for engineering solutions to sustain the region's natural environment
- The need to incorporate scientific knowledge with local knowledge and expertise.
- The importance of bioremediation and re-vegetation.
- Links with/alignment to the Ramsar Agreement.
- A range of major engineering proposals – a significant number of which proposed solutions to problems for the whole of the Murray Darling Basin. These include desalination projects and north to south pipeline projects. Other engineering projects tied to the CLLMM region include suggestions for pipes, canals, channels, locks, levees and barrages.

5.6 Comments from On-line Survey

Overview

An on-line survey was designed as an additional means for the community to have input into the Long Term Plan through giving feedback on the *Directions* document.

The survey was prepared by Ehrenberg-Bass, Institute for Marketing Science at the University of South Australia in association with staff from the Department for Environment and Heritage.

The on-line survey sought to:

- Gauge the level of awareness and knowledge about the development of a long-term plan and the *Directions* document.
- Measure the level of support for the development of the Long Term Plan.
- Gather feedback on the issues contained in the *Directions* document.
- Gather feedback on the community engagement activities undertaken.
- Contribute to development of a stakeholder data base.

This survey was available to the public between 12 May and 29 May 2009.

Findings were presented in relation to two populations. One population consisted of people who subscribed to the DEH CLLMM email Bulletins and responded to a specific request. The second population consisted of people who visited the DEH CLLMM website and sought out the survey.

A number of people had not participated in other community activities, indicating the online survey captured views from people who would not otherwise have been engaged.

Summary of findings

Community awareness

- About 70% of participants were aware of the **long-term plan** being developed for the region.
- 59% of participants had **seen** the 'Directions for a healthy future' document before the survey and a further 5% downloaded a copy at the start of the survey. 40% had **read** the document.
- **Current projects** including dredging the Murray Mouth, preparing for the proposed temporary weir at Pomanda Island and pumping into Lake Albert were widely known. Also constructing pipelines and actions to address acid sulfate soil were also known by a majority of participants. Stakeholders were aware of more current projects than web participants.
- Results indicated the **stakeholder group was more highly involved**. 95% of stakeholders were aware of the long-term plan compared to 60% of people that chose to take part online. Also a greater proportion attended community events and had read the directions document before the survey.

Community consultation

- 12% of participants had attended a **community event** and 20% intended to. The main reasons people gave for not attending community events were lack of time, work commitments, not being local or being away at the time.
- 14% of respondents had attended a **community display** and 25% said they intended to. The main reasons for not attending a display were lack of time, no need because information was available in other ways, or they were not in their local area.
- Slightly lower numbers had attended/intended to attend **listening posts**. The main reasons for not attending were lack of time, unaware of them, inconvenient location and they were unnecessary.
- Only 6 participants had provided **written feedback**, although a third intended to. The main reasons for not sending in feedback were that it would not be listened to and lack of time.

Developing the long-term plan

- Almost all respondents (97%) agreed a **long-term plan is needed** for the region.
- 95% were supportive of the **goal** of securing a future for the Coorong, Lower Lakes and Murray Mouth region as a healthy, productive and resilient wetland of International Importance.
- 93% agreed the environment should be the plan's **primary focus**.
- Results indicate the **community is divided** on whether the planning process will be worthwhile and whether results will benefit the environment and the community.
- About half the people that responded were **supportive of the 'Directions for a healthy future'** document. They felt it was a step in the right direction, explained what had been done and the options clearly with timelines and they were relieved action is being taken.
- Almost a third were **unsupportive of the document**. They felt the Government has waited too long, it does not focus enough on social and economic issues and more should be done to secure water from upstream. People who participated through the website were generally more negative (40% unsupportive) than stakeholders (14%).

- A majority of people **supported the sections** 'What is at stake?', 'What are the problems and management challenges' and 'How do we secure a healthy future' (very few stakeholders answered these questions).
- Just over a third (36%) of respondents agreed the **core elements** are an exhaustive list and about a quarter (26%) felt they encompassed most of what needs to be considered but something else ought to be included, such as working with traditional owners and the broader community, securing water from upstream and allowing the environment to change naturally. The majority felt that the core elements would ensure a healthy, productive, resilient wetland.
- The main things people **value about the region** are the natural beauty of the region and the environment. Also highly valued were its unique ecology and biodiversity and the local communities sustained by the river.
- The most common way for participants to **access** the 'Directions for a Healthy Future' document was online.

Community engagement in implementation projects

- About half of respondents just wanted to be **kept informed**. A quarter of participants were **unable to be involved** at the moment. The rest were interested in **getting involved** either through having their say and providing input or through workshops and on-ground work.

6. Conclusion

This Community Consultation Report has been primarily descriptive. It has covered activities undertaken, and issues raised, through a range of different consultation mechanisms. A reflection report on the Community Consultation process is currently being prepared.



MURRAY **FUTURES**

Lower Lakes & Coorong Recovery

Community Consultation Report
The Coorong, Lower Lakes and Murray Mouth:
Directions for a Healthy Future

APPENDICES

June 2009



Appendices

Appendix 1 Promotion - Distribution Points	3
Appendix 2 Promotion - Media Coverage	6
Appendix 3 Promotion - Advertisements & Web Copy	7
Appendix 4 Community Information Sessions – Notes	22
Appendix 5 Community Information Sessions - PowerPoint Presentation	44
Appendix 6 Community Information Sessions - Feedback Survey	49
Appendix 7 Targeted Meetings - Notes	53
Appendix 8 Targeted Meetings - (Example) PowerPoint Presentation	64
Appendix 9 Written Submissions - List	67
Appendix 10 Written Submissions - Summaries	69
Appendix 11 On-line Survey Report (from Ehrenberg-Bass)	107

Appendix 1

Promotion - Distribution Points

Councils:

Alexandrina Council
Coorong District Council
Strathalbyn Council Office
Coorong District Council (Tailem Bend and Tintinara)
Mt Barker District Council
Rural City of Murray Bridge

Libraries:

Coomandook Community Library
DEWHA Library
Goolwa Public Library
Meningie Community Library
Mount Barker Community Library
Mt Compass Library
Murray Bridge Library
National Library of Australia
ACT Library
Port Elliot Library
SA Parliamentary Library
State Library Adelaide
Strathalbyn Community Library
Tailem Bend Community Library
Tintinara & Coonalpyn Community Library
Victor Harbor Public Library
Resource & Community Centres
Milang Old Schoolhouse Community Centre
Mt Barker Natural Resource Centre
Murray Bridge Natural Resource Centre
Strathalbyn Natural Resource Centre
Victor Harbor Natural Resource Centre
Willunga Environment Centre

Community Information Sessions:

Milang Community Information Session
Murray Bridge Community Information Session
Adelaide Community Information Session
Meningie Community Information Session
Goolwa Community Information Session

DEH - CLLMM Team & Regional Offices:

CLLMM Project Team

Mapland

Department for Environment and Heritage (Meningie Office)

Department for Environment and Heritage (Victor Harbor Office)

Department for Environment and Heritage (Berri Office)

SA Ministers:

Hon Mike Rann MP, Premier, Minister for Economic Development, Minister for Sustainability and Climate Change

Hon Paul Holloway MLC, Minister for Urban Development and Planning

Hon Jay Weatherill MP, Minister for Environment and Conservation

Hon Paul Caica MP, Minister for Agriculture, Food and Fisheries, Minister for Regional Development

Hon Gail Gago MLC, Minister for State/Local Government Relations

Hon M O'Brien MP, Minister for Employment, Training and Further Education

Hon T Koutsantonis MP, Minister for Correctional Services

Hon J Rankine MP, Minister for Families and Communities

Hon M Atkinson, Attorney-General

Hon M Wright MP, Minister for Police

Hon John Hill MP, Minister for Health

Hon Kevin Foley MP, Treasurer, Minister for Federal/State Relations

Hon Jane Lomax-Smith MP, Minister for Tourism

Hon Patrick Conlon MP, Minister for Transport, Energy and Infrastructure

Hon Karlene Maywald MP, Minister for the River Murray, Minister for Water Security

Australian Government Ministers:

Senator the Hon Penny Wong, Minister for Climate Change and Water

The Hon Peter Garrett AM MP, Minister for Environment, Heritage and the Arts

SA Parliamentarians:

Parliamentary Leader SA Greens - Mark Parnell

Parliamentary Leader SA Democrats - Hon. David Winderlich MLC

State Opposition Leader, Martin Hamilton-Smith MP

State Member for Hammond, Adrian Pederick MP JP

Chief Executives:

Chief Exec DEH – Mr Allan Holmes

Chief Exec EPA – Ms Helen Fulcher

Chief Exec DWLBC – Mr Scott Ashby

Chief Exec DTED – Mr Brian Cunningham

Chief Exec DTEI – Mr Jim Hallion

Chief Exec SA Water – Ms Anne Howe

Chief Exec DPC – Mr Chris Eccles

Chief Exec DPLG – Mr Ian Nightingale

Chief Exec PIRSA – Mr Geoff Knight

Chief Exec MDBA - Mr Rob Freeman
Chief Exec DH - Dr Tony Sherbon

Crown Solicitor SA - Mr Simon Stretton

Non - Govt Organisations:

SA Special Advisor on Drought - Mr Dean Brown
Lawyer acting for Ngarrindjeri - Mr Sean Berg
CLLMM Team
CLLMM Steering Committee
CLLMM Project board

Supermarkets:

Port Elliot IGA Friendly Grocer
Tailem Bend Foodland IGA
Woolworths Goolwa
Goolwa Bakery & Café
Foodland Goolwa
IGA Meningie
Robert's General Store and Licenced Café
Milang General Store
IGA Murray Bridge
Coles Murray Bridge
Woolworths Murray Bridge
Victor Harbour Central Shopping Centre
Woolworths Victor Harbour
Coles Victor Harbour

Other:

Conservation Council of SA
Camp Coorong
Coorong Wilderness Lodge
Raukkan Community Council Inc

Appendix 2

Promotion - Media Coverage

Newspaper:

1st April 2009, Mount Barker Courier: 'Long-term Planning'
7th May 2009, Times Victor Harbor: 'More Meetings on Lakes'
7th May 2009, Times Victor Harbor: 'Long Term Solution Needed for Lower Lakes'
12th May 2009, Murray Valley Standard: 'Future of the Lower Murray'
21st May 2009, Murray Valley Standard: 'Help Define the Future of the Lower Lakes and Coorong'
22nd May 2009, Lakelander: 'Locals Help to Define the Future'
25th May 2009, Adelaide Advertiser: 'It's a bit late but got any Ideas?'
28th May 2009, Times Victor Harbor: 'Deadline Looms for Murray Views'
29th May 2009, Lakelander: 'Remediation Project'

Radio:

29th May 2009, ABC 891 Adelaide 17:00 News
Interviewees: Allan Holmes, CEO
Duration: 0.44

Appendix 3

Promotion - Advertisements & Web Copy

Thursday 23rd and 30th April 2009 – Advertiser, Victor Times, Southern Argus, Murray Standard and Lakelander



Have your say on the future of the Coorong and Lower Lakes

The Murray-Darling Basin is experiencing the worst drought since records began in 1891.

Record low inflows to the River Murray through drought and over-allocation are having a significant social, cultural, economic and environmental impact on the Lower Lakes and Coorong region. Water levels are dropping, salinity levels are increasing and soils on the drying lakebeds and wetlands are acidifying. This situation is unprecedented. Current predictions indicate that South Australia's climate will be more variable. As a result, we must plan for a future of reduced water availability as well as reducing our reliance on the River Murray.

The State Government is working with local communities and scientists, technical experts and engineers to address immediate drought response issues; plan for worst-case scenarios; and develop long-term sustainable solutions.

Long-term sustainable solutions

The Australian Government will provide up to \$200 million to South Australia to address environmental problems facing the Lower Lakes, Murray Mouth and Coorong. The Lower Lakes and Coorong Recovery project is part of the South Australian Government's \$610 million Murray Futures program funded by the Australian Government's Water for the Future program.

The development of a long-term plan for the region will occur in partnership with the community, scientists and industry. It will encompass the environmental, community and economic values that are important to the region and the communities and industries reliant on them.

Current information on the Lower Lakes, Murray Mouth and Coorong is being compiled to inform development of the long-term plan. This information will be available for community input shortly as the first stage in developing a plan.

In the meantime, you are invited to tell us what you think should be part of the long-term plan for the Coorong, Lower Lakes and Murray Mouth.

The plan will be developed in three stages over the course of the year. The final plan will be completed in October.

Have your say

Community input is vital to ensure that the best possible plan is developed. Community members can be part of the process by:

1. Providing a written submission outlining ideas and suggestions

Submissions can be emailed to clmm@deh.sa.gov.au or posted to:
Manager, Policy and Planning
Coorong, Lower Lakes and Murray Mouth Projects
Department for Environment and Heritage
Reply Paid 1047
ADELAIDE SA 5001

2. Attending community information meetings

Meetings will be held in May to allow community feedback to be provided. More information on dates, times and locations for these meetings will be available shortly.

Further information


For more information about Murray Futures visit www.murrayfutures.sa.gov.au.

To find out about the Department for Environment and Heritage's work in the Coorong, Lower Lakes and Murray Mouth region visit: www.environment.sa.gov.au/clmm or contact us at:
E: clmm@deh.sa.gov.au
T: 1800 226 709 (free call during normal business hours)




Securing tomorrow's water today

Thursday 7th and 14th May 2009 – Advertiser, Victor Times, Southern Argus, Murray Standard and Lakelander



Government
of South Australia



Australian Government



MURRAY FUTURES
Lower Lakes & Coorong Recovery

Shaping the future of the Coorong and Lower Lakes

The South Australian Government has started work on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region in partnership with the community, scientists and industry.

The plan will encompass the environmental, social, cultural and economic values that are important to the region.

The Australian Government will provide up to \$200 million to support an enduring management response to the ecological problems facing the Lower Lakes and Coorong. This is part of the South Australian Government's \$610 million *Murray Futures* program funded by the Australian Government's *Water for the Future* program.

The long-term plan will be developed in three stages over the course of the year.

Community Input

The first step in developing the long-term plan is the release of *'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future'* document for public comment.

You are invited to provide suggestions and feedback on the document. Your ideas will help us ensure that the best possible plan is developed.

The *'Directions for a healthy future'* document includes current knowledge of the region and provides a basis for ideas, suggestions and further studies to inform the development of the long-term plan.

The government will consult with the community on the *'Directions for a healthy future'* document during May and there will be a number of ways you can be involved.

Your feedback will inform the preliminary long-term plan which is expected to be released in July 2009 for community consultation. The final plan will be completed in October 2009.

For more information visit
www.murrayfutures.sa.gov.au
or call **1800 226 709** (free call during normal business hours).

Take part in shaping the future of the Coorong and Lower Lakes

Community events

Attend a community event to find out more about developing a long-term plan or to tell us what you think about the *'Directions for a healthy future'* document.

Tue 12 May 7:00 pm – 9:30 pm	Meningie Football Club, West Tce, Meningie
Thu 14 May 7:00 pm – 9:30 pm	Murray Bridge Town Hall, Bridge St, Murray Bridge
Sat 16 May 2:00 pm – 4:30 pm	Goolwa Centenary Hall, Cadell St, Goolwa
Tue 19 May 7:00 pm – 9:30 pm	Milang Institute, Coxe St, Milang
Thu 21 May 7:00 pm – 9:30 pm	Adelaide, Arkaba Hotel, 150 Glen Osmond Rd, Fullarton

*Space is limited so please contact us to book your place

Community displays & listening posts

Visit a community display to pick up a brochure. Government staff will be on hand to answer your questions or record your feedback.

Tell us what you think online

Complete an online survey to tell us what you think is important in shaping the future of the Coorong and Lower Lakes region.

Write to us


Send us your ideas, suggestions, comments or feedback about developing a long-term plan for the region.

Join our database to keep up to date

Sign up to our database to receive regular email updates.


For further information on how to get involved:

Visit www.murrayfutures.sa.gov.au
Email clmm@deh.sa.gov.au
Call 1800 226 709 (free call during normal business hours).



Securing tomorrow's water today

Thursday 21st May 2009 – Advertiser, Victor Times, Southern Argus, Murray Standard and Lakelander



MURRAY FUTURES
Lower Lakes & Coorong Recovery

Shaping the future of the Coorong and Lower Lakes

The South Australian Government has started work on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region in partnership with the community, scientists and industry. This is part of the South Australian Government's \$610 million Murray Futures program funded by the Australian Government's Water for the Future program.

The first step in developing the long-term plan is consulting with the community on 'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future' document that was released on 6 May.

How you can take part

Community events*

Attend the final community event to be held this month to find out more about developing a long-term plan or tell us what you think about the 'Directions for a healthy future' document.

Thu 21 May, 7:00 pm – 9:30 pm	Adelaide Arkaba Hotel, 150 Glen Osmond Rd, Fullarton
-------------------------------	---

*Space is limited so please contact us to book your place

Community displays & listening posts

Visit one of the community displays to pick up a brochure. Government staff will be on hand to answer your questions or record your feedback at the following times and locations:

Fri 22 May, 3:00 pm – 6:00 pm <small>*revised time*</small>	Wellington Hotel, 5 Mason St, Wellington
Mon 25 May, 12:00 pm – 3:00 pm <small>*revised date*</small>	Clayton Bay Sails Convenience Store 28 Island Dve, Clayton
Tue 26 May, 11:00 am - 12:30 pm	Milang Old School House Cnr Rivers St & Daranda Tce, Milang
Tue 26 May, 2:30 pm - 4:00 pm	Meringie Library, 1 North Tce, Meringie
Tue 26 May, 2:30 pm - 4:00 pm	Goolwa Library, Cadell St, Goolwa

Tell us what you think online

Complete an online survey to tell us what you think is important in shaping the future of the Coorong and Lower Lakes region.

Write to us

Send us your ideas, suggestions, comments or feedback about developing a long-term plan for the region.

Join our database to keep up to date

Sign up to our database to receive regular email updates.

For further information on how to get involved:

Visit www.murrayfutures.sa.gov.au
 Email clmm@deh.sa.gov.au
 Call 1800 226 709
(free call during normal business hours).



Australian Government



Government of South Australia

SEC-01340

Securing tomorrow's water today

27th May 2009 - DEH News Release:



News Release

26 May 2009

Department
for Environment
and Heritage

Community input sought on long-term plan for Lower Lakes region

Community members are being invited to have their say on the future management of the Coorong, Lower Lakes and Murray Mouth as part of a long-term plan being developed for the region.

The Department for Environment and Heritage (DEH) has released a document called *The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future* as a starting point for community input.

DEH Chief Executive Allan Holmes said input from the community was crucial if the long-term plan was to be effective in helping the region adapt to a rapidly changing environment.

"Record low inflows to the River Murray through drought and over-allocation across the Murray-Darling Basin are having dramatic social, cultural, economic and environmental impacts on the Lower Lakes and Coorong region," he said.

"Water levels are dropping, salinity levels are increasing, and soils on the drying lakebeds and wetlands are acidifying.

"DEH is part of a team of Government departments and organisations such as the CSIRO managing the immediate risk of acidification in the Lower Lakes and in the area around the Finnis River and Currency Creek. However, it's also important that we look at longer-term strategies to protect this valuable Ramsar site and to sustain the communities reliant on it.

"The 'Directions' document highlights the major challenges we face, outlines the work already being undertaken to address these challenges, and provides a preliminary evaluation of solutions being proposed.

"While we've endeavoured to compile all the currently available information on the Coorong, Lower Lakes and Murray Mouth, we are encouraging input from anyone who can provide additional ideas or suggestions."

DEH held a series of community meetings during May, and placed advertisements in several newspapers asking for feedback on the 'Directions' document.

The deadline for sending in feedback on the 'Directions' document is Friday 29 May 2009. Feedback received by this date will be included in the preliminary long-term plan, expected to be released in July 2009.

Submissions received after this date will still be considered in developing the final long-term plan due for completion in October 2009.

Media contact
Sarah Diekman
Media Officer, Department
for Environment and Heritage
Phone 08 8204 2123
Mobile 0423 827 613

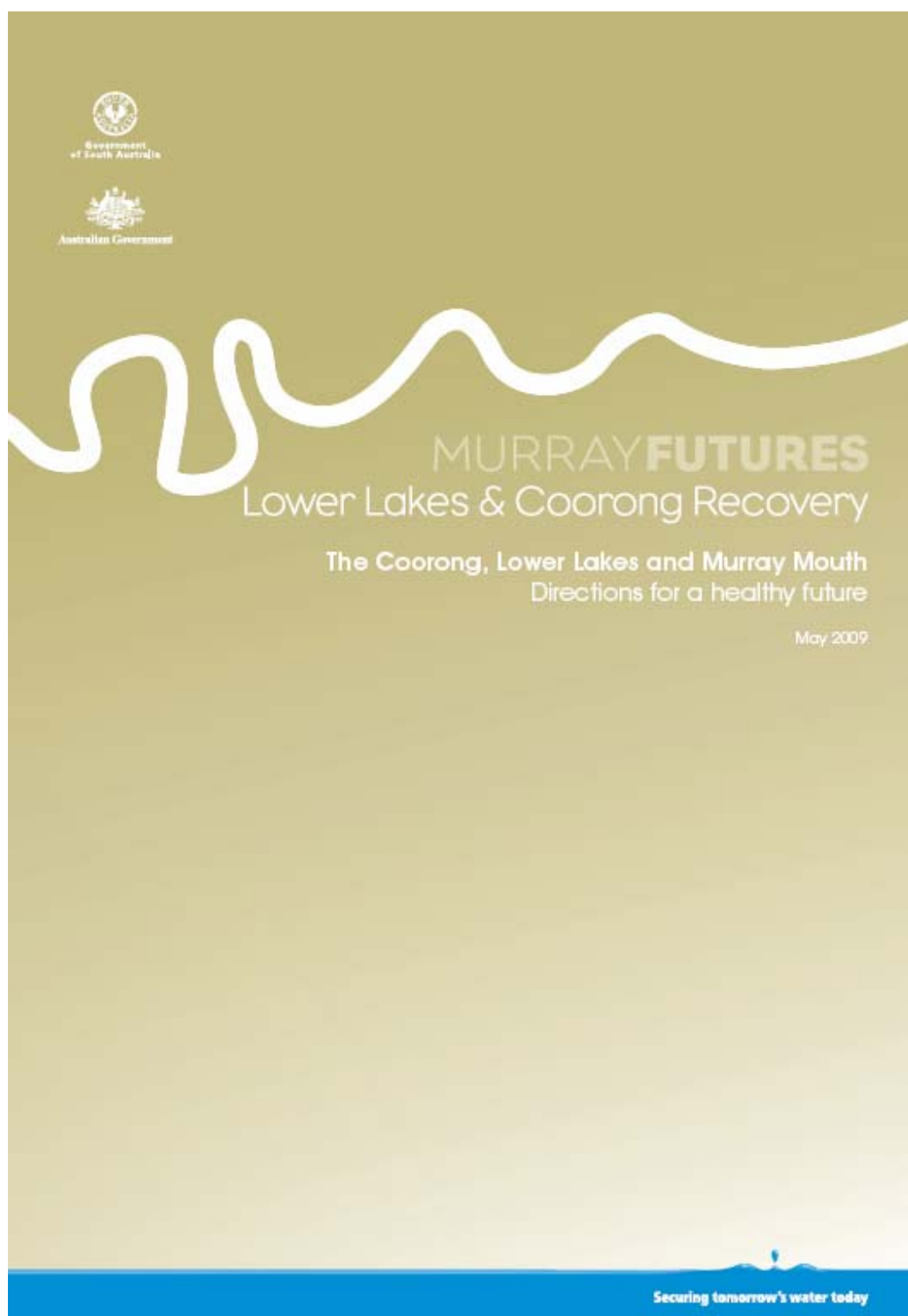
www.environment.sa.gov.au

Department for Environment and Heritage News Release, page 1/2

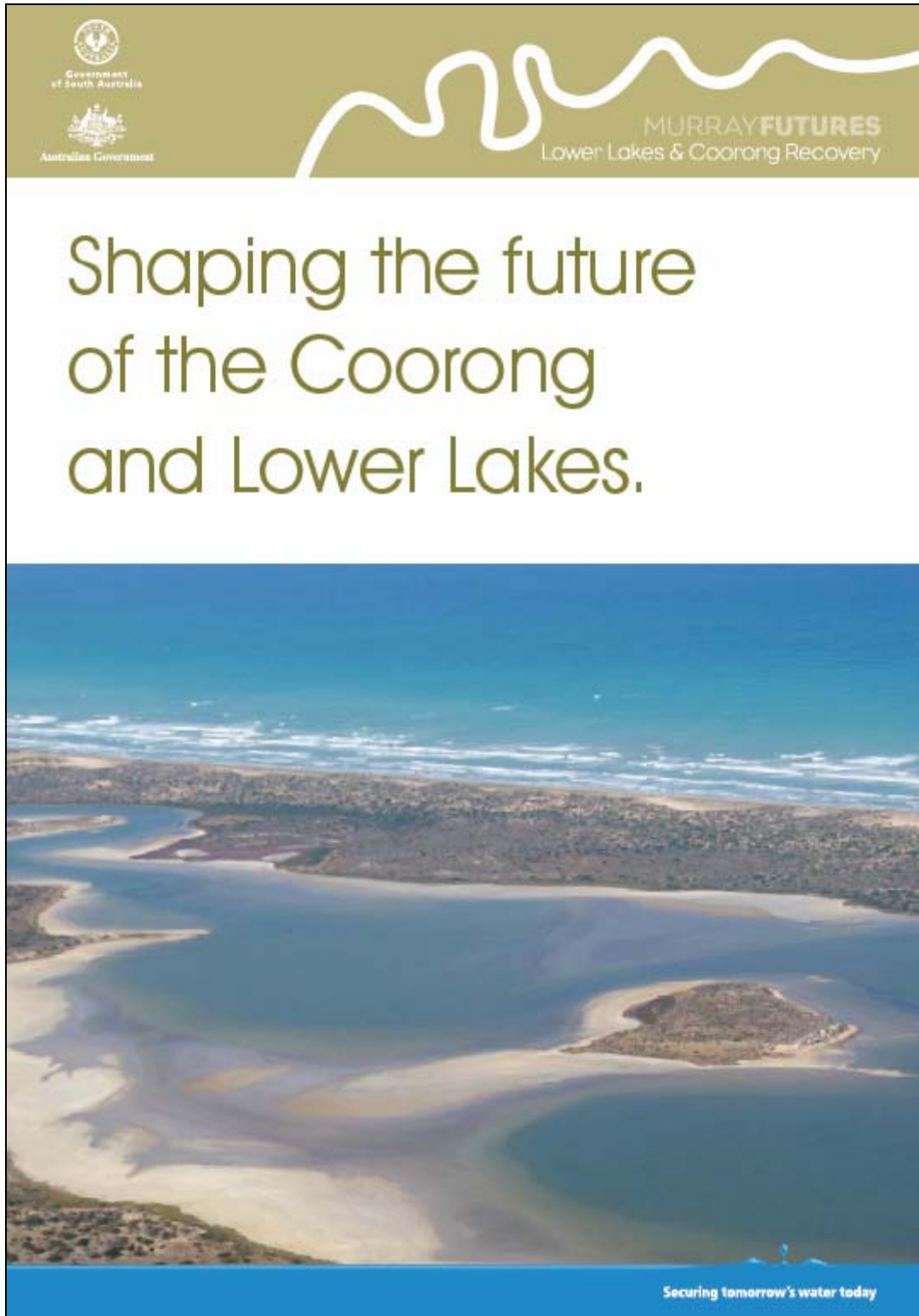


Government
of South Australia

'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future' document released for public comment



'Shaping the future of the Coorong and Lower Lakes' summary



'Shaping the future of the Coorong and Lower Lakes' brochure

Community input is vital to ensure that the best possible plan is developed and the community is invited to participate in the process.

Shaping the future of the Coorong and Lower Lakes.

www.murrayfutures.sa.gov.au
 Email: chris@shelton.sa.gov.au
 Phone: 0800 231 200
 Free call during normal business hours
 Post: Coorong, Lower Lakes and Murray Mouth Project, Department for Environment and Heritage, Locked Mail Bag 1052, Murray Bridge SA 5263
 © Department for Environment and Heritage 2009. All rights reserved. See the Acknowledgements page for more details.

System Components

- Lake Alexandrina (incl. Goodwin Channel)
- Lake Albert
- Wetlands
- Murray Mouth and Bay
- The Coorong
- Wetland Bed
- South East Coast
- Strait

The Response to Current Problems

1. Reduce water volume
2. Increase water quality
3. Increase the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
4. Increase the Murray Mouth
5. Increase the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
6. Increase the Murray Mouth and Coorong Creek to improve water quality
7. Increase the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
8. Increase the Murray Mouth and Coorong Creek to improve water quality
9. Increase the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
10. Increase the Murray Mouth and Coorong Creek to improve water quality

Adapting to a changing environment

Over the next 20 years, the long-term plan for the region will seek to ensure the community is invited to participate in the process.

However, the current climate change projections show that the region will experience a range of changes, including:

- Increased water temperature
- Increased salinity and reduced water quality
- Increased frequency and intensity of extreme weather events
- Increased sea level rise
- Increased frequency and intensity of extreme weather events
- Increased frequency and intensity of extreme weather events

These changes will have a significant impact on the region's environment and the community. The long-term plan will seek to ensure the community is invited to participate in the process.

What has been done so far?

The South Australian Government has taken a number of steps to ensure the community is invited to participate in the process.

- Conducted a community consultation process
- Developed a long-term plan for the region
- Implemented a range of measures to improve water quality
- Increased the Murray Mouth
- Increased the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
- Increased the Murray Mouth and Coorong Creek to improve water quality
- Increased the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
- Increased the Murray Mouth and Coorong Creek to improve water quality
- Increased the Lake Alexandrina to Lake Albert to prevent saltwater intrusion
- Increased the Murray Mouth and Coorong Creek to improve water quality

Have your say

Community input is vital to ensure that the best possible plan is developed and the community is invited to participate in the process.

The Coorong, Lower Lakes and Murray Mouth Project is a long-term plan for the region. The plan will seek to ensure the community is invited to participate in the process.

With us have done so best to include your information and the latest scientific research, we have been to include any information that improves our knowledge or correct our understanding of the issues.

Backlog items for the Coorong, Lower Lakes and Murray Mouth region will be developed in three stages over the course of the plan. The first plan will be completed in 2010.

Visit the website at www.murrayfutures.sa.gov.au to:

- Download a copy of the Coorong, Lower Lakes and Murray Mouth Project
- Download or find out how to access a hard copy
- Find out how you can provide feedback to the response
- Find out how you can provide feedback to the response
- Find out how you can provide feedback to the response

What happens next?

Community feedback and the latest scientific research will help inform the preliminary long-term plan, which is expected to be released in July 2009 for public comment.

The long-term plan will be completed in October 2010, based on further community feedback, advice, research and consulting, and include details on how much of the environmental issues affecting the region will be addressed.

How to contact us

Email: chris@shelton.sa.gov.au
 Phone: 0800 231 200 (free call during normal business hours)
 Post: Coorong, Lower Lakes and Murray Mouth Project, Department for Environment and Heritage, Locked Mail Bag 1052, Murray Bridge SA 5263
 AUSTRALIA SA 5263

Further information

Murray Futures
www.murrayfutures.sa.gov.au
 Department for Environment and Heritage
 Coorong, Lower Lakes and Murray Mouth Project
www.environment.sa.gov.au/lmmp

Lower Lakes and Coorong Recovery Postcards

Lower Lakes and Coorong Recovery

Lower Lakes and Coorong Recovery is about getting the community and the best available scientific and technical minds together to develop a sustainable long-term plan for the region.

Community input is vital to ensure the best possible plan is developed.

Sign up to be kept informed and find out how you can get involved in shaping the future of the Lower Lakes and Coorong.

Name

Email

Postal address

.....

Further information

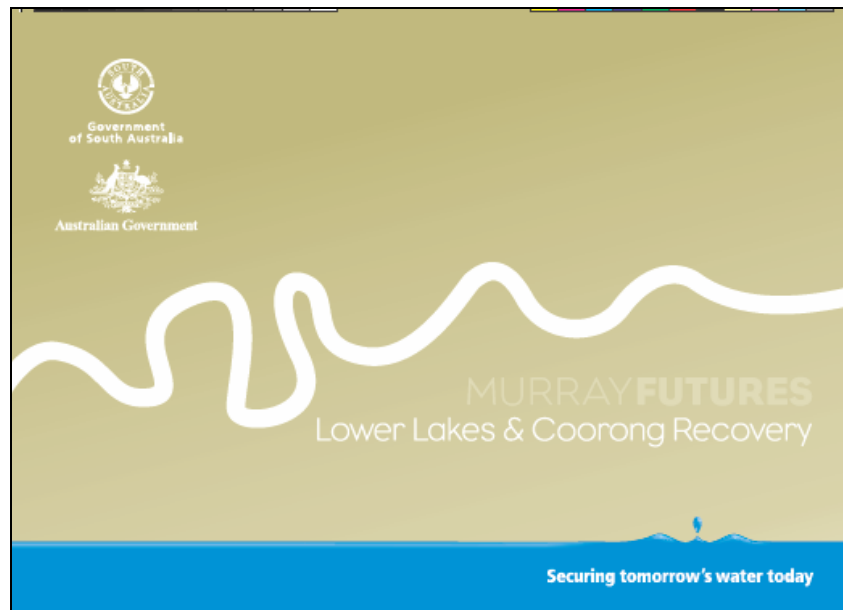
- www.murrayfutures.sa.gov.au
- climm@deh.sa.gov.au
- 1800 226 709 (free call during business hours)

To:
Coorong, Lower Lakes and Murray Mouth Projects Team
Department for Environment and Heritage
Reply Paid 1047, Adelaide SA 5001

Postage paid
no stamp
required if
posted in
Australia

This project is part of the South Australian Government's \$610million Murray Futures program funded by the Australian Government's Water for the Future program.

Your email address and other personal information that you may have provided is stored in a secure area and will not be disclosed to any third party.



'Take part in shaping the future of the Coorong and Lower Lakes' flyer

Take part in shaping the future of the Coorong and Lower Lakes



MURRAY FUTURES
Lower Lakes & Coorong Recovery



Government
of South Australia



Australian Government

Securing tomorrow's water today

Community Information sessions*

Find out more about developing a long-term plan for the region or tell us what you think about the 'Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future' document

Tue 12 May 7:00 pm – 9:30 pm	Meringie Football Club, West Toe, Meringie
Thu 14 May 7:00 pm – 9:30 pm	Murray Bridge Town Hall, Bridge St, Murray Bridge
Sat 16 May 2:00 pm – 4:30 pm	Goolwa Centenary Hall, Cadell St, Goolwa
Tue 19 May 7:00 pm – 9:30 pm	Milang Institute, Coxe St, Milang
Thu 21 May 7:00 pm – 9:30 pm	Adelaide, Arkaba Hotel, 150 Glen Osmond Rd, Fullarton

*Space is limited so please contact us to book your place

Community displays & listening posts

Call in and pick up a brochure or speak with government staff on hand to answer your questions or record your feedback

Tue 12 May 3:00 pm – 5:30 pm	Meringie Library, 1 North Toe, Meringie
Thu 14 May 3:30 pm – 6:00 pm	Murray Bridge Centro Shopping Centre, Corner Standen St & Swanport Rd, Murray Bridge
Sat 16 May 11:00 am – 1:30 pm	Goolwa Library, Cadell St, Goolwa
Tue 19 May 3:00 pm – 5:30 pm	Langhorne Creek General Store, 1 Main Rd, Langhorne Creek
Wed 20 May 12:00 pm – 3:00 pm	Strathalbyn Woolworths, Corner Dawson St & Donald St, Strathalbyn
Fri 22 May 12:00 pm – 3:00 pm	Wellington Hotel, 5 Mason St, Wellington
Sun 24 May 12:00 pm – 3:00 pm	Clayton Bay Sails Convenience Store, 28 Island Dve, Clayton

For more Information

Visit www.murrayfutures.sa.gov.au
Email clmm@deh.sa.gov.au
Call 1800 226 709 (free call during normal business hours)

MURRAY FUTURES

Web Content

lower lakes and coorong recovery

Saving the Lakes and Coorong for generations to come

The Australian Government will invest \$200 million in medium to long-term projects, to ensure the survival of the Lower Lakes, Murray Mouth and Coorong.

Lower Lakes and Coorong Recovery is about getting the community and the best available scientific and technical minds together to develop a coordinated management response for the region.

Naturally, there are a lot of feasibility studies, technical, engineering and environmental assessments to be made to ensure a long-term sustainable future for the region's communities and industries.

Developing a long-term plan for the region

The South Australian Government has started work on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region in partnership with the community, scientists and industry. It aims to secure a future for the region as a healthy, productive and resilient wetland of international importance.

As a first step in developing the long-term plan, 'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future' document (PDF 4MB) was released for public comment on 6 May 2009.

The 'Directions for a healthy future' document (PDF 4MB) includes current knowledge of the region and provides a basis for ideas, suggestions and further studies to inform development of the long-term plan.

latest news

- 07/05/09 Lower Lakes and Coorong Recovery Community Update - 'Directions for a healthy future' document released for community input
- 15/04/09 Lower Lakes and Coorong recovery Community Update
- 07/04/09 Irrigation Pipeline Prospectus Release
- 24/03/09 First Commonwealth environmental water to benefit SA wetlands
- 23/03/09 Community Leads Coorong and Lower Lakes Revegetation
- 09/03/09 More support for a long-term solution for the Coorong and Lower Lakes

COORONG, LOWER LAKES AND MURRAY MOUTH PROJECTS

- Murray Futures Lower Lakes and Coorong Recovery
 - The Region
 - The Issues
 - The Long-Term Plan**
 - Action already taken
 - How to access hard copies
 - The Long-Term Plan Reference Group
 - Project Governance
 - How You Can Be Involved
 - Publications
- Temporary Weir near Pomanda Island
- Sea water proposal for the Lower Lakes
- Goolwa Channel Proposal

The Long-Term Plan

The Department for Environment and Heritage has started working on a long-term plan for the Coorong, Lower Lakes and Murray Mouth region of South Australia as part of the Murray Futures' Lower Lakes and Coorong Recovery' project. This is part of the South Australian Government's \$610 million [Murray Futures](#) program funded by the Australian Government's [Water for the Future](#) program.

The plan aims to secure a future for the region as a healthy, productive and resilient wetland of international importance.


As a first step in developing the long-term plan, 'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future' document was released for public comment and is available to download.

The 'Directions for a healthy future' document includes current knowledge of the region and provides a basis for ideas, suggestions and further studies to inform development of the long-term plan.

It sets out:

- The management challenges and key issues
- What has already been done
- A preliminary evaluation of proposed solutions
- The core elements of a proposed future.

Community Updates



Community update
May 2009

Record low inflows to the River Murray through drought and over-allocation are having a significant impact on the Lower Lakes and Coorong region. Water levels are dropping, salinity levels are increasing and soils on the drying lake beds and wetlands are acidifying. This situation is unprecedented.

The South Australian Government is working with local communities and scientists, technical experts and engineers to address immediate drought response issues, plan for worst-case scenarios and develop long-term sustainable solutions.

The South Australian Government has started work on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region in partnership with the community, scientists and industry. The purpose of the plan is to support post-drought recovery and develop a sustainable future for the region in a future of increased climate variability.

The plan will encompass the environmental, social, cultural and economic values that are important to the region. It is being developed as part of the South Australian Government's \$610 million Murray Futures program, funded by the Australian Government's Water for the Future program. It will be developed in three stages over the course of the year.

'Directions for a healthy future' released for community input

The first step in developing the long-term plan is the release of *The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future* document for public comment.

It includes current knowledge of the region and provides a basis for ideas, suggestions and further studies to inform the development of the long-term plan.


You are invited to tell us what you think about the 'Directions for a healthy future' document. Your ideas will help ensure the best possible plan is developed.

How to get involved

Community events
Attend a community event to find out more about the development of the long-term plan or tell us what you think about the 'Directions for a healthy future' document. Space is limited so please book your place.

- Tue 12 May 7:00 pm – 9:30 pm - Meningie Football Club (West Ice, Meningie)
- Thu 14 May 7:00 pm – 9:30 pm - Murray Bridge Town Hall (Bridge St, Murray Bridge)
- Sat 16 May 2:00 pm – 4:30 pm - Goolwa Centenary Hall (Sage St, Goolwa)
- Tue 19 May 7:00 pm – 9:30 pm - Mlang Institute (Sage St, Mlang)
- Thu 21 May 7:00 pm – 9:30 pm - Adelaide Adaba Hotel, Fullarton (100 Glen Osmond Rd, Fullarton)

Securing tomorrow's water today



Community displays and listening posts
Visit a community display and listening post to pick up a brochure. Government staff will be on hand to answer your questions or record your feedback.

- Tue 12 May 2:00 pm – 4:30 pm - Meningie Library
- Thu 14 May 2:30 pm – 4:00 pm - Murray Bridge Centro Shopping Centre
- Sat 16 May 11:00 am – 1:30 pm - Goolwa Library
- Tue 19 May 2:00 pm – 4:30 pm - Langhorne Creek General Store
- Wed 20 May 12:00 pm – 3:00 pm - Strathalbyn Woolwoths
- Fri 22 May 2:00 pm – 4:00 pm - Wellington Hotel, Wellington
- Mon 25 May 12:00 pm – 3:00 pm - Clayton Bay Sails Convenience Store
- Tue 26 May 11 am - 12:30 pm - Old Stirling School House
- Tue 26 May 2:30 pm - 4 pm - Meningie Library
- Tue 26 May 2:30 pm - 4 pm - Goolwa Library

Please note:
The listening post at Wellington will now begin at 7:30 pm.
The Clayton Bay listening post will now be held on Monday 25 May 2009.

Tell us what you think online
Complete an online survey to tell us what you think is important in shaping the future of the Coorong and Lower Lakes region.

Write to us
Send us your ideas, suggestions, comments or feedback about developing a long-term plan for the region.

Join our database to keep up to date
Sign up to our database to receive regular email updates.

Note: The deadline for sending us your feedback on the 'Directions for a healthy future' document is Friday 29 May 2009. Submissions received after this date cannot be included in the preliminary long-term plan, expected to be released for public comment in July 2009, but they will be considered in developing the final long-term plan, due for completion in October 2009.

Lower lakes revegetation work underway

Work has begun to prepare for seeding large areas of the Lower Lakes to stabilise the soils and prevent soil erosion in the coming spring and summer.

A number of local landholders have been contracted to take part in ground seeding, which will be combined with aerial seeding over the Lower Lakes. This is due to start in the coming days and will continue over several weeks so that the seed is laid during autumn rains.

The trial will also test how effective the technique is in managing acid sulfate soils on the scale. It is believed to be the largest trial of its kind in Australia and is a unique project for a unique situation.

The project includes:

- Aerial seeding of approximately 2000 hectares around the barrage islands in Lake Alexandrina and exposed areas in Goolwa Channel
- Machine seeding of approximately 500 hectares in Lake Albert and the northern shorelines of Lake Alexandrina
- Applying over 200 tonnes of seed which will grow into shallow rooted ground cover.

Securing tomorrow's water today



Plans are being developed for seeding in spring based on the learnings from the autumn trial. This will provide more opportunities for the community and local landholders to get involved. More information will be available soon.

Trials tackling acidification in Finniss River and Currency Creek

As part of its emergency response to manage acid sulfate soils, the South Australian Government is trialing the addition of finely ground limestone to the lakebeds in the Finniss River, Currency Creek and Goolwa Channel.

Following autumn rains, water flowing down Currency Creek and Finniss River should transport the limestone downstream and keep the river's pH high enough to help buffer acidic inputs from the exposed soils. The limestone should also help for natural bioremediation to take place to remove acid within the sediments and water.

The trial began in late April and involved:

- placing 200 tonnes of ultra-fine grained limestone in a series of arcs on the upper part of Currency Creek;
- placing 100 tonnes of limestone in small circular mounds on the southern edge of the midday constriction of Currency Creek;
- placing 300 tonnes of limestone into the upper Finniss River several hundred metres downstream from Wallis Landing.

Long-Term Plan Reference Group Update

The Long-Term Plan Reference Group brings together community leaders, scientists and government staff to discuss possible solutions for the region.

The following topics were discussed at their April meeting:

- Revegetation works planned for the region.
- Plans for stabilising soil erosion in the Coorong and Lower Lakes.
- The potential impacts that climate change may have on the region in the longer term.

The members are playing an important role in contributing their extensive local and technical knowledge to developing the long-term plan for the Coorong, Lower Lakes and Murray Mouth region. We would like to acknowledge the members' generosity of time and expertise in helping prepare the "Directions for a healthy future" document for community feedback.


Further information
www.murrayfutures.sa.gov.au

Or contact us at:

Coorong, Lower Lakes and Murray Mouth Projects Team
 Department for Environment and Heritage
 Email: clmm@deh.sa.gov.au
 Phone: 1800 226 789 (free call during normal business hours)
 Post: Reply Paid 1047 ADELAIDE SA 5001

To find out about the Department for Environment and Heritage's work in the Coorong, Lower Lakes and Murray Mouth region visit www.environment.sa.gov.au/clmm

Securing tomorrow's water today



Community update
 April 2009

In July 2008, the State and Australian government's announced that \$200 million will be invested in medium to long-term projects around the Lower Lakes, Murray Mouth and Coorong to help protect this valuable Ramsar site and to sustain the communities reliant on it. This project is part of the South Australian Government's Murray Futures program, funded through the Australian Government's Water for the Future program.

Record low flows to the River Murray through drought and over-allocation are having a significant impact on the Lower Lakes and Coorong region. Water salinity levels are increasing and soils on the drying lakebeds and wetlands are at risk of acidifying as they progressively become exposed to the air because of falling water levels. This situation is happening at a scale that is unprecedented.

The South Australian Government has implemented a range of emergency response actions and must prepare for the worst-case scenarios. The government is also progressing work on a long-term plan for the Coorong, Lower Lakes and Murray Mouth region. The purpose of the plan is to support post-drought recovery and develop a sustainable future for the region in a future of increased climate variability. This is being developed in partnership with the community, scientists and industry. The plan will encompass the environmental, community and economic values that are important to the region and the communities and industries reliant on them.

About this update

These updates are prepared by the South Australian Department for Environment and Heritage to keep the community up to date about progress on the long-term plan and work in the Coorong, Lower Lakes and Murray Mouth region.

How the long-term plan will come together

The long-term plan will develop in three stages:

Stage 1 - Defining the issues EARLY 2009

- Work has started on the first draft of the long-term plan, based on existing information and research. This will be released in April/May 2009 for public discussion and feedback.


Stage 2 - Defining the solution MID 2009

- Building on the draft plan to propose a realistic, sustainable way to regenerate the Coorong and Lower Lakes. The plans will be based on community feedback from the first draft and the latest scientific research and modelling. This second draft will be released in July 2009 for further community comment and discussion.

Stage 3 - Finalising the plan LATE 2009

- Completion of the Coorong, Lower Lakes and Murray Mouth region long-term plan, based on further community feedback, science, research and modelling. This will include an implementation plan.

Securing tomorrow's water today



How to get involved

You are invited to tell us what you think should be part of the long-term plan for the Coorong, Lower Lakes and Murray Mouth. Your ideas and suggestions are important to ensure that the best possible plan is developed.

Your suggestions will be considered in preparing the plan, in addition to the wealth of information already available.

Please send your suggestions and ideas to:

Manager, Policy and Planning
Coorong, Lower Lakes and Murray Mouth Projects
Department for Environment and Heritage
Reply Paid 1047
ADELAIDE SA 5001
Email: clmm@deh.sa.gov.au

The draft plan will be released in April/May and July this year to seek further community feedback on draft versions of the plan. More details will be available in future Community Updates.

Long-term Plan Reference Group



A Long-term Plan Reference Group was formed in February 2009, bringing together community leaders, scientists and government staff to discuss possible solutions for the region. The members are playing an important role in contributing their extensive local and technical knowledge to the draft long-term plan and helping to prepare the draft for community feedback.

Long-term Plan Reference Group Update

The group has held four meetings since its establishment in February 2009. These meetings involved presentations from specialists, discussion on the main issues affecting the region and gave members the opportunity to provide input on the development of the draft long-term plan.

Some of the topics discussed in the meetings were:

- An overview (including timelines) of the development of the long-term plan for the Coorong, Lower Lakes and Murray Mouth region.
- The possible impacts of acid sulfate soil in the region and management options, including bioremediation and revegetation.
- The impacts of the current drought conditions and the likelihood of significant fresh water flows to the Coorong, Lower Lakes and Murray Mouth in the future.
- Ways to manage increasing salinity in the Coorong and Lake Albert.
- The potential impacts that climate change may have on the region in the longer term.
- An overview of the preliminary first draft of a long-term plan for the region.

Coorong and Lower Lakes Community Eco-Action Project

A project to increase community involvement in rehabilitating the Coorong and Lower Lakes will receive \$120,000 through the Murray Futures program. The grant will be provided to the [Goolwa](http://www.goolwa.org.au), to Wellington Local Action Planning Group which is managing the Coorong and Lower Lakes Community Eco-Action Project.

It will involve a series of workshops and trials to involve the community in helping the area adapt to a rapidly changing environment. The LAP group will work closely with the SA Department for Environment and Heritage on identifying and mapping acid sulfate soil, undertaking revegetation trials and investigating ways to protect the Lower Lakes' shoreline.

For more information about workshops and trials contact:

- Tony Randall, [Goolwa](http://www.goolwa.org.au), to Wellington Local Action Planning Group on 08 8226 4321 or g.lap@lm.net.au
- Simon Oates, DEH on 08 8226 2022 or simon.oates@sa.gov.au

Keeping up to date

We will keep you updated on our work in the Coorong, Lower Lakes and Murray Mouth region with regular email updates.

Further information

For more information about Murray Futures visit www.murrayfutures.sa.gov.au.

To find out about the Department for Environment and Heritage's work in the Coorong, Lower Lakes and Murray Mouth region visit www.environment.sa.gov.au/clmm/ or contact us at:


Coorong, Lower Lakes and Murray Mouth Projects Team
Department for Environment and Heritage
Email: clmm@deh.sa.gov.au
Phone: 1800 226 709 (free calling during normal business hours)
Post: Reply Paid 1047 ADELAIDE SA 5001


Subscribe / Unsubscribe

You have received this email from the South Australian Department for Environment and Heritage's Coorong, Lower Lakes and Murray Mouth Projects Team.

If you do not wish to receive future emails, please respond to the email with UNSUBSCRIBE CLMM in the subject line or phone 1800 226 709 to be removed from the mailing list.

If you have been forwarded this message and would like to subscribe to receive future updates, please [click here](#).





Community update

18 May 2009

The South Australian Government has started work on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region in partnership with the community, scientists and industry. This is part of the South Australian Government's \$40 million [Murray Futures](#) program, funded by the Australian Government's [Water for the Future](#) program. It will be developed in three stages over the course of the year.

The first step in developing the long-term plan is consulting with the community on 'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future' document that was released on 6 May.

Community events

Community information sessions

Don't miss your chance to attend a [community information session](#) to find out more about developing the long-term plan or tell us what you think about the "[Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future](#)" document (PDF 4MB). The first event was held in Meringie on Tuesday 12 May and was well attended. Space is limited at the venues so please [book your place](#).

- Murray Bridge - Thu 14 May, 7:00 pm - 9:30 pm (Murray Bridge Town Hall, Bridge St)
- Goolwa - Sat 16 May, 2:00 pm - 4:30 pm (Goolwa Centenary Hall, Cadell St)
- Milang - Tue 19 May, 7:00 pm - 9:30 pm (Milang Institute, Cox St)
- Adelaide - Thu 21 May, 7:00 pm - 9:30 pm (Akaba Hotel, 130 Glen Osmond Rd, Fullarton)


Community listening posts

Visit a [community listening post](#) where government staff will be on hand to answer your questions or record your feedback.

Three additional listening posts have been added to the schedule. The time of the Wellington event and the date of the Clayton event have also been changed.

- Murray Bridge - Thu 14 May, 3:30 pm - 6:00 pm (Centro Shopping Centre, Crn Standen St & Swanport Rd)
- Goolwa - Sat 16 May, 11:00 am - 1:30 pm (Goolwa Library, Cadell St)
- Langhorne Creek - Tue 19 May, 3:00 pm - 5:30 pm (Langhorne Creek General Store, L Main Rd)
- Strathalbyn - Wed 20 May, 12:00 pm - 3:00 pm (Strathalbyn Woolwoths, Crn Dawson St & Donald St)
- Wellington - Fri 22 May, 3:00 pm - 6:00 pm (Wellington Hotel, 5 Mason St, Wellington) *note revised date*
- Clayton Bay - Mon 23 May, 12:00 pm - 3:00 pm (Clayton Bay Sails Convenience Store, 28 Island Dve) *note revised date*
- Milang - Tue 26 May, 11:00 am - 12:30 pm (Milang Old School House, Crn Rivers St & Daanda Ice)
- Meringie - Tue 26 May, 2:30 pm - 4:00 pm (Meringie Library, 1 North Ice)
- Goolwa - Tue 26 May, 2:30 pm - 4:00 pm (Goolwa Library, Cadell St)

Securing tomorrow's water today



Community information displays

Information on developing the long-term plan for the Coorong, Lower Lakes and Murray Mouth is also available to collect from [community information displays](#) across the region until the end of May.

- Mannum Heavysign (27 Bandal St, Mannum)
- Meringie Library (1 North Ice, Meringie)
- Murray Bridge Centro Shopping Centre (Crn Standen St and Swanport Rd, Murray Bridge)
- Talera Bend Post Office (109 Railway Ice, Talera Bend)
- Clayton Bay Sails Convenience Store (28 Island Dve, Clayton Bay)
- Goolwa Library (Cadell St, Goolwa)
- Langhorne Creek General Store (L Main Rd, Langhorne Creek)
- Milang Old School House (Crn Rivers St and Daanda Ice, Milang)
- Strathalbyn Woolwoths (Crn Dawson St and Donald St, Strathalbyn)
- Wellington Hotel (5 Mason St, Wellington)

Have your say on the region's future

[Send us your ideas](#), suggestions and comments on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region or feedback on the "Directions for a healthy future" document. You can send us your written submissions either in the post or via [email](#).

You will also be able to tell us what you think is important in shaping the region's future by completing our [online survey](#). Look out for it in the next few days.

Note: The deadline for sending us your feedback on the "Directions for a healthy future" document is Friday 29 May 2009. Submissions received after this date cannot be included in the preliminary long-term plan, expected to be released for public comment in July 2009, but they will be considered in developing the final long-term plan, due for completion in October 2009.

Further information

www.murrayfutures.sa.gov.au

Or contact us at:


Coorong, Lower Lakes and Murray Mouth Projects Team
 Department for Environment and Heritage
 Email: clmm@deh.sa.gov.au
 Phone: 1800 224 709 (freecall during normal business hours)
 Post: Peppy Paid 1047 ADELAIDE SA 5001

To find out about the Department for Environment and Heritage's work in the Coorong, Lower Lakes and Murray Mouth region visit www.environment.sa.gov.au/clmm

About this update

These updates are prepared by the South Australian Department for Environment and Heritage to keep the community up to date about progress on the long-term plan and work in the Coorong, Lower Lakes and Murray Mouth region.

Securing tomorrow's water today



MURRAY FUTURES
Lower Lakes & Coorong Recovery

Community update

25 May 2009

The South Australian Government has started work on developing a long-term plan for the Coorong, Lower Lakes and Murray Mouth region in partnership with the community, scientists and industry. This is part of the South Australian Government's \$610 million [Murray Futures](#) program, funded by the Australian Government's [Water for the Future](#) program. It will be developed in three stages over the course of the year.

The first step in developing the long-term plan is consulting with the community on ["The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future" document \(PDF #68\)](#) that was released on 4 May.

Feedback from community events

Over 200 people attended the events held this month in Meningie, Murray Bridge, Goolwa, Milang and Adelaide. Thank you to everyone who attended and provided local knowledge and feedback on the "Directions for a healthy future" document.

Presentations from the events can be viewed [online](#).

Get online now to tell us what you think

Complete an [online survey](#) to tell us what you think is important in shaping the future of the Coorong, Lower Lakes and Murray Mouth region.

This is an easy way for you to tell us about your ideas and concerns. It will take around 15 minutes to complete – and you don't need to have read the "Directions for a healthy future" document to take part. You have until Friday 29 May 2009 to complete the [survey](#).

Send in your submissions by Friday 29 May


Don't forget the deadline for sending in your submission on developing the long-term plan for the region and for feedback on the ["Directions for a healthy future"](#) document is close of business, Friday 29 May 2009.

Feedback received by this date will be included in the preliminary long-term plan, expected to be released for public comment in July 2009. Submissions received after this date will still be considered in developing the final long-term plan due for completion in October 2009.

You can [lodge your submission](#) by:

- Sending us an [email](#)
- Writing to us and posting your feedback

Securing tomorrow's water today



MURRAY FUTURES
Lower Lakes & Coorong Recovery

What happens next?

- A summary of all the suggestions and feedback we receive will be included in a report and published on the [Murray Futures](#) website. Feedback relating to future planning of the region that was received during consultation on the draft [Environmental Impact Statement](#) for the [proposed temporary weir near Poman da Island](#) will also be considered.
- A preliminary long-term plan for the region will be developed based on community feedback and the latest scientific modelling, monitoring and research. It is expected to be released in July 2009 for community feedback.
- The final long-term plan for the Coorong, Lower Lakes and Murray Mouth will be developed based on further community feedback and scientific research and modelling. This will be completed by October 2009 and will include an implementation plan.
- A funding bid will be submitted to the Australian Government for approval.

Further information

www.murrayfutures.sa.gov.au

Or contact us at:

Coorong, Lower Lakes and Murray Mouth Projects Team
Department for Environment and Heritage
Email: clm@mdeh.sa.gov.au
Phone: 1800 226 709 (free call during normal business hours)
Post: Reply Paid 1047 ADELAIDE SA 5001

To find out about the Department for Environment and Heritage's work in the Coorong, Lower Lakes and Murray Mouth region visit www.environment.sa.gov.au/clm.

About this update

These updates are prepared by the South Australian Department for Environment and Heritage to keep the community up to date about progress on the long-term plan and work in the Coorong, Lower Lakes and Murray Mouth region.

Subscribe / Unsubscribe
You have received this email from the South Australian Department for Environment and Heritage's Coorong, Lower Lakes and Murray Mouth Projects Team.

If you do not wish to receive future emails, please respond to this email with "UNSUBSCRIBE" in the subject line or phone 1800 226 709 to be removed from this mailing list.

If you have been forwarded this message and would like to subscribe to receive future updates, please [click here](#).

Apologies for cross posting

Securing tomorrow's water today

Appendix 4

Community Information Sessions - Notes

Meningie CIS

Tuesday 12 May, 7.00-9.30pm
Meningie Football Club

In attendance: Cr Colin Struthers, Mayor of Coorong Council, Tim Rowe, CEO Meningie Council, Representative of Adrian Pederick

Presenters: Bill Paterson, Peter Alexander, Brenton Gear, Piers Brissenden, Paul Harvey

DEH: Lindsay Holmes, Peter Lumb, Di Gilchrist, Rowena Brown, Gemma Cunningham, Wendy Harris, Claire Roberts.

Presentations:

- Piers Brissenden presented an overview of Directions for the Future on PowerPoint.
- Brenton Gear provided a discussion of current activities.

Meningie CIS Questions, Issues & Comments

Key words: MBDA, Ngarrindjeri consultation, water titles, water licences, Lake Albert, pumping, acidification, triggers, mental health, economic, fences, SE drains, REFLAWS, Coorong, sea water incursion.

Water

- What has happened to the open and honest total audit of the water in the MDB?
– Private as well as public/also underground water.
- Where is the extra water coming from?
- Where is the 50GL coming from?
- Why should there be an environmental need to buy water?
- How can licences which were distributed free be sold – when there is no water left to sell?
- Process= Merit, but we need H2O or we're knackered.

Seawater

- Are you seriously considering seawater?

Water Purchase/Water Management

- How can we stop water from being taken upstream?
- Will something be done throughout the system about allocations for irrigation?
- How can they sell their water licences when they were given them in the first place?
- Alternative water storage up stream - Hume and Dartmouth.
- Why not work with nature and take fresh water from the Lower Lakes? Not the water from the source until the river has finished with it?
- Private storage issues need to be sorted.

Freshwater

- How can any of these projects work without freshwater?
- How are we going to maintain future water flows to have fresh water?
- How much water have we bought? Cubby Station?
- How are they going to pump water out of the south lagoon and then bring in fresh water?
- FRESH WATER SOLUTION ONLY!

Water Regulation

Regulators

- When is pumping in to Lake Albert likely to cease? When will the embankment be re-opened?
- What happens to Lake Albert from the 1st July if pumping stops?
- Concerned about regulator decisions.
- What will happen when the pumps at Narrung are turned off?

Pomanda Island Weir

- What is going to happen with water flows in the lakes when the weir goes in?

Pipelines

- What about a pipeline with a two way valve to carry water from SE drains in to the Lake Albert?

Silt

- How is the silting situation at Lake Albert going to be managed?

Acid Sulfate Soils

- Would Lake Alexandrina and Lake Albert have been allowed to dry out if there was no ASS?
- ASS- What about the health risk and what are they doing here??

Flora and Fauna

- Quality of surrounding agriculture and land not stated in "What's @ Stake".
- How do we get the birdlife back?
- Is salt creek going to be rehabilitated?
- Narrows identified as the most critical habitats.
- How did they consider the ecological value of the narrows at Narrung?

Seeding

- If aerial seeding has been done, when and how will the cattle be excluded from the lake bed?

Fish

- Potential fish kill.

RAMSAR

- Why is Currency and Finniss Creek given preferential treatment over the other Ramsar sites in the Riparian, which have not been considered?
- The Ramsar agreement has been ignored.
- Reference in core element on Ramsar Agreement.

Community Consultation

- Is this process of community engagement really going to take note and act upon community advice or is it just lip service?
- We are the grey set here tonight, how do we get young people involved?
- This is window dressing - they have decided.
- No progress happening with the meetings.

Community

- All people up and down the river including the MBDA need to be involved in this process.
- We need a general government on-ground support in Meningie (broader than drought assistance) eg. a development office employed through council. (There's 5 years of recovery to be done.)
- More work need to be done on supporting businesses that don't have water licences to sell?
- In the event of point 16 (*Directions*, page 39) taking places (eg. the drying out of Lake Albert) - How will small businesses and homeowners be able to survive financially? (eg. sell their businesses and house so they can relocate if necessary and start again?)
- If there are departmental people, scientists etc. doing studies around the Lakes/Coorong - Why are they doing it secretly and not including the adjacent land owners etc?
- Without a dairy industry, what is the future for industry in the area?
- Communities and small businesses need to be supported to make changes in focus. (Farmers have done OK.)
- With an ever increasing population, what services are going to be lost? (eg. hospitals, schools)
- Divided we fall - *dividing and keeping us divided* - Look at things with understanding of different issues/needs.

Ngarrindjeri

- When will we know Ngarrindjeri's position? - Why aren't we treated the same?
- Will the community be advised of the Ngarrindjeri position in the consultative process?
- Ngarrindjeri involvement?

Government

- Governments need to control the water – not climate change.
- Government has an agenda and just needs to tick their boxes - Don't take on our input.
- The government has decided – tell us what is going to happen

Core Principles

- Core Element 5 - How will system connectivity be maintained if engineering interventions are being proposed in the immediate future and will remain in place for possibly 5 years or more (Clayton/ Pomanda Weirs)?

Region

The Lakes

- What are the variable lake levels that you are considering? What height range?
- Previously the Lakes levels were held too high.
- Reduce artificial high lake levels.
- Lakes have always coped with drought.
- Flows need to be there - whole system.

Lake Albert

- Do we know enough about bio- remediation applied to Lake Albert?

Lake Alexandrina

- What is the critical level of Lake Alexandrina? - .15 doubt

Planning

- The bulk of the problem is over the border.
- Assuming there is no more water released from upstream and sea levels don't significantly rise - What is the Plan?
- Alternative water storage up stream - Hume and Dartmouth.
- This is a national issue.
- Does the plan make sure that all measures taken are reversible when the National Murray Darling Management improves?
- Is this a whole of basin plan?
- All decisions made in Adelaide!
- The problem is not drought - it's over allocation.
- Entire MDB must be in proper handover to authority within legislation - absolute autonomy of an authority - need a level playing field.
- How does this plan connect with the national Water Plan (NDBA)? When will the MDBA Directors be installed to provide checks and balances to administrative decisions currently being made by the authority?
- The problem is the Darling not the Murray.
- We need a Royal Commission.

Other

- Can we get some up to date bathymetry maps? Detailed?
- Has thought been given to tidal pumping sea water in to the South Lagoon of the Coorong?
- Look at history - no drought.
- Will the issue ever be resolved as we have been fighting for water for over 20yrs?
- Illegal level banks - stop blocking river systems.
- What resources are being provided to address the increasing mental health issues in the region?
- What is the evidence for the good management of the Southern Lagoon of the Coorong?

Murray Bridge CIS

14 May 2009, 19:00 - 21:30

Murray Bridge Town Hall

In attendance: Trevor Hammond representing Adrian Pederick

Presenters: Piers Brissenden, Peter Alexander, Dean Brown, Murray Townsend, Andrew Beal, Bill Paterson, Brenton Gear

DEH: Lindsay Holmes (facilitator), Peter Lumb, Di Gilchrist, Rowena Brown, Grant Ebert, Sharon Wachtel, Gemma Cunningham, Janet Pryor

Murray Bridge CIS Questions, Issues & Comments

Key words: *Community consultation, fencing, SE drains, National Water Plan, MDBA, barrages, Ngarrindjeri, fish, MBDA, community action, youth, economic, action, tortoises, water licences, trading, Woolworths, Timbercorp, Regulators, lime, River bans, floodplain cracking, acidification, regulators, water purchases, liming.*

Water

Seawater

- Does potential flooding with seawater have any place in the LTP?
- If seawater is let in to the Lower Lake, what will the ramifications be? Can it be returned to freshwater once flows recommence?
- What is the future of Lake Albert if filled with seawater?
- Concern that seawater could not be removed from Lake Albert.

Water Purchase/Water Management

- Why aren't we buying back more water (as opposed to engineering solutions)?
- What is the comparison between costs of purchasing fresh water vs. engineering solutions?
- Why don't they release water from Adelaide reservoirs back in to the east flowing rivers and in to the lower lakes?
- Why isn't there equality in terms of water levels with those people above Lock 1?
- If we had no regulators or weirs and spent the money on purchasing water, wouldn't that solve the problem?

- More water is needed in the system to address issues.
- We need to buy back water from willing sellers at a reasonable price.
- All water resources, surface or ground water should be covered by a cap.
- Why don't we cancel all water rights and start again?
- How come Woollies can buy water ahead of farmers?
- Should the price of water be capped to keep ordinary people in business?
- What is being done to constrain water trading of investors?

Freshwater

- Why isn't there greater emphasis on using recycled water?
- One solution - fresh water. Addresses acid sulfates, bio-diversity, Ramsar agreements – social and economic problems.

Water Regulation

- The problems are man made - under natural occurrences we would have flows.

Regulators

- In the LTP, are their contingencies for the Pomanda Island Weir and Goolwa Channel regulators to remain in place if needed?

Weirs

- Is the weir *temp or permanent?* - the management of the flow through the weir is critical. Has management of the flow through the weir considered a freshwater regulator?
- We need more info on the flow and structure of the weirs? Is this written in the plan? Why have we not heard about it tonight?

Barrages

- What investigations have been made about the long term life of the barrage system?

Pipelines

- Replacing channels with pipes must be a matter of urgency across the basin.

Fencing

- Second hand posts - win situation vineyards - pulling out posts - help is needed to coordinate to get posts to the lakes, MWLAP can do this – but we need some funding - also alternative watering spots should be offered assistance with pumps and pipes as well. If the Lower Lakes are to fence off the areas they need help.
- Has a position for fencing been agreed on for revegetation works on the Lower Lakes?
- Not so much a new issue but an unresolved issue. When, where and through what processes will fencing be erected around the Lake?

Acid Sulfate Soils

- The mix of the ASS and salinity in the Lower Lakes – what sort of toxic mix is this?
- Is it feasible to treat ASS by crop-dusting methods?
- What's worse, acidification or salinity?

- What causes acidification?
- Has there been acidification before?

Flora and Fauna

- Mulching - willows - MWLAP has trialed it - it works - willow is a weed - again, win/win - use farmers to do the work - chainsaw/ trucks - tractors, money goes back in to the region and education about ASS etc. can be talked about in the schools, pubs etc.
- Need to raise awareness of, and develop ways to protect, endangered species.
- Will the LTP/bioremediation, the fencing etc. of the Lakes be carried out by local contractors?
- Who is going to clean up all the dead fish and turtles?

Seeding

- Please explain the lake seeding that is being done.

Fish

- What is the future of fishing in the CLLMM ?

Community Consultation

- Is this the first opportunity for community groups to be involved in the processes (e.g. LAPs) and if so, is this too late?

Community

- Community input - local government knowledge needs to be listened to e.g. community ideas for bioremediation - can government take this into consideration? And not just make all the decisions themselves?
- How do the different communities find ways to unite together and share information for a common goal?
- Is there a common goal for all communities?
- Australians need to share and cooperate for the health of the Murray and its people.
- We have to reconnect with one another and with the river/water.
- Must share with each other – good and bad problems/solutions.
- Farmers need to change paradigm to low water usage options.
- We don't value the knowledge of our farmers. We're losing productive capacity and knowledge as farmers have to quit.
- Issue - Food Bowl - How will this be addressed/change (ie. industries that are struggling)?
- Will the Plan provide clear opportunities for community groups to be involved in the implementation phase?
- What support is being given to industries that are struggling/dying due to conditions?
- Connectedness between communities - How can we be connected? What plans do we have to connect communities as one?
- How are we educating our youth? - They are our future.

Ngarrindjeri

- Ngarrindjeri engagement: At what stage? How deep will it be? What methods of engagements will be used?
- What is the status of engaging with Ngarrindjeri and what process is being used/ implemented?

Government

- What about the 1915 Act?
- When is a national authority going to be formed? 2014 too late.

Core Principles

- Core Element 1 - community input - important for community to be listened to and responded to; good communication with feedback to community from submission.
- Core Element 2 - important to consult with Ngarrindjeri, but very difficult and different to process to engaging general public.
- Is the Directions paper giving sufficient attention to the economic issues?

Regions

The Lakes

- What studies have been done into the effect of lowering the normal lake level to the historic lower level and the effect on increasing evaporation because of shallower water getting warmer?
- How can Lower Lakes/Coorong stay healthy if remainder of the river is not healthy?
- How do you protect the Lake from further erosion of the shoreline?

Pomanda

- In the Murray Bridge community, the prospect of a weir at Pomanda Island is generally regarded positively.

Planning

- What are all the works being undertaken in the Lower Lakes costing us (eg. dredging, buying water, weirs)?
- More political attention needed to help river and Lower Lakes.
- Important to fix up the water system (upstream) to ensure a healthy and productive system.
- One body to manage the rivers of Australia - The Authority with power to 'start' immediately not in the future.
- We are entirely dependant on what comes over the border.
- How does the planning process bring irrigators and others together?
- When is The National Murray Darling Authority getting their shit together in managing the whole basin?
- Can we think about the whole system as integrated - upstream all the way to the Darling?
- When will the MDA take control of and manage the river Basin as a whole giving appropriate consideration to the Lower Lakes and SA?
- How will the plan for the CLLMM fit in with the MDBA?

Other

- River is a metaphor for feeling - the human spirit. It's critical we connect with people and re-connect with the land. We are all part of the one system.
- If you take you should put back. We need a river to flow for our health.
- The pain of the river system reflects the pain in the hearts of the traditional owners. The reconciliation of communities is crucial for the health of the river.

Goolwa CIS

16 May 2009, 2.00pm-4.30pm (finished 5.00pm – followed by supper which concluded at 6.00pm)

Goolwa Community Hall

In attendance: 53 community registrants, Adrian Pederick - Member for Hammond

Presenters: Paul Harvey, Piers Brissenden, Murray Townsend, Hon Dean Brown, Russell Seaman, Peter Alexander

DEH: Lindsay Holmes, Peter Lumb, Di Gilchrist, Gemma Cunningham, Sharon Wachtel, Claire Roberts, Wendy Harris

Goolwa CIS Questions, Issues & Comments

Key words: *Ngarrindjeri, Ramsar, Bird Island, ethical issues, science and trust, wildlife corridor, South East drains, flows and Coorong, Acid sulfate soil, frogs, safety and acid sulfate soils, regulators, liming, Lake bed vegetation, Western Australia acid sulfate soils, Regulators, Pomanda Island weir, weir designs, weir triggers, tributary management, licence caps, water licences, fresh water, water licence ownership, Murray Mouth, breakwaters, climate change, mud sampling, fresh water history, brackish water, monitoring, diversity management, red tape, talk, actions.*

Water

Seawater

- Is seawater a viable option for the lakes at the moment?
- Why do we not put the weir in and let the lakes go back to salt? – the animals will adapt.
- The stagnation of the water in the proposed Goolwa Channel will create a 'weed pond' without the ingress of some saltwater.
- Saltwater is better than no water.
- If seawater is allowed to enter the Lakes, what are the positives and the negatives?

Water Purchase/Water Management

- Why are international companies being permitted to purchase Australian water to create profits for overseas investors?
- What is being done to regulate the management of water interstate?
- Cause and future threat: Politics. The four states do not have the will to manage the M-D system as a single entity - artificial segmentation/constitution - federation – water a states issue.
- What can be done to speed up the process for local water allocation plans?
- Is there active control and management of property dams?

- It seems that water only evaporates in SA! What about upstream? Send it down!!

Freshwater

- Why concentrate on getting fresh water in to the lakes? – Is it essential? Will it be regulated?
- Is the assumption that freshwater is the only option (and low lake levels need to be accepted when less fresh available)?
- How reliable is the information suggesting the lakes have been fresh in the past?
- Why does the Govt and DEH persist with the freshwater option when science shows seawater incursion and previous history won't return?
- Document confused in approach - Freshwater Future but suggests may transition to an estuarine environment. Why waste money in the interim on a freshwater solution?
- There needs to be a balance of the human needs and of the lakes.
- Manage the Lower Lakes to the tune of the freshwater you are going to get - not for what you wish for. Drought proof the Lake!
- If freshwater is now being piped to the region then why not let the lakes go salty?
- Is there a cost effective way to separate fresh water persistence during the drought to flood cycle?

Salinity

- Why can't we decrease the salinity in the Coorong by pumping salt water in and pump the Hyper Saline water out?
- What is being done to prevent hyper-salinisation in the Goolwa channel when the three regulators are built?

Water Regulation

Regulators

- Pomanda Regulator: Will it have two arms, one to each shore from the island?
- Are the regulators fixing a small problem to the detriment for health of Lake Alexandrina?
- Once all regulators are in place, will the river be navigable? Contravening a constitutional right?
- Why are they having regulators at Finniss and Currency Creek?
- Why haven't the ASS been treated before now?

Pomanda Island Weir

- Is the weir going ahead at Wellington, and shouldn't it be a lock rather than a weir?
- When will a detailed design of the weir be available?
- Is the lock fill sealed?

Dredging

- What is to be done with the dredging spill pile, which is now 500 meters long 100 meters wide and 7 meters high?
- Why are we continuing to spend money on continuous dredging at the Murray Mouth, when we could put in a breakwater for a permanent navigable channel?

Barrages

- Why can't they give the opening of the barrages a try?

South Eastern Drainage

- S/E drainage system: Would diversion of the S/E drainage in to the South end of the Coorong be of benefit?

Pipelines

- Is freshwater being piped in to the southern end of the Coorong? If so, how effective is it?
- Will the water that is supplying Langhorne Creek via the pipeline be regulated, or can they use as much as they like?

Acid Sulfate Soils

- How uncertain can this science be? How clear is the science of sulfate soils?
- Sulphuric acid rising in town areas. How are liming trials progressing?
- Liming is not working in Currency Creek. What other options are being considered?
- Can the ASS be treated with saltwater?

Flora and Fauna

- Can we develop the idea that the River and Coorong, Lower Lakes and Murray Mouth are a wildlife corridor, along which species need to move to adapt to climate change?
- More species will lead south, due to climate change so can we plan to accommodate more species in future?
- Bristle worm – What plans are there to manage the bristle worm? Will we get back to conditions which eliminate it?
- Wading birds rely on estuarine environments therefore need fresh-saline balance.
- Why are you revegetating the lake bed?
- Are the endangered frogs still present in the Lakes?

RAMSAR

- What are the legal responsibilities of the government to uphold Ramsar?

Community Consultation

- Will you commit to engaging landholders and community in monitoring?
- Regarding community consultation: How are the diverse views expressed at these sessions rationally prioritised?
- Will this process really avert knee jerk reaction?
- Talk, talk, talk ... When are we going to see something happen?
- General comment: If we can't cooperate on this, what hope is there...?
- Stop talking, start doing!
- Give us the details of specific designs!
- Need a quick fix now!

Community

- Government seems to be favouring corporate agriculture business owners ahead of our own, more environmentally conscientious, farmers.
- Is it viable for cotton growers to survive if permitted to take water only if there is a flood?
- Adaptation needed by everyone in the region if we don't get rains.
- Consultation needs to respect a diversity of views.
- Disappointed to purchase/own house with water front, only to find low water.

Ngarrindjeri

- Could the Directions begin with acknowledgement of the Ngarrindjeri lands waters? Relationship with Ngarrindjeri needs to be built.
- Page 20 of Directions document engagement of the Traditional owners - very loose explanation - Can more detail/reasons be provided?
- Ngarrindjeri pipeline/CPC Pipeline: Will the discussion stop and action start to happen? What can happen meanwhile, while action plans are being created?

Government

- Why are there so many government agencies involved?
- Are the six core elements still useful if we don't get sufficient rains?

Core Principles

- How will Core Element 3 become a reality when to date, we've failed to make it a reality?
- Core Element 3 - How are you going to provide freshwater to the lower lakes?
- Core Principles 3 & 5 based upon:
 1. Our preferred option (value judgement)?
 2. The belief that 'fresh' is the natural state of the Lakes?
 3. And if so - what of the science?
- Core Element 4: Self flushing flap value to bring water in to the south Lagoon and exit through the mouth.
- Core Element 5 says system connectivity will be maintained. What is being planned to achieve this?
- Is there need for a *worse case scenario* Core Element?

Region

The Lakes

- Do the Lakes need to be so big/wide? Islands possible? Deeper channels?
- Is the shoreline receding in both Lakes?
- We would like the option of the twin lakes proposal (page 29).
- How low will lake levels go? Will there be connectivity?

Lake Albert

- Can we include a channel through from the Coorong to the nearest point of Lake Albert and let the tides flush the system?

Lake Alexandrina

- What is going to happen when Lake Alexandrina dries up? Acidification?

Bird Island

- Why has Bird Island lost its Ramsar Status?
- Why hasn't Bird Island been protected? - because there are many endangered birds there, or at least they were there.

Lake Bonney

- Is Lake Bonney St East included in this?

Planning

- Why should we trust the science involved in the Long Term Plan?
- What would planning for a *worse case scenario* entail? The scenario needs to be captured.
- Why will this plan be implemented while others haven't?
- Need to consider and model cycles of predominant fresh water and predominant seawater with variables between?
- Can we get action rather than idealistic plans?
- When we move forward with each Murray Futures action, will we need all the separate approvals from agencies?
- Has there been an end point defined?
- Short term is more important than long term: What can we do NOW??
- It is said that we exist by courtesy of a balance with the viral micro world - if we allow a rip in the natural world to lower the level of what is happening with acidification etc., we could be opening the door on a change we might not like. This problem should have a higher priority than what it's got, at State, definitely at Federal level, and put on the radar with WHO as a potential hot spot.
- Need to look at other large scale ecological change as models – ASS – Trinity Bay 1976; Mandura, WA; Dawsley Channel, Lakes Entrance.
- What strategies are/will be in place for new infrastructure to work effectively in times of flood?
- How can you have a long term plan when the effects of climate change are not known?

Other

- Deepen the channel which flows out to the ocean.
- If the lakes are going to operate at lower than 0.75 AHD, a channel needs to be dug adjacent to Rat Island to allow for water to flow, and boat traffic between Goolwa region and Lake Alexandrina.
- Sceptical about climate change.
- Reality is that the situation is not going to be fixed unless it rains.
- Is it okay to walk on the sand exposed on the lakes?
- Why are new crops of the thirstiest crops (almonds) still being planted in SA?
- Why doesn't the Murray mouth move like it used to?

Issues Raised after Meeting Close (to Peter Lumb)

- Bird Island is now accessible to the mainland due to lower flows near the Murray Mouth and foxes and cats are able to attack to birds on the island.

- A proposal from the floor for two parallel groins at right angles to the Murray Mouth (with the aim to strengthen the Mouth opening – and while not mentioned – allow boat passage).

Milang CIS

Tuesday 19 May, 7.00pm-9.30pm
Milang Community Hall

In attendance: Representative of Adrian Pederick MP

Presenters: Bill Paterson, Dean Brown, Piers Brissenden, Murray Townsend, Paul Harvey, Peter Alexander, Russell Seaman

DEH: Lindsay Holmes (facilitator), Peter Lumb, Rowena Brown, Gemma Cunningham, Wendy Harris

Presenters: In this meeting the order of events was varied. Piers Brissenden briefly thanked people for coming prior to the meeting dividing into small groups to be facilitated by members of the Milang community. For the first 15 minutes they recorded “headlines” on A4 pages connected to the *Directions* document – key issues for a sustainable future. Children played a prominent role in the activity. Later, a 30 minute community facilitated session created questions for the panel as well as contributing comments. Carol Richardson CLLMM Remediation Project Officer, newly appointed through Goolwa to Wellington LAP Board introduced herself and spoke about her project.

Milang CIS Questions, Comments & Issues

Key words: *salinity, evaporation, adaptation, River flows, regulators, stormwater harvesting, cloud seeding, South Lagoon, environmental water, water pipelines, estuary, sea level rises, climate change, wetlands, sciences, cars on Lakes, Crown Lands Act, aerial seeding, freshwater future, fish ways, action, monitoring.*

Water

Seawater

- How successful has seawater been used to sustain fresh water systems - eg. Queensland?
- Can we have more detail on the use of salt water management as an option?

Water Purchase/Water Management

- Will the environment ever get a fair share while water trading is in place?
- What about the long term licences? Other states included.
- When will the stormwater harvesting be completed in Adelaide? Is this where the storm water's going? Where is the water coming from?
- What annual outflow through the Mouth is required to restore the South Lagoon?
- How much water is being kept up the river?
- Water is not a commodity to be bought and sold. It should belong to its community and environment, not Woolworths/United States or China.
- Water needs to be released upstream.
- Water should be taken back from excessive users for what they paid for it.
- Stop allocations - keep some restrictions for Adelaide.

- Water Licences - Who should have water? How much should they get? Irrigation/farming practices/introduction of sustainable farming.

Freshwater

- How can we be assured of long term freshwater security? – water saving re: desal plant - lift water restrictions.
- Where the proposed is desal plant going to go? Will it be viable?
- Secure fresh water!
- Secure adequate volume of fresh water for the lakes and the Coorong.
- Freshwater is not salt.

Water Regulation

Regulators

- It's still coming from the same pool and doesn't help the Lakes at all.
- Tell us more about the regulators at Finniss/Currency and Goolwa?
- What is the truth of the regulators? Will we be cut off altogether?
- Regulators are not a good answer to current issues.

Pomanda Island Weir

- Weirs are a disaster, let nature sort it out.

Dredging

- Why keep dredging the mouth?

Barrages

- What is the logic of taking water out of Lock One?

Goolwa Channel

- It is defeating the purpose to let people pump water out once water goes into the Goolwa channel - that water should be for the environment.

Pipelines

- What is the future of the new pipelines? – Where are they going to and from? What is going to be in them?
- What is the plan for pumping hyper saline water from the southern lagoon of the Coorong?

Acid Sulfate Soils

- What is the source of the sediments that form acid sulfate soils?
- Signage regarding avoiding acid sulfate soils to keep vehicles off.

Flora and Fauna

- Why is there no policy left for sustainable agriculture instead of crops that need heaps of water?
- More water for turtles.
- Keep in mind the environment vegetation - e.g. keep vehicles off.
- Re-establish Lakes wetland vegetation.

Seeding

- Why is seeding not being pushed more? By CSIRO? The technology has improved.
- What seeds are being used for aerial seeding?
- Can landowners find out when seeding is taking place on their land? Some may want to seed themselves or not want seeding on their land!

Fish

- Tell us more about fish passage please.

RAMSAR

- Explain the latest communication with Ramsar officials.

Community Consultation

- Can the specialist please state clearly what is not known? eg. ground water – details of ecosystems/transition states/function groups and requirements/long term management of this.
- Would like to see collective results of all monitoring of soils and water available on web or interpretation on maps. This is feeling like an up and down process.
- Local knowledge should be listened to.

Community

- What happens to existing landholders who currently rely on area for livelihood that be discontinued?
- How will the federation of other states be effected by the purchasing of water in other states (high court)?
- When will the value of community contributions be acknowledged not only in actions but in resources?
- There is a need to communicate with land owners on a one on one basis regarding fencing around the lakes.
- Managed by local communities. Employment and training for local people. There is already a plan developed by the community. See: www.stopheweir.com
- River banks caving in and becoming unsafe for recreation - boats, swimming, fishing, water sports.
- No more diversion for big businesses away from the community and local businesses.
- Sustainable farms.
- Use local knowledge and experience= hands on detailed science.

Ngarrindjeri

- What does “engagement” of the traditional owners mean?
- How much notice is being taken about what the Ngarrindjeri say about what should be done?

Government

- How can this management plan be realised without interstate agreements? – it needs the approval of a) Federal Government which is paying, b) MDBA, c) EPBC Act approval.

- One river, one management, local knowledge, local training, keep water rights in Australia.
- Stop the government stuffing it up.
- Commonwealth to take over the river system now.

Core Principles

- If Q3 is satisfied, why is Q6 necessary?
- Element 5 – this creates short term un-connectivity in system, how will this impact on long term achievements to this goal?

Region

The Lakes

- Whose Jurisdiction is it to keep vehicles off the sand reaches?
- What do we do when we see people doing wheelies on the river bed etc.? Who do we report it to?
- What does “Reduce reliance upon Lakes for ineffective purposes so that lake levels can be lowered periodically” mean?
- Southern lagoon of the Coorong needs refreshment.
- Medindie Lakes = killed, however what will be done to let the water from the dam upstream down?

Lake Albert

- Is the Long Term Plan to have water in Lake Albert?
- When does the water pumping from Lake Alexandrina to Lake Albert stop?

Lake Alexandrina

- How much of the 500 gigalitres “Living Murray” water purchased by 30 June 2009 will reach Lake Alexandrina?

Planning

- Why doesn't this plan address over-allocation?
- Are eastern states being notified and shown the damage being caused? i.e. we can't take water from upstream below Blanchetown Lock because banks are collapsing already and there is no water.
- What are we doing here, now, discussing “planning”, when decisions have already been made to build weirs and regulators without an EIS?
- Why has it taken this long to realise there is a problem?
- Given our past experiences of state management of water and the environment around the Lakes and the Murray Mouth, how can we trust that the new plan will lead to proactive, timely, responsive and effective action?
- What flow is required past Pomanda Island to restore the South Lagoon?
- Please tell me why, if we throw darts at a dartboard, that wouldn't be as accurate as your prediction?
- Will the upstream states of the Murray cooperate?
- Control private dams.
- Proper regulation of the Murray in all states.
- Are private dams doing the right thing?

- Whole of system approach is required.
- An effective independent body to manage the entire Murray Darling System.
- Monitor water use.
- Natural system support over man-made solutions.
- Do something - don't just talk about it!
- More cooperation between states.
- Lack of properly constituted fully independent management authority for whole basin.
- How will we stop corporates from controlling our river?
- What is being done by the government to stop big businesses/corporations and overseas investors from purchasing or diverting the water?

Sea level rise

- What is the timeline on sea level rise?
- How much will the sea level rise?

Other

- Define the word "Estuary".
- What does "adequate monitoring" mean?
- Have you seen first hand what is happening up the river?
- Whose jurisdiction is keeping vehicles off the sandy reaches?
- We only have one big river; don't let it dry up.
- Declare Murray Disaster Zone.
- What is considered to be robust science? – Why isn't social science, economic science equally robust?

New issues raised after meeting close (to Peter Lumb via Murray Townsend)

- Tortoises which leave the diminished Lake in search of food near the remote shore are now being picked off and killed by an increasing number of foxes.
- The management of cars on the Lower Lakes.

Adelaide CIS

Thursday 21 May 2009, 19:00-21:30
Arkaba Hotel, Glen Osmond Road, Adelaide

Presenters: Piers Brissenden, Andrew Beal, Brenton Gear, Murray Townsend, Bill Paterson, Dean Brown

DEH: Lindsay Holmes (facilitator), Peter Lumb, Di Gilchrist, Gemma Cunningham, Claire Roberts, Lou Greig, Louisa Halliday, Ali Carragher,

Presentation:

- Piers Brissenden presented the overview of the *Directions for a Healthy Future*.

Adelaide CIS Questions

<p>Key words: acid sulfate soil modelling, Rat Island, sea water incursion, evaporation, Lake Albert, experts, SE drains, Ramsar, vegetation, land reclamation, sustainable farming, silt, acid sulfate soil, South Lagoon, barrages, pipelines, Northern water, Murray Darling Basin Authority, youth, States/Commonwealth, Ngarrindjeri, water</p>

purchases, Murray Darling Basin Authority, farming

Water

- Is there potential for stagnation if levies built across Finnis and Currency Creeks?

Seawater

- Is it possible to have sea water present and not have a build up of salt?
- At what stage will sea water be let in? Is it when Acid Sulfate soils become a reality?
- Should sea level be the cut off point for letting sea water in?
- Should we be thinking about the ways to obtain water? ie. diverting from the north - this is not covered in the document;
- Why it is that salt water is let in? The ecology will be destroyed when it has been salt and then fresh?
- Does it matter if it is salt water in the lakes?

Water Purchase/ Water Management

- How do we ensure there is sufficient water flow?
- Would the closure of some wetlands maximise the amount of water?
- Explore water suppliers in the top end of Australia! Can it be channelled in to the Murray Darling basin?
- Why has irrigation channels not been covered earlier?
- Where is the money coming from to buy water licences and where will they be sold from?
- Calibrate the total consumption of water in the entire basin! - ½ Environment; ½ human consumption
- How confident is the government in regards to successfully buying back water to provide solid environmental outcomes?

Freshwater

- What does a "Fresh Water Future" mean, and what volumes are needed to achieve this?
- Lakes have already changed. It is an emotional response to try and maintain a freshwater system that no longer exists.

Water Regulation

Pomanda Island Weir

- Why are we not putting in a lock rather than a temporary weir?
- If a weir is built what is the trigger point for its decommissioning?

Barrages

- What is the effect of reduced flows if barrages are removed?
- Before the barrages, how far upstream was it tidal? Is removing barrages an option to return to natural state?
- Pre-Barrages - Why did we not have an Acid Sulfate soil issue?

South Eastern Drainage

- Is pumping from the SE drainage scheme being considered? If so, how advanced is this?

Goolwa Channel

- What is the position of the Goolwa Channel work?
- Is there some advantage as a stop-gap measure to build a channel from Wellington to the Goolwa channel, to protect the Southern Island and island wetlands?

Pipelines

- Can the tidal movements on the sea side of the southern lagoon be harnessed through pipes to flush the southern lagoon?
- Is it technically feasible to have a permanent pipeline from the southern lagoon of the Coorong to the ocean to enable flushing?

Silt

- Is building silt in the Goolwa channel being addressed? - there is approx 400mm in the channel - this would be very important in the long term

Acid Sulfate Soils

- Where are the acid sulfate soils and is the Plan a plan to manage them?
- Is there more information on Acid Sulfate Soils than there was back in December? Are the sceptics correct in thinking the ASS threat has been overstated?

Flora and Fauna

- What is the likelihood of species extinction and what is being done about it?

Seeding

- What is the grand view for the whole lake system? Will the direct seeding lead to weed problems?

RAMSAR

- Can we 'pressure' the commonwealth to extend the Ramsar sites to make a National Park - ie. to buy back land around the Lakes.

Community Consultation

- Can we have a list of all the experts and their qualifications that are involved in this project?
- Who is the body of experts on the region? Where are these main people from? - what organisations etc.? How can we keep water flowing in the Coorong?
- How are we engaging the youth and future generation to inspire, inform and empower them to come on board?
- Management needs to be where the action is!
- All consumers treated equally!

Community

- How are they connecting the whole Murray Community?

- Need to implement a community engagement program with Adelaide + the suburbs - their lifestyle is NOT sustainable and impacts on the region.
- How much time do we have before the river is dead, along with the dependent communities?
- Can farmers be supported to do something sustainable with their land - where irrigation is no longer an option? The rural communities must be kept intact.
- Is farming a viable way of earning a living in the area at all? 8e. more a lifestyle choice?
- How can SA get the rest of the MDB to recognise that the issues are a national problem and should be addressed nationally?
- How are we going to connect the whole Murray Darling Community?

Ngarrindjeri

- What are the Ngarrindjeri contributing to the LTP?
- Can the Ngarrindjeri have persuasive powers at the highest political levels?
- How is the government planning to engage the Ngarrindjeri people?

Government

- Canberra is not "connected" enough to the Murray!
- Remove State boundaries. Eliminate State and Government inequality!

Core Principles

- Reference Core Element 2: When will the community be aware of the Ngarrindjeri position on both long and short term planning?

Region

- Is any research being undertaken in regards to land reclamation? E.g. Holland considered world leaders (Professor Anthony Minns).
- Will the temporary weir at Clayton and flow off Finniss and Currency Creeks make up for EVAPORATION from the Lakes? If we let 350gl past Wellington (sufficient to get pumps at Tailem Bend) if evaporation is 700gl how do we prevent lakes from drying out?

The Lakes

- Will the size of the lakes be reduced to ensure a flow of water to keep them active?
- Why accept variability in the Lake levels as a starting point?
- What are the current Lake levels??

Lake Albert

- What is going to happen to Lake Albert when/if pumping stops?
- How long will pumping continue from Lake Albert?

Rat Island

- What is being done and what are the longer term prospects regarding protecting the Islands and environment around Rat Island e.g. effects of piping from the Lake?
- How will I be able to visit Rat Island if there is no boat ramp?

Pomanda

- To what extent does wind affect water levels at Pomanda?

Planning

- Will current short term management planning link to the longer term plan without too much irreversible ecological damage?
- What are the relevant cost benefits for each management intervention currently being proposed?
- This 10m would be better spent concreting for the piping of the irrigation channels to counter seepage!
- Why are we starting at the end of the river when the problem is across the whole system?
- It is not drought; it's over allocation that is the problem!

Other

- This is not future planning, it is acceptance of what the eastern States give SA.
- What research is being done to reduce evaporation and seepage?
- Are there opportunities that arise because of the current crisis?
- Are there alternative farming opportunities that use less water?

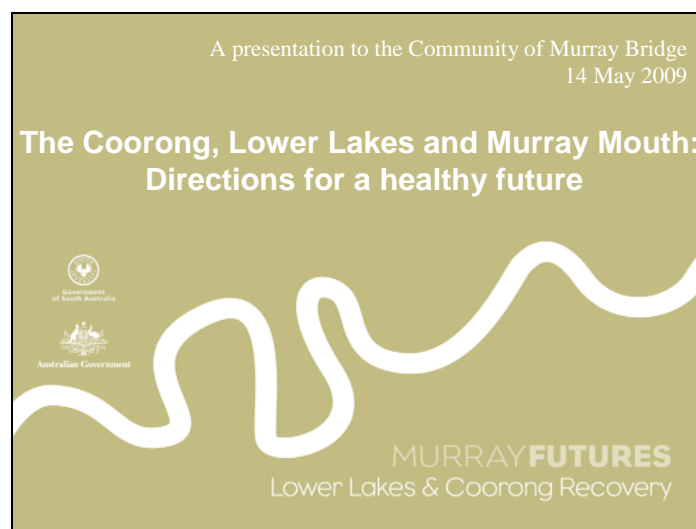
New issues raised after meeting close:

- 40mm silt in the Goolwa Channel

Appendix 5

Community Information Sessions - PowerPoint Presentation

The following slides formed the basis of presentations at all Community Information Sessions:



Purpose of this Session

- Inform you of the Long Term Plan development and implementation process
- Give you information on our Directions Document: “The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future”
- Answer your questions
- Receive your comments

Lower Lakes & Coorong Recovery **MURRAYFUTURES**

Why your input is important

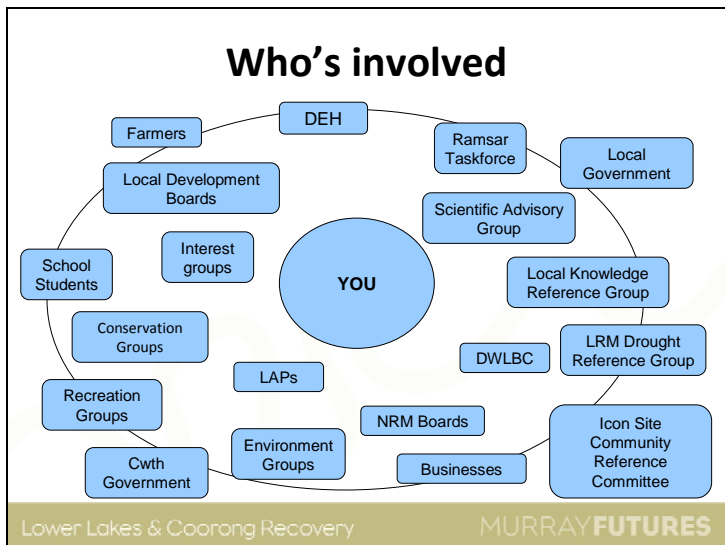
- You have local information, ideas, experience and priorities that will help to inform the development of the Long Term Plan.
- The results of the Long Term Plan will effect your environment and your community.
- Stronger long term partnerships in development and implementation of the plan

Lower Lakes & Coorong Recovery MURRAY FUTURE

Community Consultation Process

- Targeted Consultation with Key Groups
- Community Information Sessions
- Regional standing displays at various locations
- Focus Group Day (LAP & interest groups)
- Online Survey

Lower Lakes & Coorong Recovery MURRAY FUTURE



Submissions/comments

'The Coorong, Lower Lakes and Murray Mouth: Directions for a healthy future'

1. What can you tell us to add?
2. Is there a question you can ask which will prompt us to look for an answer?
3. Be persuasive: argument and evidence

Lower Lakes & Coorong Recovery MURRAY FUTURE

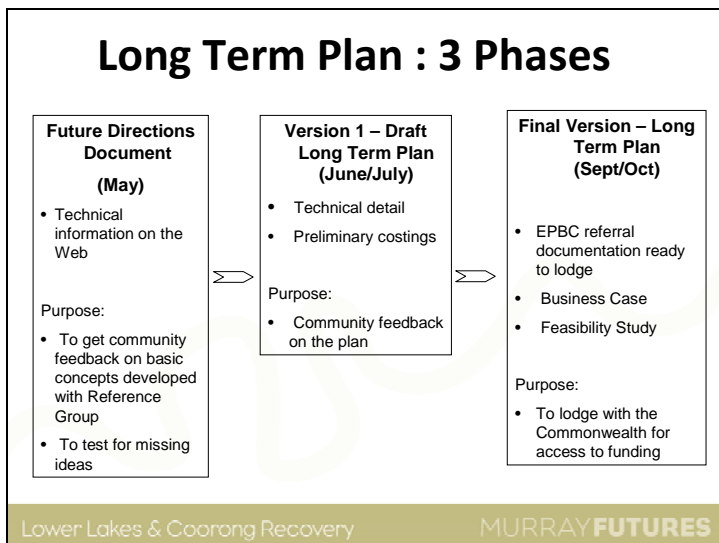
Send in your submission/response via:

Email (attach documents if necessary)
cllmm@deh.sa.gov.au

OR

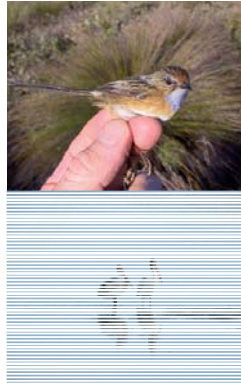
Hard copy, post paid (see CLLMM website for details)
Manager, Policy and Planning
Coorong, Lower Lakes and Murray Mouth Projects
Department for Environment and Heritage
Reply Paid 1047
ADELAIDE SA 5001

Lower Lakes & Coorong Recovery MURRAY FUTURE



What is at stake? Pg 2

- Wetland of international standing
 - 77 bird species
 - 7 endangered or vulnerable plant species
 - 49 native fish species
 - 10 frog species including the endangered Southern Bell Frog
 - Reptiles
- A prized local environment
- A rich and diverse culture
- Regional community and economy



Lower Lakes & Coorong Recovery

MURRAYFUTURES

What are the problems and challenges? Pg 4

- Reduced freshwater inflows and levels
- Acid Sulfate Soils
- Salinity
- Biodiversity loss
- Sea level rise
- Socio-economic impacts



Lower Lakes & Coorong Recovery

MURRAYFUTURES

What is being done to manage current problems? Pg 8

- Dredging to keep the Murray Mouth open
- Sealing of the barrages
- Waste Water recycling and storm water re-use
- Narrung Narrows Bund and pumping
- Construction of pipelines and standpipes
- Pomanda Island Weir (preparatory work)
- Ponding of freshwater within Finnis River and Currency Creek (preparatory work)
- Coorong and Lower lakes Community Eco-Action Project (Goolwa to Wellington Local Action Planning Group initiative)
- Purchase water on the temporary water market
- Pre-emptive Limestone – Currency and Finnis (underway)
- Broad-scale seeding trial (preparations underway)
- Revegetation program – scoping started

Lower Lakes & Coorong Recovery

MURRAYFUTURES

Will climatic conditions improve the situation? Pg 9

- The outlook under future climates will see changes in terms of freshwater availability and sea level rise; however, the precise timing and implications remain uncertain.
- We will need to respond to the conditions without knowing in advance what the conditions will be.

Lower Lakes & Coorong Recovery

MURRAYFUTURES

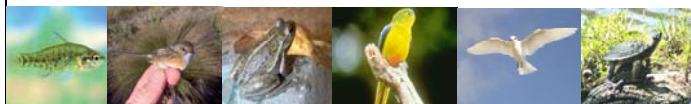
Core Elements Pg12

1. A responsive management approach based on robust research, adequate monitoring and extensive community involvement
2. Engagement of the traditional owners – the Ngarrindjeri
3. Freshwater provided to the Lakes
4. The Murray Mouth open and connecting the Coorong to the sea
5. Accepting variable Lake levels, yet maintaining system connectivity
6. Managing localised threats, especially acidification and hyper-salinity

Lower Lakes & Coorong Recovery

MURRAYFUTURES

Our goal is to secure a future for the Coorong, Lower Lakes and Murray Mouth as a healthy, productive and resilient wetland of international importance.



Lower Lakes & Coorong Recovery

MURRAYFUTURES

Appendix 6

Community Information Sessions - Feedback Survey

This survey was administered at 3 Community Information Sessions - Murray Bridge, Goolwa, and Adelaide.

The Feedback Survey included opportunities for participants to provide both open (qualitative) and closed (quantitative) feedback. **A verbatim transcript of the qualitative feedback is listed below**, followed by a table of quantitative findings.

Qualitative Feedback

Comments or suggested improvements on the presentations:

- Well done
- Would have helped to have read the document before the workshop
- More time
- More linked to the documents pages (maybe a photo of the page referred to rather than a page number)
- It was great to have clear explanations from experts
- Have not read the directions document yet
- Less technical jargon but use plain English - including acronyms

Comments or suggested improvements on the workshops:

- Well done - keep up the info
- Would like to see a Ngarrindjeri Rep on panel - and maybe more youth input
- Tighter control within group discussions
- The facilitator took notes only
- Devil in the detail!
- I still feel frustrated that money is being used for innumerable talks and discussion papers, time goes on and nothing seems to be done as the rivers and lakes inexorably die
- Perhaps smaller groups may be more controllable - needed greater control of individuals within group
- More time needed
- We could have gone on discussing for hours, we were very lucky to have representatives from farmer, locals, Canberra government representative, community youth engagement and DEH facilitator - helped to get a broader perspective
- Don't allow comments from the floor - makes panel session go too long
- My particular group was good - articulate people with experience in the matters under discussion
- The more the public can know and understand the more chance we have of fixing the problem

- More time to ask questions would be helpful - but of course this would require more time overall
- Very hard job given the task at hand, some opportunities to address everything needs to be balanced against efficiencies so well done

What were the most satisfying aspects of this meeting?

- Good quality staff people
- Whilst it was a serious matter for discussion I felt it was handled very seriously. Although I am not connected with farming I came out of it interested. Glad I did.
- Discussion time with sticky notes
- Adaptive Management Planning members increased my confidence in eventual freshwater solution
- Interaction and information
- Ability to get some detail.
- Meeting with others with similar concerns - validated my own thoughts
- Hearing a wide range of viewpoints, gaining new information, having points of previous confusion clarified
- It ran out of time. I had to leave and could not take part in the 'after events' etc.
- Better organised
- Different points of view presented and listed
- Hearing about the many problems of drought, fresh water and salt water etc.
- Gaining information
- Opportunity to learn other viewpoints and discuss options/risks
- Hearing others concerns
- Gaining an understanding of what's happening - a greater awareness
- Actually hearing what is being done and the community being involved
- Opportunity to hear updated, knowledgeable info, especially from specialists and share views
- Group forums to give everyone the chance to have their questions answered and concerns addressed
- Information given
- Having experts from various fields
- Well prepared, well run. Much better than other presentations I have been to
- Hearing what others had to say and being reminded of the breadth of the issues

How should we do things differently next time?

- Engaging youth with the mediums they use eg. media, Facebook etc.
- Don't change it
- Was surprised that more people were not present - a few more notices locally to advertise (I don't buy the newspaper). I know more people who would have come
- Tighter group meeting control
- There were a lot of things that still need to be looked at. It also seemed that this was an opportunity for government to tell us what is decided based on its political tradeoffs rather than what the natural systems will require - especially if you factor in sea level change
- No need - thought it was well organised, great facilitation. Well done and much appreciated

- Tell us it is going to last longer so we can plan the time to stay. Saturday afternoon is not a good time. It was a very poor attendance at Goolwa
- How will this information gathered be used?
- Better publicity about this session so that more people could and would attend
- Better publicity - I only saw a notice in a newspaper once and Sat arvo is unlikely to attract enough people
- More publicity, only saw a tiny ad by chance the day before in The Messenger
- First 15 mins when government department's work was being explained could have been left out - the rest of the introduction, when it applied to the audience was very good
- Better publicity in Adelaide to ensure a better crowd - may need larger full page adverts in The Advertiser - Mike can do it so shouldn't you be able to?
- Should hear from people/farmers/irrigator affected by this crisis including businesses that have suffered from less tourism etc.
- No need - all ok
- Was ok as is

Quantitative Findings

The following page is a table of participants' responses to a list of questions.

Table: Feedback Survey Results for Community Information Sessions (Murray Bridge, Goolwa, and Adelaide)

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	No Response		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	No response
Presentations							General feedback						
Presentations increased my understanding of long term planning activities now underway				24	9	3	The venue was suitable			1	26	6	3
The presentation sessions were informative.				23	10	3	The catering was appropriate			1	21	7	7
The presentations were at the appropriate level for me.			4	19	9	4	Staff were helpful				22	10	4
Presentations were relevant to the Directions document.			5	19	7	5	I was able to interact with staff			1	25	6	4
I understand how I can have input into the Directions Document.			3	17	9	7	I felt welcome at this event			1	22	9	4
Percentage:	0.0%	0.0%	6.7%	56.7%	24.4%	12.2%	The event was well organised		1		24	8	3
I was able comment on issues that were important to me.			2	21	11	2	The event was well managed		1		22	9	4
I was provided with an opportunity to ask questions.		1	1	18	13	3	Percentage:	0.0%	0.8%	1.6%	64.3%	21.8%	11.5%
There was enough time for discussion.	1	6	4	18	5	2							
The facilitator helped in capturing and recording my input.			1	21	10	4	How did you find out about this event?	Newspaper	Flyer	Poster	Web		
Support from the facilitator was appropriate.		1	2	23	7	3		9	7	2	2		
I feel my views were recorded and acknowledged.				24	5	7		Radio	TV	WOM	Other		
Percentage:	0.5%	3.7%	4.6%	57.9%	23.6%	9.7%		4	1	6	1		
Members of the specialist panel responded to my question.		2	4	25	3	2	Number completed survey:	35					
The specialist panel member/s answered my question adequately		3	3	23	4	3							
I was interested in hearing all the answers from panel members			1	22	9	4							
Specialists provided a well informed response				24	10	2							
I found it helpful to receive an immediate response to my question.				25	4	7							
I had the opportunity to interact with panel members		3	4	22	3	4							
I enjoyed the specialist panel session			1	23	5	7							
I think the concept of a specialist panel should be retained for future meetings				16	16	4							
Percentage:	0.0%	2.8%	4.5%	62.5%	18.8%	11.5%							

Appendix 7

Targeted Meetings - Notes

Long Term Plan Reference Group

Tuesday 21st April 2009, 10:00 – 14:00
Mt Lofty House, Mt Lofty Summit Rd, Crafers

Summary of comments or issues:

The Coorong
Melting ice and Sea Levels
Sea levels and Temperatures
Revegetation Program
Long Term Plan – Working Document Update

1. Welcome, Introductions and Apologies

2. Presentation on Coastal Geomorphology - A/Prof Vic Gostin

- Ongoing crustal deformation.
- Wind and wave dominant coastal zone.
- Coastal advance and coastal retreat.
- Past sea level fluctuations.
- Present sea level rise.
- Quaternary sediments past 2 M years.
- Tectonics – shoreline formed 120K.
- Ongoing crustal deformation – South Australia is being squeezed from the southeast to the northwest.
- Western Eyre Peninsula has a stable thick crust.
- The gulfs are slowly sinking e.g. Port Adelaide.
- Adelaide Hills are rising eg Normanville at 10 m in 120K years, Miocene marine limestone, near Kuitpo Forest, Chiton Rocks & Victor Harbour 8 M in 120K.
- Murray Mouth area (little change) but continuous elevation to 16M in 120K at Mt Gambier.

The Coorong

- A wind and wave dominant coast, with westerly winds and an intense SW swell.
- Broad and shallow continental shelf, biologically productive: shelly sands.
- Micro tidal regime – minimal effect.
- Occasional river floods through Murray Mouth with only fine sediment.
- Refer to WAVE DOMINANT COAST Coastal advance and coastal retreat slide with Goolwa today diagram.
- Refer to Temperature profile from foraminifera and Antarctic ice cores during the last 200K years slide.
- Ice and World climate.

- Determined primarily by variation in solar irradiance.
- Affected by Earth's orbital oscillations: 100ka, 40ka, 23kd thus orientation of continents towards the sun.
- Influenced also by mountain building: the exposure of fresh rocks to weathering that removes CO₂ – a greenhouse gas.
- Large volcanic eruptions expel dust and CO₂.
- Major ocean currents carrying heat are affected by continental distribution.

Melting ice and sea levels

- The last glacial maximum at 20Ka BP was followed at 15ka BP by very rapid sea-level rise of perhaps 15 to 20 metres in the space of 300 to 500 years.
- These were due to catastrophic icesheet collapse creating huge melt water pulses.
- Refer to post-glacial sea levels rose in three "floods" or rapid rises slide.

The differences reflect the relative hydro-isostatic crustal responses.

Sea levels and Temperatures

1. *Refer to slide* - Impact of a 1M sea level rise.

Charles Irwin:

2. Sea level rise, will the lakes turn into a marine environment or will there be enough of a barrier to prevent that and continue as a freshwater system.

Vic Gostin:

3. Suggests that there will be enough of a barrier to prevent the system turning marine, enough sand supply.

3. Revegetation Program – Component 1 Update (Russell Seaman)

- Refer to slide package for more detail.
- Next 3 months – stabilise soils against erosion.

Latest developments:

- Workshops in March at Meningie to discuss project.
- Aerial seeding.
- Machine seeding.
- Follow up workshops.

Risk Management:

- Lake Albert 150 hectares – small area.
- Currency Creek – 626 hectares large scale seeding.
- Lake Alexandrina – 945 hectares.
- Community delivery of the revegetation plan.

4. Long Term Plan – Working Document Update (Peter Croft)

Refer to slide package for more info

- Phase 1, 2 and 3.
- First Version.

- 6 key issues, 6 core elements for healthy productive and resilient wetlands for the future.

PC walked through the document with the group:

- Issues around Lake Albert.
- Freshwater future.
- Lake Albert will become hyper-saline if we continue the pumping of water from Lake Alexandrina.
- Issue around protection of biodiversity.
- Need to address natural systems element, how they work, need for headline stats.
- Page 21 assumption re water availability and allocations.

Lower River Murray Drought Reference Group

Thursday 30th April 2009 - 14:00 – 17:00

Local Government Centre – 2 Seventh Street, Murray Bridge

Summary of comments or issues:

EIS – Weir

Actions Underway

Directions Documents Update

Policy

Murray initiatives

- Weir EIS
- CLLMM Update – Goolwa, Barrages (seawater), Trial – acidification, impact of measures
- Actions underway – Eco action
- Pre-emptive limestone
- Broad scale seed trial
- Bio/reveg – scoping

Peter Croft: Future Directions Document

- Come to info sessions.

Q – How do we define the long term?

A – Climatic variability, climate conditions, LT starts now.

Q – bottom up?

- Policy in Canberra?
- What can influence CBA?

A – End of system targets, set the goals.

- Policy – much broader than the LTP, Basin officials committee.
- Will this plan be linked with/supported by the SAMDBA basin plan? Will inform the basin plan.
- Salt water solution?
- Limestone application?

Q - Engineer solutions.

A - Disagree, focus on secondary applications.

- St Katherine, shy, lost the community.
- What about seawater? – it will destroy the reveg (fishway issue)
- Trigger points?
- Ministerial council – Nov.
- SA Govt – avoid ASS.

Q – Need clarity on 2 trigger points – no deterioration, are we overanxious?

Q – Regulators – limestone, what permissions were sought?

- H2O for river health 500 GL – Murray initiative using own allocation the LMR.

Q – September timelines?

Q – Fishways?

Scientific Advisory Group

30th April 2009 - 14:00 – 17:00

NEPC Board Room, Level 5, Flinders St, Adelaide

Summary of comments or issues:

CLLMM Update

Projects currently underway

Directions Document update

- Piers Brissenden and Louisa Halliday gave an update on where the team is at, what projects are currently underway what is being proposed and the Long Term Plan Directions Document.

Questions from the SAG:

Q - Limestone pads were put in the Finniss and Currency to avoid acidification events. Did it work?

A- There have been no flows as yet, but it hasn't done any harm. There are a team of scientists out there now doing water quality testing.

- Judy proposed that SAG meet in the next couple of weeks to walk through the document when it is available for consultation.
- Group agreed to meet mid may for 2 hours to walk through and give feedback.
- Russell Seaman spoke about Adaptive Management and monitoring research that tie in with the future directions document.

Local Government Briefing

5th May 2009, 14:00 – 16:00

Local Government Centre, Murray Bridge

Summary of comments or issues:

CLLMM Update

Directions Document update

Upper SE Drainage Scheme

Community involvement and consultation process

Piers Brissenden:

- Introduction
- CLLMM Update (refer to slide package)

Q - When will the Supplementary EIS be released?

A - Action – CLLMM Team to find out.

Q. If Limestone successful – do you need the regulators?

Louisa Halliday:

- Presentation on Directions Document for the Coorong, Lower Lake and Murray Mouth Ramsar Site Long Term Plan.

Action – CLLMM team to email Local Govt final designed document.

- Issues were discussed around the upper south east drainage scheme.
- Issues discussed around the long term plan and that it should be based around the NRM plan with a multi agency approach, local govt approach and community approach.
- Need to embody the local community inviting involvement.
- Need to look at the bigger picture – community groups can't do all the work.
- A joint effort is required and advice needs to be readily available to community groups from scientific bodies.
- Much guidance is needed for such an operation.

Gemma Cunningham:

- Update on community consultation process including dates, times, locations and listening posts.

Long Term Plan – Socio Economic Report

5th May 2009, 12:00 – 14:00

Regional Development Office, Murray Bridge

Summary of comments or issues:

Relevant local reports indicating economic impacts

Community lethargy over consultation

Identification of key current economic impacts in Murraylands region

- Background – Release of LTM Directions Document and currently compiling socio-economic background paper.
- The purpose of the socio-economic paper is to provide a broad outline of socio-economic data for the region and identify socio-economic impacts from the LTM plan.
- **Issue 1:** Community fed up with being consulted 'talk fests'. The community is looking for leadership from Government.
- **Issue 2:** A socio-economic study (Peter Ackland) 2005-2006 was undertaken in the Riverland and was seen as an excellent model that they need to have undertaken for Murraylands below Lock 1. (Access will be provided to this report). This report provides the baseline data and provides scenarios 'what if'.
- **Issue 3:** LTM plan consultation – too many scenarios, people want to hear the facts. Concern about not enough notice for people to participate in the consultation.
- Review of Socio-economic impacts in the Murray lands region (larger region than CLLMM region):
 - Horticulture and Agriculture:
 - Dairy industry – largely gone will be non existent if drought continues, Horticulture – now almost non existent along Murray moved to some extent to Mallee well, Permanent Plantings – much smaller than Riverland but now almost non existent.
 - Tourism – Boatbuilding and servicing, Houseboats, Marinas and accommodation and water sports – businesses already experiencing a significant downturn with many businesses closing. If blue green algae becomes an issue will have a huge impact.
 - Princess report – currently preparing for building of a dry dock.
 - Crumbling banks – closure of boat ramps, impact on pumping stations
 - Social Impact – This is viewed as the next 'wave' to hit the Murraylands community. Depression, health impacts, suicide. Families are still living on their properties but selling off all assets including water allocation.
- Felt that the social impact experienced by the Riverland community is the precursor of the future impact on the Murraylands community.
- Support programs – 'the people feel that no one really cares'
- Financially – felt that there is no support unless they leave the land.
- Drought centres – provide a range of services under one roof including health and counselling services but future funding is not assured.
- CDEP? Funding is being withdrawn from the Narrung community.
- Regional Development Boards are being asked to merge – one River board

Lower Lakes community are suffering the most in the Murraylands region.

What needs to happen:

- Structural adjustment must be a priority and the government needs to provide assistance for this.
- Leadership – The only way to engage the general community is for them to see the Premier showing that he cares and encouraging people to be involved.

Consultation:

- People need at least 10 days notice prior to the event.
- Radio is a good way to get the message out fast (get Premier to speak on the radio).

Other opportunities to engage with the community:

- There may be a 'Weathering the Weather' Expo at Meningie a family fun day with a range of services present.
- Meet with key church groups and industry groups (Darryl able to provide contacts)

SA Murray Darling Basin Natural Resources Management Board Meeting No 43

Thursday 21 May 2009, 10.00am
Board Offices, Mount Barker

Summary of comments or issues:

CLLMM update
Directions Document overview
Funding Deed
Community engagement
Lake Albert
Sea water

Key words: *Funding deed, long term plan, short term action, community engagement, (over) allocations, sea water, Lake Albert*

- Piers Brissenden updated the Board on current CLLMM actions.
- Louisa Halliday presented on the Directions for the Future.

Comments from members of the Board:

- Be warned that the Funding Deed is a Trojan Horse. It if looks good it can't be right.
- Has there been feedback on the 31 options so far?
- Fact Sheets are being developed.
- Should have acted earlier. You can keep finessing plans forever.
- Our Deed is about the Long Term Plan – so some difficulty funding the emergency actions.
- Points out the options in the back of Directions. Almost all options are included and feasibility undertaken.

- People will get apathetic with long term plans – they are too far out. You can't do what is needed in the next 6 months.
- Discusses office tussle between long term and emergency.
- The process is to develop a plan, then to develop a business case which will release the funding. The case may be to spend \$190m now rather than the long term. We're working it out.
- You can't engage community in a crisis. You can only inform them of the science. Long term planning is the opportunity to engage community.
- Directions is a document without commitment. How does it connect with what other departments do? Directions doesn't deal with over allocation. No information about water purchasing and how this matters. No discussion about keeping sea water out and how to provide for the environment and the community.
- When the summary discusses the Lakes they are undervalued.
- Advertises the all day Saturday workshop and indicates that this is a Directions paper. Perhaps community is not used to the language of directions and plans etc.
- Framework in Directions is excellent
- Feedback from the Murray Bridge CIS. Community didn't understand/struggled. They received the doc at the door. Could take on the content.
- Liming seen as the first thing that has happened. Water purchasing and research is not visible to the public. It looks like government has hung back waiting for rain. Acid triggers government action too late (it appears). Pumps will be turned off to Lake Albert in June and Albert will be a filthy mess unless we let sea water in. 'We are not going to get the (fresh) water'.
- Acknowledges we're not clear enough. We are going to the first draft plan in this difficult environment.

Icon Site Community Reference Committee

13th May 2009, 10:00 – 12:30
Langhorne Creek Bowling Club

Summary of comments or issues:

Sea water research
Lakes fencing
Shoreline Business Plan
Ngarrindjeri issues
Regulators

- Coorong should always be mentioned with Lower Lakes

Piers Brissenden presentation:

- This presentation stopped and started as Piers facilitated discussion which arose from time to time about issues.
- PB \$10m to develop the Plan: science, trials, consultation.
- Refers to sea water EIS and the focus on alternatives. Names Project manager, Luke Mosely and Parsons Brinkerhoff.
- Lists actions underway, including Luke Mosely's research site.
- Some discussion on the merits of the site.
- Reference to related Seaman and Mosley paper about site selection.

Significant discussion about timing and siting of Lake fencing:

- No point seeding if no fencing.
- Fencing posts for re-use may be available at Berri/Loxton.
- NRM gives incentives for fencing – could facilitate locals picking up posts.
- \$10m over two years – bulk spent next year. Community engagement desired.
- MOSH people are 'non-landholding greenies'. 'Keep away from greenies'.
- DEH needs to meet with stock owners about seeding and fencing.
- Stock owners are stressed by drought; told to get animals off Lake; upset; first heard about seeding when the seeding contractor arrived.
- 500 hectares ground seeded. Remainder must be air seeded.
- Chair suggests DEH contact stockowners direct. Their numbers are relatively small.
- They are averse to meetings. Some want to have stock on Lake.
- 'Secretive' research: NS notes Meningie meeting comment about 'secretive' research.
- Sympathetic: If people know there's a researcher at the Lake, the researcher will be engaged in discussion all day and not research.
- Shoreline Business Plan: NRM funded coordinated through Community Centre to train, advise and empower. Comment: 'We don't need training'.
- Where will the shoreline be in the future? Where would a fence go?
- Sand drifts keep changing the boundaries. Then potentially they will get inundated.
- Notes Lower Lakes were a reservoir before but are now able to be operated for the environment.
- Don't seed below 0.3m. Above will seed – no acid.

Louisa Halliday Presentation:

- Requests feedback about the Directions doc. Asks for advice on how people can be involved in the planning process. Discussion about social and economic issues as management challenges.
- Discussion initiated: Healthy country; healthy people.
- Significance of Sea Country Plan.
- Need to embrace Ngarrindjeri issues. Ngarrindjeri will be transparent.
- Draft Plan points towards EPBC referrals. Scientific and technical papers will be available on the DEH www or links provided to relevant papers on other sites.
- July version of Plan fluid. September/October version firmer.
- Refers to 6 key issues; six core elements; 4 time frames and one scenario

- Makes comparison with fire planning and a disastrous fire's impact.

Comments:

- Change words in document – seasons not normal.
- Sensitivity about 'drought' – no drought in CLLMM – drought is up river.
- Key word - be 'very flexible'.
- Notes the 'outliers' of the 1956 floods and the current situation.
- What other consultation methods?
- School newsletters to parents via students.
- Tension between connectivity and engineering.
- Lower Lakes more sensitive ecology than up River.
- How will the LTP be integrated into the Icon Site Management Plan, the MBDA Plan and the Ramsar Site Management Plan?
- CLLMM will work with MBDA to integrate. Sea Country Plan should be incorporated - NGARRINDJERI NATION YARLUWAR-RUWE PLAN Caring for Ngarrindjeri Sea Country and Culture.
- Paper being written on triggers for the MDBA.
- More info needed about Water Management Plans for the East and West Mount Lofty Ranges
- Discussion about regulators. Critical about siting.
- Ngarrindjeri Regional Authority is funding Research and Training Centre. Ngarrindjeri have had a high level meeting with high level government officials. Officials have received information. Ngarrindjeri are waiting on a high level agreement with SA Govt prior to being involved in the LTP. Suggests a presentation (like today's) is feasible prior to agreement.
- Discusses the MBDA/LTP. Suggests better coordination, and better flows will eventuate and Directors' appointment is imminent.
- Return to timing and siting of Lakes fencing.
- Reveg to stop sand blowing – but can also put carbon in the soil.
- 'Let's get it growing'
- Terminate rye before it seeds.
- See how it goes, but no need to fence or keep off cattle in year one.
- Get a cover crop in near the towns to stop sand blows.
- Fencing is more important if and when tube stock is planted than is the case with rye.
- Stabilize sand prior to fencing.
- Knife roller the rye which has been tractor seeded. Rye is shallow rooted and doesn't use much water, unlike native plants and native plants can be a problem in relation to ASS.
- Different areas need different treatments.
- If pumping into Albert is stopped it will probably be tea tree swamps rather than broad acre.
- Fencing in year two after trialling.
- Lake shore erosion is a long term problem – cattle and wind cause erosion. Fencing can play a positive part in containing erosion (now).
- When will community groups be able to ask for funding?
- Available through NRM. DEH must develop a business plan first, and sign with Commonwealth. Funding for fencing will be through LAPs (full funding).
- 'How would you like to be consulted?'

- This meeting has worked well. Use schools, meet with Ngarrindjeri Regional Authority – ‘something like today’. ‘Once the Agreement is in place the rest will slide into place’.
- Icon Meeting.
- Special meeting to up date on LTP.

Comments

- The Directions doc stimulated discussion about time and siting of fencing in the Lakes. Rye seeding appeared accepted as a good thing. There as a rough consensus in favour of fencing in year two although Stephen Walker prefers fencing now.
- Discussion about consultation processes faded quite quickly. People seemed reasonably pleased with what occurred.
- It was mention of \$10m in 2 years which led to suggested discussions with stockholders but not with ‘greenies’.
- My assessment was that there was a reasonable sense of cooperation and goodwill.

Suggested Actions

- Discuss fencing issues
- Set up a meeting with stockowners to discuss Directions doc with emphasis on fencing and vegetating Lower Lakes.
- Draw Ngarrindjeri Nation Sea Country Plan into the Draft 1 of the Long Term Plan
- Review the mission of the Community Centre idea in association with key stakeholders.
- Inform communities through school newsletters.
- Check use of the word ‘drought’ in relation to CLLMM in future documents.

Appendix 8

Targeted Meetings - (Example) PowerPoint Presentation



CLLMM update

EPBC Act update

1. Pomanda Island Weir
 - public consultation closed
 - 70 submissions on website
 - Fishway issue
 - Supplementary EIS to Commonwealth within 2 weeks

Lower Lakes & Coorong Recovery **MURRAY FUTURES**

CLLMM Actions

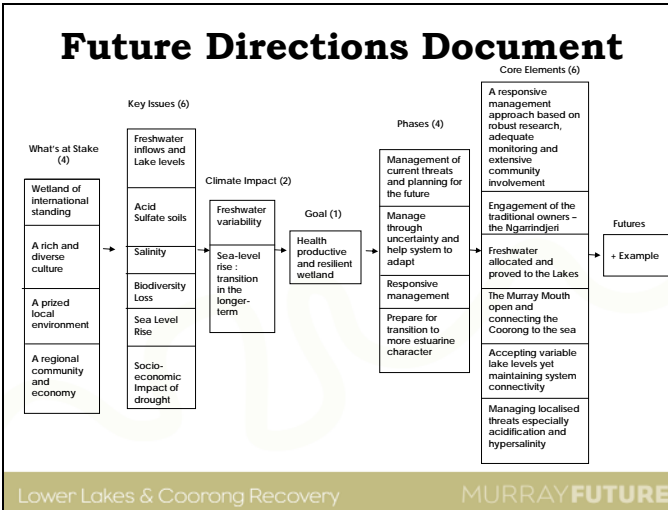
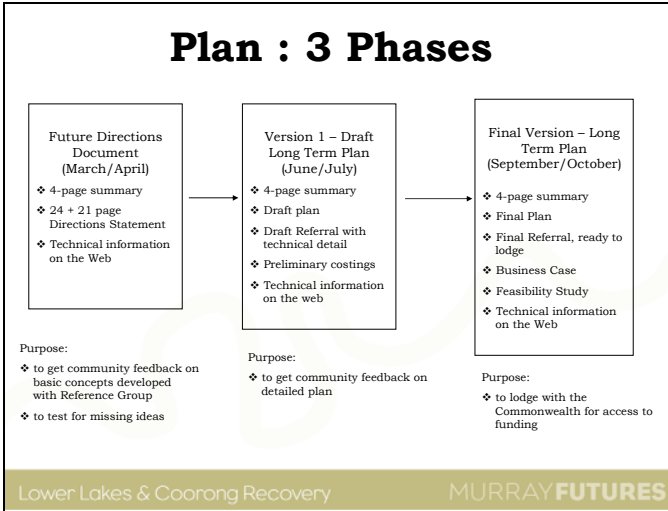
1. Community Eco-Action project - \$120,000
 - Underway
2. Pre-emptive Limestone – Currency and Finniss
 - underway
3. Broad-scale seeding trial
 - Preparations in hand
4. Revegetation program - \$10 Million
 - Scoping started

Lower Lakes & Coorong Recovery **MURRAY FUTURES**

Our goal is to secure a future for the
Coorong, Lower Lakes and Murray Mouth
as a healthy, productive and resilient
wetland of international importance.



Lower Lakes & Coorong RecoveryMURRAY FUTURES



Community Consultation Process

- Targeted Consultation with Key Groups (LRMDRG, SAG, CRC, RAMSAR, LTPRG, NRM & Local Govt.)
- Community Information Sessions (Mid May)
- Listening Posts at standing displays at various locations (Mid May)
- Focus Group Day (local & interest groups - Late May)
- Online Survey

Lower Lakes & Coorong Recovery

MURRAY FUTURE

Community Information Sessions

Tuesday	12 th May	Meningie	7pm - 9.30pm
Thursday	14 th May	Murray Bridge	7pm - 9.30pm
Saturday	16 th May	Goolwa	2pm - 4.30pm
Tuesday	19 th May	Milang	7pm - 9.30pm
Thursday	21 st May	Adelaide	7pm - 9.30pm

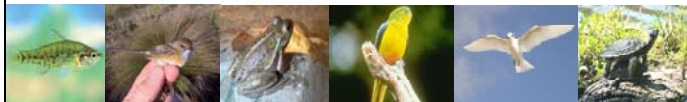
Lower Lakes & Coorong Recovery

MURRAY FUTURE

Email: clmm@deh.sa.gov.au

Online feedback form: <http://www.environment.sa.gov.au/clmm/contact.html>

Telephone: 1800 226 709 (free call during normal business hours)



Lower Lakes & Coorong Recovery

MURRAY FUTURE

Appendix 9

Written Submissions - List

Individual Submissions

Surname	First Name	Suburb	Date
Pattison	Philip		25/04/2009
Kane	Roy		26/04/2009
Jantzen	Ron	Novar Gardens	27/04/2009
Pastro	Val	Oakden	27/04/2009
Fox	Jeff	Murray Bridge	30/04/2009
Cooke	Roger	Goolwa	01/05/2009
Koschel	Dietrich	Meningie	01/05/2009
Hodges	Ralph	Goolwa	05/05/2009
Anonymous		Goolwa	08/05/2009
Bagley	Chris	Milang	11/05/2009
Anonymous		Goolwa	09/05/2009
Baldock	Cynthia	Royston Park	14/05/2009
Young	Henry	Glenunga	14/05/2009
Le	Vinh	Athol Park	14/05/2009
Cooke	Roger		17/05/2009
Giles	Trev		17/05/2009
Hobee	Eldert	Torrens Park	21/05/2009
Norman	Kent	Eden Hills	25/05/2009
Fennell	John		25/05/2009
Haccou	Marinus		25/05/2009
Glasson	Vikki		25/05/2009
Curtis	Simon		25/05/2009
Pontin	Kristine		25/05/2009
Lymn	David		25/05/2009
Jury	Ken		26/05/2009
Myers	Susan	Hove	26/05/2009
Paton	David	Adelaide	28/05/2009
Crowe	Janine		26/05/2009
Brealey	Simon	Glenside	26/05/2009
Sayers	Clive		27/05/2009
Paterson	Bill	Meningie	27/05/2009
Grant	David		27/05/2009
Croser	Nigel	Milang	28/05/2009
Whain	Bob	Mt Gambier	28/05/2009
Black	Greg		28/05/2009

N/A	Mathew	Milang	28/05/2009
Bray	Fred	Modbury North	28/05/2009
Carlson	Roger		26/05/2009
Lann	Peter		28/05/2009
Fenton	Derek	Finniss	28/05/2009
Tjukonai	Vesper	Narrung	28/05/2009
Hearden	Garry		28/05/2009
Bradford	Karyn	Milang	28/05/2009
Cowan	Beth	Tallem Bend	29/05/2009
Reid	Maxwell	Cadell	29/05/2009
Brennan	Dan	Loxton	29/05/2009
Carroll	Barbara		29/05/2009
Lucas	Ann	Goolwa	29/05/2009
Brown	Justin	Kensington Park	29/05/2009
Taylor	Shaun		29/05/2009
Storr	Robin		29/05/2009
Trevor	Harden	Clayton Bay	29/05/2009
Grumple	Wendy		31/05/2009
Salmond	Neville	Clayton Bay	01/06/2009
Geddes	Mike		26/05/2009
Callaghan	Frank	Adelaide	01/06/2009
McCoy	John		01/06/2009
Zegebros	Raymond	Myrtle Bank	04/06/2009
Williss	C.J	Tallem Bend	04/06/2009
Pankiewicz	Kim		05/06/2009
White	Gwenda	Tallem Bend	10/06/2009
Winckel	James	Flagstaff Hill	15/06/2009
Blacker	Ron	Streaky Bay	18/06/2009
Goode	John	Kingston SE	27/07/2009

Organisational Submissions

Organisation	Date
Unipolar Water Technologies Pty. Ltd.	30/04/2009
Birds Australia	24/05/2009
Signal Point Riverine Environment Group Inc.	28/05/2009
SA MDB NRM	29/05/2009
Department of Health	29/05/2009
Department of Water, Land & Biodiversity Conservation	29/05/2009
South Australian Farmers Federation	29/05/2009
Primary Industries and Resources SA	29/05/2009
Southern Alexandrina Business Association	05/06/2009
The Marina Hindmarsh Island	09/06/2009

Appendix 10

Written Submissions - Summaries

Submission No	Summary	Response
DD00001	<p>Make Alexandrina a river by bulldozing levee banks. Reduce the size of Albert. Turn the reclaimed land into agriculture.</p>	<p><i>The author suggests engineering. Freshwater future with reclaimed land for agriculture.</i></p>
DD00002	<p>Headline: a defined percentage of water to reach MM and abolish 'caps' through Commonwealth.</p> <ul style="list-style-type: none"> • Use water sustainably • Use current devastation as lever for review and change. • Problem causes: barrages, SMA hydro, weirs/dams and leaks, state 'rights' and rights for non existent water. • History of Lower Lakes - fresh and estuarine thus remove barrages • Subject hydro elec to cost benefit analysis with water and environmental uses. • Develop better water auditing, dual supply infrastructure. • Strengthen the MDBA and speed up its work. <p>Binding requirements for improvements:</p> <ul style="list-style-type: none"> • Defined percentage flows, abolition of caps, priority for sustainability, more cost benefit analysis for water use, re-evaluate public infrastructure for cost/benefit and sustainability, tighter water use standards, review buy back for water which may never exist, prioritise food production, using sustainable ag techniques. • Review ag tax schemes which create additional demand for water. 	<p><i>The author provides a wide ranging integrated proposal much of which is directed at Commonwealth responsibilities. He emphasises sustainability and cost benefit reviews and existing infrastructure and activities. Some Commonwealth exclusive suggestions for example tax reform, whole Basin management.</i></p> <p><i>Keys for LTP are:</i></p> <p><i>Submission points to joint Commonwealth and SA reviews and actions</i></p> <p><i>Barrage removal</i></p> <p><i>Tighter water use standards</i></p> <p><i>Sustainable food production.</i></p>

DD00003	<p>Author suggests a desal plant at Goolwa to pump in fresh water to Lower Lakes previously sea.</p> <ul style="list-style-type: none"> • In years of good fresh flows store desalinated water elsewhere. • Brine pumped to ocean at no risk. • Ensures fresh water for Lower Lakes. 	<p><i>Desal sea water and Goolwa and pump the fresh to Lower Lakes</i></p>
DD00004	<p>The author supports a Murray Darling system.</p> <ul style="list-style-type: none"> • She opposes rice and cotton farming and values natural fresh flows and wants to ensure the River flows for future generations. • The author submitted a 7 verse poem entitled 'I, the Mighty Murray'. 	<p><i>The submission favours natural and sustainable River system flows.</i></p>
DD00005	<p>The author supports Barrages and a Barcoo style system using daily tidal movements installed at Beacon 19.</p> <ul style="list-style-type: none"> • Build a channel Goolwa to Mundoo to create Coorong flows. • Create a marine environment and allow sea water into the Coorong at both ends using a Colvent system and keep all fresh water above the Barrages. • Build a drain from Lake Albert to release freshwater lower into the Coorong, following the current roadway to the Coorong 	<p><i>Engineering systems Mundoo channel to Goolwa channel Goolwa channel to the sea System into S Lagoon Drain from Lake Albert to Coorong.</i></p>
DD00006	<p>Unipolar water technologies. This is a detailed submission. Requires consideration of technical experts.</p> <ul style="list-style-type: none"> • A proposal for testing to develop a Unipolar plant to provide 200GL pa of desalted sea water to Lake Albert with over-flow to Lake Alexandrina. The proposal could lead to a solution to Lower Lakes within 3 years. • The proposal will lead to the production and sale of soda ash as an economic by product, and relies on scaling up technology developed in SA and in use in Victoria. 	<p><i>Keywords Desalted water pumped Lake Albert Major engineering project de salted sea water soda ash limestone</i></p>
DD00007	<p>Concerned about fresh water evaporation Lower Lakes:</p> <ul style="list-style-type: none"> • The Lower Lakes has to be returned to salt water. • This requires a permanent navigable lock at Wellington. • Eight problems and 8 solutions are examined. 	<p><i>Major engineering Sea water ingress Permanent weir fresh water river channels</i></p>

	<p>Problems solved by:</p> <ul style="list-style-type: none"> • Controlled release of salt water through barrages • Permanent Wellington weir • Engineering 200m wide bunds to contain freshwater channels to edge the Lakes • Salt water fills (and evaporates) in remainder of Lower Lakes • Consequently moves salt water to South Coorong • MM returned to salt hence no dredging • Acid sulfate soils contained • Boat traffic maintained from River to Coorong. <p>Suggested two stage process:</p> <ol style="list-style-type: none"> 1. Controlled salt water ingress plus permanent Wellington Weir 2 (if necessary) 200m Channel from Weir to Goolwa and channel from weir to Pelican Point Barrage 	<p><i>Evaporation mitigation</i></p>
<p>DD00008</p>	<p>The author submits there are no easy solutions to ensure the future of the CLLMM . He suggests:</p> <ul style="list-style-type: none"> • Desalination plants • Don't allow River freshwater to run into the ocean • Open the Barrages and allow sea water into the Lower Lakes • Redirect SE Drains (Kingston) into the Coorong so that freshwater doesn't run to the ocean. 	<p><i>Key words</i> <i>Desalination</i> <i>No freshwater to ocean</i> <i>Open barrages</i></p>
<p>DD00009</p>	<p>The author submits:</p> <ul style="list-style-type: none"> • The CLLMM must be considered a part of the Murray Darling Basin • Natural water flows in Murray SA are negligible • SA flows inadequate and evaporation is considerable • Climate change has diminished the major upstream storages • If Adelaide stops drawing on Murray the River still won't be in environmental health • The Murray in SA is doomed. • Solution: desalination with electrical energy from nuclear power station 16kms 	<p><i>Key words</i> <i>Desalination</i> <i>Nuclear power station</i> <i>Freshwater for irrigation and the Murray River</i></p>

	<p>south of Port Wakefield.</p> <ul style="list-style-type: none"> Desal water to Riverland for irrigation and the Murray and to Victoria. 	
DD00010	<p>The author submits that the Save the Murray Tax is a waste as is research and the government is incompetent.</p> <ul style="list-style-type: none"> Mr Rudd must say the word to fix the Murray. Water is stored above Mildura. Storm water should be collected and rainwater tanks installed. A pipeline should be build from the Kimberley's to Whyalla 	<p>Key words <i>Stormwater</i> <i>Rain water tanks</i> <i>Kimberley Whyalla pipeline</i> <i>Rudd and Canberra to fix</i></p>
DD00011	<p>The author resides in CLLMM and is a dry land farmer. His concern is for a sustainable MDB.</p> <ul style="list-style-type: none"> Argues nature does not recognise administrative jurisdictions and the Basin cannot be managed in pieces Our land/water used for industries with poor outlooks (rice, cotton, wine) Australia as one democratic nation must manage Basin and water security as a beacon of hope and recovery. <p>Recommendations:</p> <ul style="list-style-type: none"> One authority must manage the Basin sustainably. SA has most to gain from a coherent Basin administration. SA cedes all Basin responsibilities to Commonwealth. Headquarter MDBA at Goolwa, with branch offices at significant tributaries. Grow an administrative culture focussed on flows. Tracks local flows against long-term median flows, both pre and post settlement. Provide an annual independently compiled MDBA Report on MBDA stewardship measured against key environmental parameters. Link water licences to actual inflows applied one year after recorded inflow: provides predictability and depoliticised. 'Environmental water, managed by MDBA to maintain ecological health of the rivers system, purchased on a free system-wide market'. Test 30% inflow as 	<p>Keywords <i>Whole of Basin administrative reform.</i> <i>MBDA Commonwealth reforms and SA integration.</i> <i>MBDA</i> <i>SA cedes all responsibility to MBDA</i> <i>MBDA headquartered at Goolwa</i> <i>Annual MBDA environmental audits to Commonwealth</i> <i>All licences expressed as percentage of MDB annual inflow</i> <i>environmental water flows</i> <i>Flow Targets at Murray Mouth</i> <i>Extend 1999 Salinity Report to Sedimentation Report.</i></p>

	<p>environmental and audit.</p> <ul style="list-style-type: none"> • Downsize irrigation by one third to 1981 level, when the mouth closed for the first time. Flow regimes are provided related to inflow, natural losses, consumptive and environmental. • Redirect water from irrigation to the environment and create open debate to clarify future options for current licence holders. • Salinity a bigger threat than drought. How can the CLLMM estuary manage the final lift of salt to ocean? Recommends extended version of the 1999 Salinity Report to cover all sediments carried by river system. 	
DD00012	<p>The author favours a weir at Wellington and 'flood the river/lakes with sea water' using barrages. The author wants the River Murray Levy to stop as it is 'unfair'.</p>	<p>Key words <i>Weir</i> <i>Sea water flood</i></p>
DD00013	<p>The author submits that:</p> <ul style="list-style-type: none"> • The River system should be considered as a 'whole being' governed by a strong independent body. • If necessary use a pipeline as in Arizona • But wants the River revived. 	<p>Key words <i>Whole of Basin</i> <i>Independent governance</i> <i>Pipeline for example Arizona</i></p>
DD00014	<p>The author submits that evaporation is an indulgence.</p> <ul style="list-style-type: none"> • To eliminate evaporation either flood Lower Lakes with sea water or reclaim Lower Lakes for agriculture. • A sea water flood would result in dead sea and no Lower Lakes irrigation and so the courageous vision is to drain the Lakes. • Split the River at Pomanda Point into halves - West behind levee banks and east route through a controlled pipeline extension to 'Upper Coorong'. • The author suggests methods for managing the Bremmer and Angus Rivers while the west channel is built. • On the land side of the new River channel, the land would be managed by a Commission and land used for wetlands, residential canals and leasing to sharefarmers for cropping. • Beneath the weir there would be floodplain. When not in flood it would be used 	<p>Key words <i>River channels</i> <i>Land reclamation in Lower Lakes</i> <i>Commonwealth funding</i> <i>Economic benefits</i> <i>Major engineering</i></p>

	<p>for pasture.</p> <ul style="list-style-type: none"> • The scheme would be Commonwealth funded but repaid through land sales and land leases. • The scheme would use idle equipment to re-engineer the river and build roads and bridges. • Figure one included with submission. 	
DD00015	<p>The author proposes a circle of hot air balloons and nets as sky barriers holding in place for a longer time than otherwise damp, wet, rain producing clouds which can be seeded.</p>	<p>Key words <i>Clouds</i> <i>Rain seeding</i> <i>Hot air balloons</i></p>
DD00016	<p>Refer to Directions for a healthy future (Appendix 8 Management Actions no. 29 p 43). The submission responds to 'concerns' raised in the Directions document.</p> <ul style="list-style-type: none"> • The author notes that achieving the goal is complicated by the Barrages on the one hand and the Adelaide water supply inlet at Mannum on the other. • An historical perspective is set out. • Fresh and sea water in MM and Lower Lakes discussed. • Barrages construction means that fresh water evaporates and tidal movement is restricted to the Coorong • Adelaide water drawn from the Murray since 50s means Barrages protect that supply from salt • Over-allocation for irrigation further depletes Lower Lakes and expose acid sulfate soils. • Submits that 'understandably upstream states are reluctant to release precious fresh water to simply evaporate'. • Solution to address the problems • Constructed channels along the shorelines of the Lakes no wider or shallower than the Murray River at Wellington. Channels 200m wide with a 200m wide bund to contain the channel stabilised with vegetation. • To prevent 'salt lake' becoming hyper saline include a 'slush gate' to allow freshwater overflow. • Advantageous to construct channels while water is low, by construction 	<p>Keywords <i>Management Action 29</i> <i>Major engineering</i> <i>Sea water ingress</i> <i>Permanent weir</i> <i>200m wide fresh water river channels to</i> <i>Lakes edge</i> <i>Sea water within</i> <i>Evaporation mitigation</i></p>

	<p>achieved by means of a dredge.</p> <ul style="list-style-type: none"> • As acid sulfate soil is encountered during dredging apply lime stone slurry. • Recommendation • Controlled release of salt water through barrages remediating acid soils • Digging/dredging channels along shoreline (detailed). 	
<p>DD00017</p>	<p>A Discussion paper: a simple way to expedite the buy back of water for the environment in our river systems.</p> <ul style="list-style-type: none"> • The author (reluctantly?) accepts water trade under the National Water Initiative • Trade must reduce water use when required. • Proposes that a percentage of each trade is returned to the environment, and as an example proposes 15% of each trade. The 15% is paid to the vendor by the MBDA. The percentage could be increased or lowered according to annual flows and so is a fair adaptive management tool. <p>This could be refined:</p> <ul style="list-style-type: none"> • Selling water to a seller at a point upstream may require 30% returned to the environment. • Selling water to a seller at a point downstream may require 15% returned to the environment. 	<p><i>Key words</i> <i>Adaptive management</i> <i>Water trading refinements</i> <i>Water trading and environmental flows</i> <i>MBDA water trading management</i></p>

DD00018	<p>The author encourages CLLMM Project team to seek advice on land reclamation from a Dutch research organisation Deltares. Deltares includes a researcher/author who is formerly from Adelaide.</p> <p>The author provides information links on the understanding that it may well be the case that Lake Albert will become reclaimed land used for agriculture and that the Dutch have world leading capacity in this area.</p>	<p><i>Dutch research</i> <i>Deltares</i> <i>Land reclamation</i></p>
DD00019	<p>This submission is from Birds Australia (BA) and refers to Appendix 5 Indicative salinity tolerances for key Coorong, Lower Lakes and Murray Mouth species. Refers to BA research (April 2009) of salinity tolerances of key Orange-bellied parrot salt marsh food plants, and provides a reference. An extract of the reference is attached. In summary:</p> <ul style="list-style-type: none"> • Salinity levels in much of the Lower Coorong are (periodically) well in excess of biochemical tolerance of almost all salt marsh food plants. BA has found significant areas of apparent salt marsh die back in Lower Coorong. • The author offers to provide further information about appropriate management for CLower Lakes. 	<p><i>Birds</i> <i>Orange-bellied parrot</i> <i>Salt marsh</i> <i>Food plant</i> <i>Salinity tolerance</i> <i>Physiochemical tolerance</i></p>
DD00020	<p>The author suggests a Mt Gambier to Keith pipeline, reverse the flow, and pump millions of gigalitres of water, currently flowing out to sea and flood the Lower Lakes, thus revitalising the Lakes.</p>	<p><i>Key words</i> <i>Pipeline</i> <i>Mt Gambier to Keith</i> <i>Lower Lakes</i></p>
DD00021	<p>The author asks:</p> <ul style="list-style-type: none"> • Has consideration been given to low lake levels to get in with earth moving machines and create a levy bank to that the Murray flows from Wellington weir to the coast along Milang side? Then Lakes and Coorong opened to sea and tidal. • Lakes largely devoid of wildlife and Coorong and western marshes of Lake Alexandrina are significant for wildlife. 	<p><i>Key words</i> <i>Engineering solution</i> <i>River channel</i> <i>Murray from Wellington to sea</i></p>

DD00022	<p>The author suggests not purchasing water or building a weir. He suggests that the money be re-allocated to building pipelines to pipe water from the north to top up the Murray. He asks that the money is spent wisely.</p>	<p><i>Keywords</i> <i>Pipelines to Murray</i></p>
DD00023	<p>The author is a longstanding Coorong shack owner.</p> <ul style="list-style-type: none"> • The author wants to know if re-diverting freshwater in SE drains away from the sea to the southern Coorong is considered in order to reduce salinity? • The author wants to reverse damage and achieve a healthy system. 	<p><i>Key words</i> <i>Coorong</i> <i>SE drains</i> <i>Fresh water</i> <i>Salinity</i></p>
DD00024	<p>The author suggests developing a more natural water regime.</p> <ul style="list-style-type: none"> • Rather than continuously trickling water into the Lower Lakes he suggests small periodic floods timed to rejuvenate fish and bird breeding and cover acid sulfate soils. • In between small floods allow in salt water trickles. • Develop a Flooding of the River Festival and revive tourism. • The author wonders where the rain which forms through evaporation eventually falls. 	<p><i>Key words</i> <i>Natural river cycles</i> <i>Evaporation</i> <i>Flooding of the River Festival.</i> <i>Hydrological cycle (?)</i></p>
DD00025	<p>The author suggests not spending \$200m on a new sports stadium but on a pipeline to flush all Queensland's flood water down the river.</p>	<p><i>Key words</i> <i>Pipeline</i> <i>North to south</i> <i>Project funding</i></p>
DD00026	<p>The author asks that the following idea be considered:</p> <ul style="list-style-type: none"> • Locate Adelaide intake pumps at NSW/Vic/SA border because this will 'reduce systemic losses and reduce pollution from effluent and horticulture/agriculture. 	<p><i>Relocate supply pumps</i> <i>Pollution</i> <i>River system losses</i></p>

<p>DD00027</p>	<p>The authors refer to lakesneedwater.org website. The authors request a meeting for further discussion.</p> <p>PART ONE The author's submission runs contrary to the idea that a single seawater incursion cover the floor of the Lower Lakes.</p> <p>Recommend:</p> <ul style="list-style-type: none"> • Tidal flows into Lower Lakes • Scouring channel silt using modified barrage gates • Scouring eventually allows better tidal volumes • Tidal regime eventually allows (Coorong) biota to colonise. <ul style="list-style-type: none"> • Solves evaporation of fresh water • Hold fresh back for healthier wetlands but also manage an estuarine environment. • Increases inter-tidal zone feeding area for waders and benefits Ramsar • Increases marine/estuarine fish populations (Black Bream, Mulloway, Mullet (various), Flounder, Australian Salmon, Flathead, Anchovy, Marine Hardyhead, Long finned Govy, Congolli, short headed Lamprey, Galaxias, maybe King George Whiting and Garfish. • Allow complex estuarine ecology to develop for recreational and commercial fishers. • Support permanent Wellington weir. <p>PART TWO</p> <ul style="list-style-type: none"> • Proposed Regulator Clayton to Hindmarsh Island. • The authors are critical of the regulator proposal. • Propose introduction of fresh oxygenated sea water into the Goolwa Channel. • Example of WA Mandurah Peel-Harvey estuary and Dawsville Channel, citing doubled fishery and improved tourism. 	<p>PART ONE <i>Key words</i> <i>Tides, scouring, barrages, estuarine environments, fish, inter-tidal waders, Ramsar, wetlands</i> <i>Permanent weir.</i></p> <p>PART TWO <i>Clayton Hindmarsh Island regulator</i> <i>Fresh oxygenated sea water</i> <i>Mandurah</i> <i>Peel-Harvey estuary</i> <i>Dawsville Channel</i></p>
----------------	---	--

<p>DD00028</p>	<p>The author wants urgent action and objects to the distribution of the publication 'A Fresh History of the Lakes'. The author addresses aspects of the Directions for a Healthy future directly. The author submits that the planning milestones are excessively long and advocates estuarine wetlands.</p> <ul style="list-style-type: none"> • Opposes bioremediation trials, while lakebed silt is of concern now and lime and obtaining seed are time consuming and expensive and inadequate. • Author wants models and data which indicate inadequate tidal flushing in the case of sea water flooding. • Facing Climate Change suggests conserving fresh water for MDB not just Lower Lakes. • Suggests sea grasses would colonise Lower Lakes and marine fish would populate and contain tube worms. • Writes that Ramsar agreement does not prevent change • Believes Goolwa side of Barrages could become like the Coorong. <p>Gippsland Lakes sited as relevant case study.</p>	<p>Key words <i>timelines, estuarine wetlands, bioremediation, airborne dust, health, bioremediation, seed, lime, sea water, tidal flows, climate change, turbidity, sea grasses, Gippsland Lakes, Ramsar, Coorong</i></p>
<p>DD00029</p>	<p>The author submits that some of the proposals in the Directions document have already been assessed and eliminated. Urges a co-ordinated, comprehensive, robust monitoring program developed and implemented so that adaptation and resilience is understood. Current monitoring is limited to key issues and interventions. Suggests</p> <ul style="list-style-type: none"> • A list of current monitoring programs • Determine the statistical robustness of each and adjust if necessary • Identify gaps • Fill gaps • Monitoring should be independent of interventions. 	<p>Key words <i>Comprehensive monitoring programs Adaptation Resilience Ecological targets</i></p>

DD00030	<p>The author urges catching all our storm water. Suggests pipelines from North then to the Murray. Create jobs and support fresh food production.</p>	<p><i>Key words</i> <i>Pipelines</i> <i>North to south</i></p>
DD00031	<p>PART ONE</p> <ul style="list-style-type: none"> • Protect the Coorong and Lower Lakes by increasing freshwater flows and compulsory purchase. • The author is opposed to sea water flooding of the Lower Lakes. • Believes international shaming may provoke the Australian government to act to save the Coorong Lower Lakes. • Accepts that the history of the Lower Lakes has been fresh but began to be compromised with the advent of white settlement. • Accepts the evidence presented in 'A Fresh History of the Lakes'. • Suggests that the sea will close the mouth if sea water flood is allowed, and there is no significant fresh water flow. • Sea water lobby is advocates only a short term gain for boating <p>PART TWO</p> <p>Submitted a Birds Australia article (September 2008, p7 by the author)</p> <ul style="list-style-type: none"> • Concerned about Government's apparent ignoring of Ramsar site. • Author's surveys over 3 years show increasingly rapid deterioration of the environment. Coorong has lost 90% of its wetlands birds and the 'only breeding colony of Australian Pelicans has reduced by 95%' • Need actual water, sustainable communities, and vibrant economies to feed the country. • Increase environmental flows for world important ecology and tourism. 	<p><i>Key words</i> <i>PART ONE</i> <i>Freshwater</i> <i>Freshwater story</i> <i>Sea water</i> <i>Murray Mouth</i> <i>PART TWO</i> <i>Birds Australia</i> <i>Ramsar</i> <i>Survey</i> <i>Wetlands</i> <i>Wetland birds</i> <i>Australian Pelicans</i> <i>Breeding</i> <i>Marsh</i> <i>Cotton, rice</i></p>
DD00032	<p>The author describes:</p> <ul style="list-style-type: none"> • installation of Environ cycle septic tank and drip irrigation reducing demand on the Murray • Now his property will be connected to sewerage and will have footpaths installed. 	<p><i>Key words</i> <i>Home sewerage treatment</i> <i>Drip irrigation</i> <i>Rain water collection</i> <i>Tree planting</i></p>

	<ul style="list-style-type: none"> • Sewerage system means reliance on the Murray and footpaths means the elimination of many trees. • The author suggests education of MPs about depth of water crisis • Suggests Environ cycle systems and rebates for them • Suggests central water collection tanks in semi rural and rural areas and metering of storm water in private properties environ cycle in all new houses and half a brick in the cistern, free tap washers and repairs to leaking taps. • Plant more trees. 	<p><i>Government rebates Washers and leaks</i></p>
DD00033	<p>The author includes two photos of Narrung Narrows</p> <p>The author argues that:</p> <ul style="list-style-type: none"> • The Directions document should give more credence to CSIRO's Sustainable Yields Report - most comprehensive and thoroughly peer reviewed report on MD system. • Refers to the summary of key findings paraphrased into every day language as • We are experiencing very bad drought • Unlikely to occur with frequency in the future • If 1997-2006 conditions persisted end of system flows would fall by 50% • But there is the new MDBA/Water Act 2007 and a Basin Plan is in development • Directions paper heads in right direction <p>So:</p> <ul style="list-style-type: none"> • Government must safeguard water supplies on a 'no regrets' basis where it does not put in place structures or policies it cannot remove. • CSIRO does not predict a future like the present. No major infrastructure is required • Sea level rise not a major factor for 20-30 years. <p>Supports:</p> <ul style="list-style-type: none"> • A version of Management Action 18 USED • Best scientific efforts to tackle acid sulfate soils and salinity • Undertake Management Action 22 now. 	<p><i>Key words Submission refers directly to Management Action numbers 18 and 22 (in support) CSIRO sustainable yields Unprecedented drought MBDA, Water Act, Basin Plan, acid sulfate soil, salinity Infrastructure, 'no regrets'</i></p>

DD00034	<p>The author submits ideas aimed at letting the rivers flow:</p> <ul style="list-style-type: none"> • 2000l rainwater tanks connected to toilets and laundry. • All new commercial buildings to have tanks proportional to roof size. • All licensed premises. • Investigate pipeline for water from Katherine to the Darling. • Accelerate water buy back and a moratorium on rice and cotton growing 	<p>Key words <i>Rainwater harvesting, tanks</i> <i>Pipeline Katherine to Darling</i> <i>Water buy back</i> <i>Cotton, rice</i></p>
DD00035	<p>The author proposes Natural Sequence Farming developed by Peter Andrews at Tarwyn Park, Hunter Valley. Refers to book 'Beyond the Brink' by P. Andrews.</p> <p>Key ideas sited:</p> <ul style="list-style-type: none"> • 'Filter farms' on the Murray slows water and raises water table. • Plant out Lower Lakes to reduce surface area and reduce evaporation and contribute to daily water cycle. • Apply Andrew's principles to contour lines of both Lakes. • Establish islands of planting near towns on Lakes. • Vast wetlands incorporated into the Lakes would act as a vast natural weir • Engineering for the ecology. 	<p>Key Words <i>Filter farms</i> <i>Planting Lower Lakes</i> <i>Wetlands</i> <i>Engineering for ecology</i></p>
DD00036	<p>Signal Point Riverine Environment Group very keen for Murray Futures to succeed - submission based on group's local knowledge and experience.</p> <p>The submission lists a range of completed community actions:</p> <ul style="list-style-type: none"> • The Group submits that with the installation of potable water pipelines around the Lower Lakes fresh water flows to support freshwater storage and the ecology is less likely. • In addition structures on the Finniss and Currency Creeks may become permanent and mean that irrigation practices will not become better regulated. • The group urges Murray Futures staff to be advocates for environmental values • Regularly updating politicians • Taking on public concerns • Providing monitoring information and reports readily and sooner 	<p>Key words <i>Local knowledge, experience</i> <i>Long-term</i> <i>Freshwater inflows</i> <i>Environmental advocacy</i> <i>MDBA</i> <i>Monitoring</i> <i>Information sharing</i></p>

	<ul style="list-style-type: none"> • Advocating that the situation be declared an emergency • Urging the MBDA to get 'known amounts of water to the Lower Lakes' • The Group appreciates SA Water involvement and requests that all information in relation to the management of the Barrages, pools and flows to the Coorong and Goolwa estuary to be made publicly available. • Ignore local experts at your peril, and take a long term perspective to meet the new social, economic and environmental challenges. • The group wants freshwater flows and opposes sea water incursions and is sceptical that the EPBC Act can protect an integrated ecology. 	
DD00037	The author suggests major pipeline engineering and getting politicians to work cooperatively to solve the water problem.	Key words <i>Pipeline</i> <i>North to south</i>
DD00038	The author is a land owner on the Murray River: <ul style="list-style-type: none"> • His property border is a levee in disrepair, allowing large volumes of water through inundate land at shallow depths. • The rate of evaporation is high and approximate calculations for evaporation are made individually and collectively. • The author suggests preventing evaporation (with repaired levees?) 	Key words <i>River levees</i> <i>Evaporation</i>
DD00039	The submission refers directly to the map, Appendix 1, Directions doc. <ul style="list-style-type: none"> • The point is made that using different colours for different water bodies suggest lack of connectedness and implies engineering separations. 	Key words <i>Map Appendix 1 Directions Document</i>

DD00040	<p>The author contributes an article about Emeritus Professor Lance Endersbee's Clarence River Scheme.</p> <ul style="list-style-type: none"> • The proposed scheme would divert the waters of the upper Clarence and Nymboidia through to the Darling River. This is a pump storage scheme and could produce hydro electricity. • The submission writer has observed open canals, irrigation and waterways in Victoria which leak and allow evaporation. • Illustration of the consequences of his observations is provided by a photo of his 4WD on the Murray River flats at Goolwa. 	<p>Key words <i>Clarence River scheme, Major engineering, Hydro-electricity, Pump storage, Evaporation</i></p>
DD00041	<ul style="list-style-type: none"> • The author proposes permanently separating Lake Albert from Lake Alexandrina and pumping sea water into Lake Albert while retaining Alexandrina as a fresh water Lake replenished by the Currency, Finniss and Bremmer. • He proposes a solar and wind powered moderate sized desal plant to provide fresh water to farms and towns with excess freshwater used for managing Lakes salinity levels according to seasonal needs. Further excess could be injected into Adelaide's pipeline from the Murray. • Also proposed a small solar/wind desal to relieve salinity in Coorong. 	<p>Key words <i>Separating Lakes Albert from Alexandrina Salt water, Fresh water, Solar/wind desal Evaporation</i></p>
DD00042	<ul style="list-style-type: none"> • The author suggests massive engineering projects, and suggests someone draws the ideas onto a map of the Lower Lakes. • Suggests that rising sea levels make a seawater Lake Alexandrina inevitable and a different eco-system is made. <p>He suggests:</p> <ul style="list-style-type: none"> • Building a permanent weir south of Wellington with tourist features • Dig a navigable channel from weir Lake Albert with levee topped by a Marine Highway. • A second navigable channel and Marine Highway west side of Alexandrina to Clayton • A weir and lock near Clayton separates Alexandrina from north band of Hindmarsh Island and Goolwa. 	<p>Key words <i>Major engineering Navigable river channels Sea water Levees Tourism Commerce Marine Highway Evaporation</i></p>

	<ul style="list-style-type: none"> • Fill Alexandrina with sea water • Re-engineer Murray Mouth to five times current opening. • Proposed benefits include • Less fresh water evaporation • Canal housing • Improved commercial fishing and dairying • Lakes frontages become River frontages. • A project of international interest. 	
DD00043	<ul style="list-style-type: none"> • The author suggests environmental activities be extended to all waterways which feed the Lake, maximising Lake health and biodiversity. • Ensure healthy, connected ecologies to maximise resilience and mobility in challenges of climate change. • Provide funds to assist landowners in catchments and waterways to do on-ground work through GWALP • Project Officer for a Lakes and Waterways Eco-Action Project focussed on biodiversity and connectivity. 	<p>Key words <i>Biodiversity</i> <i>Connectivity</i> <i>Catchments</i> <i>Waterways</i> <i>GWALP</i> <i>Project Officer</i></p>
DD00044	<p>The submission quotes Ngarrindjeri elder Tom Trevorrow - <i>nature comes first</i>. The author argues that Occupying peoples exploit living lands and waterways and don't understand or respect the Traditional Owners. The Coorong and Lower Lakes are under illegal foreign occupation. 'Engaging with' the Traditional Owners is not enough. Ngarrindjeri welcome British foreigners but the foreigners have not Cared for Country.</p> <p>It is proposed:</p> <ul style="list-style-type: none"> • To hand the waterways back to the Traditional Owners...all along the river • Change the Australian Constitution and absorb local governments under the authority of the Federation of First Nations where boundaries reflect the Caring for Country responsibilities of First Peoples. • Not 'engagement' but 'negotiation', 'collaboration', 'partnership'. • Dismantle the Hindmarsh Bridge ... we are counting the cost of not listening to 	<p>Key Words <i>Traditional Owners</i> <i>Occupying people</i> <i>Nature first</i> <i>Negotiation, collaboration, partnership</i></p>

	<p>Traditional Owners who warned that if the Bridge were built the River would die.</p> <ul style="list-style-type: none"> • Adopt appropriate and sustainable farming methods and ensure government manage water not large private owners and brokers. • Ngarrindjeri Elders ask Australians to consider what has been taken from future generations by mismanagement and greed. Nature must come first. Peace is a healthy country, healthy water, and healthy environment. • Author suggests turning Adelaide Cup Day into annual Water Health day and get out and work together to restore the health of waterways. 	
<p>DD00045</p>	<p>Refers to www.lakesneedwater.com Similar submission to DD00028 Quotes from parts of the Directions document</p> <p>Submits that:</p> <ul style="list-style-type: none"> • Wetlands can be estuarine, • Artificially keeping freshwater in the CLLMM is at odds with climate change • Directions glosses over socio-economic impacts of not restoring (sea) water to the Lower Lakes • Bioremediation is unproven and there is no time to experiment • DD expresses an aversion to sea water and does not explain why a marine environment is 'not responsible'. Submission sites Gippsland Lakes as healthy marine environment • Increasingly difficult to maintain freshwater lakes as sea levels rise • Suggests freshwater must be conserved for the entire MDB, not just Lower Lakes 	<p>Key words <i>Estuarine wetlands</i> <i>Climate change</i> <i>Sea level rises</i> <i>Sea water lakes</i> <i>Gippsland lakes</i> <i>Bioremediation</i> <i>Freshwater water conservation</i></p>
<p>DD00046</p>	<p>The author quotes directly Section 6, page 10:</p> <ul style="list-style-type: none"> • How do we secure a healthy future? • Author expresses concern about impact on communities in the short term. The impact on communities and economies now is disastrous and workers, young people and families are forced to leave to find work. • Should conditions improve there will be a shortage of workers. • Actions of re-skilling farm and viticulture workers into land and conservation 	<p>Key words <i>Communities</i> <i>Economy</i> <i>Workers</i> <i>Families</i> <i>Young people</i> <i>Training programs</i> <i>Human impacts</i></p>

	<p>management and eco tourism. Social impacts must be resolved to rehabilitate the Basin. Social sciences must play a big part as the problems are human problems.</p> <p>Refers to Map (p21) Different colours suggest divisions. It should reflect the system as a whole.</p> <ul style="list-style-type: none"> The author sees strong partnerships and community involvement as crucial and has little faith in DEH and DWLBC to achieve partnerships and community involvement. 	<p><i>Human problems</i> <i>Map 1</i> <i>Community involvement</i> <i>Community partnership</i></p>
<p>DD00047</p>	<p>This submission addresses many details in the text of the Directions Document.</p> <p>Section 3 pp4-7 Believes:</p> <ul style="list-style-type: none"> Over-allocation issue needs resolution by Commonwealth 'Transition to a more estuarine character' statement is dangerous. Can mean people will not attend to preserve freshwater character. Meaning of 'when tidal conditions permit' needs clarification. Under Issue 1 (p4) reduced rainfall note: there have been floods in headwaters of Darling for 2 years now. Clarify meaning 'minimum necessary quantities of saltwater for the Coorong' Under socio-economic note tourism and dry land farming already impacted. <p>Section 6 p10</p> <ul style="list-style-type: none"> Author affirms shaded para 2 'the goods and services...' Core element 6 author takes issue with 'introduced herbivores' being excluded and notes that stock graze on introduced grasses which will out compete natives to the detriment of birds and animals. Complete grazing trials before acting, and note the economic benefits of grazing and land tenure issues. <p>P14 Narrung Narrows remedial work</p> <ul style="list-style-type: none"> Strongly supported for the environmental benefits. Consider Narrows as separate to Lake Albert 	<p><i>Key words.</i> <i>Over-allocation</i> <i>freshwater ecology</i> <i>socio-economic, farming, tourism</i> <i>stock, grasses, lake flats</i> <i>lake edge</i> <i>salinity,</i> <i>ecology, ecological character</i> <i>Lake Albert, Narrung Narrows</i> <i>barrages</i> <i>Gippsland Lakes</i> <i>Franklin Dam, Gordon River.</i></p>

	<p>Appendix 6</p> <ul style="list-style-type: none"> • Previous surcharge and full supply levels unnatural - too high and should not happen again causing erosion and loss of habitat and raised ground water levels detrimentally. • Narrows contain much deeper water than Lake Albert and are an environmental 'hot spot'. They must be preserved. (Text change suggested (par 4 submission)). <p>Appendix 7 pp31-32</p> <ul style="list-style-type: none"> • Considering sea water incursion into Lower Lakes • Risk of permanent soil damage to Lake's edge due to rising salinity. Notes damage in Gippsland Lakes to farm flats. • Put needs of River first then allocate water. <p>Appendix 8</p> <ul style="list-style-type: none"> • Generally supports management actions which result in increased freshwater flows to River and Lower Lakes. • Option 16 is dangerous - environmental and economic disaster. • Option 17 supported. • Option 21 If permanent regulator at Narrung then at the southern end and thus preserve the Narrows habitat. • Option 22 Supported • Option 31 Supported: Tourism economy benefits. Likely to educate visitors. Franklin Dam/Gordon River issue in Tasmania created awareness and support for the River. Similarly here. 	
DD00048	<p>Author offers to mobilise a group to build, fund and operate a desalination plant in order to provide fresh water to the Lower Lakes.</p>	<p>Key words <i>desalination plant</i> <i>freshwater</i> <i>Lower Lakes</i></p>

DD00049	<p>The author suggests:</p> <ul style="list-style-type: none"> • A lock-weir at both Mannum and Taillem bend to maintain weir pools and increase water in the Lower Lakes. 	<p><i>Key words</i> Weir Lockpools Lower Lakes</p>
DD00050	<p>The author has a property on the River and supports the work being done and the long term focus.</p> <p>The author suggests</p> <ul style="list-style-type: none"> • Supporting a Native Foods industry • Allows people to stay on their land, preserve habitat and assist the environment and economy. The author provides a reference to Dr Maarten Ryder's CSIRO research (Native Foods Association Newsletter) article on the food benefits of Portulaca. • Another paper refers to Dr Carolyn Shulz work on muntries and antioxidant benefits • Refers to author Neville Bonney 'Economic Trees and Shrubs of SA' • Recognises Aboriginal people have valuable and undervalued knowledge of native foods • Develop forestry for the Murray including endangered desert species eaten out by camels. • The author's research indicates widespread ignorance about Native Foods but suggests that schools could get involved in practical and commercial studies of Native Food plants to support the economy of the Region. 	<p><i>Key words</i> native foods economy education, school commerce Forestry Aboriginal knowledge</p>
DD00051	<p>From SAMDB NRM Board. General comment 'Directions' is not easy to read.</p> <ul style="list-style-type: none"> • Short, medium and long term need to be explicit at front (not p10). • Allow easier understanding of what needs to be done now, and in future. • 'Directions' needs to refer to other management plans, for example, Icon Site, fisheries, National Parks, LG development, describing content and relevance. • 'Directions' needs to go beyond water availability, community projects plant control to include legislative changes, best practice management controls and local government leadership. 	<p><i>Key words</i> Icon site national park water availability Community Plant control Management control Legislative change Local government Leadership</p>

	<ul style="list-style-type: none"> • Ramsar is not well represented in LG development plans. • Needs to 'cover off' on current research eg sea level rise. • LTP should list actions and timelines, not more options. <p>Particular references:</p> <ul style="list-style-type: none"> • Page 1 summary: 2 sentences appear incorrect. • Core Element 3 - lacks detail. Should say sufficient freshwater to maintain the range of salinities that support the ecological communities of the lakes and Coorong, that is freshwater, estuarine, saline, hyper-saline. • Asserted that Core Element 6 is a function of Core Element 1. • Part 2 Para 9: Indicates sentences to change and facts to correct and lack of clarity. • Part 3 suggestions for clarity and inclusions, and more up to date referencing. • Part 6 suggestions a collaborative action that could be included. • Page 10 should refer to long term community projects. • An illustrative example: suggestions changes and seeks clarifications <p>Appendices The NRM Board provides a number of detailed suggestions for word changes, inclusions, corrections and concerns over relevance.</p>	<p><i>Ramsar sea level rise salinity long term project</i></p>
DD00052	<p>This submission draws attention to subsidence of Islands/land in the Lower Lakes Region, includes letters to Malcolm Turnbull and from Karlene Maywald and a reference to a marine biology journal article (2000) 'Rapid Coastal geomorphic change in the river Murray Estuary of Australia.</p>	<p><i>Key words subsidence of land sea level rise</i></p>
DD00053	<p>Submission is headed 'A practical solution to the water crisis at Goolwa'. Illustrative map included.</p> <p>The submission involves additional barrages, gravity fed pipes, sea water incursions, a possible weir.</p> <ul style="list-style-type: none"> • A barrage at Wellington 	<p><i>Key words Barrages, weir, pipes, pump, fresh water, salt (sea) water incursion, Lake Albert, Lake Alexandrina.</i></p>

	<ul style="list-style-type: none"> • A barrage at Clayton keeps Goolwa Basin fresh • Gravity fed pipe Wellington barrage to Clayton barrage to fill Goolwa Basin • Sea water into Lakes - sea water environment • Any Murray overflow at Wellington barrage goes to Lake Alexandrina, and long term could convert Lake back to fresh. • Possible weir at Narrung and possible fresh water Lake Albert depending on fresh flow. • Stated advantages. • Navigable River • No concern about evaporation • Finnis and Currency still fresh <p>Concern: that pumping may be required</p>	
DD00054	<p>Directions is reviewed for public and environmental health impacts</p> <ul style="list-style-type: none"> • Affirms the need for integrated action in CLLMM • Affirms the six core elements and the (adaptive) management approach • Affirms Ngarrindjeri negotiation and includes quote from National Aboriginal Health Strategy 'Health to Aboriginal people is a matter of determining all aspects of their life, including control over their physical environment, of dignity, of community self esteem, and of justice...' • Strongly supports examination of socio-economic impacts as these lead to better health outcomes <p>The Directions for the Future document is supported.</p>	<p>Key words <i>public environmental health</i> <i>Aboriginal health</i> <i>socio-economic aspects and health</i> <i>integrated, adaptive management</i></p>
DD00055	<p>The author refers to the Christies Beach sewerage treatment effluent outfall.</p> <ul style="list-style-type: none"> • The suggestion is made to pipe the treated effluent to the Lower Lakes. <p>The benefits:</p> <ul style="list-style-type: none"> • Mitigate acid sulfate soils • Better outcome for Gulf sea environment. 	<p>Keywords <i>Christies Beach</i> <i>treated sewerage to Lower Lakes</i> <i>acid mitigation</i> <i>sea benefits</i></p>

<p>DD00056</p>	<p>Comments are made in relation to higher level management philosophy and targets. Comments are not specifically applied to 'Directions'.</p> <ul style="list-style-type: none"> • First check: Core Elements? • Mitigation v adaptation: mitigation during climate change may enable ecosystems to adapt - but don't adapt in ways which require on-going mitigation. • Resilience v transformation: which is most appropriate? When? What is the resilience of an ecosystem to withstand a change in environmental drivers? When to develop a trajectory to a new more appropriate ecosystem target. • Climate change v climate variability: track both evaluating expected outcomes, considering 'nested nature of system vulnerability and adaptive capacity. • Security of the most resilient components. Manage to secure the strongest components working towards the weakest. • End of system targets v a natural systems paradigm: NOT what we want it to get back to BUT what it would look like if... 	<p>Key words <i>Ecosystems environmental drivers strategies, vulnerable, adaptation Mitigation, adaptation resilience, transformation climate change, climate variability securing resilient components End of system targets, natural system paradigm</i></p>
<p>DD00057</p>	<p>SAFF general comments:</p> <ul style="list-style-type: none"> • 'Directions' needs to document stronger relationships with MDB and MDBA. • Link with the Basin Plan would give status to 'Directions' • Interstate cooperation in relation to water allocations needs discussions. • Social and economic considerations to parallel environmental. <p>Specific:</p> <p>Chap 2:</p> <ul style="list-style-type: none"> • Lack of discussion about CLLMM in relation to MDB • Expand discussion about regional communities and economies <p>Chap 6:</p> <ul style="list-style-type: none"> • SAFF supports Core Elements 	<p>Key words <i>link MBDA, MDB link Basin Plan water allocations social, economic Specific Chapter 2, Chapter 6, Chapter 6 core Element 1 Appendix 1</i></p>

	<p>BUT add:</p> <ul style="list-style-type: none"> 'Healthy Lakes and Coorong are essential for a health River'. <p>Chap 6 Core E1:</p> <ul style="list-style-type: none"> Additional action: identify indicator species for benchmarking and management plans such as ruppia. Develop actions to support indicator. <p>Appendix 8:</p> <ul style="list-style-type: none"> Action: specific water allocation for Lower Lakes and Coorong 	
DD00058	<p>The author:</p> <ul style="list-style-type: none"> Applauds limestone and grass seed distribution experiments undertaken by DEH Expects Ngarrindjeri to be deeply involved in ongoing planning and future outcomes Warns that large government documents can make public cynical Support Appendix 8 Management Action 17 assisting maintaining diversity in Coorong and flow through Murray Mouth. Make changes to natural systems as gradual as possible so they can adapt - concern about a dramatic 'slug' of sea water into Lakes. If sea water to Lake, then fresh water flows to minimise chance of hyper-salinisation 	<p>Key words <i>limestone</i> <i>seeds</i> <i>Ngarrindjeri</i> <i>Coorong</i> <i>salinity, hyper saline</i> <i>fresh water, sea water</i> <i>Lakes</i></p>
DD00059	<p>Specific comments related to 'Directions'. pp17-19</p> <ul style="list-style-type: none"> Revegetation (native) for acid sulfate soil remediation around the Lake edge. Delete 'native' Weed risk assessment, and then assess most effective remediation. Also difficult issues of provenance - what is 'native'. <p>Pp17-19</p> <ul style="list-style-type: none"> Planting/cropping of annual crop.... Perennial vegetation, including farm forestry, can minimise erosion AND perennial has greater capacity to reduce acidification and salinity and carbon 	<p>Key words <i>native plant species</i> <i>annual crops</i> <i>perennial crops</i> <i>acid sulfate soils</i> <i>wind erosion</i> <i>salinity</i> <i>carbon sequestration</i></p>

	sequestration benefits.	
DD00060	<p>The author believes Government's position is based on Sim/Muller document which author believes is flawed and discredited and CSIRO modelling which he questions.</p> <ul style="list-style-type: none"> • Asserts hard evidence of pre-settlement river and estuarine conditions. • Freshwater only is ideological and unsupported by science but built into Core Principles • Adversely influences analysis and predicted outcomes for sea water strategies • Pre-empts viable and practical alternatives • Little evidence of marine science expertise in doc and bias to fresh <p>Author recommends</p> <ul style="list-style-type: none"> • Re-assess core principles • Reconsider freshwater ideology objectively • Sea water/estuarine ecological alternative are given fair and unbiased study by suitably qualified people. <p>Low Lake levels are major unprecedented environmental and human catastrophe - further reduction in levels to be avoided at all costs. Any water is better than no water.</p>	<p>Key words <i>sea water</i> <i>fresh water</i> <i>estuarine</i> <i>history</i> <i>ideology</i></p>
DD00061	<p>Author refers to Socio Economic impacts Issue 6 p4 (p7)</p> <p>Often irreconcilable concerns expressed:</p> <ul style="list-style-type: none"> • Maintaining healthy rural communities and creating income earning opportunities • Suggests that farmers unable to make a living wage are encouraged to stay on land and receive income top up (as UK). This maintains communities, some farming output, the landscape, tourism and land care. • Seeking information from Welsh Minister for rural Affairs, Elin Jones. <p>Author advocates:</p> <ul style="list-style-type: none"> • Landowners revegetating marginal lands. 	<p>Key words <i>rural communities</i> <i>income earning, income support</i> <i>revegetation</i></p>

	<ul style="list-style-type: none"> • Provide green cover and land care. • Intact rural communities. <p>Author has been involved in successful reveg project Point Sturt.</p>	
DD00062	<p>Proposal and Brief (pp46) for A Twin Canal and Barrage Removal Proposal for the Lower Murray and Lake Alexandrina Regions. (Includes 4 colour photos and illustrative maps and zone studies, one profile sketch).</p> <p>Prepared in May 2005 and circulated to Minster Maywald and regional councils.</p> <p>The paper is offer in the hope of contributing to open public discussion and debate unrestricted by copyright or other restrictions.</p> <p>Submission notes that:</p> <ul style="list-style-type: none"> • Nature is relentless see for example Glacier Rock, victor Harbor. • Partial withdrawal from Lower Murray may be an answer • Sand dune observations indicate that Lakes region was once under sea • Compares CLLMM region with Hunter River region near Newcastle NSW • Young husband and Sir Richard Peninsulas are probably unable to be changed • Almost certain MM will close even with massive River flows • Could keep MM open with tidal flows • Suggests urgent positive and controlled actions and balanced preservation of marine and bird life with saltwater marine and bird life. <p>Author aware that his proposal provokes a range of emotions.</p> <p>The Twin Canals proposal is based on assumptions:</p> <ul style="list-style-type: none"> • MM will close without intervention • Central water body in Lake Alexandrina should be subject to saltwater tidal influence and foreshores as fresh water. • Murray River is a separate issue • Intervention will create economic returns and suggests man made Gippsland 	<p>Key words <i>twin canals, navigable canals, barrages. Lake shores, fresh water, sea water. Lake Alexandrina, Lake Albert, Coorong, Murray Mouth, Murray River tourism, fishing, birds Gippsland Lakes Murray Mouth, inflows, outflows, tides</i></p>

	<p>Lakes Entrance as a parallel case study.</p> <p>P15 of the proposal:</p> <ul style="list-style-type: none"> • '...a twin system of canals with causeways and levees would divert some of the current flow at Wellington to the Mouth without the current major evaporation losses of 300GL pa in transit through Lake Alexandrina. This twin canal system would comprise East and West canals. The Easter canal would pass into Lake Albert with a controlled outlet and lock system at Narrung with a feeder canal into the Coorong just east of Boundary Bluff. The Western canal would traverse the western side of Lake Alexandrina and feed into the lower Murray channel at Dunns Lagoon at Clayton. Removal of the major barrages, except that of the Goolwa barrage, along with the construction of several smaller ones for river control, would form part of the project. • All the aspects of the projects are then described in detail and supported with the illustrative maps and the profile sketch. • Page 27 contains an overview • Pp28-29 contains a description of 'The Canals boating tourism route'. The proposal also includes a freshwater and saltwater fishing option. 	
DD00063	<p>This submission is a close reading of the 'Directions' document. There are numerous suggested changes for consideration to sentences</p> <ul style="list-style-type: none"> • Seeking authoritative references to facts. • Questioning factual accuracy in parts. • Providing some additional details and information. • Affirming many aspects of 'Directions'. 	<p>Key words <i>Accuracy, references sought, additional details for consideration</i></p>
DD00065	<p>Greatest challenge author sees is WATER.</p> <ul style="list-style-type: none"> • Be prepared to have stop gap measures and to be innovative. • Author submitted a map 'Lake division (4) proposal'. See p2 submission <p>Proposal</p> <ul style="list-style-type: none"> • Prevents soil acidification • Prevents hyper salinity via flushing 	<p>Key words <i>Divide Lake Alexandrina Use combination of fresh and sea water Lake Alexandrina, salinity, acid sulfate soils, flushing</i></p>

	<ul style="list-style-type: none"> Retains ecology of some Lake parts. <p>Proposal</p> <ul style="list-style-type: none"> Plastic road divider barriers (4) inside Lake. Creates 4 lake divisions The submission briefly describes and illustrates a system of flushing and filling the 4 divisions. 	
DD00066	<p>Detailed submission entitled 'Ideas to help solve many of South Australia's major water shortage problems'. Originally sent to Minister Maywald 31/08/08</p> <p>Coorong</p> <ul style="list-style-type: none"> To rectify Coorong salination requires about 500GL pa to Murray, plus large volumes to Lake Alexandrina <p>This is not available so:</p> <ul style="list-style-type: none"> Provide uni-directional fresh sea water tidal flows to Coorong using pipes from the Coorong, under sand hills to the sea. Locate near southern and northern ends of Coorong Sea water enters at northern end and extremely salty water out at southern end. Requires a barrage at Murray Mouth with lock facilitating shipping, flows and flushing and avoids dredging Requires a barrage/lock across the Coorong Small scale examples of uni directions sea water controlled tide level controlled systems at West Lakes and Encounter Lakes. Coorong becomes an ecological haven and a commercial and recreational fishing area. <p>Lake Albert and Lake Alexandrina</p> <p>Considers options but favours:</p> <ul style="list-style-type: none"> A weir with lock near Wellington and decrease the Lakes surface by building dykes to excise the shallowest parts. Some land then available for agriculture, and some parts evaporation pans to get rid of acidic and saline water. Suggests a system to mitigating acid sulfate soils associated with the proposal. Other large scale engineering suggestions are made. 	<p>Key words <i>sea water, uni directional, salinity barrages, lock, pipes flows, flushing, dredging Lake Alexandrina, Coorong, Murray Mouth acid sulfate soil, mitigation</i></p>

	<ul style="list-style-type: none"> • Author recognises his proposals as radical - unconventional solutions are probably necessary. 	
DD00067	<ul style="list-style-type: none"> • The submission suggests that given heavy northern rains, possibly increased due to climate change, there is the possibility of diverting water to tributaries of the Darling. This would require two dams (one in Queensland), channels, tunnels and levees constructed so as to minimise evaporation. • Prudent irrigation is OK but Australia needs to overcome parochialism and self-interest in water allocation and avoid rice and cotton production. • A further suggestion is made to power a desalination plant by wind and wave energy. 	<p>Key words <i>North pipeline to Darling tributaries dam, channel, levee</i> <i>Water allocation</i> <i>Desalination, wind and wave</i></p>
DD00068	<ul style="list-style-type: none"> • Submission 6pp • Previous submission: 'A proposal to create permanent structures at the mouth of the River Murray' 5pp • Appendix 1 'Chronology of the history of River Murray Mouth' 4pp • Journal Article: 'Modelling of Gold Coast Seaway tidal inlet, Australia', Journal of Coastal Research, Special Issue no 50, 2007 pp1086-1091. • Government of Western Australia, Department of Planning and Infrastructure, Technical report 446, July 2006 • 'Review of Sand Bypassing at Dawsville and Mandurah: coastal engineering investigation'.34pp • Wikipedia 'Dawsville Channel' 4pp. Accessed on line 30/05/2009 <p>Salinity, Acidification and the big picture</p> <ul style="list-style-type: none"> • Lower Lakes suffer from high levels of salinity, now overtaken by acid sulfate soils • revegetation and liming are insufficient to halt acidification at Currency and Finnis • Temporary regulators are too late and may need to be permanent • National re-engineering of Murray necessary to remove illegal dams and create fair systems • Time for MDBA to reassess possible northern river diversions into Murray • Solve problems by health freshwater flow. <p>Murray Mouth</p>	<p>Key words <i>Permanent structures at the mouth boating, tourism, business, economic opportunities</i> <i>Breakwater, construction, permanent, dredging</i> <i>Tourism, facilities, boat, boating, ramp, economic, business, jetty, jetties, wharf, islands, crane pad</i> <i>Journal references, article, chronology Dawsville, Mandurah, Tweed, Gold Coast Seaway</i> <i>salinity, acidification, acid sulfate soil, revegetation, liming</i> <i>fresh sea water, freshwater, sea level rise, MBDA, DWLBC</i> <i>fish, birds,</i> <i>proposed temporary weir Pomanda, Taillem Bend, lock</i> <i>timelines, submission</i></p>

- Reference to previous proposal detailing establishment of a permanent opening for the MM
 - Proposal based on long and continuing research.
 - Two Australian projects carried out - Dawsville Cut (WA) and Gold Coast Seaway (QLD)
 - The two journal articles are noted here.
 - Concern that flood would undermine MM permanent structures - but problem overcome at other sites by engineering. Expand width of channel for flood to reduce flow speed.
 - Second mouth near Tauwitchere highly unlikely.
 - Increased water turnover will improve fish stocks and bird life.
 - Stabilisation of MM through engineering suggested believed to be cheaper than on going dredging and will manage sea water level rise.
 - Critical of data used in previous government assessments and ask for more detailed analysis.
- Pomanda Island Weir**
- Suggest permanent lock downstream from Taillem Bend and not proposed temporary weir Pomanda
 - Permanent lock provides management solution to increasing sea level rise.
 - Site for solid bottom in deep water exists.
 - Would provide a permanent solution to water security.
- Goolwa Lock**
- Improve Goolwa lock by installing waiting jetties and automate using a card system to save labour costs and expand the lock service.
 - Beacons
 - DTI infrastructure excellent, but should be expended to go through to Wellington.
 - New charts required when Narrows re-open for access to Lake Albert.
 - Increased boating safety and disperse boat operations along the River.
- Mundoo Channel Boat Ramp**
- Upgrade boat ramp and parking. Underground cables to allow easier on land yacht movement, redesign entire area and allow boat access to deeper water.
 - Ramp upgrade down from Goolwa barrage no 19. Provide lighting and expand ramp capacity.

<ul style="list-style-type: none"> • Consider additional ramp at Nth Goolwa • Consider additional ramp eastern end Hindmarsh Island on declared but unopened roads at Randall Road. • This would facilitate rescue services, access for recreational users and commercial fishers access. • Urgent need given construction of Clayton regulator. • Consider additional ramp at Dunn's Lagoon Duck's Hospital for same purposes. • Consider additional other ramps unspecified. <p>Goolwa effluent pump out station</p> <ul style="list-style-type: none"> • Currently non operational due to low water. Upgrade to suit wider range of boat types and at least two discharges at once. <p>Destination jetties</p> <ul style="list-style-type: none"> • Consider destination jetty, with toilets, camp fire area, and other facilities Goolwa channel adjacent to MM on Sir Richard Peninsula • Consider destination jetty Hindmarsh Island between Laffin's Point and Clayton • And other jetties to provide convenient facilities to enhance reputation for cruising boat owners. <p>Small Islands</p> <ul style="list-style-type: none"> • Construct several small islands on Hindmarsh island side of Goolwa channel upstream of Narnu Bay as beaching facilities for wind surfers, canoeists, Jet Ski operators and skiers as provided overseas. • Goolwa Wharf • At southern end lack of safety. Dig out sawn off piles and dig out to provide a protected area for small boats tying up. <p>Amenities at Goolwa Wharf</p> <ul style="list-style-type: none"> • Provide showers south end <p>Crane Pad</p> <ul style="list-style-type: none"> • Provide a crane pad to lift boats over the Clayton regulator. Include a small capacity pad on temporary weir Pomanda if constructed to improve boat movements up and down River. <p>Milang Boat Harbor</p> <ul style="list-style-type: none"> • Consider building now. Low water levels will reduce cost. Economic benefits for Milang. Include effluent pump out. 	
---	--

- Submission writer indicate short time frame for submissions diminishes quality
- Contend that social and economic need to be properly balanced with environmental
- to have a plan arbitrarily foisted upon the community is doomed to fail
- Inadequate timelines mean planning for sustainable development not done justice.

Summary

- 'A proposal to create permanent structures at the mouth of the River Murray' (Final Version, 7 April 2009)
- Discusses benefits of building breakwaters as part of the long-term strategies (LTP).
- Dredging is inadequate, expensive and short term.
- Argues a permanent entrance breakwater can save Coorong.
- Background and history (2pp)
- Permanent Murray Mouth structures.
- Since 1890s decreasing mouth flows lead to first sanding over in 1981.
- Consequently less fresh and tidal water pushed into Coorong with environmental consequences.
- Proposal Construction of two breakwaters and a pumping system to allow sand to pass under the channel between the breakwaters DWLBC Lawson and Treloar (2004) provided a range of costed schemes
- sand bypass systems successful at Tweed River (NSW) and Gold Coast Seaway (Qld)
- The economics of permanent engineering solution now favourable.
- Lawson and Treloar identify 6 environmental impacts.
- SABA identifies environmental benefits - fresh seawater moving in and out of the MM - pulses water into the Coorong.
- Improved fish spawning and reduced tidal flat area
- Economic advantages are reduction in annual running costs; increase in fishing stocks and birds; safe boat access creates business opportunities; increased tourism
- Breakwaters will manage sea level rise
- Further issues need to be considered.
- Conclusions and recommendations

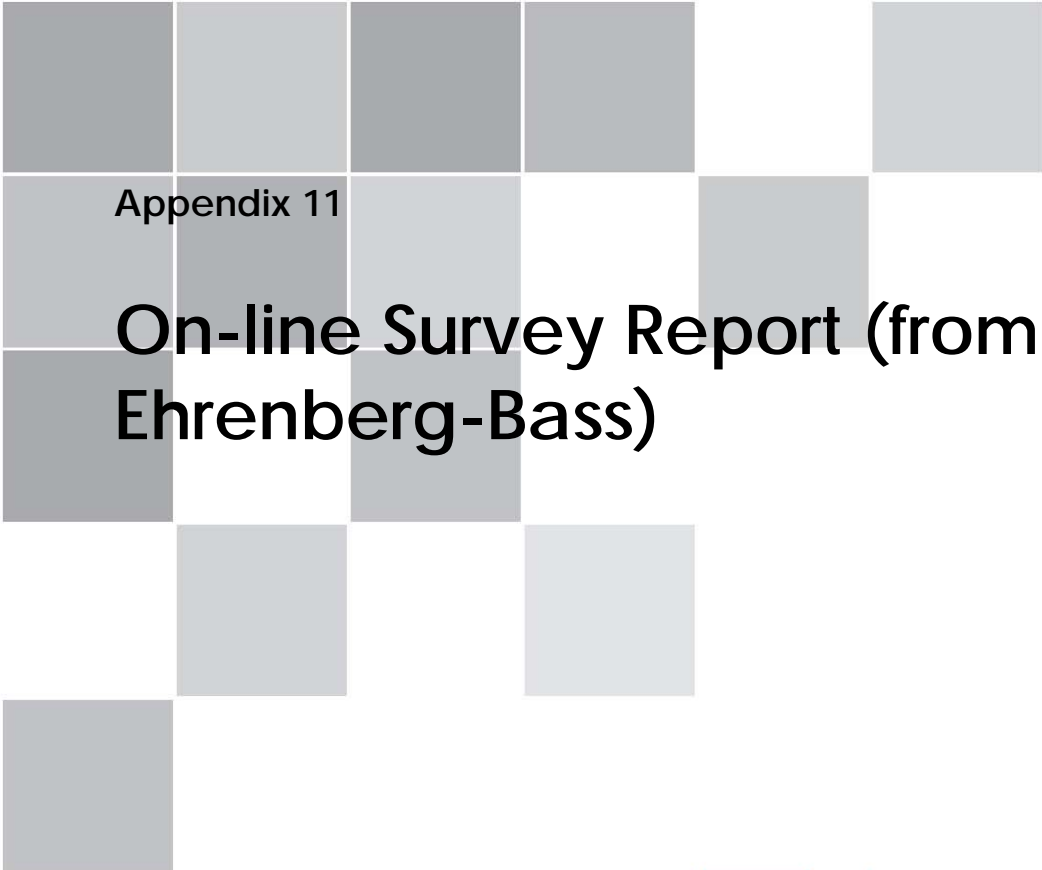
	<ul style="list-style-type: none">• a permanent solution• other projects will succeed• environmentally and financially responsible• improve rating as a Ramsar site• restore Aboriginal connections with the Lakes and Coorong• considered the most important for consideration in restoration of CLLMM	
--	--	--

DD00069	<ul style="list-style-type: none"> • The author suggests that a path be dredged through the Lake bed so that the Murray can flow as a River through the Lake bed. • This would benefit wildlife and reduce evaporation. The remaining lake bed could be vegetated and in no-flood periods used as parks and for camping. 	<p><i>Key words</i> <i>Lakes</i> <i>River path</i> <i>(re)vegetation</i> <i>wildlife</i> <i>parks, camping</i></p>
DD00070	<p>The author submits</p> <ul style="list-style-type: none"> • There was a lack of time to respond • Recovery projects will determine people's livelihood in the region • Business requires a sustained and improving outcome • Lack of water is causing business distress. • Salinity and tube worms have significant impacts • Many businesses are only partially operating • If Clayton regulator doesn't commence, the Goolwa barrages may not be viable. Sea water will enter. • Happy to discuss further 	<p><i>Key words</i> <i>consultation</i> <i>economy, business</i> <i>Clayton regulator, barrages</i> <i>salinity, tube worms</i> <i>sea water</i></p>
DD00071	<p>The author:</p> <ul style="list-style-type: none"> • Agrees to most of core elements, except 6 because opposed to pooling sea water to saturate soils • Suggests control pest plants and rabbits • Responses to Appendix 8 Management Actions: <p>1 - ? 2. - 9. - Yes 10 EC units will rise if sea water comes in Goolwa Channel 11. & 12. - No 13 No - let Lake Albert revegetate naturally 14. -15. - No 16 Allow natural grasses, reeds and native vegetation 17. No 18. Yes to Upper SE Drainage water and notes presence of natural springs in Coorong which flow at some times of the year.</p>	<p><i>Key idea</i> <i>A brief response is given to each Management Action (Appendix 8)</i></p> <p><i>Key words (in addition to above)</i> <i>fence, land owner, rabbits, pest plants, revegetation, native plants</i> <i>housing</i> <i>erosion, lake edge</i></p>

	<p>19 if there is enough water to go through the Barrages. 20 Yes to fish passages 21 Maybe yes 22 Yes 23 Construct artificial islands in Lake Alexandrine and edge with limestone to prevent erosion 24 No - too expensive 25 Could be feasible if inadequate River flows 26 Definitely NO to canal housing 27. - 30. - No 31 No to increase barrage height and tourist drive</p> <ul style="list-style-type: none"> • Allow land owners around both Lakes to reclaim and fence land • Do not allow more housing developments in the water shed of the Adelaide Hills. • Address erosion of Lake banks. 	
DD00072	<ul style="list-style-type: none"> • Leisure, tourism, recreation sectors, mostly small business, especially below Lock 1, are suffering enormously. • BIASA a stakeholder in Australian Marine Industries Federation and AMIF is a member of the International Council of Marine Industry Associations. • The interests of BIASA members are listed in detail. • BIASA and affiliates believe existing drought and over allocation have wide ranging negative impacts on natural environment and on the lives and livelihoods of people in CLLMM <p>BIASA writes equally on behalf of members, the SA community - boating and marine operators; plus on water/close to water pursuits tourism, recreational and leisure; the natural environment:</p> <ul style="list-style-type: none"> • Objective to improve the sustainability of recreational and light commercial boating industry in SA. • BIASA has constructive relationships with at least 17 listed organisations and provides policy advice and consulting to many listed organisations. • There are millions of dollars of excellent boating facilities in the CLLMM region and 	<p>Key words <i>Breakwater, construction, permanent, dredging tourism, facilities, boat, boating, ramp, economic, business, jetty, jetties, wharf, islands, crane pad journal references, article, chronology Dawsville, Mandurah, Tweed, Gold Coast Seaway salinity, acidification, acid sulfate soil, revegetation, liming fresh sea water, freshwater, sea level rise, MBDA, DWLBC fish, birds, proposed temporary weir Pomanda, Taillem Bend, lock timelines, submission</i></p>

	<p>SA generally is estimated to contribute 11% of the value of economic activity of the marine industry (\$38b 2006/07).</p> <ul style="list-style-type: none"> • We need replenishment of water stocks now for the environment and for the community. <p>The submission lists a significant number of social and economic impacts indicating that things have never been worse.</p> <p>The long term solution is re-allocation of water extraction for the whole M-DB.</p> <ul style="list-style-type: none"> • BIASA support the SABA idea of permanent opening for the MM contained in submission no.DD000 68 • BIASA supports improved operation of the Goolwa lock, jetties and automated lock chamber. • Supports extension of DTI beacons program through to Wellington and up-graded charts. <p>And following SABA (DD00068) proposes</p> <ul style="list-style-type: none"> • Mundoo Channel Board Ramp • Goolwa waste disposal redevelopment • Various destination jetties • Improved southern end of Goolwa wharf and amenities completion. • Crane pads at Clayton and if built on temporary weir Pomanda • Construction of a small boat harbour at Milang. 	
DD00073	<p>The author submits the following:</p> <ul style="list-style-type: none"> • reverse the flow of SE Drainage system so that water flows into the Coorong via Salt Creek • Construct pipe inlet system from sea to south Coorong eg West Lakes • construct a channel to link Coorong and Lake Albert at narrowest point with lock included • Remove Narrung levee • Flood Lower Lakes with sea water. • Benefits • Coorong restored with higher water at south end 	<p>Key words SE drains Coorong, south Coorong, Narrung pipe inlet, channel sea water flood fish, tourism</p>

	<ul style="list-style-type: none"> • Channel will increase tourism due to fish and connection of Lake Albert and Coorong. • Return of good freshwater flows remains an advantage. 	
DD00074	<ul style="list-style-type: none"> • Map provided • The author submits that huge water flows down River are unlikely • Cut size of LL to reduce evaporation. • Create islands and peninsulas and improve the quality of remaining area as land. • A wide range of uses for reclaimed land are suggested. • Could have environmental social and economic benefits. • Could improve SA standing with other states. 	<p><i>Land reclamation in Lower Lakes evaporation engineering, islands, peninsulas social, environmental, economic</i></p>
DD00074	<ul style="list-style-type: none"> • The submission is in the form of a letter (1p), reproduced newspaper articles (14p), and reproduced map (2p). • The newspaper text, mostly dated to 1926, discusses a proposal made at that time to cut a canal from the southern end of the Coorong through to Lacepede Bay. (variations are also discussed). The Canal would become a Murray River shipping lane through to the safe port of Lacepede Bay. This would have resolved what was considered a significant problem of the time - that of a navigable river terminating at a commercial port providing cheaper access for south eastern Australian goods to reach international markets. • The author wonders whether the Murray at times has vented at Kingston. • Mr Goode's letter concludes: • 'Whilst I am not proposing that this project should be enacted, I do think that the information should be considered as evidence as to what was considered at the beginning of the century'. 	<p><i>The historical record is noted.</i></p>



Appendix 11

On-line Survey Report (from Ehrenberg-Bass)



Ehrenberg-Bass
Institute for Marketing Science



Prepared for:

Janet Pryor & CLLMM Project Team
Coorong, Lower Lakes & Murray Mouth
Projects
Department for Environment & Heritage

Prepared by:

Dr Anne Sharp
Senior Research Associate
Anne.Sharp@MarketingScience.info

Katherine Anderson
Research Associate
Katherine.Anderson@MarketingScience.info

Date of Issue: June 2009

Summary of Findings

Overview of Research

This report details key findings from the first two stages of a three-stage community consultation undertaken by the Ehrenberg-Bass Institute on behalf of the Department for Environment and Heritage (DEH). The purpose of this consultation was to engage the community in the development of a long-term plan for the Coorong, Lower Lakes and Murray Mouth (CLLMM) region. It was designed as a means for the community to have input into the plan and give feedback on the document 'Directions for a healthy future' which will inform the preliminary version of the long-term plan.

Broadly speaking the consultation and research objectives were to:

- Gauge the level of awareness and knowledge of the plan amongst the community and identified stakeholder groups.
- Measure community and stakeholder group support for the development of a long-term plan.
- Gather feedback from the community and stakeholders regarding the 'Directions' document and the issues covered in it.
- Gather feedback on the community engagement activities for the development of the plan.

The consultation survey was publicised widely by the DEH and featured on the Murray Futures website. Anyone could participate in the survey through the link on the Murray Futures website. In addition, 831 project stakeholders were also directly emailed and invited to participate in the survey. These 'stakeholders' were people who had identified themselves as interested in the CLLMM project and subscribed to receive updates from the DEH on projects relating to the CLLMM area. This report details the findings from both these 'Web' and 'Stakeholder' groups of respondents. All results are reported by responded group to enable the reader to understand when and how the groups differed in their responses and facilitate the comparison of these results with the previous report on this community consultation.

Important context is that this survey was an exercise in community engagement with identified stakeholders and respondents who were prepared to make effort to 'opt in'. As such, the people who chose to participate may not be representative of the broader community. The stakeholder group consisted of people who had registered to stay informed by DEH and therefore can be expected to be more knowledgeable, opinionated, and engaged in issues relating to the plan/region than the wider public. Similarly, the web participants who sought out the survey on the Murray Futures website and self-selected themselves to participate because of an interest in the CLLMM plan/region are also likely to be different from the wider community.

Methodology

The online survey was developed and managed by the Ehrenberg-Bass Institute. It was designed to be accessible to all, regardless of their level of knowledge of the 'Directions' document and was rich in information, which was provided on demand via pop-ups. The survey was structured so that participants could choose which aspects of the 'Directions' document they wanted to give feedback on and how much information they wanted to read. As this was an exercise in community engagement, people were able to respond to as much or little of the survey as they wished. Very few participants completed all components of the survey but the structure of the survey ensured that lots of valuable information was still captured.

Number of participants: 236 (63 stakeholders, 173 website)

Average time: 10 minutes

Survey period: 12th/14th May to 24th / 29th May 2009

People could participate in two ways.

Stakeholders

831 people who had subscribed to receive updates from the DEH on the CLLMM project were emailed by the Institute and invited to participate in the survey. 63 people chose to do so.

Website

Members of the public could also participate in the survey by going to the Murray Futures website and clicking on the link and 173 chose to do so. This option was widely publicised by DEH.

The timing of the survey coincided with the public release of the 'Directions' document. The pilot group of stakeholders was invited to participate in the survey from Tuesday the 12th of May. The remaining stakeholders were invited on the Thursday the 14th of May and the link on the website was activated on the same day. Stakeholders were asked to respond by Friday 24th of May and the survey was available through the website until the end of the official consultation period on Friday 29th of May.

Findings

Awareness & knowledge

Respondents reported quite high levels of awareness and knowledge of the plan.

- Seven in 10 respondents were aware of the long-term plan being developed for the CLLMM by the South Australian Government. Amongst stakeholder participants, awareness of the plan was very high (95% claiming awareness).
- Six in 10 respondents indicated they had seen a copy of 'Directions for a healthy future' document, prior to starting the survey. Downloading a copy online was the most common method of obtaining a copy of the document.
- About four in 10 respondents indicated they had read 'Directions for a healthy future'. Results differed between participant groups, a third of the website participants had read the document whilst two-thirds of stakeholders indicated they had done so.

Generally speaking, the stakeholder participants were more involved, knowledgeable and engaged than the web participants. This was to be expected given many stakeholders had both a personal and professional interest in the issues.

Community engagement activities

Respondents were also asked about their level of participation in the other community engagement activities for the CLLMM long-term plan.

About one in 10 respondents indicated they had attended a Community Event and about one in 10 respondents indicated they had visited a Community Display. These are higher levels of engagement than those typically seen for engagement amongst the general public. Fewer respondents claimed to have visited a listening post (7%) or made a written submission (4%). A significant proportion of respondents indicated they intended to attend a Community Event (20%), visit a Community Display (25%) or make a written submission (32%), reflecting strong interest in participating in consultation on the issues.

The survey also gathered feedback as to why people chose not to participate in the various community engagement activities. Across all of the community engagement activities, the most commonly cited reason for not participating was 'lack of time'. Some respondents commented they did not feel the need to participate in a particular activity because they had access to other forms of information or could engage with the plan in other ways. Some respondents felt that community engagement was not necessary or that there was no point in participating (n<9). Very few of the reasons given for not participating were related to a lack of awareness of the event or location access difficulties.

A number of respondents indicated they had not participated in any of the other community activities for the plan, demonstrating that the online survey captured views from people who would not otherwise have engaged with the planning consultation process.

Community support for a plan

There was a high level of community support for the development of a long-term plan for the CLLMM region. Almost everyone (97%) who responded (n=166) felt that a long-term plan for the region is needed. The mean, or average rating of how much a plan was needed was also very high, 9.4 out of 10, where 10 was 'absolutely essential'.

Respondents who were local to the CLLMM region were slightly more positive about the need for a plan, giving higher ratings for the need for a plan, but overall just as many non-locals felt that a long-term plan for the region is needed.

About half of the respondents (n=82) felt that the planning process would be worthwhile, based on what they had read in the survey about the preliminary document 'Directions for a healthy future'. The mean, or average rating for whether the planning process would be worthwhile was 5.7 out of 10, where 10 was 'Absolutely worthwhile' and 0 was 'Not at all worthwhile'. These results suggest there is diversity in the community as to perceptions of whether the planning process will be worthwhile and there is scope to build community confidence in the benefits of developing a long-term plan for the region.

Directions for a Healthy Future

About half of the respondents were supportive of 'Directions for a healthy future'. 51% of respondents were supportive of the document, giving a score of between six and 10. Almost a third of respondents (28%) indicated they were unsupportive of the document and two in five gave a neutral response or were unsure.

Respondents who chose to participate in the survey via the website (and had read the plan) were less supportive of the document than stakeholders. The mean rating of support for the document was lower amongst website participants than stakeholder participants (5.3 v 6.1 out of 10).

The reasons respondents gave for being supportive/unsupportive of the 'Directions' document varied widely, but with several key themes emerging. Some respondents were supportive of the document and felt it represented a step in the right direction whilst others were more cautious in their support and indicated they thought 'the devil would be in the details'. Some respondents felt that the Government was not doing enough to secure water for the Lakes from upstream and action should have been taken sooner. Some respondents felt that the 'Directions' document was too focused on long-term solutions and expressed concern that actions were being considered in isolation. A few respondents saw the document as 'more talk' and expressed concerns that it does not outline timelines or actions. A few respondents felt that the document was too focused on the scientific knowledge and showed *'little insight to the issues facing individuals on the ground'* or the social and economic issues. A few respondents expressed concern about particular issues like the impact of sea level rise, acid sulfate soils, or possible solutions (like sea water). Some respondents also commented on the community engagement, both positively and negatively.

Structured feedback

The survey also gathered feedback on each of the sections of 'Directions for a healthy future'. Respondents could choose which of the sections they wanted to give feedback on. Approximately 60 respondents chose to give feedback on each of the five areas.

Goal

- Respondents were generally very supportive of the goal of 'securing a future for the Coorong, Lower Lakes and Murray Mouth region as a healthy, productive and resilient wetland of international importance'. Of the 62 respondents, 95% gave a supportive rating of the goal.
- Nine out of 10 respondents agreed that the primary focus of the long-term plan ought to be ensuring a healthy future for the region's environment.

'What is at stake?'

- Broadly speaking the values outlined in the section 'What is at stake' reflects what the community values about the region.
- Three quarters of respondents gave a supportive rating to the section 'What is at stake'. Respondents who were local to the CLLMM region were slightly less supportive of this section than respondents who were not local.

'What are the problems and management challenges?'

- Most respondents agreed that the six identified issues ought to be the priority. Six in 10 respondents agreed that these issues are the ones that need to be addressed as a priority. Additionally, another two in 10 agreed with the issues but felt other issues must also be addressed. Approximately one in 10 respondents felt that the priority issues ought to be different.

'How do we secure a healthy future?'

- Respondents were quite supportive of the Core Elements approach. Three-quarters of the 66 people who responded rated the Core Elements approach positively. The mean or average rating of agreement with the approach was also quite high at 7.5 out of 10.
- In regards to the six proposed Core Elements, slightly more than a third of respondents felt they encompassed everything that ought to be considered when planning for the future management of the region. Slightly less than a third of respondents (26%), whilst supporting the proposed Core Elements, thought something else ought to be included.
- The majority of respondents felt that incorporating the 'Core Elements' into the future management of the region would achieve the goal and ensure a healthy, productive, resilient wetland.

An area of interest was whether the attitudes of respondents local to the CLLMM region differed to those of metropolitan Adelaide-based respondents. Across almost all questions, the responses of locals were similar to those of respondents that were not local to the CLLMM region. For only a few questions (need for a long term plan, values and support for 'what is at stake)' was a difference between the responses of local and non-local respondents evident. These differences were quite small and are reported herein.

The next stage of community consultation has a research rather than engagement focus will seek to gain a cross-section of the CLLMM community to gather feedback on the preliminary long-term plan community concerns and the communications and engagement strategy for the project.

TABLE OF CONTENTS

INTRODUCTION	3
Objectives.....	3
Methodology & Sampling	4
Interpreting Results.....	6
FINDINGS	6
Awareness of the Plan	6
Engagement with the planning process.....	8
Awareness of current projects.....	17
Community support for a plan	18
Feedback on 'Directions for a healthy future'	23
Goal	27
Primary focus: the environment	28
What is at stake?.....	29
What are the problems & management challenges?.....	35
How do we secure a healthy future?.....	37
Community engagement in implementation projects	41

LIST OF TABLES

Table 1: Survey participation by section	5
Table 2: Awareness of the long-term Plan	6
Table 3: Seen/ have a copy of 'Directions for a healthy future'	7
Table 4: Read 'Directions for a healthy future'	8
Table 5: Community Events	9
Table 6: Community Displays	10
Table 7: Community listening posts	11
Table 8: Written feedback	12
Table 9: Enough opportunities for the community to have input into the long-term Plan	13
Table 10: Awareness of projects currently underway	17
Table 11: Community attitudes regarding the need for a long-term plan	18
Table 12: Community attitudes regarding the need for a long-term plan (local)	19
Table 13: Community perceptions of whether the planning process will be worthwhile	20
Table 14: Community perceptions of whether this planning will result in benefits for the environment	21
Table 15: Community perceptions of whether this planning will result in benefits to the community	22
Table 16: Community support for the 'Directions for a healthy future' document	23
Table 17: Community support for the goal of 'securing a future for the CLLMM as a healthy, productive and resilient wetland of international importance'	27
Table 18: Community support for making the region's environment the primary focus of the plan	28
Table 19: Community support for 'What is at stake'	29
Table 20: Community support for 'What is at stake' (local)	30
Table 21: What the community values about the CLLMM region	31
Table 22: What the community values about the CLLMM region (Local)	33
Table 23: Community agreement that the 6 identified issues should be the priority	35
Table 24: Agreement with the 'Core Elements' approach	37
Table 25: Core Elements: encompass everything any solution must consider	39
Table 26: Community perceptions of whether the 'Core Elements' will ensure a healthy, productive, resilient wetland	40
Table 27: Interest in being involved in implementation projects	41

INTRODUCTION

Objectives

The overall purpose of this consultation was to engage the community in the development of a long-term plan for the Coorong, Lower Lakes and Murray Mouth region (CLLMM). This report details the first step of the engagement and research process, which was to survey identified stakeholders to gain input into the long-term plan currently being developed by DEH and give feedback on the document 'The Coorong, Lower Lakes and Murray Mouth: Directions for a Healthy Future'. This online survey coincided with the first public consultation period in May 2009 and will inform the preliminary long-term Plan to be released in July 2009. The online survey complemented the other community engagement activities for the development of the long-term Plan and DEH's Community Engagement Strategy for the project.

Broadly speaking the consultation and research objectives were:

Awareness & knowledge of the long-term plan

- Measure the community's awareness and knowledge of the long-term plan being developed for the CLLMM region.

Community engagement activities

- Gather feedback on the community engagement activities- awareness, participation and ideas for other ways to involve the community.

Community support for a long-term plan

- Gauge the level of support for the development of a long-term plan for the region by the Government of South Australia.
- Measure community perceptions of (a) whether a plan is needed and (b) if it will be beneficial.

Feedback on the Directions document

- Gather feedback from the community on the preliminary document 'The Coorong, Lower Lakes and Murray Mouth: Directions for a Healthy Future'.
 - Community support for the goal and making the environment the priority.
 - What does the community value about the CLLMM region? What are their concerns?
 - Does the community see the problems and management challenges the same way?
 - Does the community support the approach of developing 'Core Elements' and elements themselves?

An online survey was developed by the Institute in consultation with the DEH CLLMM Project Team to meet these objectives.

Methodology & Sampling

This report details some of the findings from community consultation for the development of a long-term plan for the Coorong, Lower Lakes and Murray Mouth (CLLMM). More than 220 people participated in the online survey, the results of which are report herein.

Number of participants: 237 (63 stakeholder & 173 web)

Average time: 10 minutes

Survey period: 12th/14th May to 24th / 29th May 2009

People could participate in the survey in two ways.

Stakeholder

831 people who had subscribed to receive updates from DEH on the Coorong, Lower Lakes and Murray Mouth project were emailed by the Institute and invited to participate in the survey. 63 of these 'stakeholders' chose to participate in the survey, meaning a response rate of 8% was achieved for this option (once bounce backs are accounted for).

Web

Members of the public could also participate in the survey through a link on the Murray Futures website and 173 people chose to do so. This option was widely publicised by DEH.

The timing of the survey coincided with the public release of the Directions document. The pilot group of stakeholders (142 stakeholders) were invited to participate in the survey from Tuesday the 12th of May. The remaining stakeholders were invited on the Thursday the 14th of May and the link on the website was activated on the same day. Stakeholders were asked to respond by Friday 24th of May and the survey was available through the website until the end of the official consultation period on Friday 29th of May.

The online survey was developed and managed by the Ehrenberg-Bass Institute and is included the appendices of this report. The online survey was designed to be accessible to all, regardless of their level of knowledge of the Directions document. The survey included links to the Directions document, summaries of the sections and links to more information about aspects of the plan. The survey was structured so that participants could choose which aspects of the Directions document they wanted to give feedback and how much information they wanted to read. Respondents were also able to save the survey part way through and return later to complete it. The survey included both closed questions where respondents chose from a number of options (yes/no, scales etc) and open-ended questions where they could write comments. This survey had been designed to provide mostly quantitative data, but the way respondents chose to use the survey resulted in a lot of qualitative data.

As this was an exercise in community engagement, people were able to respond to only the survey components they wished. Respondents could select which sections of the Directions document they wanted to give feedback on and which questions they answered, and could exit the survey at any time. How much of the survey participants completed varied substantially, with many participants choosing not to complete all questions. Some of the stakeholders who had already read the Directions document chose to provide a lot of detailed written feedback in the first few questions and chose not to continue onto the more structured part of the survey.

The number of respondents for each section of the survey is reported in Table 1. The sections of the survey are listed in the order in which they appeared, highlighting the attrition of respondents through the survey.

Table 1: Survey participation by section

	Stakeholders	Web
	'n'	'n'
Awareness & knowledge	60	164
Community engagement activities	54	137
Directions for a healthy future (had read document)	35	37
Goal	3	59
What is at stake? (values)	2	60
What are the problems & management challenges?	1	57
How do we secure a healthy future? (core elements)	2	64
Planning for the future (overall)	4	82
Community input	4	86
Total	63	173

Many respondents chose not to engage with the entire survey and exited before completing all of the questions. Once they had provided written feedback on their overall impressions of Directions for a healthy future, many respondents chose to exit the survey, perhaps because they felt as though they had contributed enough without continuing on.

The data from the online survey has been cleaned by the Institute, but only duplicate entries and those respondents who clicked into the survey but answered no questions were removed. Respondents who completed only some of the survey questions were included in analysis and reporting.

Interpreting Results

This research generated a lot of output from respondents that was qualitative in nature as well as quantitative information. Tables are used to aid interpretation of the data and to illustrate trends and patterns. Quotes are used to bring the reader closer to the research findings.

Analysis of quantitative data has been performed using SPSS 17. Throughout the report, tables are used to display the relevant data.

The structure of the tables for the majority of the report is as follows; the first column shows the possible responses for each question and the subsequent columns indicate the proportion of respondents who gave a particular response. Multiple response questions are indicated by '>100%' appearing in the Total row of the % column. The sample size ('n') is listed in the heading of each column and from this the number of respondents giving a particular response can be calculated.

Some questions were answered on a 0-10 scale. Results of these questions are reported as percentages and as a mean (average) score. The closer to mean score is to 10, the more positive respondents were regarding that question. The mid point of 5 indicates a neutral response, and below this, a negative response.

FINDINGS

Awareness of the Plan

At the start of the survey, respondents were asked a number of questions about their awareness and knowledge of the plan and participation in other community engagement activities for the CLLMM long-term plan.

Table 2: Awareness of the long-term Plan

	Stakeholders n=62 %	Web n=164 %	All n=226 %
Aware	95	62	71
Unaware	2	29	21
Unsure	3	9	8
Total	100	100	100

Overall, seven in 10 respondents indicated they were aware of the long-term plan being developed for the Coorong, Lower Lakes & Murray Mouth by the South Australian Government. Two in 10 respondents were not aware of the plan and approximately one in 10 indicated they were unsure as to whether they had heard of the long-term Plan being developed for the CLLMM region.

Looking across the two different groups of participants, awareness of the plan differed. Almost all (95%) of the stakeholders who participated were aware of the long-term plan being developed for the CLLMM. Given these ‘stakeholders’ were people who had identified themselves as interested in the CLLMM project and subscribed to receive updates from DEH, we would expect their level of awareness to be higher than that of the wider community.

Amongst those who chose to participate in the survey via the link on the Murray Futures website (‘Web’), six in 10 indicated they were aware of the long-term plan being developed. Three in 10 indicated they were not aware of the plan. That these people, despite being unaware of the long-term plan, chose to participate in this survey is an indication that the community consultation activities for the plan (including this survey) have served to increase community awareness of the plan. As these ‘web’ respondents were people who had ‘self-selected’ to participate because of an interest in the CLLMM plan/region, we would expect a greater proportion of them to be aware of the plan than if a random sample of the general public had been selected.

Table 3: Seen/ have a copy of ‘Directions for a healthy future’

	Stakeholders n=52 %	Web n=164 %	All n=226 %
Yes, downloaded online	40	24	29
Yes, printed copy	31	11	16
Yes have seen but don't have a copy	18	13	14
Yes, from start of survey	3	6	5
No	18	47	39
Unsure	0	3	2
Total	100	100	100

Overall, about six in 10 respondents had seen the ‘Directions for a healthy future’ document, either printed or online, prior to starting the survey. 65 respondents (29%) had downloaded a copy online and another 12 (5%) downloaded a copy at the start of the survey. 37 participants (16%) indicated they had/had seen a printed copy of the Directions document and another 32 (14%) indicated they had seen the document but not downloaded or accessed a copy.

A greater proportion of the stakeholder group reported having seen the Directions document compared to those who participated via the website. Almost eight in 10 of the stakeholders had seen either a printed or an online copy of ‘Directions for a

healthy future’ prior to starting the survey. Amongst those who participated via the website, about five in 10 had seen a copy of the Directions document whilst half had not. In terms of the different ways people could access the document, across both groups the most popular was downloading a copy online.

Table 4: Read ‘Directions for a healthy future’

	Stakeholders n=62 %	Web n=164 %	All n=226 %
Yes	65	30	40
No	33	68	58
Unsure	2	2	2
Total	100	100	100

Overall, about four in 10 respondents indicated they had read ‘Directions for a healthy future’.

A greater proportion of the stakeholder group, 65%, indicated they had read the document with two-thirds reporting having read ‘Directions for a healthy future’. Amongst the respondents participating via the website, about a third had read the document.

All of the respondents who had read the document were asked some additional questions, the results of which are reported in Table 16.

Engagement with the planning process

Respondents were also asked about their participation in the community engagement activities for the CLLMM long-term plan. This served to gather feedback on these activities and provided an indication of the involvement of respondents in the planning process.

Community Events

Table 5: Community Events

	Stakeholders n=55 %	Web n=137 %	All n=192 %
Yes, plan on attending	31	16	20
Yes, have attended	18	10	12
No	31	36	35
Unsure	20	38	33
Total	100	100	100

Overall, about one in 10 respondents indicated they had attended a Community Event and about two in 10 indicated they planned on attending an event. A third of respondents indicated they had not attended an event and a third indicated they were unsure as to whether they would attend a community event. A greater proportion of the stakeholder group had attended a community event, with almost a third reporting having done so. These results provide another indication that the stakeholder group are more highly involved.

Reasons given for not attending a Community Event

The most commonly cited reason for not attending a Community Event was 'lack of time' (13). Other reasons for not attending included: work commitments preventing them from doing so (10), not being local (10), being interstate or overseas at the time (6), or participating in other ways (3). Some respondents (6) felt there was no point in attending these events because the community would not be listened to or the events would become 'acrimonious'. Only a few respondents indicated they had not attended because they were not aware of the events (6) or the dates were inconvenient (2).

Community Display

Table 6: Community Displays

	Stakeholders n=54 %	Web n=137 %	All n=192 %
No	41	30	34
Yes, plan on visiting	22	26	25
Yes, have visited	17	14	14
Unsure	20	30	27
Total	100	100	100

Overall, about one in 10 respondents indicated they had visited a Community Display and about two in 10 indicated they planned doing so. A third of respondents indicated they had not visited a community display and about a third were unsure as to whether they would visit a display. The results were similar for the stakeholder and the website participants.

Reasons given for not visiting a Community Display:

The most commonly cited reason for not visiting a Community Display was 'lack of time' (13). Some respondents indicated they did not feel the need to visit a display (5), could get information other ways like online (5) or because they would participate in other ways (2). Some of the reasons for not participating related to the location- 8 respondents indicated the displays were not in their local area, 2 indicated the displays were not 'convenient' for them and another 2 were overseas or interstate. Additionally 4 respondents indicated they had not participated because they were unaware of the times and/or locations. A few respondents (3) felt that the displays were not necessary (waste of money, should get on with fixing the problems etc.).

Community Listening Post

Table 7: Community listening posts

	Stakeholders n=55 %	Web n=137 %	All n=192 %
No	46	37	40
Yes, plan on visiting	20	17	18
Yes, have visited	4	8	7
Unsure	31	38	36
Total	100	100	100

Overall, less than one in 10 respondents indicated they had visited a Community Listening Post. About two in 10 respondents indicated they planned on doing so. More than a third of respondents (36%) were unsure as to whether they would do so, a higher proportion than for other engagement activities, suggesting that the community is less aware of this way of having input into the plan. The results were similar across the stakeholder and the web participants.

Reasons given for not visiting a Listening Post:

The reasons given for not visiting a Listening Post were similar to the reasons given for not participating in other activities. The most commonly cited reason was 'lack of time' (14), being unaware (10), location being inconvenient (11) or feeling that they were not necessary (7).

Written Feedback

Table 8: Written feedback

	Stakeholders n=55 %	Web n=137 %	All n=192 %
Yes, intend to	31	33	32
Yes, have done so	5	3	4
No	22	15	17
Unsure	42	49	47
Total	100	100	100

Only six respondents (4%) indicated they had provided written feedback on 'Directions for a healthy future' whilst a third of respondents (32%) indicated they intended to do so. This is a particularly high figure which reflects the high level of involvement of these stakeholders feel with this issue. It also suggests that many intentions have not yet translated into behaviour. Quite a number of respondents (47%) were unsure as to whether they would provide written feedback. The results were similar across the stakeholder and the web participants.

Reasons for not giving written feedback:

A number of respondents (9) felt that there was no point in giving written feedback because they would not be listened. Some respondents cited lack of time (4), work commitments (2) or the ability to participate/get information in other ways (2) as reasons for not giving written feedback. One respondent perceived the survey as a form of written feedback and one suggested that a 'form or pro forma' for feedback would be useful.

Feedback on the community engagement activities

At the end of the survey, respondents were also asked for some feedback on the community engagement activities as part of the development of a long-term plan for the CLLMM region.

Table 9: Enough opportunities for the community to have input into the long-term Plan

	Stakeholders n=4 %	Web n=86 %	All n=90 %
Yes	50	42	42
No	50	37	38
Unsure	0	21	20
Total	100	100	100

Respondents were divided in their feelings as to whether there were enough opportunities for the community to have input into the long-term Plan. Two out of five felt there were enough opportunities for the community to have input and two out of five felt there were not enough opportunities. The remaining fifth were unsure as to whether there were enough opportunities for the community to have input.

Respondents were also asked if they had any suggestions for other ways the community could be engaged or involved. Of the 89 people asked this question, almost half (41) made suggestions. A number of respondents (n=10) expressed the sentiment that the community needs a strong voice and to be 'really listened to'. Some respondents felt that the community input might not be listened to or taken seriously, suggesting a need to build the community's confidence in the consultation process.

All of the comments made are reported verbatim (unedited) in Appendix 3 and are summarised below.

General suggestions

- Provide more opportunities for the community to have input and be listened to, rather than just talked at.

"listen to the people you have your community meetings but we are just talked to and not listened to"

- Consult with the local communities and give more weight to the options of those who have a significant understanding of issues because they have been part of the community for many years.

"listen to them, not just lip service. The politicians must make a decision with locals in mind not the city folk."

- Consult with the community earlier before decisions have been made.

"You have already made the decision to build the weir at Wellington - community consultation should have commenced years ago"

- Take action to demonstrate to the community that the government is serious about fixing the problems. There was a particularly strong feeling that politicians ought to be doing more to secure water from other states and that there had been too many years of talk already.

"Show us progress on getting more water and then we'll take you more seriously"

Specific suggestions for activities

- Provide opportunities for the community to see the work being done.
"Show us the work being done or completed through workshop tours"
- Holding information sessions/events at a variety of times in each location.

Specific suggestions regarding the target audience

- Involving upstream communities like the Riverland by holding information sessions there. There was a feeling that all groups along the Murray-Darling Basin should be engaged.
- Informing and involving the Adelaide community more through public displays and events.

"As Adelaide is a substantial user of water from the region, Adelaide communities should also be encouraged to participate"

"hold similar events in Adelaide for people who visit/use the area but do not live there"

- Involving the Indigenous Community
"take direction and leadership from traditional owners"
- Engaging upstream communities in the online survey and consultations.
- More targeted consultation with key stakeholders. The SA Farmers Federation was suggested as a group which would like to be engaged with directly.

Specific suggestions regarding Publicity

- Publicising events more widely and with more notice. One suggestion for how to publicise events was through the quarterly newsletters that Councils send to residents.

Respondents were also given the opportunity to give feedback on the community engagement activities for the CLLMM long-term plan. **All of the comments made are reported verbatim (unedited)** in Appendix 3 and the key themes are summarised below

Feedback regarding the community engagement activities: Key Themes

Some respondents expressed the sentiment that the community had not been really listened to.

"They are tired of not being heard and I expect that they don't believe that any of their feedback will be considered and included. The directions document looks as if decisions have already been made."

A number of comments surrounded the need to engage the 'locals' whilst showing them respect and valuing their knowledge of the issues. A number of respondents felt that the community engagement activities ought to involve upstream communities and engage the Indigenous community. Some respondents also felt that more should be done to inform the Adelaide community of the situation and that keeping the issue in the media was seen as an important way of doing this. One respondent also commented:

" there should be a display in Adelaide and major shopping centres to make others aware of plight/situation of the lower lakes community. The politicians need to go to Meningie not just Milang or Clayton to see what is happening in the community/people."

Some respondents applauded DEH's efforts to engage the community and approach to developing the plan.

"Yes, lets have the truth and keep everything transparent, this way someone may see something that has been overlooked and can contribute before more harm could be done by a wrongful approach."

"Looks like most modes (digital and non-digital) of engagement are covered. I'd say it gives the community ample opportunity."

"it is essential, not only to hear from a diverse range of people, many of whom have information that will help to develop the plan that may not otherwise be revealed, but also to obtain community ownership of the plan, as it is they who will progress the plan in the longer term."

Some respondents expressed the sentiment that there had already been *"too much talk and not enough action"*. Generally these respondents felt that more should be done to secure water immediately from industry and the eastern states, and that the federal government ought to exercise stronger leadership to secure a more equitable allocation. One respondent felt the timeframes were too long and another felt that immediate action was necessary to build community confidence in the plan and made the following comment:

"Take long-term out of the title. This sends a message of no confidence. Convert words and spin into real action, show people how the money and levy is spent and what benefits they get from it."

One respondent felt that less reliance should be placed on community input (as they are often dominated by *"minority interest groups"*) and more reliance be placed upon scientific data.

Community Meetings

A few respondents gave feedback specifically about the community meetings:

"community meetings are not run well we are talked down to we are made to look stupid if we ask a question that is dealt with and if questions are asked the answers are to long and never seem to answer the question"

“The lack of open questions at community meetings has severely reduced the value of the meetings. The concept of small groups forming questions which are then answered is ineffective in many cases.”

Awareness of current projects

To gauge the community’s awareness of projects currently underway in the CLLMM region and the knowledge/involvement of respondents, a question asking about their awareness of local projects was included. This was a multiple response question where respondents were asked to select all the projects that they were aware of.

Table 10: Awareness of projects currently underway

	Stakeholder n=55 %	Web n=137 %	All n=192 %
Dredging to keep the Murray Mouth open	96	82	86
Preparatory work towards the construction of a temporary weir near Pomanda Island to protect South Australia’s water supply below Lock 1 as a last resort measure;	96	74	81
Pumping water from Lake Alexandrina into Lake Albert to prevent acidification	96	72	79
Constructing pipelines for the delivery of potable and irrigation water supplies;	91	64	72
Trials to assess the effectiveness of revegetation and bioremediation techniques to manage acid sulfate soils	91	53	64
Investigations and preparing an Environmental Impact Statement about the environmental implications of temporarily wetting the Lower Lakes with seawater to address acid sulfate soils as a last resort measure;	84	56	64
Preparatory work towards ponding freshwater within the Finniss River and Currency Creek area to help manage acidification;	80	50	58
Assessing options to reduce salinity in the Coorong’s South Lagoon;	71	41	49
Unsure	2	1	2
None of these	0	1	1
Total	>100	>100	>100

Respondents from the two groups, stakeholder and web, differed in the number of projects they were aware of. Those respondents who were CLLMM project stakeholders tended to be aware of more of the listed projects, around seven of the eight on average. In comparison, those respondents who participated via the web, were aware of fewer projects, generally around five out of the eight. This difference in the number of projects respondents were aware of did not translate into a difference in which projects they were aware of.

The most salient projects were dredging at the Murray Mouth, preparatory work for the construction of a temporary weir at Pomanda Island and pumping into Lake Albert. Around eight in 10 respondents were aware of these projects. The construction of pipelines and the projects to address acid sulfate soils, although less salient, were also known by a majority of respondents. These results certainly suggest quite high levels of awareness of projects currently underway amongst those members of the community who chose to participate in the online survey.

Community support for a plan

A number of questions were included to gauge community support for the development of a long-term plan and assess perceptions of whether this planning will be worthwhile. Respondents were asked near the beginning of the survey whether they ‘thought a long term-plan for the region was needed’ and then after they had given feedback on the Directions document, whether they thought ‘the planning process is/will be worthwhile’, ‘beneficial to the environment’ and ‘beneficial to the community’. The results from each question are reported below.

Table 11: Community attitudes regarding the need for a long-term plan

	Stakeholders n=52 %	Web n=114 %	All n=166 %
Not at all needed (0-1/10)	0	0	0
Not needed (2-4/10)	0	0	0
Neutral (5/10)	0	3	2
Needed (6-8 /10)	19	11	14
Absolutely essential (9-10/10)	79	85	83
Unsure	2	1	1
Total	100	100	100
Mean	9.5	9.4	9.4

Almost everyone (97%) who responded to this question agreed that a long-term plan for the region is needed. Four out of 5 respondents felt that a plan is essential; giving a score of either nine or 10 on a scale where 0 was ‘not at all needed’ and 10 was ‘absolutely essential’. Slightly less than one in five respondents gave a score of between six and eight, indicating they also thought a long-term plan is needed for the region. The mean, or average rating of whether a plan was needed was also very high, 9.4 out of 10. A few respondents gave a neutral response of five out of 10 and a few indicated they were unsure as to whether a long-term plan was needed.

Across the two groups of participants, the results were quite similar with about four in five participants responding that a plan was 'essential' and about one in five responding that a plan was 'needed'.

Another area of interest was whether the responses of people local to the region differed to those of metro/Adelaide based respondents. The following table compares the responses of locals to those who were not a local of the region. 'Locals' included anyone who indicated they live, work, own a business or a property in the Coorong, Lower Lakes Murray Mouth region.

Table 12: Community attitudes regarding the need for a long-term plan (local)

	CLLMM Local n=71 %	Not local n=95 %	All n=166 %
Not at all needed (0-1/10)	0	2	0
Not needed (2-4/10)	0	0	0
Neutral (5/10)	1	2	2
Needed (6-8 /10)	10	17	14
Absolutely essential (9-10/10)	86	79	83
Unsure	3	0	1
Total	100	100	100
Mean	9.7	9.3	9.4

Respondents who were local to the CLLMM region tended to give slightly more positive responses. Of the local respondents, 86% of them rated the need for a plan between nine and ten on a scale where 10 was 'absolutely essential'. Of the respondents who were not local to the region, 79% rated the need for a plan between nine and 10. Overall though, the two groups were not substantially different in their responses, with 96% of locals supporting the need for a plan and 97% of non-locals supporting the need for a plan (ratings of between six and 10).

These results represent a strong endorsement from the community, both local and broader, for the development of a long-term plan for the CLLMM region.

Table 13: Community perceptions of whether the planning process will be worthwhile (based on what they read in the survey about the Directions document)

	Stakeholders n=4 %	Web n=82 %	All n=86 %
Not at all worthwhile (0-1/10)	0	0	0
Not worthwhile (2-4/10)	0	23	22
Neutral (5/10)	25	21	21
Worthwhile (6-8 /10)	75	32	34
Totally worthwhile (9-10/10)	0	20	19
Unsure	0	5	5
Total	100	100	100
Mean	7.0	5.7	5.7

Of those who responded to this question, approximately half felt that planning process would be worthwhile based on what they had read in the survey about 'Directions for a healthy future'. Two in 10 respondents gave a score of between nine and 10 on a scale where 0 was 'not at all worthwhile' and 10 was 'totally worthwhile'. Three in 10 respondents gave a score of between six and eight, indicating they thought the planning process would be worthwhile. Two in 10 respondents gave a neutral response to the question and a few respondents indicated they were unsure as to whether the planning process would be worthwhile. About two in 10 respondents gave a score of between two and four, indicating they thought the planning process would not be worthwhile. The mean, or average rating of whether the planning process would be worthwhile was 5.7 out of 10.

These results suggest that the community is divided as to whether the planning process will be worthwhile and suggest a need to build community confidence in the benefits of developing a long-term plan for the region.

The mean rating was higher amongst stakeholders (mean of 7 of 10), but as it was based on only four respondents we cannot be confident in the veracity of this result.

Table 14: Community perceptions of whether this planning will result in benefits for the environment

	Stakeholders n=4 %	Web n=89 %	All n=93 %
Yes, positive benefits for the environment	50	29	30
No benefits for the environment	25	15	15
Detrimental	25	11	12
Unsure	0	32	30
Other	0	13	13
Total	100	100	100

In regards to the question of whether the Government’s planning will result in benefits to the environment, respondents were divided. A third of the respondents thought that the Government’s planning will result in positive benefits for the environment. A third indicated they were unsure as to whether the planning will be beneficial whilst some (13%) chose to give another response. 15% of respondents felt that the Governments planning will not benefit the environment and 12% thought it will be detrimental to the environment.

These results suggest this may be an important message to incorporate into the communications strategy.

A few respondents chose to comment on this question (by selecting the ‘other’ option). A few expressed the sentiment that whether the planning will be beneficial will depend what action is taken as a result and on securing more water from upstream. A few respondents felt that planning was ‘wasting’ time and that it was too late to have a substantial impact on the environment.

Table 15: Community perceptions of whether this planning will result in benefits to the community

	Stakeholders n=4 %	Web n=89 %	All n=93 %
Yes, positive benefits for the community	50	35	36
No benefits for the community	25	14	15
Detrimental	0	8	7
Unsure	25	34	34
Other	0	9	9
Total	100	100	101

* Sums to 101 because of rounding

In regards to the question of whether this planning will result in benefits to community, respondents were divided. A third of respondents thought that the Government’s planning will result in positive benefits for the community. A third indicated they were unsure as to whether the planning will be beneficial whilst some (9%) chose to give another response. 15% felt that the Government’s planning will not benefit the community and 7% felt it will be detrimental to the community.

A few respondents chose to comment on this question (by selecting the ‘other’ option). Some respondents repeated their comments that whether the planning would be beneficial would depend on the actions taken and securing more water for the river. One respondent commented they felt *“very little concern has been shown for the social impacts”*.

Feedback on 'Directions for a healthy future'

Respondents who had indicated they had read 'Directions for a healthy future' (n=40 for Stakeholders and n=50 for Web) were asked to rate their level of support for the document and provide some written feedback about the document.

Table 16: Community support for the 'Directions for a healthy future' document

	Stakeholders n=35 %	Web n=37 %	All n=72 %
Not at all supportive (0-1/10)	0	0	0
Not supportive (2-4/10)	14	40	28
Neutral (5/10)	23	14	18
Supportive (6-8 /10)	46	30	38
Totally supportive (9-10/10)	11	13	13
Unsure	6	3	4
Total	100	100	100
Mean	6.1	5.3	5.6

Overall, about half (51%) of those who had read the document and responded to this question indicated they were supportive of 'Directions for a healthy future' by giving a score of between six and ten on a scale where 10 indicated 'total support' for the document. Almost a third of respondents (28%) indicated they were unsupportive of the document by giving a score of between zero and four. About one in five respondents gave a neutral response of five out of 10 or indicated they were unsure.

The two respondent groups, stakeholder and web, differed somewhat in their ratings of support for 'Direction for a healthy future'. Respondents from the CLLMM stakeholder list tended to be more supportive of the document than respondents who chose to participate via the website. A greater proportion of the website participants indicated they were unsupportive of the document. 40% of the web respondents gave scores of between two and four, on a scale where 0 was 'not at all supportive' and 10 was 'totally supportive'. Correspondingly the mean rating of support for the document was lower amongst website participants than stakeholder participants (5.3 v 6.1 out of 10). This difference in results is perhaps a function of the different sampling methods. The stakeholders were notified of the survey via a personalised email and asked to complete the survey. In contrast web participants were people who had sought out the survey on the Murray Futures website and self-selected themselves to participate. Typically, respondents who 'self-select'

themselves to participate in research are highly involved and feel very strongly about an issue, either negatively or positively.

This was one of the few questions where the samples sizes were similar for the two respondent groups, primarily because a greater proportion of the stakeholder respondents had read the document.

Those who had read the Directions document were asked 'what are the key reasons for you feeling supportive/unsupportive of the 'Directions for a healthy future' document.' 38 participants chose to give written feedback on the document whilst 34 chose not to give any written feedback. Respondents often gave quite detailed feedback and commented about a number of issues (almost 1500 words in one case). Whilst some of the comments were negative in tone, it is important to remember that the majority of respondents were supportive of the document overall. Indeed some respondents, while expressing concerns about the document, were supportive of the Directions document overall. **All of the comments made are reported verbatim (unedited)** in Appendix 2 and are summarised below.

Comments from those who gave supportive ratings

16 respondents made positive comments about 'Directions for a healthy future' (11 stakeholders and five website participants). Respondents felt that the document represented a step in the right direction and it was a 'very commendable document for the health of the region'. Respondents were generally positive about the document, commenting that it explains 'what has been done', presents the options 'clearly', demonstrates learning from mistakes and gives a timeline for action. A number of respondents expressed relief that action was being taken, although some felt urgent action is necessary and that unless accompanied by increased freshwater flows, the document will be 'meaningless'.

Three respondents expressed sentiments that 'on the surface' the document represented a 'reasonable response' but that 'the devil will be in the details' and that more clarification is needed. Two respondents mentioned the reliance of local businesses and the regional economy on a healthy river. One of these felt the greed of businesses for water needed addressing in the plan.

One respondent made the comment that no commitments are made in the document. This respondent also felt the document was overly focused on long-term responses and did not adequately address more immediate requirements. This respondent also had concerns about the way Lake Alexandrina is described in the Directions document as a shallow lake. One respondent also expressed concerns about putting off considering the impact of sea level rise and considering various actions in isolation.

Comments from those who gave neutral ratings

Five respondents who had given neutral ratings of support for the Document also gave written feedback (three stakeholders and two website participants). The

nature of their comments varied from expressing support for the efforts to gather community feedback to a belief that consulting on the strategies was futile, because information about remediation work was still evolving, and consulting on just the objectives would have been more appropriate. One respondent (web) expressed the sentiment that the '*document is more talk ...without any actions*'. Another stakeholder respondent felt that not enough was being done to get more water through the system (river recovery through 'natural means') and that the 'acid sulfate scientists' had too much influence in comparison to the local people. Another respondent felt that community action in the catchment areas that supply the lakes is important for a long-term solution.

Comments from those who gave negative ratings

Fourteen respondents who had given negative ratings of support for the Document chose to also give written feedback (four stakeholders and 10 website participants). Amongst their responses, some of the common themes were apparent.

There was also a general feeling that the government had waited too long to develop a plan. Three respondents also made comments to the effect of:

*"reaction too late, no plan for immediate remedy, only a few bandaid plans"
Seems to be a lot of paperwork, with no 'direction'. Wondering if anything much is going to be actioned, and if so, when??*

A few (3) respondents felt that the Document was too focused on the scientific knowledge and showed '*little insight to the issues facing individuals the ground*'. Some felt it did not focus enough on the social and economic issues for the region. A number of comments concerned the involvement of the community and one felt that not enough emphasis had been placed on community-based actions.

Acid sulfate soils were mentioned by a few respondents, but the nature of their comments varied. Some were concerned about soil acidification in Lake Albert and Clayton and whether the problem posed a risk to residents. One respondent questioned whether acid sulfate soils and sea-level rise ought to be considered major problems.

One respondent felt that introducing seawater into the system would be a 'disaster'. In contrast, other respondents supported the consideration of seawater alternatives, including allowing the Lakes to return to a tidal estuary. One respondent felt the document was 'heavily biased towards a freshwater solution' and that seawater alternatives had not been objectively considered. The issue of salt versus fresh water was a real area of contention with respondents, some were strongly opposed to the consideration of options involving saltwater whilst others advocated strongly for their consideration.

One respondent felt the government ought to do more to get more water through the system (increasing the price of water for irrigators and penalties for 'water thieves') rather than solutions involving seawater or engineering. There was a general feeling the government should be doing more to secure water from upstream. One respondent felt the Document was too focused on the Murray Darling as an

agricultural resource, rather than a natural system and that the focus needed to be on ensuring environmental flows. This respondent was particularly negative in regards to the construction of pipelines for vineyard irrigation in the Langhorne Creek area.

Goal

Participants could choose which aspects/chapters of the Plan to give feedback on. Overall 62 respondents chose to give feedback on the goals of the long-term Plan.

Table 17: Community support for the goal of ‘securing a future for the CLLMM as a healthy, productive and resilient wetland of international importance’

	Stakeholders n=3 %	Web n=59 %	All n=62 %
Not at all supportive (0-1/10)	0	0	0
Not supportive (2-4/10)	0	2	2
Neutral (5/10)	0	3	3
Supportive (6-8 /10)	33	8	10
Totally supportive (9-10/10)	67	86	85
Total	100	100	100
Mean	9.0	9.4	9.4

Respondents were generally very supportive of the goal of ‘securing a future for the Coorong, Lower Lakes and Murray Mouth region as a healthy, productive and resilient wetland of international importance. Of the 62 respondents, 85% were very supportive of the goal outlined in the Directions document, giving scores of between nine or 10 on scale where 10 indicated ‘total support’ for the goal. 10% of respondents were supportive of the goal, giving scores of between six and eight on a scale. Two respondents gave a neutral response of five and one respondent gave a score of three, indicating they were unsupportive of the goal.

Only one respondent was unsupportive of the goal and they gave the following reason:

The goal, as stated, equates wetlands with freshwater, which is misleading. Estuarine wetlands are also valuable. Although the Lower Lakes have been partly salty for at least 6000 years before the barrages were built, seawater is dismissed as a 'last resort option' only. There should be much greater consideration given to returning the Lakes to a tidal estuary sooner rather than later.

Primary focus: the environment

A question was also included asking if respondents agreed that: ‘the primary focus of the long-term plan ought to be ensuring a healthy future for the region’s environment because by doing so the social and economic well-being of the region will also improve’.

Table 18: Community support for making the region’s environment the primary focus of the plan

	Stakeholders n=3 %	Web n=58 %	All n=61 %
Yes	67	95	93
No	33	2	3
Unsure	0	3	3
Total	100	100	99*

*Sums to 99 because of rounding

Nine out of 10 respondents agreed that the primary focus of the long-term Plan ought to be ensuring a healthy future for the region’s environment. A few respondents disagreed with this approach and a few indicated they were ‘unsure’.

As very few stakeholder participants responded to this question (n=3) it is likely the apparent difference between the groups is simply a function of random sampling error.

The respondents who disagreed or were unsure about the environment being the primary focus of the plan were given the opportunity to comment (n=6). Two respondents indicated they felt that social and economic factors ought to also be considered and the environment should not be considered in isolation. Another two respondents felt that the community was not being listened to. Two respondents commented that the plan was too focused on short-term matters and did not demonstrate a vision for the future whilst one felt the Department had not adequately considered the past history of the region. One respondent felt that more action should be taken to reduce dependence on the river by harvesting stormwater. **The comments of these respondents are reported verbatim** in Appendix 4.

What is at stake?

Respondents were generally supportive of this section of 'Directions for a healthy future'. 62 respondents chose to comment on this section, which considers the values that are important to the region.

Table 19: Community support for 'What is at stake'

	Stakeholders n=2 %	Web n=60 %	All n=62 %
Not at all supportive (0-1/10)	0	2	2
Not supportive (2-4/10)	0	8	8
Neutral (5/10)	50	7	7
Supportive (6-8 /10)	50	42	40
Totally supportive (9-10/10)	0	32	32
Unsure	0	10	11
Total	100	101*	100
Mean	9	7.3	7.3

*Sums to 101 due to rounding

Respondents were generally quite supportive of the section of 'Directions for a healthy future' which outlines what is at stake. Three-quarters of the 62 people who responded to this question indicated they were supportive of the section, giving scores of between 6 and 10 on a scale where 10 was 'totally supportive' and 0 was 'not at all supportive'. The mean or average rating of support for the section was 7.3 out of 10. Overall, about one in 10 respondents were not supportive of the section 'What is it at stake'.

Responses to this question were divided according to whether people were local to the region or not, to see if there were any differences in responses. 'Locals' included anyone who indicated they live, work, own a business or a property in the Coorong, Lower Lakes Murray Mouth region.

Table 20: Community support for 'What is at stake' (local)

	CLLMM Local n=24 %	Not local n=38 %	All n=61 %
Not at all supportive (0-1/10)	4	0	2
Not supportive (2-4/10)	13	5	8
Neutral (5/10)	8	5	7
Supportive (6-8 /10)	38	42	40
Totally supportive (9-10/10)	25	37	32
Unsure	13	10	11
Total	100	100	100
Mean	6.8*	7.7*	7.3

*Difference not significant at the 95% level and may be a function of random sampling error.

Locals of the region were slightly less supportive of the section 'What is at stake'. Approximately six in 10 locals were supportive of the section, giving scores of between 6 and 10. Closer to eight in 10 non-locals were supportive of the section. Amongst local respondents, the average rating of support for this section was 6.8 out of 10, slightly lower than for non-local residents (7.7). Overall though the opinions of respondents local to the region were not substantially or significantly different (in the statistical sense), to the opinions of respondents who are not locals. Across both sub-groups, a majority of respondents gave supportive ratings of the section.

To check that the Directions document reflects what the community values about the Coorong Lower Lakes Murray Mouth region, respondents were asked what they valued about the region. The values discussed in the chapter entitled 'What is at stake', were summarised into a list of broad values from which respondents could choose (multiple response). The results are reported in the table below.

Table 21: What the community values about the CLLMM region

	Stakeholders n=2 %	Web n=58 %	All n=61 %
The natural beauty of the region	100	85	86
The environment	100	83	84
A healthy environment supports the local communities and ensures their sustainability and prosperity	100	80	81
The unique ecology and biodiversity of the region	100	80	81
The Ramsar listed wetlands of international importance	100	65	66
The rich Indigenous heritage of the region and its cultural significance for the Ngarrindjeri	100	60	61
The opportunity the location affords for recreation activities like boating, walking and fishing	100	58	60
The water it provides for industry	100	40	42
Other	0	10	10
Unsure	0	2	2
Total	>100%	>100%	>100%

As the results in Table 21 show, the community values a range of things about the Coorong, Lower Lake, Murray Mouth region. Around eight in 10 respondents indicated they value the 'natural beauty' of the region, the environment, its unique ecology and biodiversity and the local communities sustained by the river. Around six in 10 respondents indicated they value the Ramsar wetlands, the rich Indigenous heritage of the region and the opportunity the location affords for recreation activities. The 'water provided for industry' was valued by slightly fewer respondents, with about four in 10 respondents selecting this.

One in 10 respondents valued something not covered by the listed categories and chose to provide another response. Their responses are listed below:

Listen-- S.A has ONE major river system cf to nsw and qld,, please it is vital and precious to us

the people who live and breathe the area

the region will be important in keeping species alive during climate change

the sheer beauty and accessibility

tourism

All allocations to any persons comes after adequate environmental supplies are supplied to all areas of the river.

Responses to this question were divided according to whether people were local to the region or not, to see if there were any differences in responses. 'Locals' included anyone who lives, works, owns a business or owns a property in the Coorong, Lower Lakes Murray Mouth region.

Table 22: What the community values about the CLLMM region (Local)

	CLLMM Local n=24 %	Not local n=38 %	All n=61 %
The natural beauty of the region	92	82	86
The environment	88	82	84
A healthy environment supports the local communities and ensures their sustainability and prosperity	88	76	81
The unique ecology and biodiversity of the region	83	79	81
The Ramsar listed wetlands of international importance	75	61	66
The opportunity the location affords for recreation activities like boating, walking and fishing	75	50	60
The rich Indigenous heritage of the region and its cultural significance for the Ngarrindjeri	58	63	61
The water it provides for industry	58	32	42
Other	13	8	10
Unsure	4	0	2
Total	>100%	>100%	>100%

Locals tended to value more things about the region than respondents who were not local to the CLLMM region, selecting on average six of the eight listed values. Slightly more locals valued the natural beauty of the region, the environment and the Ramsar listed wetlands, in comparison to respondents who were not local. Slightly more locals indicated they value the communities that are sustained by the river, the water it provides for industry and the opportunity the local affords for recreational activities. Overall though the differences between groups were not great (particularly given the small size of the samples) and the order of the values was the same across both groups.

To ensure the section 'What is at stake' encompasses everything the community values about the region, participants were also asked if there was anything they would like to add to the section and given the opportunity to provide written feedback. **These responses are summarised below and reported verbatim** in Appendix 4.

Suggested additions/ changes to the section 'What is at stake': key themes

Local community

Some respondents felt that more emphasis should be placed on the local community, economics and the cultural importance of the region to the farming community.

Prioritising the health of the river

A few respondents indicated they thought the environment ought to be prioritised over social and economic value of the region.

"I think all values are important, however I would easily rate the natural & environmental values above the recreational and industrial values"
(Stakeholder)

"Healthy future should be direct result of what is best for the river, not groups of people who use it and who vote from there residence/business in ADELAIDE" (Web)

Ecological significance

A few respondents mentioned the importance of the local bird life and one mentioned that the quality of the surrounding agricultural land was at stake. The issue of whether to consider allowing seawater into the Lakes was very contentious, with some respondents ardently opposing a seawater solution and some advocating for its consideration. Some respondents felt that a more natural solution and transition should be permitted and opposed the use of barrages and dams along the river system.

In regards to the Ramsar listed wetlands, one respondent commented that

"The Ramsar listing is for a freshwater system that has been artificially sustained by the presence of the man-made barrages for 70 years. The Murray Darling no longer supports the flows to artificially sustain this system."

Upstream issues

A number of respondents commented that issues of water quality and upstream allocations needed to be addressed. For example:

"This section fails to talk about the importance to the rest of the River system, ecologically and as a role in maintaining water quality upstream by allowing for the flushing of salts from the system."

What are the problems & management challenges?

Table 23: Community agreement that the 6 identified issues should be the priority

	Stakeholders n=1 %	Web n=57 %	All n=58 %
Yes, these are the right priorities	100	60	60
Yes, but I think other issues should also be addressed	0	24	24
No, I think the priorities should be different	0	9	9
Other	0	5	5
Unsure	0	2	2
Total	100	100	100

Most respondents agreed that the six identified issues (reduced freshwater, acid sulfate soils, salinity, biodiversity loss, sea-level rise and socio-economic) ought to be the priority. Six in 10 respondents agreed that these six issues are the ones which need to be addressed as a priority. Additionally, another two in 10 agreed that these issues need to be addressed, but felt that other issues must also be addressed. Approximately one in 10 respondents felt that the priority issues ought to be different.

A few respondents chose to add another response.

Other responses

more water flow from the murray darling basin

the priorities need to be rearranged in order- sea level rise last, social impacts swap with ASS

Yes, generally right, but do not at all support transition to estuarine character in the longer term

Other issues the community felt ought to be considered

Respondents were given the opportunity to raise other issues they felt ought to be included or considered. **The 16 comments which were made are summarised below and reported verbatim** in Appendix 5.

Freshwater inflows

A number of respondents chose to comment about the issue of freshwater inflows. Quite a few made comments around the need for better management of the entire system and reductions in the amount of water being extracted upstream and by irrigators.

Salinity and acid sulfate soils

A few respondents made very specific comments about the way these issues were described in the Document (refer to Appendix 5). A number of respondents also made more general comments supporting a transition to a more estuarine environment in the region. A few respondents felt the impact of engineering solutions like weirs and barrages on the environment and the listed issues was not adequately acknowledged.

Social & economic impacts

Two respondents felt that issues of Indigenous culture ought to be addressed in their own right and one felt the negative impacts felt on dry-land farming and tourism industries ought to be acknowledged.

Climate change

One respondent commented on the impact climate change will have on all of the listed issues.

How do we secure a healthy future?

Core Elements approach

This section of the survey focused on whether the community is supportive of the strategy outlined in 'Directions for a healthy future' for future planning and action. 66 people responded to this section of the survey, mostly via the link on the Murray Futures website.

Table 24: Agreement with the 'Core Elements' approach

	Stakeholders n=2 %	Web n=64 %	All n=66 %
Strongly disagree (0-1/10)	0	5	5
Disagree (2-4/10)	0	11	11
Neutral (5/10)	50	5	6
Agree (6-8 /10)	0	33	32
Strongly agree (9-10/10)	50	44	44
Unsure	0	3	3
Total	100	101*	101*
Mean	7.5	7.5	7.5

* Sums to 101 due to rounding

Respondents were quite supportive of the approach of putting in place the 'core elements' of a response and then developing management solutions for the range of different scenarios we may face in the future. Three-quarters of the 66 people who responded to this question indicated they were supportive of the approach. Four out of 10 respondents strongly agreed with the approach; giving a score of between nine and 10 on a scale where 0 was 'strongly disagree' and 10 was 'strongly agree'. Three out of 10 respondents gave a score of between six and eight indicating they also agreed with the 'Core Elements' approach. The mean or average rating of agreement with the approach was also quite high at 7.5 out of 10.

A few respondents gave a neutral response and a few indicated they were 'unsure' as to whether they agreed with the approach. Slightly less than two out of 10 respondents disagreed with the approach by giving ratings of between zero and four. These respondents (n=10) were asked to provide written feedback outlining why they disagreed with the approach. **This feedback is summarised below and reported verbatim (unedited)** in Appendix 6.

Concerns with the Core Elements approach: key themes

The comments of four respondents centred on the need to secure more water from upstream by lowering locks in the Riverland, buying back water licences, securing a greater share of the water licences and immediately addressing the issue of over-allocation of supplies.

Three respondents felt that nature should be allowed to run its course without human intervention. These respondents felt that the Murray mouth should be permitted to close over, tidal flows resorted to the Coorong and the region allowed to transition to a saltwater environment. They were of the opinion that industry and the community must reduce their reliance on the River. In regards to the Lower Lakes, one respondent felt that the acid sulfate soils should be remedied through sea-water flooding whilst another felt that 'the only solution for the lower lakes is fresh water'. One respondent felt that the socio-economic impact of not restoring water to the Lower Lakes was not adequately acknowledged in the document.

Two respondents also expressed the sentiment that actions should be taken immediately and that the local communities cannot afford to wait for action.

Too much talk. The time for action is past. We have done studies already. The only solution is to get freshwater flowing.

There is absolutely no time to experiment with unproven approaches, such as ASS bio-remediation by limestone deposition.

The comments of respondents are report in full in Appendix 6.

Are the Core Elements an exhaustive list?

The 'Core Elements' will be important in developing management solutions and deciding upon which actions can best deliver the desired outcomes for the region As such it is important that the 'Core Elements' they encompass everything the community thinks is important. The six proposed core elements were summarised in the survey and a link to a webpage discussing them in more detail was included in the survey. To gauge the perceived completeness of the Core Elements, respondents were asked whether they thought 'the six 'Core Elements' encompass everything that any solution must consider in planning for the future management of the region'. The results are reported below.

Table 25: Core Elements: encompass everything any solution must consider

	Stakeholders n=2 %	Web n=64 %	All n=66 %
Yes, I think it covers everything	0	38	36
Mostly but I think it should also include something else	0	27	26
No, I think the Core Elements should be different	50	11	12
Other	50	9	11
Unsure	0	15	15
Total	100	100	100

Slightly more than a third of respondents (36%) felt the six proposed Core Elements encompassed everything that ought to be considered when planning for the future management of the region. Slightly less than a third of respondents (26%) felt the Core Elements encompassed most of what needs to be considered but that something else ought to be included. These results represent a strong base for identifying the Core Elements as outlined in the Directions document. Approximately one in 10 respondents (n=8) felt that the Core Elements should be different. About one in 10 chose the 'other' option.

Respondents were given the opportunity to suggest changes or additions to the Core Elements and about 18 chose to do so. Respondents made comments about a range of Core Elements, from working in partnership with the Traditional Owners and the broader community, to securing water for the Lakes from upstream and allowing the Murray Mouth environment to change naturally. There was a feeling that natural processes were being interrupted or replaced by artificial measures and that change in the environment should be allowed to take place. Many respondents commented on the need to secure water immediately for the Lakes and some advocated for the management of the Murray Darling Basin by a National Authority. **The comments changes and additions suggested by respondents are reported verbatim (unedited)** in Appendix 6.

The role of the Core Elements

An important measure of community support for the Directions document is whether the community believes that incorporating the 'Core Elements' into the future management of the region will achieve a healthy, productive, resilient environment.

Table 26: Community perceptions of whether the ‘Core Elements’ will ensure a healthy, productive, resilient wetland

	Stakeholders n=2 %	Web n=62 %	All n=64 %
Absolutely disagree (0-1/10)	0	8	8
Disagree (2-4/10)	50	16	17
Neutral (5/10)	0	8	8
Agree (6-8 /10)	50	29	30
Absolutely agree (9-10/10)	0	31	30
Unsure	0	8	8
Total	100	100	101*
Mean	5.5	6.5	6.5

*Sums to 101 due to rounding

The majority of respondents felt that incorporating the ‘Core Elements’ into the future management of the region would ensure a healthy, productive, resilient wetland. Three in 10 strongly agreed and three in 10 agreed that incorporating the ‘Core Elements’ would achieve the goal. Slightly more than two in 10 respondents did not agree that incorporating the ‘Core Elements’ would achieve the goal, giving ratings of between 0 and 4 on a scale where ‘0’ denoted ‘Absolutely disagree’.

About two in 10 respondents gave a neutral response of 5 out of 10 or indicated they were unsure of whether incorporating the Core Elements’ into the future management of the region would ensure a healthy, productive, resilient wetland

Community engagement in implementation projects

To gauge how the community might like to participate in the implementation of the long-term plan, respondents were asked if they were interested in being involved in the future and what sort of role might interest them. This question was near the end of the survey and many respondents exited the survey before completing them.

Table 27: Interest in being involved in implementation projects

	Stakeholders n=2 %	Web n=87 %	All n=89 %
I just want to be kept informed about what's going on	100	49	49
I want to be able to have a say, provide input and share information	50	40	39
I'm not able to help at the moment	50	24	24
I'm already part of an environmental community group that can help in on-ground works such as revegetation plantings, fencing, monitoring of acid sulfate soils, etc.	50	11	11
I'm interested in learning more about the issues affecting the region by attending events and workshops	50	18	18
I'm interested in joining an environmental community group to help in on-ground works such as revegetation plantings, fencing, monitoring of acid sulfate soils, etc.	0	8	8
I'm a landholder and would be interested in helping in some way on my patch	0	11	10
I'm interested in being a community champion	0	2	2
Other	50	12	12
Total	>100%	>100%	>100%

The results from this question indicate that some people are interested in being involved in the future. Slightly less than half of the respondents indicated they were interested in being kept informed and having a say. Some respondents were also interested in helping with projects on the ground.

Other comments regarding implementation projects

this is pathetic baling of a sinking ship with a bucket

it will achieve nothing

I'm burnt out - to much talk and not enough action- most people have a weekend of dairy farming is 24 / 7 when do i get a break or get paid to do our enviro works for the children of Australia

I've had my say as have 1000's others. Just listen to what has already been said.

I'm tired. I've been helping for years. I can't continue to maintain this involvement - can't afford it.

I'm not interested in papering over the cracks with facile quantitative control measures.

I'm interested in being kept informed through work - DEH circles

I have already committed more than most and will continue to do so

What the hell is a community champion? Someone who sucks up to the government? What is this shit about getting help from the community? We are the ones who are doing the work - WE NEED HELP FROM YOU!!! DOH!!!

I am restricted in how I can help, but hope to provide some assistance through my involvement with Trees for Life

I am actively working in water issues across Asia within my business.



www.murrayfutures.sa.gov.au

Email: cllmm@deh.sa.gov.au

Phone: 1800 226 709
(free call during normal business hours)

Post: Coorong, Lower Lakes and Murray Mouth Projects
Department for Environment and Heritage
Reply Paid 1047
ADELAIDE SA 5001

© State of South Australia through the Department for Environment and Heritage. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose subject to the conditions that you (1) attribute the Department as the copyright owner of this publication and that (2) you obtain the prior written consent of the Department for Environment and Heritage if you wish to modify the work or offer the publication for sale or otherwise use it or any part of it for a commercial purpose.

Written requests for permission should be addressed to:
Design and Production Manager
Department for Environment and Heritage
GPO Box 1047
Adelaide SA 5001

Disclaimer

While reasonable efforts have been made to ensure the contents of this publication are factually correct, the Department of Environment and Heritage makes no representations and accepts no responsibility for the accuracy, completeness or fitness for any particular purpose of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of or reliance on the contents of this publication. Reference to any company, product or service in this publication should not be taken as a Departmental endorsement of the company, product or service. The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment, Heritage and the Arts or the Minister for Climate Change and Water. Printed on recycled paper

Printed on recycled paper
FIS 90360 May 2009
ISBN 978-1-921466-47-2

