Lake Mokoan Reference Committee
Meeting MINUTES
Friday 14 March, 2003

Location: Delatite Shire Offices – 1.30 pm to 4.30 pm.

Present: Huw Davies, Richard Anderson, Bruce Anderson, Rod Berger, John Boal, Maureen Cottam, Bernie Evans, Ray Henderson, Michael Reid, Sally Simson, Stuart Fraser, Doug Bain, Ken Whan, Kevin Ritchie, Geoff Earl, Neil Sturgess, Colin Rudd, Peter Box

Apologies: Neville Webster,

Session 1 Opening
Huw Davies asked all members to think about their roles and responsibilities as members of the Reference Committee – the primary roles are to ensure community input of information and issues to the study, and to ensure the study process considers these issues. The Reference Committee is not charged with making a decision on the future of Lake Mokoan.
Huw outlined that this meeting is for the Reference Committee members to consider the Interim Report – that the Steering Committee has reviewed a draft and that the Minister has requested the report not go onto the website and people to hold comments until he has made a press release on next Monday (17/3).

<u>Session 2 Presentation on the Interim Report</u>
The following notes are the overheads used by Neil Sturgess to talk through the main content in the Report.

PURPOSE OF THE INTERIM REPORT
To provide:

- A summary of the current situation in regard to the lake
- An outline of the options and how they have been refined
- A key milestone in the Study, which can be the focus for consultation with the community and other stakeholders.

CHAPTER 2 – CURRENT SYSTEM OPERATION AND ENGINEERING
Describes the existing works and operations, including:
- Renewals replacement cost (est. $76.1 m)
- Dam safety issues
- Operation and maintenance costs ($526K direct plus $150K indirect plus fishery plus restoration)
- Customer entitlements
- System operation losses
- Environmental minimum flows
- Allocation rules, operation and other rules (eg, on/off, River Murray)
- Issues related to the Murray Darling Basin Cap
- Issues related to system reliability

CHAPTER 3 – CURRENT ENVIRONMENTAL SITUATION

- The historical context of the catchment and the geomorphology
- The nature of the pre-Mokoan wetlands
- The story of deteriorating water quality and its causes
- The lake restoration program
- Aquatic fauna
- Lake vegetation
- Shear stress modelling
- A characterisation of the ecological process in Lake Mokoan
- Down stream environmental effects

CHAPTER 4 – CURRENT SOCIO-ECONOMIC SITUATION

- The distinction between economic activity and economic value
- An impression of the gross value of production of irrigation serviced by Lake Mokoan ($28.7m per year)
- Estimates of the number of recreationists, the net economic value of recreation and expenditure by recreationists

Activity	Estim. No. of person days	Estimated annual expenditure in region by recreationists at Lake Mokoan ($)			Estimated annual net economic value to Lake Mokoan recreationists ($)		
		Low	Mid	High	Low	Mid-point	High
Fishing	5,000	100,000	200,000	300,000	100,000	250,000	400,000
Duck hunting	2,600	174,000	186,000	198,000	110,000	135,000	160,000
Yachting	1,150	22,500	45,000	67,500	15,000	40,000	66,000
Water skiing	400	10,000	20,000	30,000	10,000	27,000	59,000
Day picnicker	1,500	33,000	68,000	100,000	3,000	7,500	12,000
Totals (rounded)	10,650	340,000	519,000	696,000	238,000	460,000	697,000

- Effects on local business – particularly accommodation and recreational supplies
- Algal blooms – estimated average cost $150K to $420K per year
- Water treatment costs at Shepparton due to turbidity – estimated to be about $63,000 per year
- Flooding issues
- Fire fighting issues
- Implications of current situation for the residential real estate market

CHAPTER 5 – CURRENT HERITAGE SITUATION

Results of a desk top study that reviewed the implications for the archaeology of the:

- topography
- geology
- flora and fauna

Also summarised are:

- Aboriginal and European histories of the area
- Previous archaeological investigations
- Known sites and places of historic significance for both Aboriginal and European heritage
- Relevant heritage legislation

Conclusion
Lake Mokoan and surrounds have the potential to be rich in Aboriginal stone artefacts, and burial sites are likely to be present in the dune sands of the spit and the western end.

CHAPTER 6 – WATER SAVINGS OPTIONS

This Chapter summarises the three Options put forward by SKM in the headworks study so as to provide a baseline for the subsequent revision and refinement of the Options.

CHAPTER 7 – CONSULTATION
Chapter outlines and summarises the public consultation process in relation to the current conditions.

Conclusion
Most people involved in the consultation meetings expressed a desire to keep the lake in some form or another – preferably as it is now. Some of these desires stem from a difference of opinion in relation to the Government's aims for this study and some from a concern or uncertainty of the future. People are reluctant to explore alternatives that appear to take away something that they have now. During discussions community members came up with numerous suggestions to help keep or maintain the lake.

CHAPTER 8 – REFINEMENT OF OPTIONS
The chapter contains a summary the community's reaction to each of the SKM options. In broad terms there was little support for SKM Options 1 (Winton Swamp) and 3 (partition and operate as annual storage). Option 2 had some community support but concerns were expressed on a number of issues including the best location of any partition – a spit bank was suggested.
During the consultation process Option 4 was put forward by the Save Lake Mokoan Working Group – retain the lake but change the operating rules and aim to keep the lake as full as possible.
In the event, four broad Options were proposed:

- *Option 1 – Decommission lake and re-establish Winton Swamp.*
- *Option 2 – Reduce lake area by partitioning storage, lowering lake FSL or a combination of both and operate as normal.*

- *Option 3 – Reduce lake area by partitioning storage, lowering lake FSL or a combination of both and operate as an annual storage.*
- *Option 4 – The proposal of the SLMWG for retention of the lake in its present form with changes to the operating rules.*

Three configurations of partitioning were considered:

- Contour bank
- Spit bank
- Combined contour and spit bank

For each configuration 3 full supply levels were also proposed.
In all, 9 sub-options (3 x 3) were proposed for each of the partitioning Options plus 2 sub-options of no new banks but with lower water levels.

For Option 2 these were as follows:

Bank	Option No.	FSL	Capacity GL	Area Ha	Cost $million
Contour	2A1	166.9	320 (86%)	6,300 (78%)	41
	2A2	164.5	184 (50%)	5,600 (69%)	18
	2A3	163.0	107 (29%)	4,900 (61%)	6
Spit	2B1	166.9	209 (56%)	4,400 (55%)	54
	2B2	166.0	169 (46%)	4,100 (51%)	42
	2B3	164.0	97 (26%)	3,000 (37%)	7
Combinatio n	2C1	166.9	164 (44%)	2,600 (32%)	75
	2C2	165.0	114 (31%)	2,510 (31%)	43
	2C3	164.0	89 (24%)	2,470 (31%)	30
No Bank	2D1	164.5	198 (54%)	6,450 (80%)	-11
	2D2	163.0	108 (29%)	5,160 (64%)	-16

Values in brackets are the percentage of current maximum storage capacity and area

The refined set for Option 3 were the same but the lake was operated as an annual storage.

CHAPTER 9 – OFFSETS

Reducing the storage capacity of Lake Mokoan may reduce the reliability of the Broken River system. The offsets to preserve the reliability of entitlements were physical works to reduce the additional shortfall created by the water savings of the Option in question.

Each of the following offsets are described and costed:

- Pipelining of Casey's Weir and Major Creek Waterworks District (Tungamah) System
- Supply Lake Mokoan Diverters from Ovens or King Rivers
- Link Lake Eildon to Lake Nillahcootie
- Lake Nillahcootie Harvest Spills from Lake William Hovell
- Raising Lake Nillahcootie

CHAPTER 10 – EVALUATION AND MODELLING OPTIONS

Together with Option 1 and Option 4*, the set of refined partitioning options* was chosen according to a number of criteria that included estimated water savings, estimated costs per ML saved, including the costs of offsets, and by scoring on a judgemental scale the likely environmental and socio-economic effects relative to the relevant option proposed by SKM. The scale ranged from minus 3 (major negative effect relative to the SKM option) to plus 3 (major improvement on the SKM option). Option 4 was evaluated relative to the current situation.

Key results from the extensive modelling exercise included:

- the estimated water savings for the option;
- average annual water shortfall;
- reliability of in-valley supplies in terms of probability of 170 per cent and 100 per cent entitlement volume being allocated in February; and
- Broken outflows to Goulburn River and Murray River (Murray Supplement and Murray Deficit).

The scores and the basis of scoring for the environmental attributes and socio-economic attributes are described and presented. The whole exercise is presented in Appendix D, where the trade-offs between the above variables for each of the broad option types are presented.

THE CHOSEN OPTIONS

The Steering Committee believed it appropriate that all primary options continue to be considered and that the best refinement of each be subjected to detailed evaluation.

A second option for the annual storage was also chosen to explore the ability to improve reliability of supply within the Broken system and downstream, as well as improving environmental and socio-economic outcomes.

The options chosen by the Steering Committee were:

1 Reversion to Winton Swamp and associated wetlands.

2B3 Spit bank, 97 GL capacity, current operation. High water savings (indicative estimate about 30 GL), low cost per ML saved (indicative estimate about $1,200/ML), relatively low environmental and socio-economic score but an improvement on the original SKM option.

3B3 Spit bank, 97 GL capacity, annual storage operation. High water savings (indicative estimate about 34 GL), low cost per ML saved (indicative estimate about $1,000/ML), relatively low environmental and socio-economic score but a small improvement on original option. Same configuration as 2B3.

3C2 Spit and contour banks, 114 GL capacity, annual storage operation. Similar water savings to 3B3, relatively low cost per ML saved (indicative estimate about $2,100), higher environmental and socio-economic score than 3B3, slightly greater stored volume for slightly less area of storage than 3B3.

4 The proposal for a change in operating rules as put forward by the save Lake Mokoan Working Group.

Including (the revised) Option 1 (Winton Swamp), there are now five options that will be subjected to detailed evaluation.

CHAPTER 11 – FUTURE DIRECTIONS FOR THE STUDY

This Interim Report has established the base line for the remainder of the Study by providing a description of the current status and operation of Lake Mokoan.

The Report has also set out the process by which the options for change were revised and refined, and the results of that process.

There are five options to be comprehensively analysed as per previous slide.

In the next stage of the Lake Mokoan Study all significant issues and tasks required to analyse comprehensively each of the refined options will be undertaken.

Estimates of the costs of implementing each of the options will be refined.

The modelling results and environmental aspects of the options will be further analysed.

Each will be subjected to a comprehensive benefit-cost analysis relative to continuation of the current conditions (as described in Appendix A). Option 4 will be assessed as a refinement of the current conditions.

<u>Session 3 Questions for clarification</u>

In summary the main questions and *responses* raised during discussion were:

Question - 'What is the veracity and rigour of the filter the consultants have used to assess and come up with the 5 options?'

Response - The key criteria in determining the options were water savings, cost per megalitre of savings, the environmental and social impacts and the potential to improve water quality.

Q – 'Concern that there is not a lot of detail on options 1 and 4 in the Interim Report?'

R – Please read the report – there is a lot of detail on these two options. The Final Report (due end of May) will be in the form of 5 prospectuses – one on each option and compared to the current situation. This is to be view as an investment prospectus – to help the Government make a decision. Behind each prospectus will be a summary / collation of community views.

Q – 'Where are the options and costs for managing any remaining land?'

R – these will be part of the final report.

Q – 'Concerns that we can only comment on options 2 and 3?'

R – you can comment on all of the 5 options – to ensure the information and issues raised by the community have been considered – it is not easy to directly compare the 5 options because they each have a different mix or balance of values. This depends largely on the set of values and individual uses to look at the information on the options.

Q – 'You mentioned that you are using currently models to assess the options – what work is being done to check the accuracy of these current models?'
R – The models have been checked and we have confidence in them.

Q – 'There was a lot of community support for option 2a at full supply level – why has the Steering Committee not chosen a spit option at full supply level. People could see this as a rejection of their input?'
R – Need to explore why a full supply level is important to people. If it is to reduce turbidity we think reducing the size / area of the lake will have this effect.

Q – 'What about the security of supply with annual storages? Can the final report include security graphs that compare the options with the current security graph?
R - Yes

Q – 'In relation to the technical changes in the option s- is there any room to make further refinements in the options?'
R – Unlikely – but depends on written comments back on the Interim Report.

Q – 'In relation to security of supply – what about costs being transferred to the irrigators?'
R – Refer to the Ministers letter that states 'the Government will not support any proposal that would impose a level of charges above that which would apply otherwise, and which was unacceptable to the group of irrigation customers'.

Q – 'Will the Final Report include possibilities for private compony involvement in managing aspects of the lake / land?'
R – Yes.

Q – 'In the Final Report – will the costings of alternative sources for security be included?'
R – Yes.

Q – 'What will be the criteria for evaluating the options?'
R – Benefit cost analysis – as outlined in Appendix a in the Interim Report.

Q – 'Who is the author of option 4?'
R – the Save Lake Mokoan Group.

Q – 'Lake Mokoan needs to be considered in relation to the wider regional, State and Basin irrigation systems?'
R – This is being considered by the Government.

Q – 'Will everyone have access to the final report? Do we need two styles of final report – a summary for those who will not wade through a large amount of information?'
R – The dilemma faced in the study is that there is a significant amount of information you need to consider if you are to have an informed discussion or make an informed decision – if we summarise this too much people may get a skewed understanding of the options.

Q – 'There does not seem to be mention in Chapter 3 of the significant community involvement and instigation of the restoration effects?'
Q – 'Is it significant that the lake has not bloomed with blue green algae this year?'

Two further questions were raised during discussion that members have requested be recorded:
Q – ‘Can the Steering Committee / consultants give us evidence that you can capture and manage the savings that you have claimed in the various options?’
R – this will be difficult because there are no storages below Lake Mokoan and we may have to look at other options such as on-farm storages.

Q – Have the costings of the capital works of the various options been influenced by the fact that the dam wall must be upgraded at a cost of $20 million (estimate for present full supply level)?’ and ‘What impact does this have on the choice of options?’
R – Yes – this is included in the costings.

Session 3 Next steps
Consultation on the Interim Report – written comments are sought from individuals and groups by the end of April. Included on the website will be a proforma to encourage feedback.
There will not be a round of meetings conducted by the consultants this time – written comments only.
Note – the feedback is aimed at checking with people that the information and issues raised by the earlier consultations has been considered in the Interim Report.
Reference Committee can circulate their written comments to the other members of the Committee via Peter Box.
There will be another Reference Committee meeting for information sharing on the written comments – suggested date – Thursday April 24.

The Final Report – is due the end of May.
There will be a series of facilitated community meetings similar to those held at the start of this study as well as opportunity for written feedback. Community comments on the options will be appended to the Final Report to Government.

Next Meeting - Thursday April 24 – in Benalla – location to be confirmed.
(please let me know if this date is not suitable!)