Natural Resources
SA Murray-Darling Basin

Consultation Report

Review of Environmental Land Management Allocations

December 2019

Government of South Australia

Government of South Australia
South Australian Murray-Darling Basin
Natural Resources Management Board

For further details contact
Natural Resources SA Murray-Darling Basin
Department of Environment, Water and Natural Resources
Upper level, Corner Mann & Walker Streets,
Mount Barker, South Australia, 5251.
Phone: (08) 8391 7500
Website: **http://www.naturalresources.sa.gov.au/elmareview**

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1 Introduction

This consultation reports documents the approach the Board used to engage with the Lower Murray Reclaimed Irrigation Area (LMRIA) community in its review of Environmental Land Management Allocations (ELMA), provides a quantitative analysis of comments received and summarises the main comments received during the submission period.

1.1 Background

The Board committed to undertaking a comprehensive review of how Environmental Land Management Allocations (ELMA) is used and administered following community feedback on the Draft 2017 Water Allocation Plan for the River Murray.

The feedback indicated that there was a perception that ELMA was being used for productive purposes rather than for the intended land management purpose and the high degree of underuse was perceived as ELMA not really being needed.

The Board has worked with RMAC who recommended a sub-group of RMAC be established to support the review of ELMA. The sub-group was established in May 2017 and consists of RMAC members, community members from various geographic regions within the LMRIA and also includes the Chief Executive of the Regional Development Australia, Murray Lands and Riverland. The Board also worked the Ngarrindjeri through regular Statement of Commitment meetings.

It was initially proposed to complete the ELMA review and include the updated policy in the 2019 River Murray WAP. Timeframes were revised after the scientific work undertaken by the Adelaide University indicated better land management outcomes by varying the current ELMA rates in the River Murray WAP.

In recognition of the importance of ensuring that scientific work was robust and defensible, and to allow sufficient time to engage with the community, the SA Murray-Darling Basin Water Planning Steering Committee and the Board agreed that the timeframes for the project would need to be extended outside those required for the development of the 2019 River Murray WAP.

On adoption of the 2019 River Murray WAP, the Board commenced consultation with the ELMA community on issues and options to improve on current management arrangements.

At present, the Murray-Darling Basin Agreement recognises a volume of 22.2 GL for environmental land management purposes in the LMRIA. This volume is reflected in the River Murray WAP and is available to landholders in the LMRIA to manage soil salinity and secondly, to manage the impacts of acid sulfate soils (such soil cracking and movement) which was evident during the Millennium Drought.

Key investigations have been undertaken as part of the review and these include:

- A survey of licence holders regarding the use, benefits and barriers to use of ELMA
- An analysis of water use data, including spatial plotting of water use
- A review of existing scientific work related to the effects of ELMA; and

- Recalculation of the leaching requirements to manage saline groundwater inflows in the LMRIA (contracted to Adelaide University)

The outcomes of the above investigations were presented to the RMAC sub-group, who assisted in identifying the key issues, these included:

- a patchwork of water use leading to poor land management outcomes and third party impacts.
- a large variation in ELMA application rates (ML/ha) resulting in different abilities of entitlement holders to effectively manage their land; and
- a lack of water access to water and availability of water during drought leading to impacts on land and public and private infrastructure.

1.2 Consultation Process

Community consultation focused on the various ELMA policy options in an attempt to identify community preferences. Options presented to the community were specifically around whether or not there is support to amend the River Murray WAP to:

- Redistribute ELMA entitlements across the LMRIA region in line with the most recent scientific advice; and
- Allow for the variation of works approvals to enable a neighbouring landholder to water their neighbours property - aimed to encourage more use of ELMA.

The Board has consulted with the River Murray Advisory Committee (RMAC), the ELMA subgroup (of RMAC), the ELMA Project Team (with representatives from water licensing, water policy, science and monitoring, the EPA, PIRSA and SA Water, the Ngarrindjeri Regional Authority through the Statement of Commitment Working Group and the SAMDB Water Planning Steering Committee.

Community consultation included a community workshop, small group discussions and submissions/feedback from the community.

All information related to the ELMA review, including discussion papers and scientific reports were made available on the SAMDB NRM Boards website: www.naturalresources.sa.gov.au/samurraydarlingbasin/water/water-allocation-plans/river-murray-wap/elmareview

If amendments to the current WAP are supported as a result of initial consultation the Board will follow formal procedures (as set out in the *Natural Resources Management Act, 2004*) to amend the current WAP, including further public consultation in line with statutory requirements.

1.2.1 Community Workshop

A community workshop was held on 2 October 2019 at the RSL Murray Bridge to discuss the review of ELMA. The workshop was independently chaired by Dean Brown and facilitated by Emily Jenke. All ELMA licensees (approx. 100) were invited to attend. Sixty four community members attended the workshop (55 registered and 9 unregistered). Invitees were provided with an information pack prior to the event, outlining issues and options. This information formed the basis for discussion at the workshop.

The aim of the community workshop was to determine community preferences and thoughts relative to ELMA application rates across the LMRIA region and issues of patchwork application. Longer term issues were also on the agenda for discussion. Discussion sessions focused on new options and ideas, how options could be improved and/or what unintended consequences might arise.

In a preference indication activity (dotmocracy) held with attendees, option four received the highest number of preferences. This option would see the immediate change of current rates in the south and gradual change from current to optimised rates over a period of time in the north (E.g. 20% each year over 5 years)

An ELMA workshop consultation report outlines community thinking as documented at the workshop provided at Appendix 3.

1.2.2 Statement of Commitment meetings

Department for Environment and Water (DEW) organises monthly Statement of Commitment (SoC) meetings with the Ngarrindjeri Aboriginal Corporation (NAC) (previously Ngarrindjeri Regional Authority). The SoC meetings include NAC representatives Water Coordinator, Grant Rigney and University of Technology Sydney (previously Flinders University) Steve Hemming and staff from Natural Resources SA Murray-Darling Basin (SAMDB) and DEW.

The ELMA review was originally flagged with the SoC members back in 2017 and discussions were re-instigated from April 2019. Natural Resources SAMDB have discussed issues and options in regards to the River Murray Water Allocation Plan and the ELMA policy review and sought feedback from the NAC during the regular meetings.

1.2.3 Small community group meetings

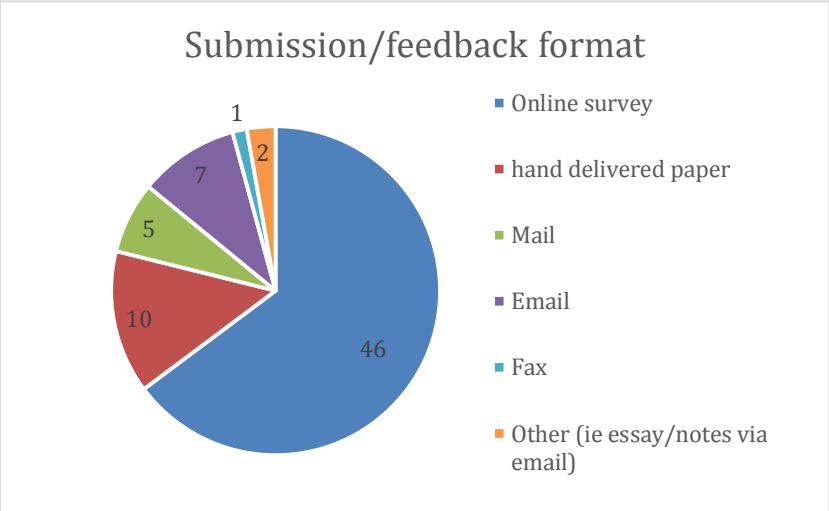
Two small community group meetings were held with NR SAMDB staff at the request of licensees. The first of these meetings was held at a licensee's property and eight licensees/community members attended. The second meeting was held at another licensee's property and seven licensees/community members attended. Minutes were taken and circulated to the attendees for comment and submitted as feedback.

Meeting minutes are provided at Appendix 4a and 4b. All comments were collated with the feedback summary, provided at Appendix 6b.

2 Feedback / Submissions

A total of 71 written submissions were received. Forty six submissions were received through completion of the online survey, ten were hand delivered, five were mailed, seven were emailed and one faxed. One of the submissions was in essay form. One submission was received from SoC.

2.1.1 How people responded using the feedback/submission form option



A collation of all submission/feedback forms is provided at Appendix 6b. Comments are grouped by topic. In total, 476 responses were received (including yes/no responses) and 204 detailed comments. Meeting notes are provided in Appendix 4a and 4b, SoC feedback at Appendix 5 and Essay form submission at Appendix 6.

2.2 Quantitative breakdown of comments

The comments received though consultation were varied and while most were directly related to ELMA policy contained in the River Murray WAP, many were related to longer term issues outside of the River Murray WAP scope.

There are limitations worthy of noting when considering the quantified data, including;

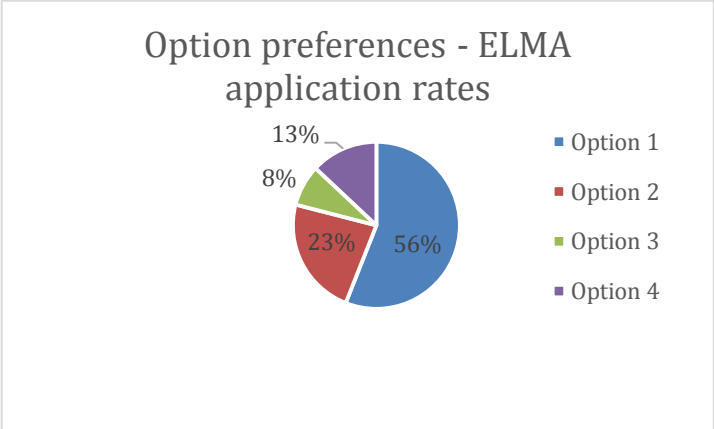
- Some feedback forms were submitted on behalf of groups and group numbers were not always disclosed.
- There was some double up in feedback i.e. where community members provided input at the community workshop and again in feedback/submission forms.

2.2.1 Summary of submission / feedback responses

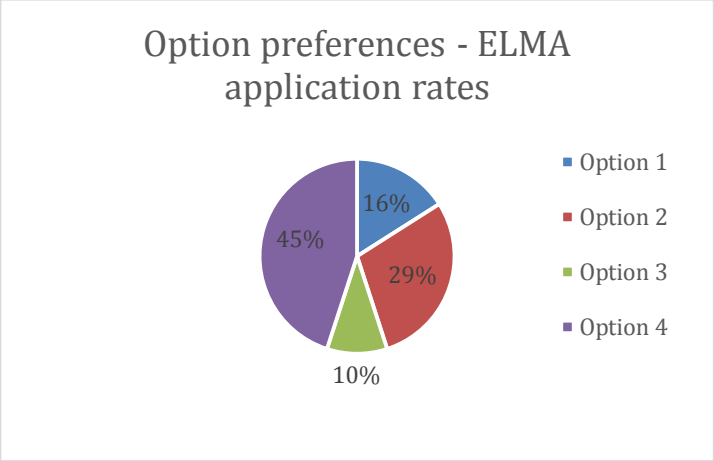
Topic	Total responses	Yes	No	No. comments
ELMA application rates				
Q1. Do you support changing the ELMA application rates for improved environmental outcomes and fairer distribution?	67	13	54	46
Q2. Of the options presented, which is your preferred option?				
○ Option 1 – No change to the current application rates and automatic licence reissue	71	40		
○ Option 2 – No change to the current application rates and re-issue licences to those people who apply	71	16		
○ Option 3 – Immediate change of the current application rates to the new optimised rates	71	6		
○ Option 4 – Immediate change of current applications rates to the optimised rates in the south and a gradual change of the application rates in the north from the current application rates to the optimised application rates.	71	9		
Q3. Are there any other policy options you think should be explored that haven't been discussed?	66	21	45	21
ELMA use				
Q4. Do you support amending the WAP to allow landholders to apply ELMA water on behalf of their neighbours?	60	29	31	31
Q5. Do you have any other suggestions to that could help increase the application of the ELMA water that have not already been considered?	63	21	42	21
Access to ELMA during dry conditions				
Q6. Do you have any ideas that would improve access to ELMA when water levels are low?	63	20	43	20
Availability of ELMA during dry conditions				
Q7. Do you have any ideas that would improve availability of ELMA during dry times?	63	43	20	43
Other comments				22
Total				**204**

Note: Feedback comments, the SOC submission and essay submission are all summarised in key issues below.

2.2.2 Summary of ELMA application rates option preferences identified in feedback forms

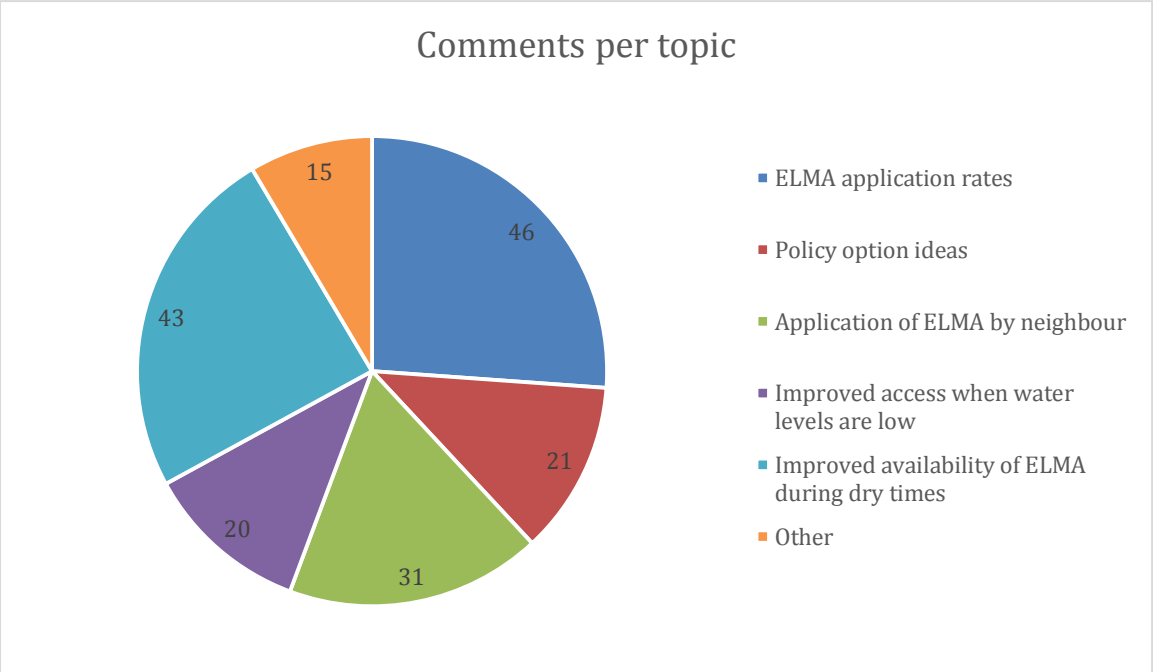


2.2.3 Summary of ELMA application rates option preferences identified at the community workshop



- Option 1 – No change to the current application rates and automatic licence reissue
- Option 2 – No change to the current application rates and re-issue licences to those people who apply
- Option 3 – Immediate change of the current application rates to the new optimised rates
- Option 4 – Immediate change of current applications rates to the optimised rates in the south and a gradual change of the application rates in the north from the current application rates to the optimised application rates.

2.2.4 Number of comments per topic



3 Key issues and comments

The following summarise the key issues and comments submitted by the community during consultation, per issue/option. The statements have been collated to best represent all of the issues, including statements taken directly from feedback forms and scenarios presented by licensees.

3.1 Changing the ELMA application rates

Forty respondents identified Option 1 as their preferred option i.e. No change to the current application rates and automatic licence reissue.

Sixteen respondents identified Option 2 as their preferred option i.e. No change to the current application rates and re-issue licences to those people who apply

Six respondents identified Option 3 as their preferred option i.e. immediate change of the current application rates to the new optimised rates

Nine respondents identified Option 4 as their preferred option i.e. immediate change of current applications rates to the optimised rates in the south and a gradual change of the application rates in the north from the current application rates to the optimised application rates

Refer to Figure 2.2.2

3.1.1 Factors in support of changed rates;

Managing environmental conditions:

ELMA should be distributed equally along the whole LMRIA in an equal per hectare basis for all LMRIA landowners. If fairer distribution is to be considered, the total area of 7000 ha in LMRIA should have an allocation.

Currently in the south end there is insufficient ELMA allocation to irrigate the whole area.

Science shows there is no difference in rainfall or soil types across the LMRIA.

Jervois is the largest district in the LMRIA area, and its irrigators all receive the same amount of ELMA, within its 18 km length. The northern Jervois land holders are less than 500 m from the Woods Point Irrigation District boundary where they get 3.5 ML/ha and the same Jervois landowners have people across the river at Westbrook who receive 3.39 ML/ha. How is this right and equal?

If ELMA allocations are not changed it may lead to legal challenges.

Rates could be increased in the south as they are decreased in the north.

The land in the north will lose ELMA but with good farming practice can be topped up with permanent water as the south have done and are doing.

Business:

ELMA should not be treated as a business asset, there are equity issues with this. ELMA is environmental water, not a business asset.

The valuer general places value on ELMA water when valuing properties, this is an equity issue. The value of land in the south would rise and decrease in the north. Millions of dollars will be transferred to the south.

History:

Some landholders have never agreed with how ELMA was divided and feel that for the lifetime of ELMA its trust irrigators have been 'robbed'. Landowners recall a meeting with Minister Hill at the old Community Club that told people to accept what was on the table or they would get nothing. People felt they had no choice but to sign up to what was on the table or tackle water unbundling and rehabilitation without any government assistance.

3.1.2 Factors not in support;

Managing environmental conditions:

There is ELMA water not being used.

Why should land in the south with ELMA be entitled to more when there is land that is not entitled for any ELMA?

Some landholders feel they should not be penalised when they have not sold water away from the land.

Land not currently receiving ELMA will stay that way as the incentive to invest is taken away if allocations are reduced.

Business:

Farmers have factored current ELMA allocations into business decisions and the maintenance of land. Some land holders have purchased land with only ELMA water and have managed to spread their water through careful management. It will cost to buy replacement water.

The goal posts are being shifted and this could have a devastating impact on farmers, both environmentally and financially. Reducing allocations will have a negative impact on lives (e.g. bankruptcy, stress, suicide). This pressure on families has caused some mental health issues and stress.

Current ELMA allocation is vital for the successful maintenance of the land in the north. Having purchased neighbouring properties and currently spreading permanent water across the land, maintenance would no longer be viable with reduced allocations, meaning we would be forced to let the land go, having a negative impact on profit and sustainability of farming land in the region.

Due to the lower rainfall & harsher climatic conditions in the north it would be a mistake to take water from the north & destroy the viability & productivity from this area. This would cause even more land to become saline & neglected. Those who have invested in rehabilitation or who have bought new land and have structured their businesses to use ELMA and leased in water, to maintain a high level of productivity will be greatly disadvantaged.

Land has been knowingly sold and bought at the current ELMA rates. Banks have extended finance on existing ELMA rates.

Should the optimized rates go ahead, the northern region should be compensated for the financial impact? It is not feasible for northern farmers to purchase an equivalent amount of water.

One family reports they are set to forfeit in excess of 400 ML and to replace this would be in excess of $3 m.

History:

Education with incentives to encourage landowners to apply ELMA to their land should be thoroughly investigated as there are issue with people not understanding the complexities of ELMA.

The north/south settled for flat irrigation rates, yet Luke Mosley's science outlines a 1.3 ML/ha irrigation allocation difference due to climate variation between the north and the south. This is not reflected in the flat tradeable allocation or the optimised ELMA rates.

Granting of equal irrigation water across the LMRIA (north/south) should not have occurred. The history of ELMA has caused a situation that is now complex and sense of entitlement is relative to historical decisions made not based on science. It is understood the irrigation community argued for equity across the region in the tradable assets and this resulted in the skewed ELMA rates. There is support for the granting of optimised rates in the south, but not for optimised rates in the north (i.e. reduced rates).

3.1.3 Other options and thoughts raised by the community

ELMA licences should be applied for on an annual basis (the hobby farmer would not apply so some of that can be used as a reserve for those who apply).

Some wetland areas are permanently inundated, should these areas be excluded from ELMA?

Land holders who haven't used their ELMA appropriately for 3 years should lose the right to use it.

There are some landholders who do not have infrastructure to use ELMA water, funds should be available to help.

ELMA could be increased in high water flows for a real flushing event.

We need a guarantee of long term ELMA give people confidence to spend money on infrastructure.

Policy proposal (as presented by a community group)

Policy change should consider a more complex sophisticated policy i.e. a range of rules.

If higher rates were allocated across the region, then less land will be accommodated for in the 22.2 GL cap and there is potential that there will be no remaining water for new applications / businesses.

Should ELMA be held by the Commonwealth Environmental Water Holder (CEWH) and allocated on an annual basis to cater for shifting needs and conditions across the region?

A temporary allocation of unused ELMA on an annual basis may work. There still needs to be a percentage leftover for new landholders. The functional volume would remain the same. Volume and security would remain unchanged in this scenario.

Policy proposal (as presented by a community group)

Minister maintain current rates in the north and bring south up to optimised rates (for those people who have been using ELMA) and WAE are granted for 5 years, assumption that 22.2 GL will not be exceeded).

Strict criteria (i.e. demonstrate infrastructure and intention to apply) for granting ELMA from the Minister's pool. If usage isn't demonstrated over the 5 year period the water reverts to the Minister's pool.

New landholders apply application to the Minister for WAE in the ELMA pool. WAE be granted provided a) there is sufficient volume in the pool and b) applicant meets criteria.

If there is too much demand for ELMA overall, give consideration to granting allocations based on maximum water usage over the past 4 years. This may still be problematic if someone has purchased land and wants to bring it back into production.

3.2 Amending the WAP to allow landholders to apply ELMA water on behalf of their neighbours

Supportive:

Farmers who genuinely care for their land already help each other out by doing this. If the neighbour doesn't have the infrastructure to do it themselves then the land suffers.

We have 2 neighbours in this situation who do not have meters and are therefore unable to apply their ELMA allocation to their land. We are prepared to assist them in applying their ELMA water via our meter, as we believe this is the best outcome to combat the patchwork issue currently being experienced.

Only if both parties agree to the arrangement and the infrastructure owner is not pressured into it.

Providing there is a clear contract/agreement in place to ensure this was done correctly i.e. there may need to be a fee and a government regulated support system for this to work. Adjoining landholders to supply a meter and pipe.

This is an individual agreement/contract that needs to be between the infrastructure owner and the neighbouring ELMA owner, no government, or independent person or group, pressure should be applied.

The water needs to be metered, not necessarily a separate meter as land could potentially only be one paddock next door. Allocation could be added to the neighbours allocation who provides the watering. There could be issues if the distance to supply neighbouring ELMA water is too great and too much infrastructure is required.

Unsupportive:

The cost of the work and changes with no return would make this non-viable.

Most of these properties are hobby farmers and it would not be beneficial for farmer to buy hobby farm and rehabilitate it.

3.3 Increasing the application of the ELMA water

Charge those who do not use their ELMA to encourage use or irrigators who do not use their water appropriately should be encouraged to do so, but after 12 months should lose the right to ELMA water (dealing also with licensees who are applying ELMA in a concentrated area).

Who is going to police the application of ELMA? Is this realistic? Land that requires rehabilitation would be more desirable to landholders if there was guaranteed ELMA, particularly at high security in dry times.

There needs to be optimised rates in the south to make application worthwhile.

Should ELMA entitlements be granted to landholders who have accessed rehabilitation grants to fill in drains and stop production? Why do they need ELMA if not producers? Landholders should be able to apply for ELMA on parcels that previously weren't granted ELMA because they only had sprinklers (not flood irrigation which at the time was required).

Laser levelling paddocks and filling in channels (side drains) will greatly assist with efficient water use. These initiatives should be encouraged.

An annual review of unused ELMA could help the southern area by way of a temporary annual allocation. There is data from bore monitoring in the Mypolonga district which proves the salinity input from the Mt Lofty Ranges is impacting on the swamps with high salinity. ELMA is not enough to keep the salinity at bay and most landholders with only ELMA would more than likely lease water in if it was at a reasonable price.

Within Jervois there are irrigators who do not apply ELMA because of the cost to fix or upgrade infrastructure and with the current rate of 2.9 ML/ha do not find it an economical positive. If an increase was to occur this may influence some to fix what is currently damaged and apply the water. Current ELMA amounts in this district are not high enough to water a full paddock.

A trust cannot, and should not, force ELMA application. Trusts can only encourage the correct timing and application of ELMA, this is normally done when a new landowners move into an area and are open to listening and learning from their neighbours.

3.4 Improving the access to ELMA during dry conditions

Irrigation at Jervois is affected dramatically by what is happening in the lakes. Damage occurs to the levee banks with the manipulation of lake/river height. During the millennium drought permanent plantings were treated differently to other plantings and no consideration was given to the damage that non-watering had to non-permanent planting land. It has been shown that without water the area is severely damaged as much, if not more, than those in permanent planting areas.

The level below lock one should stay at 0.5 m AHD, maintaining access. Can lose up to a meter with wind, losing access and prime of pumps. LMRIA still recuperating from the drought, it has been a long and expensive process. It would assist planning for water harvesting equipment to be brought in if an early warning system was considered. This would necessarily be expressed in terms of likelihood rather than specific numbers. The timing is the issue.

The river and lake below Lock 1 work together. River height must remain stable at all times. Those below lock one don't all live around a lake and any decision made needs to be looked at as a whole system not those above lock one and those around the lakes. While our land might have permanent plantings it is seriously damaged when water is not applied.

Farmers and irrigators have been made aware of what the river highs and lows will be and need to put in infrastructure to deal with the lows. This is another reason why potential cuts to ELMA allocation is frustrating as people have invested in infrastructure to guarantee sustainability of the land.

Government purchase a couple of transportable pumps.

3.5 Improving the availability of ELMA during dry conditions

When water is expensive to lease ELMA becomes vital for the integrity of the land. Is it possible for those that are applying ELMA to seek unused ELMA water to apply in dry times?

Use of the desalination plant.

ELMA should be increased, above 100%, at times of high-water flow to help get the 'flood' effect, particularly after low allocations. Water should be purchased and set aside in storage for emergency shortfall years.

ELMA allocation should be at 100% at all times. The effects of not putting on our environmental water was devastating. Levee banks must be protected. Clay dries, cracks then leaks risking bursting and water returns.

While there are times that ELMA allocations drop below 100% it should not be prioritised over permanent irrigation water. Maintaining the environment is important however if there is a shortage of water, irrigation should be considered equally important.

Reductions in ELMA water allocations during dry times should align with permanent irrigation water reductions.

Apply to CEW for additional 'environmental' water to help cover up to 100%.

3.6 Other comments

We should look at government funded revegetation programs that could aid in the reduction of rising salts.

People upstream of the LMRIA already see ELMA as a gift that has production benefits, we need to be careful with the management of ELMA as a region.

There needs to be better education around ELMA across the LIMRIA. Some people have purchased land and don't actually know or understand their ELMA.

Some properties don't have any ELMA because they had sprinklers and not flood irrigation at the time ELMA was granted, and flood irrigation was a condition.

Stop cotton growing further up the river! However we should all reduce intake at dry times! Unfortunately we live in the driest state in Australia.

First Nations feedback provided in the submission

Ngarrindjeri submitted a response to the ELMA review via the DEW, SAMDB NRM & SE NRM Statement of Commitment meeting/s as outlined below, with a summary of the main points to consider in relation to a change in ELMA policy:

- Underuse of ELMA water could be allocated to Ngarrindjeri for cultural objectives
- Ngarrindjeri support that ELMA is used for environmental benefits in the LMIRA (lower Murray irrigation reclaimed areas) to address soil salinity, acid sulfate soils and water quality of the river because Ngarrindjeri's living cultural landscape includes the area defined as the LMIRA
- Ngarrindjeri support that ELMA water is not used as additional water for economic benefits i.e. growing of horticulture, crops etc. meaning that Ngarrindjeri support the latest science which show that the optimised rates addresses the issue of applying the right amount of water [optimised] to overcome salinity and land management problems without providing additional water which has economic benefits.
- Consider the option that ELMA water could be managed by CEWH (Commonwealth Environmental Water Holder)

Landholder scenario provided in feedback

I have purchased/leased approximately XXX acres of land. The land was in terrible condition with forests of boxthorns and all types of weeds. I have worked extremely hard to get this land back into production, including spending a large amount of money on laser levelling and infrastructure in order to be able to irrigate and improve water efficiency. I have been able to establish a business and support my family by doing this.

I have been able to achieve this with the current ELMA rates. If the rates are changed I will have to significantly alter the way I run my farm, I would need to concentrate the ELMA water on fewer paddocks as the optimised rates would not been sufficient to keep the land maintained to its current condition. There is no financial way that I would be able to purchase the equivalent amount of water that the optimised rates would see me lose.

Optimised rates would see me seriously re-evaluate the progress I have made on the land and most likely stop running the farm and return to my previous trade, leaving the land to deteriorate back to previous condition. I do not believe that this is improved nor does it include a fairer distribution.

Data/Accounting

Some landholders apply water (e.g. Class 3) for environmental management over and above ELMA water and others have traded water out (class 3) and are now suffering for those decisions.

The data does not reflect ELMA use accurately. It appears that those with only ELMA water have accurate data, however those with both ELMA and irrigation water are inaccurate.

The Valuer General looks at ELMA and its application in land assessment yet has no idea that the ELMA amount varies along the river or the rules under WAP applicable to ELMA.

Unbundling is recognised as making the management of ELMA difficult, i.e. not able to linking the management instruments.

There is also a view that the south traded away a significant amount of irrigation water. There is a need to investigate the permanent trade away of water i.e. 56 GL has been traded, we need to establish the areas from which this has occurred its possible it has also occurred in the north.

There is very little accountability and support for such a large area of reclaimed land. There should be education and on ground support in the use of ELMA to help decision making which would also serve as a monitoring system for Government Departments.

Proposal to recover ELMA water from land retired from productive agriculture

The following gives a summary of a submission proposal. For full detail see Appendix 6.

The concept of ELMA Buyback is to identify the single owner swamps that do not intend to irrigate and offer some incentive for them to reintroduce the land to the river floodplain system. By opening the land to natural inundation (based on river flow) the land can become an extended river flood plain. Identifying Swamps that are;

1. Single owner swamps (approx. 6)

2. Do not use ELMA or do not have infrastructure to irrigate.

3. And can be either govt or private swamps.

These swamps could be "recycled" by the inclusion of an inlet structure at the upstream end of the swamp, and an outlet at the downstream end of the swamp, and with the correct height settings could allow for the river water to operate the area as a flood plain. This would allow the ELMA allocation to be retained by the minister.

Inducements for the land owner in return for relinquishing the ELMA would cover the cost of pulling fences, and pushing in channel banks, and the installation of water inlets and outlets(with or without carp screens). The rehabilitated floodplain areas can become a "managed wetland" area which would require opening and closing flow control structures, or "unmanaged wetland " areas that are always open to the river. Managed wetland areas would require a water management plan.

The benefits of re introducing the land to the river (as outlined in Principle 45 of the WAP);

a. reintroduction of a wetting and drying regime that reflects a more natural pattern of connectivity

b. An increase in the recruitment and survival of native flora and fauna

c. An increase or improvement in the habitat for native fauna

d. An improvement in the connectivity between the river and the floodplain

e. The promotion of nutrient exchange

f. Extending the duration or increasing the frequency of wetland inundation.

In addition the benefits if increasing the floodplain area will increase the nutrient recycling, increase the filtering capacity of the LMRIA, and create additional flood retention areas. The groundwater would be better connected to the dynamics of the river.

4 Next steps

This consultation report will be submitted to the Board for their consideration in relation to possible amendments of the Water Allocation Plan for the River Murray Prescribed Watercourse (the WAP).

If it is determined by the Board that a change in entitlements in the LMRIA is supported then the WAP will need to be amended. This will incorporate a formal statutory consultation.