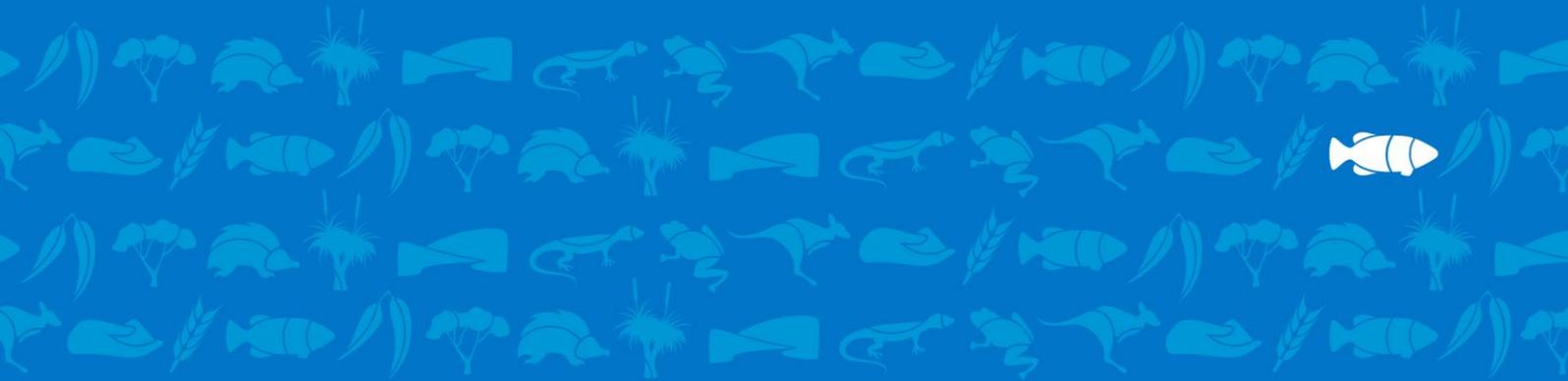


South Australian Murray- Basin Natural Resources Management Board

River Murray Water Allocation Plan Review

June 2007



Government of South Australia

South Australian Murray-Darling Basin
Natural Resources Management Board

Contents

1. BACKGROUND & PURPOSE	5
2. REGION COVERED BY THE RIVER MURRAY WAP	5
3. STATUTORY REVIEW REQUIREMENTS	6
4. FORMAT OF THE REVIEW	6
5. REVIEW METHODOLOGY & TOOLS	6
6. STAKEHOLDERS	6
7. REVIEW FINDINGS	7
7.1 The River Murray Prescribed Watercourse	7
7.2 Assessment of Needs of Dependant Ecosystems	8
7.3 Assessment of Effect on other Water Resources	9
7.4 Assessment of Capacity of Resource to Meet Demands	10
7.5 Water Allocation Criteria	11
7.5.1 Objectives	11
7.5.2 Current Cap and Entitlement Flows	11
7.5.3 Allocations	12
7.5.4 Over Allocations	12
7.5.5 Separation of Water Rights	13
7.5.6 Existing Unallocated Water	13
7.5.7 Wetlands/Environment	14
7.5.8 River Murray Irrigation Management Zone	14
7.5.9 Angas Bremer Irrigation Management Zone	14
7.5.10 Lower Murray Reclaimed Areas Irrigation Management Zone	15
7.5.11 Outside of the River Murray Catchment Water Management Boards Boundary (now SA MDB NRM Board)	15
7.5.12 Unaccounted water	16

7.5.13 <i>Terminology/Definitions</i>	16
7.5.14 <i>Native Title</i>	16
7.6 Water Transfer Criteria	16
7.7 Permits	17
7.8 Monitoring	17
7.9 Miscellaneous	18
7.10 General Comments	18
7.10.1 <i>Administrative</i>	18
7.10.2 <i>Technical</i>	18
8. NEXT STEPS AFTER THE REVIEW	19
9. FINAL SUMMARY	19

1. BACKGROUND & PURPOSE

The initial River Murray Water Allocation Plan (WAP) was Ministerially adopted and publically released in 2002. Under the *Natural Resources Management Act 2004* (formerly the *Water Resources Act 1997*), the WAP must be reviewed at least once every five years. This is the first formal review of the WAP, which provides feedback and input into the development of the next version of the River Murray WAP.

This review highlights issues with the current WAP particularly its administration, ability to provide for and promote sustainable water use, existing gaps in policies and its integration and compliance with other legislation. All of issues and general comments raised during the review will be considered and discussed during the development of an amended WAP, helping to produce a comprehensive and more effective WAP. There have also been some recent legislative changes, including the introduction of the NWI, that any new WAP will need to consider and adequately align with – in particular Schedule E of the Agreement.

Throughout the review comments provided focused on the issues that are inherent in the present content and structure of the WAP. Where amendments to the WAP are required, the amendments have been discussed but the method, process or detail of these changes is not provided. This has been an intentional omission from the review, so as to not preempt the detail that will be openly and transparently discussed through the consultation phases of the amended WAP's development.

A Consultation and Engagement Strategy will be developed to assist in the amendment of the River Murray WAP, which will highlight key consultation stages, the stakeholder groups to be involved and the timelines associated with the WAP's development.

2. REGION COVERED BY THE RIVER MURRAY WAP

The River Murray WAP covers the region referred to as the River Murray Prescribed Watercourse. The River Murray Prescribed Watercourse is defined as the River Murray Watercourse and other associated watercourses, as defined by the Government Gazette notice dated 10 August 1978.

Under the current *Natural Resources Management Act 2004*, the proclamation under the *Water Resources Act 1990* continues in force as though it were a regulation declaring a prescribed watercourse under the current *Act*.

3. STATUTORY REVIEW REQUIREMENTS

Under Section 81 of the *Natural Resources Management Act 2004* (herein referred to as the Act), there are a number of requirements regarding the review of a WAP. Under the Act, WAP's are considered to form part of the NRM Boards regional NRM Plan and therefore must be reviewed within five years of adoption. Section 76, 78, 79 and 80 of the Act detail the processes that must be followed in amending a WAP, including requirements for consultation, content and timing. For the SA MDB NRM Board region, the Minister responsible for the WAP's is the Minister for the River Murray.

4. FORMAT OF THE REVIEW

This review is structured to provide both general and specific feedback on issues such as the WAP's content, administration and implementation. The findings from the surveys and stakeholder communications (detailed later in the report) have been collated and presented in this report. This report also provides recommendations for further work to assist in the development of the amended version of the River Murray WAP.

5. REVIEW METHODOLOGY & TOOLS

A range of stakeholders, selected to form a representative sample of their industry, interest or user group, were asked to participate in providing advice to the Board in developing this review. These stakeholder groups were comprised of both internal and external representatives.

Both written and verbal communications were used with the stakeholder groups, including surveys, phone calls and small group discussions.

The review has also considered the findings of the Marsden Jacobs review "Audit of the interpretation and implementation of Water Allocation Plan and Catchment Water Management Plan policies" and other relevant documents provided to the Board by stakeholders.

6. STAKEHOLDERS

The following stakeholder groups were consulted during the review:

- **Internal** - Staff of the SA MDB NRM Board, members of the SA MDB NRM Board, the Board's NRM Groups and the River Murray Advisory Committee.
- **External** - Persons with a direct interest or involvement with the River Murray WAP were identified to form part of the external review process. External stakeholders included licensed water users, government agencies, local government, and bulk water suppliers, regional development boards, Local Action Planning Groups and specific industry groups.

There are a number of specific interest areas relating to the WAP covered by the stakeholders including interest areas such as:

- Licenced Water User
- Water Supplier
- Policy
- Licensing /Permits
- Technical Knowledge & Information
- On-ground Implementation
- Compliance
- Monitoring & Evaluation
- Community Engagement
- Social & Economic Issues
- Regulatory Role

7. REVIEW FINDINGS

This review focuses primarily at an issues level and does not explore the changes required to the WAP at the policy level. This will be done in detail during the policy development stage of the amended WAP, in consultation with committees of the NRM Board and the community.

There are several reoccurring technical and administrative issues raised by a range of stakeholders during the review. The review findings have been grouped under the existing WAP section headings as detailed below.

7.1 The River Murray Prescribed Watercourse

There are no current recommended changes to the existing prescribed boundary, although there are other adjoining prescribed area boundaries along the lower end of the River Murray Prescribed Watercourse. The River Murray prescribed boundary meets the Eastern Mount Lofty Ranges (EMLR) prescribed water resource area boundary and there is an interaction between the prescribed water resources, particularly in the use of River Murray water in the EMLR.

It is recommended that both WAP's address this interaction by having linkages between various water use principles in their regions relating to the use of River Murray Water. The amended River Murray WAP should also further address interactions between groundwater, surface water and watercourse water.

Amendment required: Further quantification relating to the interaction between water resources is required and defined linkages to other adjoining prescribed areas should be detailed.

7.2 Assessment of Needs of Dependant Ecosystems

The current WAP provides an assessment of the needs of water dependant ecosystems of the River Murray Channel and its wetlands and floodplains, the Coorong and Lower Lakes.

It is difficult to determine if these current requirements have been adequate, as over the last five years the quantity and timing of flows as outlined in the WAP were not received. During the development of the amended WAP, other information sources on the environmental requirements of the River Murray and its icon sites will be updated.

Plans to be reviewed during the development of the amended River Murray WAP include the Living Murray Icon Sites Environmental Management Plans, the River Murray Strategic Watering Plan (in development), the South Australian River Murray Salinity Strategy, the South Australian Environmental Flows Strategy, the Murray Darling Basin Sustainable Yields Assessment and other Plan's and legislation with a focus on environmental flow requirements and water quality.

The River Murray WAP sets targets for the needs of water dependant ecosystems (for both quality and quantity) and will need to be consistent with:

- the South Australian Strategic Plan 2007, which has set targets for the River Murray as follows:

T3.9 Sustainable water supply: South Australia's water resources are managed within sustainable limits by 2018.

T3.10 River Murray – flows: increase environmental flows by 500GL in the River Murray by 2009 as a first step towards improving sustainability in the Murray-Darling Basin, with a longer-term target of 1500 GL by 2018.

T3.11 River Murray – salinity: South Australia maintains a positive balance on the Murray-Darling Basin Commission salinity register.

- South Australian River Murray Salinity Strategy 2001- 2015 which has set the following targets:

Salinity Targets – less than 800 EC for 95% of the time for Morgan for 2015. Additional targets include Border to have a target of 412 EC, Berri to have a target of 543 EC and Murray Bridge to have a target of 770 EC for 80% of the time for 2015 (these targets may be adjusted to reflect changing flow conditions).

- National Water Initiative (NWI) 2004, provides the following targets:

35. Water that is provided by the States and Territories to meet agreed *environmental and other public benefit outcomes* as defined within relevant *water plans* (paragraphs 36 to 40 refer) is to:

- i) be given statutory recognition and have at least the same degree of security as water access entitlements for consumptive use and be fully accounted for;
- ii) be defined as the water management arrangements required to meet the outcomes sought, including water provided on a rules basis or held as a water access entitlement; and
- iii) if held as a water access entitlement, may be made available to be traded (where physically possible) on the temporary market, when not required to meet the environmental and other public benefit outcomes sought and provided such trading is not in conflict with those outcomes.

37. Broadly, water planning by States and Territories will provide for:

- i) secure ecological outcomes by describing the environmental and other public benefit outcomes for water systems and defining the appropriate water management arrangements to achieve those outcomes; and
- ii) resource security outcomes by determining the shares in the consumptive pool and the rules to allocate water during the life of the plan.

- Commonwealth Water Security Plan 2007, includes the following outcome:

Sustainable Yields - Will look at outcomes of the Murray Darling Basin Sustainable Yields Assessment in determination of environmental volumes in line with other consumptive uses .

Currently the WAP also lacks clear guidance on how over entitlement flows (unregulated flows) should be managed. The amended WAP may need to provide clearer rules for any flows over and above the entitlement flows, including those flows that may be allocated to the environment. Any future water quality targets should also consider other indicators such as nutrients, heavy metals and biological indicators such as blue green algae in addition to the current focus on salinity, broadening the indicators to include quality and quantity.

Amendment required: *Provide updated water quality and quantity information and targets for ecosystem needs and ensure consistency with relevant plans and legislation.*

7.3 Assessment of Effect on other Water Resources

Since the development of the initial River Murray WAP, the Clare region has further developed access to River Murray water for irrigation via SA Water infrastructure. There is an existing WAP for

the Clare Valley Prescribed Water Resources Area which provides rules for the management of imported River Murray water.

The amended River Murray WAP will need to consider the potential impacts of the use of River Murray water in the Clare prescribed area, including the effects of water use on the quality and quantity of water available from the native prescribed water resources. Such assessments have previously been undertaken for the Barossa and Angas Bremer regions (as presented in the initial plan) and will need to be reviewed and included in the amended River Murray WAP. The Eastern Mt Lofty Ranges (EMLR) WAP is currently in development and will include the Angas Bremer region.

Amendment required: *Detail potential impacts of River Murray water use in other prescribed regions, including newly prescribed regions such as EMLR and existing prescribed water resources where River Murray water is being used including Clare and the extended Barossa prescribed boundary.*

7.4 Assessment of Capacity of Resource to Meet Demands

Since the inception of the River Murray WAP in 2002, there have been numerous occasions where supply and capacity of the resource has not met the stated demand. A review of the current and future potential demand will be undertaken in the development of the amended WAP. The current Murray Darling Basin Cap volumes do not allow for increased demand above the existing level of allocations – without increasing the cap.

Climate change variability will need to be accounted for in the revised capacity of the resource figures. These revised figures should also account for the evaporative losses from the system to reflect the true availability of water within the consumptive pool.

The current tables on pages 16 & 18 of the WAP will be adjusted to reflect any changes made to SA's entitlement under Schedule F of the Murray Darling Basin Agreement, should this occur and any changes as a result of the National Plan for Water Security.

An accurate account of available water should be undertaken to determine an accurate estimated volume of water available for consumptive uses (including the environment) in South Australia and should include information such as, the volume of water traded into South Australia as permanent transfers; permanent trades of water out of South Australia and transmission losses from the system before its extraction for use.

Changing landuse (and crop type), including potential development expansion will clearly need to be assessed and linkages between development planning and the WAP will need to be revised and strengthened to provide for greater water security and availability into the future.

Amendment required: *Undertake complete assessment of current and future resource capacity taking into account climatic changes and review existing and future demand for the resource and its capacity to supply.*

7.5 Water Allocation Criteria

There are many aspects to be revised under the current water allocation criteria and these have been detailed in issue headings below.

7.5.1 Objectives

These need to be revised to reflect the changes under NWI (in particular Schedule E) and any relevant changes arising from the National Plan for Water Security.

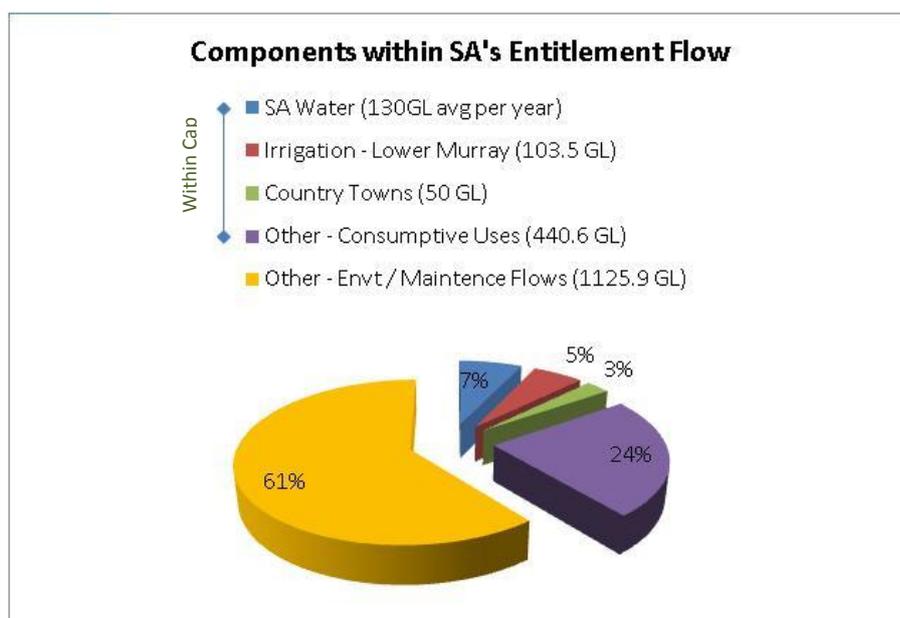
Amendment required: *Revise principles around allocations*

7.5.2 Current Cap and Entitlement Flows

There are two figures that relate to water availability for the River Murray in SA. The Murray Darling Basin Cap (for SA) and the Entitlement Flow under the Murray Darling Basin Agreement. The Cap volume determines the volume of water that can be diverted from the River Murray for use by consumptive purposes (ie generally all other consumptive uses other than the environment).

The Entitlement Flow for SA under the Murray Darling Basin Agreement determines the minimum flows that SA will receive across the Victorian border. The Entitlement Flow is made up of the Cap with the balance being available for environmental use, system losses (evaporation and seepage) and system maintenance (see Figure 1). During periods of low flow, these figures may need to be adjusted by the formal processes outlined in the Murray Darling Basin Agreement and the WAP should provide for drought arrangements.

Figure 1. Breakdown of Annual Entitlement Flow into SA



The current tables within the WAP on pages 16 and 18, and the diagram on page 11 of the WAP Explanatory Guide make it difficult to determine how the current allocations meet the Cap requirements. The revision of the WAP should more clearly specify details of the Cap and Entitlement Flows and how they relate to allocations.

Amendment required: *Provide more detail how the Cap and Entitlement Flows are used and allocated in amended WAP.*

7.5.3 Allocations

Further revision of the needs of the environment has been undertaken and this needs to be reflected in the amended WAP. The 200 GL currently allocated for wetlands within the entitlement flows is inadequate and will need to be updated. It should also be noted that the 200GL is an allocation mechanism that deals only with wetland management and does not include the management of other environmental water, nor does it include watering of other environmental assets. Issues such as the management of unregulated flows or allocation of environmental water to other sites where a more natural hydrological regime may need to be reintroduced (such as the floodplain) will need to be considered. In light of the newly established River Murray Environmental Manager function, new policies and mechanisms to manage all environmental watering activities need to be explored through the WAP process.

All of Policy 3 on page 26 will need to be revised to reflect that all water outlined (within the Cap) in this WAP has now been allocated. Water for consumptive purposes such as irrigation will not need to be separated by region in the amended WAP, although what the consumptive uses are and what volume of water is allocated may need to be more clearly defined (ie: what volume of water is allocated to stock and domestic use within the consumptive use figures).

There have also been a number of other 'users' of River Murray water that were not accounted for in the existing WAP, including uses such as salt interception schemes, marinas, wetland evaporation and some stock and domestic use (not including licenced use). The consumptive use of River Murray water by all users should be accounted for in the amended WAP.

The impact of drought and climate change should also be considered and accounted for in the principles and policies surrounding allocations.

Amendment required: *Existing allocations principles and objectives to be reviewed and all consumptive uses accounted for in the water balance and with appropriate allocations and presented in the amended WAP.*

7.5.4 Over Allocations

The National Water Initiative (NWI) which came into effect June 25th 2004 (post River Murray WAP adoption), states that over allocation needs to be addressed, so that allocations are brought in line with the sustainable yield of the resource.

The Cap volume of 440.6 GL (for consumptive uses at the time of WAP adoption included irrigation outside of the Lower Murray Swamps, industry and stock and domestic allocations) and the existing River Murray WAP allocations will need to be reviewed to ensure NWI requirements are met in the future amended WAP. Policy 3c on page 26 of the River Murray WAP provides for the allocation of 522.1 GL for consumptive use.

Historically allocations have been higher than use, but changes in climatic conditions (such as reduced rainfall and higher temperatures), could increase use and potentially physically exceed the current Cap volumes.

The amended River Murray WAP will need to provide for the allocation of water between all existing users without exceeding the sustainable yield of the resource.

Amendment required: *Align licenced allocations with SA's Cap and NWI requirements.*

7.5.5 Separation of Water Rights

The existing River Murray WAP will need to be amended to be consistent with the NWI. The existing scheme of a water licence with a water holding and a water taking allocation will need to be changed to meet the 'separation of water rights'. The proposed system of licensing will comprise five components:

- Water access entitlement (a right to access the water resource)
- Water allocation (a share of the consumptive pool)
- Water resource works approval (right to install and use water extraction infrastructure)
- Site use approval (right to use water at a particular site)
- Delivery capacity entitlement (used to manage access in a constrained system)

Amendment required: *Amend River Murray WAP to be consistent with the requirements of the NWI separation of water rights.*

7.5.6 Existing Unallocated Water

The 2002 WAP only provides rules for the use of water under the entitlement flows for consumptive purposes and environmental purposes. Any water received above entitlement flow (unregulated flow) is considered to be 'unallocated' under the WAP and is presumed to be used for the environment and river maintenance and water trade operations.

During the amendment of the WAP, rules around SA's entitlement flows above consumptive use allocations may need to be reconsidered as well as the management of the unregulated (above entitlement) flows.

Amendment required: Determine if WAP should provide rules for unregulated flows and revise the allocation/management of entitlement flows above Cap.

7.5.7 Wetlands/Environment

Further assessment of the needs of the environment has been undertaken and this needs to be reflected in the amended WAP. The 200 GL currently allocated for wetlands within the entitlement flow is too narrow as wetlands are only one component of an integrated environmental management system and other priority assets also have key hydrological needs. The amended WAP needs to be broadened to incorporate more current thinking around flow management which includes pumping projects, weir pool manipulation and other methods of using environmental allocations on sites. Additionally the management of environmental water now sits with the Board through the River Murray Environmental Manager. Mechanisms need to be established to enable the River Murray Environmental Manager to manage environmental watering activities. This section of the WAP will need to be extensively updated.

Amendment required: Revise allocation figures for wetlands and other ecological assets in the new WAP, broaden environmental watering from wetlands only to include a more integrated environmental watering framework, and determine mechanisms for controlling environmental watering activities.

7.5.8 River Murray Irrigation Management Zone

The current Water Use Efficiency (WUE) criteria need to be reviewed. Issues with the WUE targets are that the 85% efficiency rule may not be appropriate for all crop types; it's not easily measured, requires significant input from individuals including NRM Board & DWLBC staff and can cause issues with salt build up in some soils due to the reduced leaching fractions. The current WUE approach is time consuming and does not provide timely feedback to water uses.

Principles 19 to 22 on page 28 of the WAP relating to salinity impacts should also be reviewed. These principles are difficult to administer and are confusing for irrigators, particularly when undertaking transfers of water deemed to be allocated either side of the January 1st 1988 date. In future, site use approvals under the separation of water rights could be used to assist in managing salinity impacts, through specific site management.

Principle 23 on page 29 also needs to be reviewed and clarified as to its intended purpose.

Amendment required: Review WUE criteria and targets and salinity impact policies.

7.5.9 Angas Bremer Irrigation Management Zone

There is an inequity between water use principles in the Angas Bremer as compared to the rest of the River Murray Irrigation Management Zone. Historically the local irrigators in the Angas Bremer

had pushed for detailed management regimes. During the revision of the WAP inconsistencies between WUE and other on ground management of irrigation between different irrigation management zones should be addressed where possible. It should be recognised that the Angas Bremer region has demonstrated effective water use efficiency reporting independent of the remainder of the River Murray system and this should be maintained where appropriate.

A review of the Angas Bremer WAP has been undertaken and will need to be considered during the revision of the River Murray WAP to ensure consistency between policies, particularly in relation to the use of River Murray Water in the Angas Bremer Prescribed Wells Area (PWA). The Eastern Mt Lofty Ranges WAP is currently in development and will consider the Angas Bremer PWA.

Amendment required: Review irrigation management regimes and look at consistency between different management zones and prescribed regions.

7.5.10 Lower Murray Reclaimed Areas Irrigation Management Zone

As all Lower Murray Irrigators have now been provided an allocation under the existing WAP, principles 35 to 38 on page 31 can be removed, as no new allocations will be made. The volume specified for Lower Murray Swamps Irrigation under the Cap in the WAP on page 18 can now be amalgamated into the total volume for consumptive use, as this volume has now been fully allocated and can form part of the total irrigation pool for trading etc.

The use of Environmental Land Management Allowance (ELMA) water may need to be reviewed in the amended WAP to provide better guidance on its use and management. The use and management of ELMA water could potentially form part of the site use approval rules as part of the NWI separation of water rights. During the amendment of the WAP the WUE target of 65% should be reviewed to determine if this is still an appropriate management target.

Amendment required: Update Cap volumes in WAP and in MDB Agreement and revise site use approval principles for irrigation and ELMA water in the Lower Murray Irrigation Area.

7.5.11 Outside of River Murray Catchment Water Management Boards Boundary (now SA MDB NRM Board)

The amendment of the River Murray WAP will need to consider the changes to the Clare and Barossa WAP's as they relate to the use of River Murray water in their prescribed areas. The Clare and Barossa WAP's are currently being amended and will be adopted by the Minister for Environment and Conservation before the amendment to the River Murray WAP is completed. The amendment of the River Murray WAP will need to ensure consistency with the overarching principles relating to the use of River Murray water in the Clare and Barossa prescribed areas.

Amendment required: Ensure consistency with the principles relating to the use of River Murray water in the Clare and Barossa prescribed areas.

7.5.12 Unaccounted water

Another inherent issue with the current allocation of the resource under the WAP is that system losses (via transfer) are not accounted for under the irrigation allocation component of the Cap. Currently when water is transferred along the length of the river to allow for temporary or permanent transfers, the water lost via transmission is not accounted for in this trade. Currently these system losses are unofficially 'accounted' for in the entitlement flows above the Cap, effectively reducing the volume of water for the environment.

There is a need to incorporate a whole of basin accounting approach, accounting for diversions for consumptive use, environmental use, system losses, evaporation, interaction with groundwater, backwaters etc in the amended WAP.

Amendment required: *Transmission losses should be fully accounted for upon trade, potentially within the consumptive pool.*

7.5.13 Terminology/Definitions

Due to the changes required to the WAP as a result of NWI requirements, there will need to be changes made to the terminology used when referring to existing licences and allocations. The *NRM Act 2004* will be amended to reflect these NWI requirements and these terms will be used in the amended River Murray WAP.

Amendment required: *Revise terminology in existing WAP to meet changes under NWI and the *NRM Act 2004*.*

7.5.14 Native Title

Native Title is not currently discussed in the WAP but the amended WAP will need to consider potential linkages to indigenous agreements relating to the River Murray, particularly in relation to the management of water at indigenous sites.

Amendment required: *Review status of indigenous agreements relating to the River Murray and potential linkages.*

7.6 Water Transfer Criteria

Due to the significant changes to the current licensing system under the NWI and NRM Act reforms, this section of the WAP will need to be extensively revised. Many of the policies looking at transfer criteria rules and salinity impact mitigation could potentially be covered by site use and site works approvals under the new framework for separation of water rights. Principles of the current salinity

zoning policy need to be incorporated in the amended WAP, but under the new language of site use, entitlements, allocations etc.

Tagged trade of water between states in the Murray Darling Basin will commence from July 1st 2007 as per the requirements of the NWI. In the interim period before the amended WAP is adopted, assessments for trades will still follow the same assessment process but there will be the ability to attach rules to the traded water (for example if the water is traded in from Victoria to SA and has rules about managing site use salinity impacts, these rules can be attached to the traded water to be implemented in SA). Under the amended WAP there will need to be clearly defined principles and polices relating to the use and trade of tagged water through site use approvals.

Amendment required: *Revise existing WAP to allow for changes to water transfers and trade to meet NWI requirements and use site use and site works approvals to manage for impacts from transfers.*

7.7 Permits

The entire permits section of the existing WAP needs to be reviewed and updated. Currently only the drilling of wells is covered. Consideration needs to be given to other water affecting activities such as (but not limited to) the construction of dams, use of imported water, water reuse and storm water and effluent water use.

Consideration should be given to detailed site works approvals principles in this section of the amended WAP. There also needs to be clear linkages between activities that will be regulated under the NRM Regional Plan which is currently in development and other legislation such as (but not limited to) the *Development Act 1993* and the *River Murray Act 2003*.

Amendment required: *Revise existing WAP to include more detail on activities that will require a permit or that will form part of a site works approval under NWI. Provide clear linkages to activities regulated by the NRM Regional Plan.*

7.8 Monitoring

The reasons for what monitoring and reporting are undertaken and why, need to be clearly outlined in the WAP's supporting Explanatory Guide. There is a current lack of broader regional monitoring detailed in the WAP, with a strong focus on property scale monitoring which needs to be reviewed. The linkages between the WAP and the NRM Plan also need to be detailed.

Monitoring requirements under the MDB Cap and other guiding legislation and initiatives may also need to be incorporated into the amended WAP. The amended WAP should also look to achieve consistency between reporting requirements of other prescribed areas using River Murray water and should acknowledge and look to continue, where appropriate, existing reporting arrangements where they have delivered successful reporting.

Amendment required: *Revise existing monitoring requirements and look at linkages to NRM Plan and other prescribed areas.*

7.9 Miscellaneous

The documents reviewed as part of the WAP amendment will need to be updated in this section. This section could also better detail linkages between other relevant plans and legislation and their operation. For example, the *Groundwater (Qualco Sunlands) Control Act 2000* applies to the use of water in a particular region to control salinity impacts but it is unclear whether this Act's purpose and extent takes precedent over the operation of the River Murray WAP.

The same detail about the operation of the *Development Act 1993* and the *Environment Protection Act 1993* could also apply here.

Amendment required: *Revise this section and update with more detail on linkages between plans or legislation and their operation.*

7.10 General Comments

From the comments received during the review process, particularly from licenced users, administrative and technical issues with the WAP were also a significant concern. The majority of issues raised related to:

7.10.1 Administrative Issues

- Water Use Efficiency is too onerous in the level of detail and time required from irrigators to undertake WUE reporting.
- Transfers/trades are onerous in the time taken to process the paperwork, which was often significant and disruptive and there were concerns with the transparency of the process.
- Annual reporting on resource condition and use to licenced users was insufficient and better feedback on the reporting of the management and monitoring of the resource should occur.

7.10.2 Technical issues

- The current WAP is heavily focused on regulating irrigation and not much direction is given to other water use including industrial licences.
- Climate data used in the development and administration of the WAP needs to be reviewed and included in the amended WAP, to ensure the most recent data is used for management of the resource, particular for WUE monitoring.

- Technical support programs should continue such as irrigation efficiency training (and others) to help achieve WAP targets and provide economic improvements to water users.

Some of these issues have been covered in other sections of this review report and will be addressed during the amendment of the WAP. There are some issues however that are outside the boundaries of the WAP, such as the processing of water trades and transfers. However, the WAP will endeavor to provide clear direction and interpretation of policies to reduce the time spent on determining the process and the required assessments.

Amendment required: *The general issues raised from the review process will be discussed during the development of the WAP and community consultation will help form future management options.*

8. NEXT STEPS AFTER THE REVIEW

Following the submission of the review to the Minister for the River Murray, the process to develop a Concept Statement will commence, prior to the development of the amended WAP. The stakeholders who asked to participate in the review will be invited to continue their involvement in the development of a new WAP and the wider community will also be asked to participate. The process and methods used in the development of the WAP will be detailed in the Consultation and Engagement Strategy which is in development.

9. FINAL SUMMARY

Following the approval of the SAMDB NRM Board, it has been recommended that this review report be submitted to the Minister for the River Murray and the process of plan amendment be commenced.

A number of suggested amendments have been identified in this report, requiring an amendment to the existing 2002 River Murray WAP. The process to amend the plan is outlined in the *Natural Resources Management Act 2004*.

The SA MDB NRM Board will release a comprehensive Consultation and Engagement Strategy that will clearly outline the development stages to amend the River Murray WAP and where there are opportunities to participate in the process. It is anticipated that a Concept Statement will be released during 2007 to commence the amendment of the WAP.