

# Summary List of Recommendations



Government  
of South Australia

## South Australian Government Response to the Draft Murray-Darling Basin Plan

16 April 2012

### BASIN PLAN MANAGEMENT OBJECTIVES AND OUTCOMES

#### Recommendation 1

The objectives and outcomes to be achieved by the Basin Plan must:

- correctly reflect the purposes and objects of the *Water Act 2007* and more clearly define the outcomes to be achieved; and
- include objectives and outcomes which address the risks to Basin water resources identified in chapter 4.

### IDENTIFICATION AND MANAGEMENT OF RISKS TO BASIN WATER RESOURCES

#### Recommendation 2

The Basin Plan must include:

- comprehensive identification of risks that are clearly linked to specific risk management strategies; and
- strategies to address particular risks including climate change risks, physical, operational and policy constraints impeding environmental water delivery, recovery from drought, storage access, groundwater impacts and coordination of the effective delivery of environmental water.

### PROPOSED ENVIRONMENTALLY SUSTAINABLE LEVEL OF TAKE

#### Recommendation 3

The South Australian Government rejects the proposed environmental water recovery target of 2750 GL as it does not meet the requirements of the *Water Act 2007* and requires that the Murray-Darling Basin Authority (MDBA) must adopt an environmental water recovery target greater than 2750 GL that meets key environmental outcomes.

#### Recommendation 4

The environmental water recovery target adopted by the MDBA must conserve biodiversity and declared Ramsar wetlands, protect and restore key ecosystems, and meet key salinity and water level outcomes including to:

- export salt loads of 2 million tonnes per year over a rolling 3 year average;
- keep the Murray Mouth open without the need for dredging in at least 95% of years, with flows through the barrages out to sea every year;
- maintain average daily water levels in the Lower Lakes above 0.4 metres average height datum (AHD) for 95% of the time and above 0.0 metres AHD at any time;
- maintain average daily Coorong south lagoon salinity levels below lethal thresholds for key species (less than 100g/L);
- avoid adverse salinity impacts on the ecology by maintaining average daily salinity in Lake Alexandrina below 600 mg/L (1000 EC) for 95% of the time and below 900 mg/L (1500 EC) for 100% of the time;
- maintain a mosaic of healthy floodplain habitats;
- secure delivery of flow regimes up to 40,000 ML/day to meet in-channel environmental water requirements and support low-lying temporary wetlands and associated fish and bird habitats;
- secure delivery of flow regimes between 40,000 and 80,000 ML/day for floodplains (exceedence of maximum intervals between watering events should be avoided) to support lateral connectivity, higher elevation wetlands, recruitment and maintenance of key vegetation communities, and important bird habitat and bird breeding events; and
- maintain the current frequency of unregulated flow events.



### Recommendation 5

The MDBA must undertake, as a priority, further modelling (including 3200 GL, 3500 GL and 4000 GL water recovery volumes) where system constraints are relaxed or removed to determine a water recovery volume that meets key environmental outcomes.

### Recommendation 6

The Commonwealth Government must invest in addressing key system constraints, including purchasing flood easements, as an important step to improve environmental water delivery.

### Recommendation 7

The MDBA must:

undertake further analysis and modelling to:

- transparently quantify the impact of known system constraints on the delivery of water recovered under the Basin Plan;
- model water recovery scenarios greater than 2750 GL with key system constraints relaxed or removed to determine what is required to optimise the delivery of requirements for key assets and functions, including floodplain flow events; and

instigate immediately, a new program of work to:

- identify and describe all physical, operational and policy system constraints;
- evaluate options, opportunities and risks associated with relaxing or removing key constraints;
- prioritise actions or packages of actions to relax or remove system constraints in the short, medium and long term;
- as a matter of urgency, instigate works to relax or remove key delivery constraints; and
- undertake modelling of options to amend and simplify existing policy arrangements to provide for environmental water management needs.

### Recommendation 8

The South Australian Government notes that the MDBA's modelling has been undertaken on the basis of relaxed policy constraints, and that actual environmental outcomes will be compromised unless the constraints are changed.

The MDBA must ensure that the policy constraints to achieve the outcomes described in the modelling are removed.

### Recommendation 9

The MDBA must:

- urgently establish a program to identify and propose processes to address institutional impediments to the delivery of environmental water, including assessment of carryover provisions that could improve delivery of environmental outcomes; and
- expedite existing work under the Review of the Murray-Darling Basin Agreement work program and the River Management Review project.

### Recommendation 10

The Commonwealth Government must lead the development of an intergovernmental agreement and other institutional changes, where required, to facilitate effective environmental water management, delivery and accounting including facilitating multi-site environmental watering.

### Recommendation 11

The MDBA must:

- adopt an environmental water recovery target greater than 2750 GL to take into account climate change risks; and
- develop a strategy to improve knowledge of the effects of climate change on water available for environmental outcomes and consumptive water use as a priority.

### Recommendation 12

The MDBA must adopt an environmental water recovery target greater than 2750 GL to protect and restore ecosystems, habitats and species to maintain their capacity to meet Aboriginal cultural objectives.

### Recommendation 13

The Basin Plan must prioritise water delivery during drought to protect refugia and prevent exceedence of thresholds for irreversible changes to key environmental assets.

### Recommendation 14

The Basin Plan must provide for:

- a minimum reserve or allocation of environmental water for the Coorong, Lower Lakes and Murray Mouth for use during dry periods; and
- prioritisation of delivery of environmental water to the Coorong in times of drought to sustain key vegetation communities, species and ecosystem functions.

## Recommendation 15

The Basin Plan must provide for a remediation program and complementary environmental watering program for the restoration of priority degraded and drought-affected environmental assets, focussed upon the Ramsar sites of the Riverland-Chowilla floodplain and Coorong, Lower Lakes and Murray Mouth, to commence in 2013.

## Recommendation 16

The MDBA must:

- ensure, as far as practical, that the current frequency of high unregulated flow events are not reduced; and
- ensure that the Basin Plan environmental watering plan enables environmental water to be used to enhance unregulated flows to deliver key environmental outcomes.

## Recommendation 17

The MDBA must provide advice to the Commonwealth Government on the location and types of water products that are likely to deliver the best environmental outcomes.

## Recommendation 18

The Commonwealth Government must work with the MDBA to develop an investment program and works and measures strategy; and the Basin Plan must require that all proposed works and measures are assessed for individual and cumulative effects on downstream assets and functions over a range of water availability scenarios.

## Recommendation 19

The MDBA must work with South Australia to develop a more comprehensive and robust set of environmental water requirements for the Coorong, Lower Lakes and Murray Mouth and Riverland-Chowilla Ramsar sites for its modelling and assessment.

## Recommendation 20

The MDBA must investigate options for storage access to protect the State's water security (including vertical storage rights) as a priority.

## SURFACE WATER BASELINE DIVERSION LIMITS AND SUSTAINABLE DIVERSION LIMITS

### Recommendation 21

The MDBA must:

- develop and publish a plain English explanation of how the baseline diversion limits (BDLs) were determined, and how this relates to determination of the sustainable diversion limits (SDLs) and to compliance; and
- include in the Basin Plan a process for consulting with jurisdictions on any updates to BDL estimates.

### Recommendation 22

The State's past responsible behaviour, investment in irrigation efficiency and water held for its urban water supplies must be taken into account to avoid a disproportionate impact on South Australia's irrigated agriculture production, and associated flow-through impacts to dependent regional communities.

### Recommendation 23

South Australia's mandated contribution to the water recovery target must be no more than the 101 GL reduction to our BDL, as specified in the draft Basin Plan, and no further contribution to the water recovery target will be sourced from South Australia except where agreed to by the South Australian Government and the relevant industry organisations.

### Recommendation 24

The MDBA must clearly explain the way in which the final SDLs, and any associated limits or conditions or apportionment, adopted in the Basin Plan have been calculated, determined or arrived at.

### Recommendation 25

The Basin Plan must require that the local and shared reduction targets be met by the Commonwealth Government through its 'bridging the gap' commitment.

### Recommendation 26

The Commonwealth Government must take a strategic approach to water recovery and water purchase in South Australia through consultation with, and with the agreement of, the South Australian Government and relevant industry organisations.

### Recommendation 27

The Commonwealth Government should develop and publish a water recovery strategy that outlines its plan to 'bridge the gap' and ensures that there are no forced reductions in water entitlements.

### Recommendation 28

The MDBA must change the BDL description for the Eastern Mount Lofty Ranges to reflect the correct water management policies as outlined in the detailed comments on chapter 6 in Appendix 2 of this submission.

### Recommendation 29

The BDL description for the South Australian Non-Prescribed Areas SDL Resource Unit must be amended to allow for take from watercourses in addition to run-off dams.

### Recommendation 30

The Basin Plan must set a limit on the accumulation of SDL credit amounts.

### Recommendation 31

The Basin Plan must:

- refer to the development of SDL compliance guidelines and require jurisdictions to observe them;
- establish a role for an independent audit group, with appropriate expertise, to advise on ongoing SDL compliance, and to assist in the development of SDL compliance policy and the SDL compliance guidelines; and
- require the MDBA to prepare and publish an annual water audit monitoring report including information about compliance with annual limits.

## GROUNDWATER BASELINE DIVERSION LIMITS AND SUSTAINABLE DIVERSION LIMITS

### Recommendation 32

The Basin Plan must:

- include a precautionary principle with regard to groundwater that requires an assumption of connection to surface water unless proven otherwise; and
- consistent with this principle include provisions that ensure groundwater sustainable diversion limits cannot be increased unless it can be demonstrated that increased diversion will not impact on surface water resources or environmental watering.

## SUSTAINABLE DIVERSION LIMITS AND SOCIAL AND ECONOMIC ISSUES

### Recommendation 33

The Commonwealth Government must:

- provide targeted social and economic support to vulnerable River Murray communities in South Australia to assist them to transition to a future with less water availability and increase their resilience; and
- develop a socio-economic plan to complement the Basin Plan.

### Recommendation 34

The Commonwealth Government must change its funding criteria to ensure more targeted and equitable access to funds, including under the Water for the Future program and the Regional Development Australia Fund. In particular, the South Australian Government seeks flexibility in the application of remaining unspent Commonwealth funds.

### Recommendation 35

The MDBA must develop a robust and transparent framework to allow for the evaluation of proposed water recovery savings or SDL offsets that may accrue from infrastructure investments.

### Recommendation 36

The MDBA should develop and implement a communications strategy to communicate the findings of the 'Assessment of the Ecological and Economic Benefits of Environmental Water in the Murray-Darling Basin' report by the CSIRO, and other studies, which demonstrate the socio-economic benefits of a Basin Plan as soon as possible.

## PROPOSED REVIEW OF SUSTAINABLE DIVERSION LIMITS IN 2015

### Recommendation 37

The South Australian Government rejects the need for a review of sustainable diversion limits in 2015, noting that a review in 2015 will not allow for sufficient, robust evidence on which to review the sustainable diversion limits.

### Recommendation 38

The Basin Plan must explicitly allow the MDBA to express a view on the need for actions to address policy, physical and operating system constraints; groundwater extraction impacts; and climate change impacts in section 6.06.

### Recommendation 39

The Basin Plan must:

- establish a review advisory committee including jurisdictional representation and appropriate expertise (including scientific expertise); and
- develop transparent terms of reference, governance and review methods in consultation with the Basin States.

### Recommendation 40

The MDBA must develop clear principles and a robust assessment and modelling framework for assessing the individual and cumulative impacts of any proposals to adjust SDLs in consultation with jurisdictions.

## WATER QUALITY AND SALINITY MANAGEMENT PLAN

### Recommendation 41

The Basin Plan must include:

- additional salinity operational targets upstream of South Australia (to those listed at section 8.18) including a target at or just upstream of the border to drive a more robust approach to operational decision making by all jurisdictions; and
- an additional salinity operational target such that salinity levels in Lake Alexandrina are maintained below 600 mg/L (1000 EC) for 95% of the time and below 900 mg/L (1500 EC) for 100% of the time (measured as lake average).

### Recommendation 42

The Basin Plan must include a minimum operational water level target of 0.4 metres AHD for 95% of the time with an absolute minimum of 0.0 metres AHD for 100% of the time (measured as a daily average across Lake Alexandrina).

### Recommendation 43

The Basin Plan must:

- require the MDBA to assess achievement of the salt load target against the number of tonnes of salt per year averaged over the preceding three years; and
- require action by the MDBA where the salt load target is not met on an ongoing basis.

### Recommendation 44

The Basin Plan must include annual reporting against the salt load target, the salinity operational targets, and the salinity targets for raw water for treatment for human consumption and irrigation water in line with existing Basin Salinity Management Strategy processes. Recommended wording changes to sections in chapter 8 are outlined in Appendix 2 of this submission.

## ENVIRONMENTAL WATERING PLAN

### Recommendation 45

The Basin Plan must:

- require the MDBA to develop SMART objectives and targets, and a detailed plan for assessing progress for achieving these targets and objectives including baselines, indicator sites and indicators/ measures, assessment criteria and methods, and monitoring and evaluation;
- provide for environmental monitoring and evaluation linked to State long term watering plans; and
- the MDBA must fund the work required to meet these recommendations.

### Recommendation 46

The Basin Plan must:

- establish committees to coordinate and advise on environmental watering activities from planning through to delivery and monitoring and evaluation;
- include an additional principle requiring the MDBA, Basin States and the Commonwealth Environmental Water Holder to work cooperatively to determine and implement environmental watering priorities in the Basin;
- develop guidelines, in consultation with jurisdictions, that outline the detail of how environmental watering prioritisation decisions will be made (e.g. including decision making criteria and conflict resolution processes) and how environmental water delivery, reporting and monitoring and evaluation will be coordinated;
- require the MDBA to coordinate the development of long term watering plans for connected water resources in consultation with jurisdictions; and
- enable the development of multi-year watering agreements for priority assets.

### Recommendation 47

The Basin Plan must ensure that environmental watering by the Commonwealth Environmental Water Holder in the Murray-Darling Basin is undertaken in accordance with the Basin annual environmental watering priorities and, where relevant, long term watering plans published by the MDBA.

### Recommendation 48

The Basin Plan must provide for the development of a specific interim environmental watering plan for the southern connected system in consultation with relevant jurisdictions and the Commonwealth Environmental Water Holder, to commence in the 2013-14 water year and which guides the application and delivery of environmental water.

### Recommendation 49

The Basin Plan must require the Commonwealth Environmental Water Holder to have regard to State long term watering plans and annual environmental watering priorities in planning for the recovery of additional environmental water and trading of environmental water.

### Recommendation 50

The Basin Plan's environmental watering framework must:

- include sections that enable 'fit for purpose' long term environmental water planning and annual prioritisation; and
- improve the linkages with water resource plan requirements in chapter 9.

#### Recommendation 51

The Basin Plan must require the MDBA to give first priority to the State long term watering plans and annual environmental watering priorities for water resource plan areas when determining Basin annual watering priorities.

#### Recommendation 52

The Basin Plan must establish an environmental watering audit and compliance process including the establishment of an Independent Audit Group for environmental watering.

#### Recommendation 53

The Basin Plan must include provision for the development of guidelines by the MDBA in consultation with the Basin States and Commonwealth agencies (including the Commonwealth Environmental Water Holder) that have regard to long term planning, prioritisation and application of environmental water.

### WATER RESOURCE PLAN REQUIREMENTS

#### Recommendation 54

The Basin Plan water resource plan requirements must include provisions for clearly identified and measurable management objectives and outcomes.

#### Recommendation 55

The Basin Plan must allow flexibility to adapt accreditation requirements to reflect different situations as relevant based on the management objectives and risk assessment for the water resource.

#### Recommendation 56

The Basin Plan must wherever there is a 'have regard to' requirement, require jurisdictions to demonstrate that they have given adequate regard to that requirement.

#### Recommendation 57

The MDBA must:

- amend section 9.09 to ensure that unintended consequences including inappropriate 'opting out' of applying requirements and limitations on State management approaches are addressed; and
- include in the definitions section (chapter 1) a definition of reliability that is consistent with the National Water Initiative definition.

#### Recommendation 58

The MDBA must prepare and publish a publicly available report on its accreditation process for each water resource plan.

#### Recommendation 59

The Basin Plan provisions for temporary and permanent trade in held environmental water must be strengthened to:

- avoid States potentially being non-compliant with sustainable diversion limits; and
- robustly and transparently account for the movement of water between environmental use and consumptive use.

#### Recommendation 60

The Basin Plan must:

- provide for independent audit mechanisms to complement the National Water Commission's audit role; and
- in implementing the Basin Plan, the MDBA must build on and streamline existing water resource plan monitoring and compliance mechanisms and where possible avoid duplication of existing reporting activities.

#### Recommendation 61

The Commonwealth Government must provide incentives to jurisdictions to implement and ensure ongoing adherence to the water resource plan requirements in the Basin Plan.

#### Recommendation 62

The MDBA must undertake further consultation with Aboriginal communities to ensure that their needs are met.

### WATER TRADING RULES

#### Recommendation 63

Sections 11.15 to 11.19, which deal with preventing inappropriate trade restrictions for surface water must commence immediately upon adoption of the Basin Plan.

#### Recommendation 64

The Commonwealth Government must direct the Productivity Commission to undertake an inquiry into current State water management policies and trade arrangements that are causing market distortion.

### Recommendation 65

The Basin Plan must require:

- States to notify the MDBA of the intent to impose restrictions; and
- the MDBA to make a declaration of whether the trade restriction is allowable prior to the restriction being put in place.

### Recommendation 66

The MDBA must specify how compliance against trade rules will be managed to ensure trading rules come into effect within the timeframes prescribed in the Basin Plan.

### Recommendation 67

As a complementary action to the Basin Plan, and in consultation with Basin States, the Commonwealth Government must develop a framework to guide the trade of water held by the Commonwealth Environmental Water Holder.

### Recommendation 68

The MDBA must consider provisions under the environmental watering plan that provide for the establishment of guidelines on the trade of environmental water holdings by the Commonwealth Environmental Water Holder.

## MONITORING AND EVALUATION

### Recommendation 69

The Basin Plan must:

- require the MDBA, in consultation with Basin States, to prepare and implement a Basin Monitoring and Evaluation Plan which is reviewed on an annual basis; and
- include provisions for the monitoring of social and economic impacts.

## TRANSITIONAL ARRANGEMENTS AND IMPLEMENTATION COSTS

### Recommendation 70

The Commonwealth Government must:

- extend its commitment that the Basin States will not bear additional costs as a consequence of the reforms agreed between the parties and the implementation of the *Water Act 2007*; and
- amend the process for determining costs to enable valid claims to be addressed.

### Recommendation 71

The MDBA must work with the South Australian Government to develop transition pathways and practical timeframes for transitioning from existing water resource plans to Basin Plan compliant water resource plans.



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