

LIVING MURRAY BUSINESS PLAN

1 April 2005

ORIGINALLY AGREED TO BY MURRAY-DARLING BASIN MINISTERIAL COUNCIL AT MEETING 36 – 26 NOVEMBER 2004. UPDATED AND ACTIVATED BY MURRAY-DARLING BASIN MINISTERIAL COUNCIL AT MEETING 37 – 1 APRIL 2005.



Published by Murray-Darling Basin Commission
Postal Address GPO Box 409, Canberra ACT 2601
Office location Level 5, 15 Moore Street, Canberra City
Australian Capital Territory

Telephone (02) 6279 0100 international + 61 2 6279 0100
Facsimile (02) 6248 8053 international + 61 2 6248 8053
E-Mail info@mdbc.gov.au
Internet <http://www.mdbc.gov.au>

For further information contact the Murray-Darling Basin Commission office on
(02) 6279 0100

This report may be cited as: Living Murray Business Plan

MDBC Publication No. 05/05

ISBN 1 921038 37 3

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A - INTRODUCTION

Background

1. On 25 June 2004, First Ministers of New South Wales, Victoria, South Australia the Australian Capital Territory and the Commonwealth Government signed the *Intergovernmental Agreement on Addressing Water Overallocation and Achieving Environmental Objectives in the Murray-Darling Basin* (the Intergovernmental Agreement).
2. The Intergovernmental Agreement gives effect to the August 2003 decision by southern Murray-Darling Basin jurisdictions to commit \$500 million over five years to address water over-allocation in the Murray-Darling Basin with an initial focus on achieving specific environmental outcomes for six significant ecological assets along the River Murray.
3. The Intergovernmental Agreement also provides for measures to address water overallocation or other environmental objectives with the agreement of all parties to the Intergovernmental Agreement.
4. The six significant ecological assets are Barmah-Millewa Forest; Gunbower and Koondrook-Perricoota Forests; Hattah Lakes; Chowilla Floodplain (including Lindsay-Wallpolla); the Murray Mouth, Coorong and Lower Lakes; and the River Murray channel.
5. The \$500 million funding commitment is comprised of contributions from the Commonwealth Government of \$200 million, New South Wales \$115 million, Victoria \$115 million, South Australia \$65 million and the Australian Capital Territory \$5 million.
6. The functions and responsibilities assigned under the Living Murray Business Plan do not apply to Queensland. Queensland will not be liable for any actions taken by other parties exercising functions under the Living Murray Business Plan.
7. Case-by-case consideration will be given to assistance for affected communities, separate from the \$500 million and consistent with the National Water Initiative.

The Living Murray Business Plan

8. This Business Plan, which is referred to as the Living Murray Business Plan, is provided for under Clause 13 of the Intergovernmental Agreement which states that:
The MDB Ministerial Council will develop and agree a Business Plan for implementation of the Agreement within three months of commencement.
 - i) *The Business Plan will:*
 - (a) *describe how the actions and milestones agreed in the Agreement are to be achieved, including milestones and water recovery targets;*
 - (b) *include agreed indicative volumetric targets for each jurisdiction;*
 - (c) *include agreed indicative financial commitments for each jurisdiction; and*
 - (d) *detail the activities outlined in Clauses 72 to 77 of this Agreement.*
9. Other authorities or agreements that provide a statutory or complementary framework for this Business Plan include:
 - (a) *the National Water Initiative Intergovernmental Agreement 2004;*

- (b) the *Murray Darling Basin Agreement* and the associated enacting *Murray Darling Basin Act* in each jurisdiction and the Memorandum of Understanding with the Australian Capital Territory;
- (c) the activities of the Snowy Joint Government Enterprise in accordance with the *Snowy Water Inquiry Outcomes Implementation Deed 2002*; and
- (d) the National Action Plan for Salinity and Water Quality, the National Water Quality Management Strategy and the Natural Heritage Trust.

10. The Living Murray Business Plan describes how the actions and milestones in the Intergovernmental Agreement are to be achieved. The Business Plan is based upon the following allocation of responsibilities:

- (a) the MDB Ministerial Council is responsible for overseeing implementation of the Intergovernmental Agreement. The MDB Ministerial Council will review the *Murray Darling Basin Agreement 1992* to ensure full implementation of the Intergovernmental Agreement and this Business Plan;
- (b) the Commonwealth Government and the governments of the Australian Capital Territory, New South Wales, South Australia, and Victoria are responsible for implementing the Intergovernmental Agreement and for achieving its objectives;
- (c) the governments of the Australian Capital Territory, New South Wales, South Australia, and Victoria will recover water, and South Australia will also invest in the recovery of water by other jurisdictions. The Commonwealth Government will primarily act in the role of investor in the water recovery measures of other jurisdictions;
- (d) the Murray Darling Basin Commission has operational responsibility for all cross-jurisdictional activities in the Intergovernmental Agreement that are under the oversight of the Murray Darling Basin Ministerial Council, unless otherwise agreed by Council; and
- (e) each jurisdiction will determine the appropriate sub-jurisdictional arrangements within their respective statutory / institutional frameworks in relation to the recovery of water, the form of entitlement that the water is held in and the infrastructure for applying water to any of the significant ecological assets. Each government will ensure that there is adequate engagement of relevant stakeholders.

11. **Figure 1** illustrates the approach to recovery and application of water in the Living Murray initiative. Underpinning this approach will be an improved system of water resource accounting, clear processes for consultation and regular monitoring and reporting. The Business Plan is structured around these areas as outlined below.

A. Introduction

B. Targets – establishes volumetric and investment targets and the process for monitoring progress against targets.

C. Water Recovery – establishes processes for developing, assessing, accrediting and investing in water recovery measures.

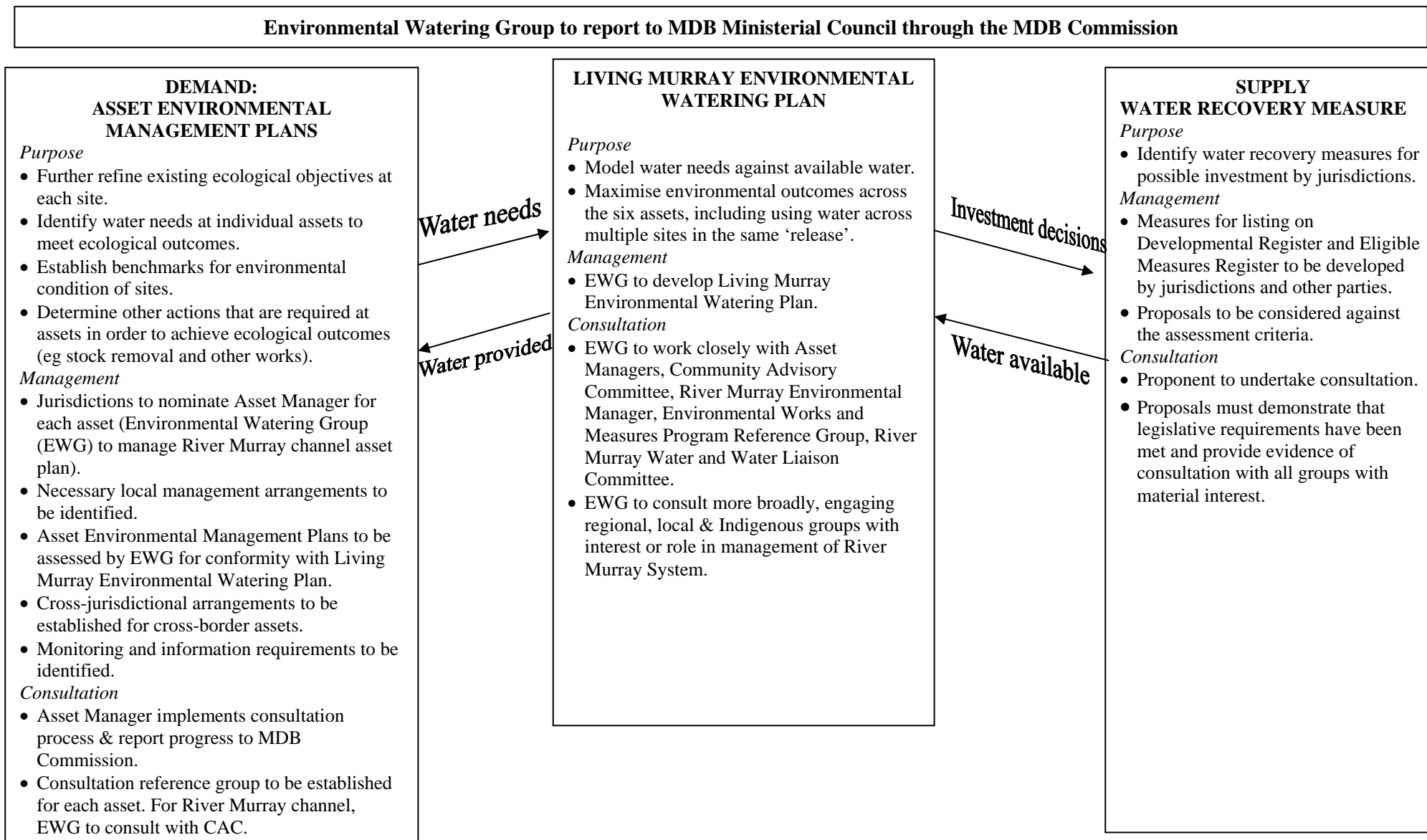
D. Water Application – establishes process for developing watering plans for the assets and *Living Murray Environmental Watering Plan – Interim Arrangements*¹.

E. Accounting for Environmental Water – sets out how environmental water will be secured by jurisdictions, establishment of a Basin-wide register of recovered water, systems for accounting for recovered water.

¹ The Living Murray Environmental Watering Plan is the Basin Environmental Watering Plan referred to in Clause 58 of the Intergovernmental Agreement.

- F. **Consultation & Communication** – establishes consultation requirements for water recovery and water application.
- G. **Risk Management, Monitoring, Audit and Review.**

Figure 1: Arrangements for recovering and applying water, including consultation requirements, under this Business Plan.



12. The Business Plan also refers to the complementary investment of \$150 million under the *Living Murray Environmental Works and Measures Program*. This Program facilitates the application of recovered water through site-specific infrastructure and measures. In combination with the \$75 million committed to recovering water for the River Murray through the Joint Government Enterprise, this brings the governments' total investment in environmental water for the River Murray to \$725 million over ten years.
13. The Basin Environmental Watering Plan required under Clause 58 of the Intergovernmental Agreement is referred to as the *Living Murray Environmental Watering Plan*. The local watering plans referred to under Clause 63 of the Intergovernmental Agreement are referred to as *Asset Environmental Management Plans*.
14. Decisions by the MDB Commission and the MDB Ministerial Council will be made in accordance with the governance framework established under the *Murray Darling Basin Agreement*.
15. In executing (or agreeing to or adopting) this Business Plan the Australian Capital Territory restates its position under clause 9 of the memorandum dated 27 March 1998 and to the extent that any part of this Business Plan is in respect of water management activities conducted by the MDB Commission through River Murray Water in the River Murray, or similar activities conducted by or for the MDB Ministerial Council in accordance with the Intergovernmental Agreement, the Territory does not endorse the Business Plan and will not suffer any liability arising out of the implementation of the Business Plan.
16. A glossary of terms is provided at Section H of this Business Plan.

B - TARGETS

Objective

17. To establish indicative volumetric and financial targets for water recovery that will guide the preparation of water recovery measures and provide a benchmark for performance assessment.

Indicative Investment Targets

18. Clause 47 of the Intergovernmental Agreement states that:

Subject to the primary criteria under Clause 32, indicative annual investment targets will be established for expenditure of the \$500 million commitment over five years and reviewed as required. Parties will contribute to the achievement of the indicative annual targets in proportion to their share of the overall funding commitment.

19. The annual investment targets referred to in Clause 47 are listed in Table 1. They support early implementation of the Intergovernmental Agreement and will enable progress to be measured.
20. The indicative investment targets have been developed for planning purposes, with investors to look for best value investments to deliver ecological outcomes at the significant ecological assets.

Table 1: Indicative Annual Investment Targets

	2004-05	2005-06	2006-07	2007-08	2008-09	Total
Indicative Investment Target	\$64m	\$112m	\$112m	\$112m	\$100m	\$500m
Commonwealth (40%)	\$25m	\$45m	\$45m	\$45m	\$40m	\$200m
Victoria (23%)	\$14m	\$26m	\$26m	\$26m	\$23m	\$115m
New South Wales (23%)	\$14m	\$26m	\$26m	\$26m	\$23m	\$115m
South Australia (13%)	\$8m	\$12m	\$15m	\$15m	\$15m	\$65m
Australian Capital Territory (1%)	\$0.7m	\$1.1m	\$1.1m	\$1.1m	\$1m	\$5m

21. Indicative investment targets have also been prepared for the distribution of Commonwealth Government investment between New South Wales, Victoria, South Australia and the Australian Capital Territory (Table 2), noting however that the final distribution will be dependent upon decisions on individual water recovery proposals. The Commonwealth Government's indicative contribution has been calculated on each jurisdiction's relative share under the Long Term Diversion Cap. Investors will look for best value investments from those available on the Eligible Measures Register to deliver ecological outcomes at the significant ecological assets.

Table 2: Commonwealth Government Indicative Investment

State / Territory	State / Territory contribution (\$ million)	Commonwealth Government Indicative Contribution (\$ million)
NSW	\$115	\$100
Vic	\$115	\$86
SA	\$65	\$14
ACT	\$5	-
TOTAL	\$300	\$200

22. Each jurisdiction will report annually to the MDB Commission on progress against the indicative investment targets, commencing 30 June 2005, with targets reviewed annually and revised as necessary. Performance against targets will be included in the annual report to the MDB Ministerial Council (required under Clause 79 of the Intergovernmental Agreement), including any recommended changes.

Indicative Water Recovery Targets

23. Clause 48 of the Intergovernmental Agreement states that:

Three year indicative targets will be set for the amount of water to be recovered within each jurisdiction, recognising the differing opportunities within each, their relative share under the MDB long-term diversion caps established under Schedule F of the Murray-Darling Basin Agreement (Long-Term Diversion Cap), and the watering regime required under the Basin Environmental Watering Plan.

24. The indicative water recovery targets referred to in Clause 48 are listed in Table 3. They have been developed within each jurisdiction to guide the preparation of water recovery measures. The indicative targets provide for up to 500 gigalitres (GL) of "new water" for

the environment to be recovered over a period of five years. A 2GL target has been provided to the Australian Capital Territory, with the remaining 498GL divided amongst jurisdictions on the basis of relative share under the Long Term Diversion Cap.

Table 3: Indicative water recovery targets

	<i>New South Wales</i>	<i>Victoria</i>	<i>South Australia</i>	<i>Australian Capital Territory</i>	<i>Commonwealth Government</i>
Indicative Volumetric Target	249 GL	214 GL	35 GL	2 GL	-

25. Clause 50 of the Intergovernmental Agreement states that:

Progress against the three year indicative water recovery targets will be reviewed annually, including a comprehensive assessment of progress towards meeting the requirements of the Basin Environmental Watering Plan and an evaluation of remaining investment opportunities.

26. As required under that clause, each jurisdiction will report annually to the MDB Commission on progress against the indicative water recovery targets, commencing 30 June 2005, with targets reviewed annually and revised as necessary. Progress against targets will be included in the annual report to the MDB Ministerial Council (required under Clause 79 of the Intergovernmental Agreement), including any recommended changes.

27. The review process will take into account the factors outlined in Clause 50 of the Intergovernmental Agreement. In addition, the review will consider:

- (a) the differing opportunities within each jurisdiction for recovering water in a cost-effective manner; and
- (b) each jurisdiction's relative water share under the Long Term Diversion Cap.

28. The indicative investment and water recovery targets are additional to the \$375 million to recover 282GL under the Snowy Water Inquiry Outcomes Implementation Deed investment. Of this 282GL, 70GL is to be returned to the River Murray.

C – WATER RECOVERY

Objective

29. To recover cost-effective permanent water to achieve environmental objectives at the six significant ecological assets and any other environmental objectives as agreed by all parties to the Intergovernmental Agreement, recognising social, environmental and economic costs and benefits.

30. To establish a process for crediting recovered water against the volumetric and financial targets of each jurisdiction and to coordinate investment in water recovery measures.

Proposed Water Recovery Measures

31. Jurisdictions may propose water recovery measures. Other entities such as irrigation companies and trusts, catchment management authorities and private individuals may

propose water recovery measures. Other entities are recommended to do so in collaboration with relevant jurisdictions to ensure that all matters are taken into account, that statutory approvals are gained and that the measures will ultimately be supported.

32. Clause 28 of the Intergovernmental Agreement states that:

A proposed measure may comprise a number of identifiable sub-components, where such an aggregation is necessary for the feasibility and effectiveness of the proposal. Such a proposal will be assessed as a single measure and may not be disaggregated except at the discretion of the nominating Party.

33. Information should be provided in the proposal to demonstrate that all sub-components of the proposed measure are necessary for the feasibility and effectiveness of the proposal.

34. The aim of developing measures as a single proposal is to ensure that water recovery occurs in a coherent and integrated way that results in better outcomes than would be achieved by a piecemeal approach. Proposals may also seek to realise non-water recovery benefits from investment in tandem with actual water recovery outcomes where it is essential to the recovery of water for the Living Murray initiative. Where this is the case, funding for non-water recovery benefits will only be met through investment provided under the Intergovernmental Agreement if agreed by the MDB Ministerial Council.

35. Measures should not include adjustment assistance for affected communities. This will be considered separately from the \$500 million commitment to address overallocation in the MDB and will be considered on a case-by-case basis consistent with the National Water Initiative.

Register of Water Recovery Measures

36. Clauses 24 and 25 of the Intergovernmental Agreement state that:

A central register of measures proposed for accreditation against funding commitments under this Agreement will be maintained by the MDB Ministerial Council and be available to all Parties.

The register will have two parts:

- i) proposed measures for further development and subsequent assessment against eligibility criteria (developmental register); and*
- ii) measures approved for accreditation against funding commitments under this Agreement (eligible measures).*

37. The Developmental Register and the Eligible Measures Register will be administered by the MDB Commission. Measures can be submitted for registration at any time and at any stage of development, provided that they have undergone a feasibility assessment.²

38. Measures listed on the Eligible Measures Register will include an agreed indicative crediting amount.

² Measures proposed for registration should be submitted in hard copy and electronic form to the Central Register of Measures, MDBC, GPO Box 409, CANBERRA ACT 2601

39. Measures listed on the Developmental Register and Eligible Measures Register will be subject to a two-year rolling review. The review will be conducted by the MDB Commission and will occur by 30 June of each year. Proposals that no longer meet the eligibility criteria for registration will be assigned an indicative crediting amount of zero.
40. There are two separate processes for listing proposed measures on the Eligible Measures Register, depending on whether the measure was submitted by 25 September 2004 (under Interim Arrangements) or after 25 September 2004.

Interim Arrangements for Assessing Measures (until 25 September 2004)

41. Interim Arrangements have been established to expeditiously identify eligible water recovery measures and have them accredited on the Eligible Measures Register. The Interim Arrangements apply to proposals submitted by 25 September 2004 for registration.
42. Proposals brought forward under the Interim Arrangements must contain the information described in **Annex A**. In addition to a description of the proposed measure, the submitting jurisdiction will provide a statement authorised by the responsible Minister that the measure satisfies the requirements of Clause 36 of the Intergovernmental Agreement.
43. The Project Assessment Group will evaluate the proposals for consistency with the criteria in Clause 36 to verify the cost and volume of the proposals as agreed by the Living Murray Board on 18 November 2004.
44. The outcomes of the Project Assessment Group's evaluation will be provided back to the proponent jurisdiction to allow them an opportunity to amend their proposals, including deciding whether to recommend certain measures in their proposals for listing on the Developmental Register.
45. The proposals will then be provided to the MDB Ministerial Council for agreement on:
 - (c) listing on the Eligible Measures Register or the Developmental Register; and
 - (d) the indicative crediting amount.
46. If the MDB Ministerial Council agrees a measure or measures for listing on the Developmental Register, they can identify it as a defined commitment subject to the outcomes of further investigation or design. Where the proposal is listed on the Developmental Register as a defined commitment, the MDB Ministerial Council may agree to accredit a proportion of the funds needed to progress the proposal to the Eligible Measures Register.
47. Measures listed on the Eligible Measures Register under the Interim Arrangements will be subject to the accounting, reporting and post-implementation audit requirements established under this Business Plan.
48. Where the MDB Ministerial Council agrees a measure or measures for listing on the Eligible Measures Register, it will be on the basis of the costs and volumes for the measure that were contained in the proposal at the time of listing. Where the post-implementation audit (see paragraphs 72 to 75) confirms any variance beyond 10% on either the cost or the volume to be recovered for the measure(s), or any exceedence of \$1000/megalitre, the overrun will be borne by the proponent jurisdiction.

Assessing Measures Submitted after 25 September 2004

Developmental Register

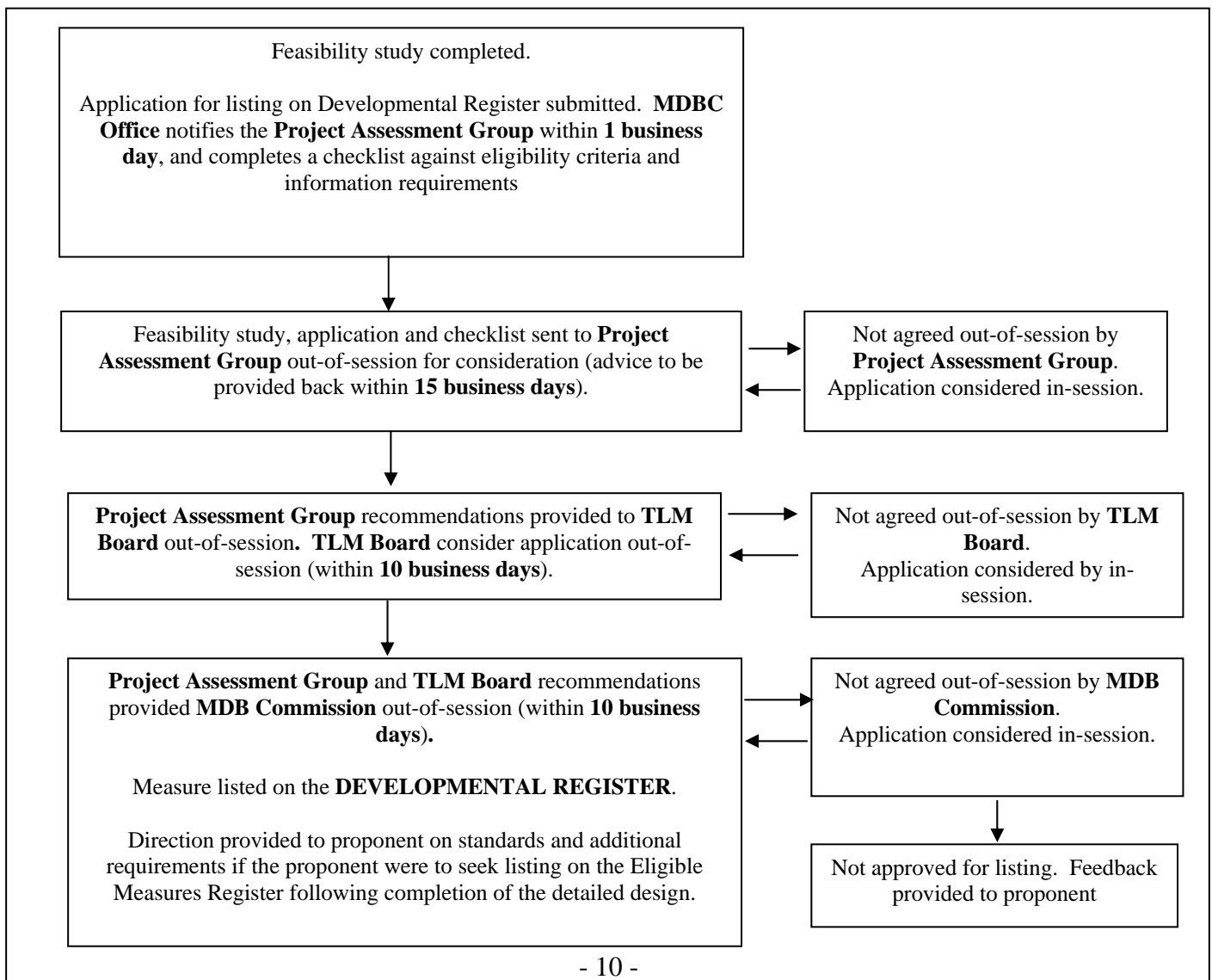
49. The process for nominating a measure to the Developmental Register is set out in **Figure 2**. The measure will only be considered for listing on the Developmental Register if it has undergone a feasibility assessment. The information requirements for measures nominated to the Developmental Register, including more detail on feasibility assessment, are outlined in **Annex A**.

The Development of Infrastructure Projects Program

50. The \$1.2 million *Investment in Development of Infrastructure Projects to Recover Water for the Environment Program* (the Development of Infrastructure Projects Program) was established to provide support for feasibility assessment of infrastructure projects to recover water for the environment.

51. It is anticipated that projects under this Program that contribute towards the objectives of the Intergovernmental Agreement may be nominated for listing on the Developmental Register. The Project Assessment Group that provides advice on water recovery measures under the Living Murray initiative will also assess applications under the Development of Infrastructure Projects Program.

Figure 2: Process for listing measures on the Developmental Register.



Eligible Measures Register

52. The process for nominating measures to the Eligible Measures Register is set out in **Figure 3**. The measure will only be considered for listing on the Eligible Measures Register if detailed designs have been completed. The information requirements for measures nominated to the Eligible Measures Register, including more information on detailed design, are indicated in **Annex B**.
53. For a proposed measure submitted after 25 September 2004, the indicative crediting amount will be assigned by the MDB Ministerial Council at the time that it agrees to list the measure on the Eligible Measures Register. In making its decision, the MDB Ministerial Council will take into account the outcomes of the independent verification process commissioned on the advice of the Project Assessment Group (see paragraphs 59 to 60).

Assessment Criteria

54. The criteria for assessing measures nominated to the Developmental Register and the Eligible Measures Register after 25 September 2004 are those set out in Clauses 32 and 33 of the Intergovernmental Agreement.
55. Clause 32 of the Intergovernmental Agreement lists the *Primary Criteria*, and states that:

The primary criteria for accreditation of an eligible measure will be:

- i) *the degree to which the characteristics of the recovered water will fulfil the requirements of the Basin Environmental Watering Plan to be developed under Clause 58, or any other environmental objectives which may be agreed; and*
- ii) *the cost effectiveness of the proposed measure, including initial cost per unit of water, and ongoing costs arising from the management, storage or delivery of the water to achieve the agreed environmental objectives.*

56. Clause 33 of the Intergovernmental Agreement lists the *Other Matters* that may be taken into consideration and states that:

Other matters which may be taken into account in assessing proposals for further development or accreditation for funding include social and economic impacts, salinity and water quality outcomes, additional environmental benefits, and third party impacts.

57. In relation to *Primary Criteria (i)*, consideration will be given to whether the measure delivers water with the necessary characteristics (security and reliability) and noting any limitations (e.g. ability to deliver water to particular assets) on use of the water.
58. The *Other Matters* may assist with deciding cost-sharing arrangements and but will only be a barrier to a listing a measure on the Eligible Measures Register if there are substantial negative impacts or outcomes as assessed by the MDB Ministerial Council based on advice from the MDB Commission. Information to consider in assessing *Other Matters* is included in **Annex C**.

Project Assessment Group

59. It is proposed that the Commission should establish a Project Assessment Group as a committee of the Commission, to assess and to make recommendations about proposed

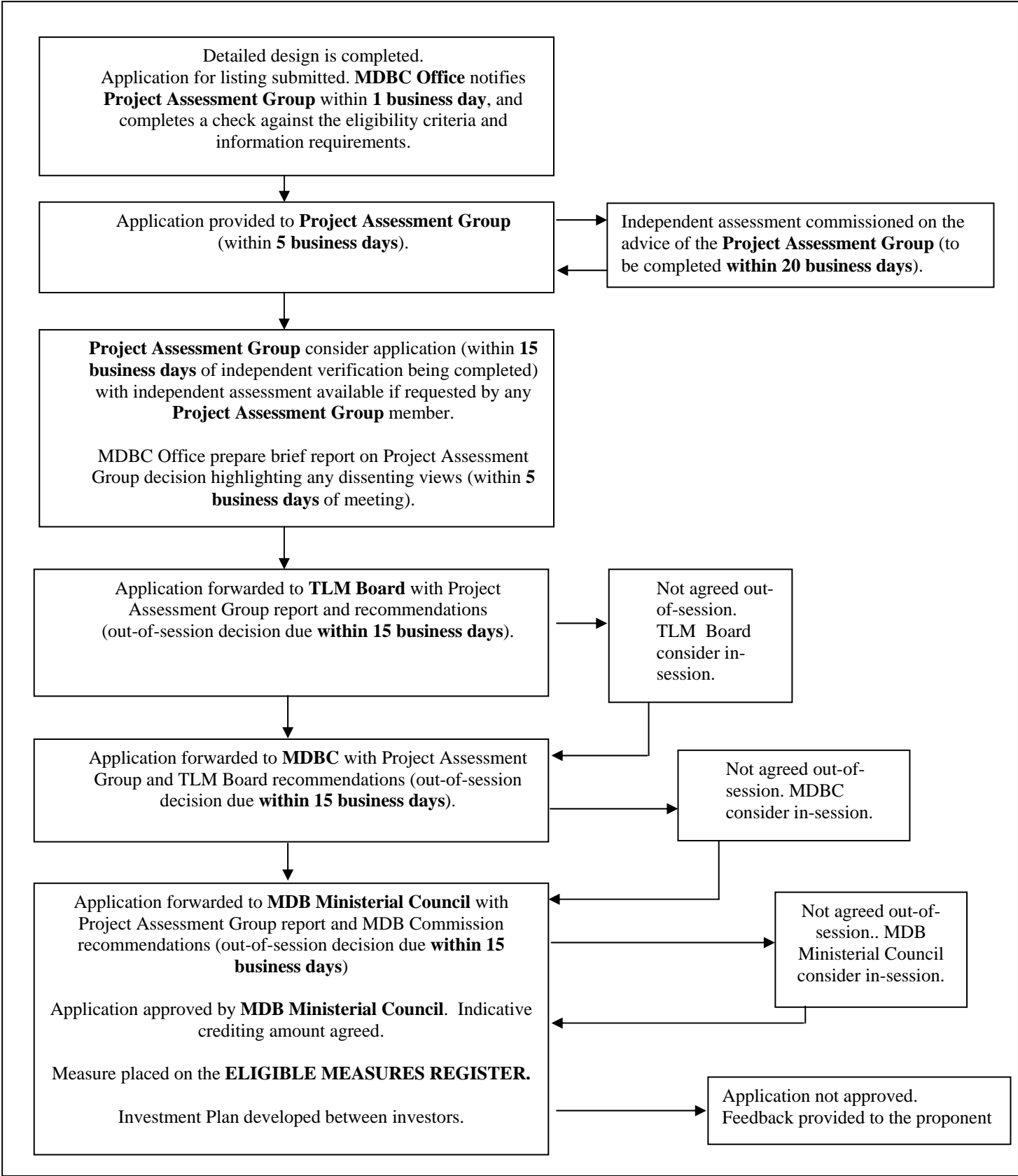
measures. The proposed constitution, terms of reference and supporting delegation of power are set out in Annex D.

60. To assist the assessment of measures for the Eligible Measures Register an independent assessment will be provided to the Project Assessment Group. The independent assessment will be contracted by the MDB Commission.

Market Based Measures

61. Proposals that include purchase of water or other market based measures may be proposed and considered in accordance with the criteria, either under Interim Arrangements (by 25 September 2004) or under arrangements for measures submitted after 25 September 2004.
62. Market based measures will be treated as commercial-in-confidence and will not be publicly available until otherwise advised by the proponent.
63. Proposals that include purchase of water or other market based measures must be negotiated with the jurisdiction in which the measure is to occur and agreements made in accordance with existing rules for interstate water trade and potential future rules including those that may be agreed to meet the objectives of the National Water Initiative.
64. All purchasers in the water market will be bound by common trading conditions applicable at the time, including that the purchaser will remain confidential prior to the completion of the transaction.

Figure 3: Process for listing measures on Eligible Measures Register



Coordinating Investment by Jurisdictions

65. Listing of a measure on the Developmental Register or the Eligible Measures Register is separate from the decisions by jurisdictions to invest in a measure. Investment decisions will be subject to negotiations between jurisdictions and will require the preparation of a detailed Investment Plan as outlined in paragraph 69.

66. Clause 41 of the Intergovernmental Agreement states that:

All Parties to this Agreement will have an equal first call opportunity to invest in any proposal on the register of eligible measures up to the proportion of their funding commitment of the \$500 million.

67. As provided for in Clause 41, all jurisdictions will have 30 business days from the time that a measure is listed on the Eligible Measures Register to indicate an interest in exercising their first call opportunity to invest in the measure. Interest should be registered in writing to the proponent and copied to the MDB Commission Office. If no interest is registered during the 30-day period, the proponent can proceed as the sole investor or seek the interest of others to invest.

68. Other jurisdictions may invest in a measure in excess of their proportional funding commitment with the agreement of the jurisdiction proposing the measure.

69. At the end of the 30-business day period, the MDB Commission Office will list the expressions of interest on the Register. The proponent will then develop a detailed Investment Plan for agreement with those who have signalled an interest in investing. The Investment Plan will include the information required in proposals as per Column 3 of **Annex A** as well as the project management information in **Figure 4**. Where there are no other investors, the proponent will still provide the project management information in **Figure 4**.

Figure 4: Project Management Information

- | |
|---|
| <ul style="list-style-type: none">(a) Project milestones including performance indicators and timetable for achievement.(b) A detailed budget showing projected timing for expenditure.(c) Payment schedule, showing source of funds (jurisdictional participation, cross-jurisdictional cooperation, proposed cost/savings sharing arrangements).(d) Arrangements for monitoring and evaluation of progress and outcomes.(e) Risk assessment and risk assignment arrangements.(f) Reporting schedule. |
|---|

Rules for Crediting of Investments and for Water Recovered

70. Water recovery measures listed on the Eligible Measures Register will include an agreed indicative crediting amount (financial and volumetric).

71. Once a measure has been listed on the Eligible Measures Register, jurisdictions may apply to the MDB Ministerial Council for the accreditation of funding for costs incurred after

29 August 2003 in the preparation of detailed designs. Applications should be submitted to the MDB Commission Office, and will be considered by the MDB Ministerial Council.

Final Crediting Amount

72. On advice from the relevant jurisdiction that the implementation of an eligible measure has been completed, the Project Assessment Group will commission an independent post-implementation audit of the actual project cost and volume of water recovered.
73. The MDB Ministerial Council will consider the outcomes of the post-implementation audit, and agree a final crediting amount for the measure. This process will ensure that measures are credited for actual water recovered rather than a pre-implementation estimate.
74. The cost of a measure beyond the final crediting amount agreed by MDB Ministerial Council will not be met through investment under the Intergovernmental Agreement.
75. Where a proposal recovers water at no cost, a jurisdiction will obtain credit against its volumetric target, but will not obtain credit against its financial commitment unless the MDB Ministerial Council agree to apply an estimated market price credit.

Common Volumetric Measure

76. The final crediting amount set by the MDB Ministerial Council will be based on a Long Term Cap Equivalent volume, which provides a common volumetric measure for crediting measures against commitments under the Intergovernmental Agreement.
77. A Cap Factor will be used to convert actual entitlement to Long Term Cap Equivalent Volume. The Cap Factor is a measure of the long-term average usage of a particular type of entitlement under a given scenario as a proportion of the total volume of the entitlement.
78. For the purposes of the Living Murray First Step the Cap Factor will be based on the “ultimate development” which assumes full activation of high security products. Further information on the methodology for establishing the Long Term Cap Equivalent volume is provided in **Annex H**.
79. Special volumetric crediting arrangements will be developed for NSW Supplementary Licenses and water recovered in the ACT.

Location of Crediting

80. Water recovered will be credited against financial and volumetric targets at the source of recovery except where water recovered is delivered as an unregulated flow, where it will be credited against financial and volumetric targets at the River Murray channel.
81. The water recovered in the ACT will be credited at the source of recovery, which is defined as the ACT border.
82. Environmental entitlements will be accounted for at the source and at the tributary gauging stations closest to the River Murray channel.

83. Where water is delivered through regulated in-channel flows, a **translation factor** of one will be applied to the delivery of environmental water from the source to the River Murray channel.
84. In considering proposed releases of environmental water under the *Living Murray Environmental Watering Plan* that may require out-of-channel delivery to the significant ecological assets, the Environmental Watering Group will consider the trade-off between potential losses and the need to meet the environmental objectives and maximise outcomes in order to minimise delivery losses.
85. Environmental water released under the *Living Murray Environmental Watering Plan* will not be deliberately diverted during delivery to the significant ecological assets and will be in addition to any water released for consumptive use.
86. Water recovery proposals will clearly identify any transmission losses that may occur in the delivery of the recovered water from the source of recovery to the River Murray channel and the assumptions used to make this assessment.

D – WATER APPLICATION

Objective

87. To apply the available recovered water in a way that maximises ecological outcomes across the six ecological assets and achieves other environmental objectives as agreed by all parties to the Intergovernmental Agreement.

Planning for Water Application

88. Water application will be managed at two levels through *Asset Environmental Management Plans* and a *Living Murray Environmental Watering Plan*. The *Asset Environmental Management Plans* and the *Living Murray Environmental Watering Plan* will incorporate strategic long-term objectives as well as annual priorities.
89. The *Asset Environmental Management Plans* and the *Living Murray Environmental Watering Plan* will be reviewed annually and updated in response to information arising from monitoring, further investigations, modelling and consultation. Updated versions will be provided to the MDB Ministerial Council by 31 July each year to be considered and authorised by the Ministerial Council under paragraph 9(b) of the *Murray-Darling Basin Agreement 1992*..
90. Annual reports on the operation of the *Living Murray Environmental Watering Plan* and the *Asset Environmental Management Plans* will be prepared in accordance with the requirements outlined in the *Living Murray Environmental Watering Plan*.

Asset Environmental Management Plans

91. A single *Asset Environmental Management Plan* will be developed for each of the six significant ecological assets identified under the Living Murray First Step decision. The *Asset Environmental Management Plan* will build on the ecological objectives set out in the First Step decision and identify the specific watering regime (flow, volume, timing, duration and security) utilising available water to meet those objectives. More detail on

the expected elements of *Asset Environmental Management Plans* is provided at **Annex E**.

92. The *Asset Environmental Management Plans* will be developed by the jurisdiction in which the asset is located. The jurisdiction will nominate to the MDB Commission an Asset Manager to develop and implement the Plan and undertake appropriate consultation. Part of this role will include ensuring that the necessary technical advice is obtained.
93. Where a significant ecological asset crosses State boundaries (a cross-border asset), the relevant Asset Managers will work together to develop a single coordinated *Asset Environmental Management Plan* for the asset and carry out consultation in a coordinated manner. One of the jurisdictional Asset Managers will take the lead role, with the relevant jurisdictions to establish how the lead role will be shared. The jurisdictions will inform the MDB Commission of their lead Asset Manager arrangements.
94. A single Project Officer may be appointed for each asset to work with the Asset Manager (or lead Asset Manager for cross-border assets), with the funds for the position to be provided from the MDB Commission budget.
95. To ensure a coordinated approach to developing and implementing *Asset Environmental Management Plans* and carrying out consultation, the Asset Managers will regularly report to the MDB Commission on progress. This reporting will also help to ensure that *Asset Environmental Management Plans* are consistent with the *Living Murray Environmental Watering Plan* as required under the Intergovernmental Agreement.
96. The first version of the *Asset Environmental Management Plans* will be developed for the MDB Ministerial Council to consider and authorise under paragraph 9(b) of the *Murray-Darling Basin Agreement 1992* by June 2005, with a draft to be prepared by January 2005 for community consultation. Ongoing revisions of the *Asset Environmental Management Plans* will be as outlined in paragraph 89.
97. The Environmental Watering Group will develop the *River Murray Channel Environmental Management Plan* for approval by the Commission and will advise on its implementation: see paragraph 105.

Living Murray Environmental Watering Plan

98. The *Living Murray Environmental Watering Plan* will provide a management framework for the application of available environmental water, including the 70GL for the River Murray from the Joint Government Enterprise investment.
99. The *Living Murray Environmental Watering Plan* will aim to apply available water in a way that enhances ecological outcomes across the six significant ecological assets, protects existing high value areas or areas in good condition and realises the greatest environmental benefit from the water. In making these decisions, the following will be considered:
 - (a) the predicted ecological benefits of any potential watering action in relation to the ecological objectives for an asset; and
 - (b) any ecological or other costs associated with the potential watering action.
100. A *Living Murray Environmental Watering Plan 2004/05 – Interim Arrangements* has been developed for the period to June 2005 (**Annex L**) under clause 61 of the

Intergovernmental Agreement. For information, a summary of the initial Plan is in Box 1.

Box 1: *Living Murray Environmental Watering Plan 2004/05 – Interim Arrangements*

The *Living Murray Environmental Watering Plan 2004-05 – Interim Arrangement* provides an operational framework for the 12 months following commencement of the MDB-IGA (2004-05). A longer term and more strategic *Living Murray Environmental Watering Plan* will be developed by June 2005.

The Interim Arrangements Plan identifies:

- potential watering actions for 2004-05 and the likelihood of these actions occurring given current MDBC storage levels;
- the expected outcomes of these actions (both environmental benefits and potential negative outcomes such as mobilising salinity);
- the triggers required before any of these actions would be implemented (without certain prevailing pre-conditions, the chances of a successful environmental outcome from a watering action can be greatly reduced);
- criteria for prioritising possible competing watering actions; and
- monitoring, evaluation and reporting arrangements.

The Interim Arrangements Plan also identifies over 19 environmental management actions for possible implementation at the six significant ecological assets for 2004-05, including:

- Increased variability for transfers from Dartmouth to Hume Reservoir, which would reduce the level of channel erosion in the River Murray channel asset. Arrangements are already being put in place to implement this action in 2004-05.
- Variations in regulated releases from Lake Victoria and Hume Reservoir could also be implemented in 2004-05 to benefit the River Murray channel asset.
- Wetland watering using infrastructure is only an option at Gunbower Forest, Chowilla Floodplain and Lindsay-Walpolla Islands, and the Hattah Lakes. Implementation will be dependent on existing state based environmental water allocations and any unregulated water deemed available for environmental use.
- Asset specific operations at Barmah-Millewa Forest including rain rejection management to reduce the impact of unseasonal flooding.
- Asset specific operations at Lower Lakes, Coorong and Murray Mouth including the use of fishways at the barrages, which will require a release of water from the lakes.

While these actions can all contribute to meeting the objectives of the Living Murray initiative, the extent of environmental outcomes will depend on the quantity and timing of flows available.

It is unlikely that significant quantities of new water under the Living Murray initiative will be available for application during 2004-05. Therefore, actions under the Plan are more likely to draw upon state based environmental water allocations (under jurisdictional responsibility) and unregulated water that is deemed available for environmental use. The probability of receiving significant unregulated flows is also low because of the continuing dry conditions in the southern Murray-Darling Basin, which are resulting in low total volumes in MDBC water storages.

101. A draft *Living Murray Environmental Watering Plan* for 2005-06 will be developed by the Environmental Watering Group. More detail on the expected elements of the *Living Murray Environmental Watering Plan* is provided in **Annex E**. The draft will undergo a process of community consultation with the view to further developing it for MDB Ministerial Council consideration by June 2005. Further revisions of the *Living Murray Environmental Watering Plan* will be as outlined in paragraph 89.
102. Based on an adaptive management approach, and as outlined in paragraph 89, the *Living Murray Environmental Watering Plan* will be further developed over the coming years to ensure that it is robust and reflects the latest information and understanding of the relevant river and wetland systems and water delivery and recovery issues.

103. New South Wales, Victoria and South Australia will continue to manage access to water during surplus flow events. The MDB Commission will, by June 2005, propose options for achieving improved environmental outcomes for the River Murray through the management of surplus flows and provide a report to the Ministerial Council in October 2005. The report will identify any reduction in access to water for extractive users, as well as identifying impacts on above entitlement flows to South Australia, under each of the options. To facilitate this, the environmental objectives referred to in Clause 95(4)(ii) of the Murray-Darling Basin Agreement will be taken to include the environmental objectives of the Living Murray and the specific environmental objectives of each significant ecological asset.
104. Where unregulated flows arise from investment under the Living Murray initiative, they will be accounted and exempted from surplus flows determinations.

Environmental Watering Group

105. It is proposed that the Commission should establish an Environmental Watering Group as a committee of the Commission. In addition to the functions mentioned in clause 97, it would develop the *Living Murray Environmental Watering Plan* and keep it up-to-date. It would also assess whether *Asset Environmental Management Plans* are consistent with the *Living Murray Environmental Watering Plan* and advise the Commission of its conclusions.
106. The Environmental Watering Group will also work with the High Level Working Group on Salt Interception to develop rules for monitoring and modelling the impact of water application on salt loads at Morgan. This activity will draw together activities under this Business Plan and the Basin Salinity Management Strategy.
107. The proposed constitution, terms of reference and supporting delegation of power for the Environmental Watering Group are set out in Annex F.

The Living Murray Environmental Works and Measures Program (\$150M)

108. The *Living Murray Environmental Works and Measures Program* (see **Annex G**) is an eight year (2003 – 2011) \$150 million investment in works and measures that improve the health of the River Murray system by:
- (a) making the best possible use of the water currently available;
 - (b) optimising the benefits of any water recovered;
 - (c) considering other priority investments in their own right; and
 - (d) targeting investment towards the best environmental outcomes.
109. Investment under the *Living Murray Environmental Works and Measures Program* is additional to the \$500 million investment in water recovery. This money will be spent to maximise the environmental benefits of water recovered under the Living Murray initiative and to maximise environmental outcomes from existing flows.
110. The approach in the *Living Murray Environmental Works and Measures Program* will be consistent with that taken in the *Living Murray Environmental Watering Plan* and will ensure that these two programs are integrated to achieve the best possible environmental outcomes for the water and resources invested through the Living Murray initiative.

E – ACCOUNTING FOR ENVIRONMENTAL WATER

Objective

111. To establish transparent systems to account for recovered water and ensure that recovered water will be held in perpetuity through statutory instruments for the objectives of the Intergovernmental Agreement.

Processes for Accounting for Environmental Water and Investments

112. Accurate, transparent and appropriate water resource accounting is fundamental to ensuring confidence in the way that recovered water is managed and reported on. Existing accounting systems will be expanded to account for the recovery, use and management of environmental water.
113. Water recovered for the environment will be recorded on environmental water registers once the measure has been implemented. Registers will be maintained in the State or Territory where the water is recovered and at an aggregated scale for the Living Murray initiative by the MDB Commission Office.
114. The environmental water registers, at both scales, will include the following information associated with the recovered environmental water:
- (a) source of water recovered;
 - (b) estimated average volume delivered to the River Murray Channel;
 - (c) Long Term Cap Equivalent volumes;
 - (d) associated Cap impact in tributaries, where relevant;
 - (e) security and reliability characteristics;
 - (f) channel capacity sharing characteristics;
 - (g) type of water recovered (regulated or unregulated);
 - (h) storage/call location(s) of regulated water;
 - (i) geographic limitations on its application to the six significant ecological assets; and
 - (j) trading of environmental water where appropriate.
115. The MDB Commission will report to the MDB Ministerial Council on an annual basis on the actual volumes delivered to each significant ecological asset including the water released for each asset, the amount delivered to the asset, how much was used and returned and the net use of the environmental account.
116. Improved water accounting is described in detail in **Annex H**, addressing the following issues:
- (a) accounting for environmental water recovery;
 - (b) calculating Long Term Cap Equivalent;
 - (c) crediting and reporting of recovered water;
 - (d) tracking of how much environmental water is available at any time;
 - (e) accounting for environmental water use;
 - (f) establishing a Basin Account;
 - (g) trade of Environmental Water;
 - (h) future accounting improvements;
 - (i) independent review; and
 - (j) financial accounting.

Water Acquisition, Protection and Accountability for that Acquisition

117. Clause 52 of the Intergovernmental Agreement states:

Water recovered under this Agreement will be clearly assigned in perpetuity for the purposes of this Agreement in licenses and associated water accounts, as water access entitlements, or in water sharing plans, within the jurisdiction in which it is sourced, and within the jurisdiction in which it is received and managed.

118. Recovered water will be held within the water allocation and access entitlement frameworks of the jurisdictions and in perpetuity through statutory instruments to meet the objectives of the Intergovernmental Agreement. Recovered water must be available for the significant ecological assets (or other environmental objectives as provided for in Clause 18 of the MDB Intergovernmental Agreement) and must be transparently attributable in statutory bulk entitlements, water licenses, accounts or statutory water plans, in a form of security which meets any criteria adopted by the Ministerial Council. Current arrangements for securing environmental water are outlined in **Annex I**.

119. Once a measure that recovers water within the Cap has been implemented, and the final crediting amount has been agreed by the MDB Ministerial Council, the relevant Cap will be adjusted by this same amount. The Cap adjustment will be based on the Long Term Cap Equivalent volumes.

F – CONSULTATION & COMMUNICATION

Objective

120. To ensure that individuals and groups who are likely to be impacted upon or materially interested in activities under this Business Plan have adequate opportunity to input into decisions affecting them.

121. To ensure all relevant information and a diversity of views are considered in the decision-making process.

122. To increase awareness, understanding of and support for the Living Murray initiative.

MDB Ministerial Council Community Advisory Committee

123. The MDB Community Advisory Committee (the Community Advisory Committee) will, within its Terms of Reference, participate in and provide advice on community engagement, consultation and communication activities for the Living Murray initiative, including advice to MDB Ministerial Council on community perceptions in regard to water recovery.

124. The Community Advisory Committee may establish a reference group with broad membership from a range of sectoral and community interests to provide advice on implementation of the Living Murray initiative, including acting as a consultation group for development of the *Living Murray Environmental Watering Plan* and the *River Murray Channel Asset Environmental Management Plan*. The reference group will exist until June 2009 with individual membership for two years, with consideration for re-appointment.

Consultation on Water Recovery

125. The development of water recovery measures must include consultation with all groups that may be directly impacted by the proposed water recovery. The groups to be consulted will vary from measure to measure. Possible groups for consultation are listed in **Annex J**. The consultation process must meet all legislative requirements, and must provide an opportunity for those directly impacted to provide input into the development of measures.
126. Measures nominated to the Developmental Register should list all legislative consultation requirements and identify the groups that are likely to be affected or materially interested in the measure. Preliminary consultation should already have been commenced, with outcomes identified in the proposed measure.
127. Measures nominated to the Eligible Measures Register after 25 September 2004 must identify groups that are likely to be affected or materially interested in the measure, how they have been engaged in the preparation of the measure, what their key concerns were and how those concerns have been taken into account in the measure. The consultation process will be managed by the proponent.

Consultation on Water Application

128. Consultation on the *Living Murray Environmental Watering Plan* and *Asset Environmental Management Plans* will provide opportunities for community input to the development, implementation and monitoring of plans, works and actions.
129. Drafts of the *Living Murray Environmental Watering Plan* and *Asset Environmental Management Plans* will be provided to the Community Advisory Committee at the same time that they are provided to the MDB Commission to enable the Community Advisory Committee to provide appropriate advice to MDB Ministerial Council.

Living Murray Environmental Watering Plan

130. The *Living Murray Environmental Watering Plan* will be developed by the Environmental Watering Group. The Environmental Watering Group should work closely with the Asset Managers, the River Murray Environmental Manager, the Environmental Works and Measures Program Reference Group and the Water Liaison Committee.
131. The Community Advisory Committee will act as a consultation reference group for the Living Murray Environmental Watering Plan. Broader consultation on the *Living Murray Environmental Watering Plan* will be managed by the MDB Commission Office, with direction from the Environmental Watering Group and the Living Murray Board. The consultation process must engage regional groups that have an interest or role in the management of the River Murray System, including tributary interests where relevant.

Asset Environmental Management Plans

132. As outlined in paragraphs 91 to 97, a single *Asset Environmental Management Plan* will be developed for each significant ecological asset.

133. The Asset Manager, or lead Asset Manager in the case of cross-border assets, will be responsible and accountable for carrying out a coordinated consultation process during development and implementation of their *Asset Environmental Management Plan*. The Asset Managers will outline the proposed consultation process for their asset, including a timetable and milestones for consultation activities, for consideration as part of their regular reporting to the MDB Commission.
134. The consultation process will include the regional and local groups that have an interest or role in management of the asset, including tributary interests where relevant. Consultation with indigenous people should be in a manner that is appropriate to indigenous discussion and decision-making processes.
135. To facilitate the consultation process, the Asset Managers will establish an inclusive consultation reference group for the asset. The consultation reference group will provide input into developing and implementing the *Asset Environmental Management Plan*. The consultation reference group will establish their own operational protocols, within the broader principle that the consultation process must be open and transparent, and based on the best available information. The Asset Managers will outline the proposed membership of their consultation reference group for consideration as part of their regular reporting to MDB Commission.
136. The Asset Environmental Management Plan for the River Murray channel will be developed by the Environmental Watering Group, who will be responsible and accountable for consultation with the regional groups that have an interest or role in management of the asset.
137. In developing and implementing the Asset Environmental Management Plan for the River Murray channel, the Environmental Watering Group will also consult with the Community Advisory Committee.
138. Indigenous people will be included in water planning and management at each asset through an agreed approach which respects jurisdictions' legislation and other agreements and related processes. *Asset Environmental Management Plans* will take into account Indigenous social, spiritual and customary objectives and strategies for achieving these objectives.
139. The Asset Managers will include the Australian Government as a key stakeholder in developing and implementing the *Asset Environmental Management Plan*, particularly (but not only) in relation to relevant international environmental obligations (eg. Ramsar, migratory waterbirds) and Commonwealth legislation (eg. Environment Protection and Biodiversity Conservation Act 1999).
140. To maximise community understanding and also for reasons of efficiency and effectiveness, wherever possible, consultation on the *Living Murray Environmental Works and Measures Program* should be aligned with consultation on the *Asset Environmental Management Plans*.

Communication

141. Jurisdictions and the MDB Commission Office will communicate accurate and up to date information on activities under the Living Murray initiative to foster public confidence in the way that environmental water is recovered, applied and accounted for.

There is a diverse range of audiences for Living Murray communication activities, including groups outlined in **Annex J**.

142. Jurisdictions will also conduct individual communication activities. Some key joint opportunities for informing communities are provided in **Annex J**.
143. All communication activities and materials must recognise the joint nature of the Living Murray initiative. Specifically, each jurisdiction and the MDB Commission Office will give recognition to the contributions of other jurisdictions and ensure that:
 - (a) any publications, articles, newsletters or other literary works prepared as part of the Living Murray initiative acknowledge the financial support received through the Living Murray initiative and include the initiative logo;
 - (b) any publications, articles, newsletters or other literary works prepared as part of the Living Murray initiative are to be provided to other jurisdictions and the MDB Commission Office, where possible, prior to release;
 - (c) opportunities are provided for all jurisdictions to participate in communication activities, particularly Ministers;
 - (d) the contribution of the Living Murray initiative and jurisdictions is acknowledged at relevant forums, conferences and at project openings; and
 - (e) major announcements are discussed with other relevant jurisdictions prior to them occurring.
144. Coordination of communication activities, where required, will be provided by the MDB Commission Office in consultation with jurisdictions.
145. Consultation and communication activities will be reviewed annually by the MDB Commission and the Community Advisory Committee, with the reports to be included with the annual reports to MDB Ministerial Council.

G – RISK MANAGEMENT, MONITORING, AUDIT AND REVIEW

Objective

146. To ensure a high level of accountability and transparency regarding investments under the Intergovernmental Agreement.

Risk management

147. Risk management for the Living Murray initiative will occur at a whole of initiative level, as well as through the *Living Murray Environmental Watering Plan*, the *Asset Environmental Management Plans* and the individual measures approved for listing on the Eligible Measures Register. An initial risk assessment has been undertaken, with high-level risks identified in **Annex K**. This initial risk assessment will be further developed by the Living Murray Board by June 2005, with amendments provided to the MDB Commission and MDB Ministerial Council in annual progress reports.

Monitoring, Audit and Review

148. A high level of accountability and transparency regarding investments is needed to maintain the confidence of investing jurisdictions, and more particularly, the Basin communities and other stakeholders.

149. An adaptive management approach will be adopted. Performance against the *Living Murray Environmental Watering Plan*, achievement of environmental objectives and the success and impacts of different water recovery approaches will be used to refine investment strategies, target setting, and both the *Asset Environmental Management Plans* and *Living Murray Environmental Watering Plan*. Any deleterious impacts upon tributaries or incidental environmental benefits from water recovery and management actions will also be reported upon under the monitoring framework.
150. A comprehensive monitoring and evaluation plan will be developed to support this adaptive management approach. The plan will be developed by the MDB Commission, and brought to the MDB Ministerial Council by July 2005 for approval. Where possible, the monitoring and evaluation plan will draw on existing processes such as the sustainable rivers audit and extend existing frameworks as necessary.
151. The monitoring and evaluation plan will report on the environmental objectives identified in the *Asset Environmental Management Plans*, and will provide a consistent approach to monitoring and reporting across the six assets.
152. The outcomes of monitoring and evaluation will inform the annual review of investment and water recovery targets and a substantive review of the Intergovernmental Agreement by the MDB Ministerial Council in 2007. The latter will consider performance against the objectives of the Intergovernmental Agreement, the continued appropriateness of the objectives, the scope of remaining water recovery opportunities and the case for any further funding and water recovery commitments for the Living Murray initiative.

Reporting

153. By 30 August each year, commencing in 2005, parties to the Intergovernmental Agreement will jointly report to the MDB Ministerial Council on progress in implementing the Intergovernmental Agreement. The report will be prepared by the MDB Commission, and will include:
 - (a) actions taken under the Intergovernmental Agreement;
 - (b) progress against the indicative investment and water recovery targets set out in this Business Plan and any proposed changes to these targets;
 - (c) any trade of recovered water (the arrangements for which will be defined in the *Living Murray Environmental Watering Plan*);
 - (d) performance against the *Living Murray Environmental Watering Plan*;
 - (e) achievement of the environmental objectives for the assets, including watering undertaken at the asset during the previous year and performance against environmental indicators where developed; and
 - (f) reporting by jurisdictions/Asset Managers on community consultation, including how it was done, issues raised and responses provided.

Auditing

154. The Intergovernmental Agreement requires the following accounts and registers to be established.
 - (a) Registers of recovered water, including application of water, to be maintained in the State or Territory where the water is recovered as well as at a Basin-wide level.
 - (b) Financial records of expenditure accredited against funding commitments set out in this Business Plan to be maintained at a State and Territory level as well as a

Basin-wide level. Financial records must separately record any temporary or permanent trade of environmental water.

- (c) Records of impacts on the Long-Term Diversion Cap from the recovery and delivery of water under the Intergovernmental Agreement.

- 155. The Basin-wide registers and accounts will be maintained by the MDB Commission Office, with all necessary information provided to the Office by jurisdictions on a quarterly basis. Included in this information will be the results of the independent audit that is to be conducted at the completion of each water recovery measure to verify the actual volumes of water recovered and costs incurred in implementing the measure.
- 156. To ensure the appropriate level of accountability and transparency, the Basin-wide registers and accounts will be independently audited on an annual basis. The State / Territory registers of recovered water will also be independently audited.
- 157. Auditing will be conducted to meet the requirements of Clause 78 of the Intergovernmental Agreement, which states that:

The following will be subject to annual external auditing to the satisfaction of the MDB Ministerial Council:

- (a) financial records of expenditure accredited against funding commitments under the Intergovernmental Agreement;*
 - (b) financial records of any temporary or permanent trade of recovered water;*
 - (c) registries of recovered water;*
 - (d) the environmental management of recovered water; and*
 - (e) management of the impacts on the Long Term Diversion Cap which result from the recovery and delivery of water under the Intergovernmental Agreement.*
- 158. Auditing referred to in clause 157 will be undertaken by the Independent Audit Group established by clause 12 of Schedule F of the *Murray Darling Basin Agreement 1992*, with the first audit due by 31 July 2005. The financial records kept by jurisdictions will be subject to their standard auditing practices, with the audit report provided to the MDB Ministerial Council.

Review

- 159. The Business Plan will be in place until June 2007. At this time, the Business Plan will be fully reviewed and any amendments to the Plan may be agreed. In addition, an annual review will be conducted from commencement of the Business Plan, with amendments provided to the MDB Ministerial Council for agreement.

H - GLOSSARY OF TERMS

Access characteristics – The conditions under which the entitlement holder can access water. These will vary across States and the Territories, water management areas or source. Characteristics may govern timing and volume and other circumstances as required.

Bulk entitlement (Vic) – The right to water held by water and other authorities defined in the Water Act. The Bulk Entitlement defines the amount of water that an authority is entitled to from a river or storage, and may include the rate at which it may be taken and the reliability of the entitlement.

Crediting amount – Cost and volume at which the MDB Ministerial Council agrees to accredit investment in water recovery measures against the financial and volumetric commitments of jurisdictions under the Intergovernmental Agreement.

Developmental Register – Register of water recovery measures which have undergone a feasibility assessment, and are considered likely to meet the criteria for listing on the Eligible Measures Register in the future.

Eligible Measures Register – Register of accredited water recovery measures for investment under the Intergovernmental Agreement.

Environmental entitlement – a firm, non-discretionary perpetual entitlement for environmental water created under relevant State/Territory legislation and subject to terms and conditions as agreed between governments to meet the agreed environmental objectives held by the jurisdiction in which the water was recovered.

Final crediting amount – cost and volume at which investment in a water recovery measure will be accredited against water recovery and financial targets established in this Business Plan.

General security (NSW) – NSW water access entitlements that vary from year to year depending on inflows and storage levels (regulated rivers) and river flows (unregulated years).

High security (NSW) – NSW water access entitlements drawn from a regulated system that provides 100% allocation in all but years of extreme drought.

Indicative crediting amount – the cost and volume at which investment in a water recovery measure will be accredited against water recovery and financial targets established in this Business Plan up until a final crediting amount is established.

Inside Cap (Share) – An entitlement for which water use is counted as use by a State under Schedule F of the *Murray-Darling Basin Agreement* contributing to the Long Term Diversion Cap.

Intergovernmental Agreement – The *Intergovernmental Agreement on Addressing Water Overallocation and Achieving Environmental Objectives in the Murray-Darling Basin* between the Commonwealth of Australia and the Governments of New South Wales,

Victoria, South Australia and the Australian Capital Territory, signed at the Council of Australian Governments meeting on 25 June 2004.

Jurisdictions – The Parties to the Intergovernmental Agreement, specifically the Commonwealth Government, the State of New South Wales, the State of Victoria, the State of South Australia and the Australian Capital Territory.

Living Murray Board – Advisory board to the MDB Commission.

Living Murray Environmental Watering Plan – the Basin Environmental Watering Plan referred to in Clause 58 of the Intergovernmental Agreement.

Long Term Diversion Cap – A reference to the total volume of water permitted to be diverted within the Murray-Darling Basin in line with the Ministerial Council’s decision to limit diversions to 1993-94 levels of development.

Long-Term Cap equivalent – the volume registered for a particular recovery work or measure calculated using the accepted best practice Cap computer model for that system as the:

- (a) long-term average contribution to the Cap; or
- (b) potential contribution to the long-term average flows in the relevant river valley.

Murray Darling Basin Commission Office – The Office of the Murray-Darling Basin Commission provides the Commission with support services necessary for administering the Murray-Darling Basin Agreement and helping to deliver the Commission's programs. This includes support for technical matters and policy formulation, and secretariat and administrative services to the Ministerial Council, Commission, Project Boards and the various committees advising the Commission.

Murray Darling Basin Ministerial Council – Ministerial Council established under the *Murray Darling Basin Agreement*, consisting of up to three Ministers from the Governments of the Commonwealth, New South Wales, Victoria, South Australia and Queensland with prime responsibility for matters relating to water, land and environment.

National Water Initiative – The *Intergovernmental Agreement on a National Water Initiative* between the Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory, signed at the Council of Australia Governments meeting on 25 June 2004.

New environmental water (“new e-water”) – water recovered for the environment through investment under the Intergovernmental Agreement.

Old environmental water (“old e-water”) – water recovered for the environmental prior to 29 August 2003.

Ongoing cost – costs arising from the management, storage or delivery of water to achieve the agreed environmental objectives.

Other new environmental water (“other new e-water”) – water recovered for the environment after 29 August 2003 and funded through investment other than the Intergovernmental Agreement.

Outside Cap (Rule) – An entitlement for which water use is not accounted as use by a State under Schedule F of the *Murray-Darling Basin Agreement* that is not counted within the Long Term Diversion Cap.

Overallocation – refers to situations where with full development of water access entitlements in a particular system, the total volume of water able to be extracted by entitlement holders at a given time exceeds the environmentally sustainable level of extraction for that system.

Packages – has the same meaning as proposal, where a proposal may comprise a single water recovery measure or a number of identifiable measures.

Regulated systems – watercourses that have their flows regulated by Government constructed dams, weirs or water storage schemes.

Regulated – when used in the Environmental Water Register, this term refers to water that is supplied from a system that is regulated by one or more major storages and can be ordered or “called” on either to be released from storage or to be supplied at a nominated diversion point.

Sales water (Vic) – the volume of water available in a particular season over and above Water Right. Access to Sales Water is announced each season as a percentage of Water Right depending on the available resource.

Translation factor – (for the purpose of paragraph 83 of the Business Plan) – is the ratio of environmental water delivered to the River Murray Channel to the volume of environmental water accounted at source.

Unregulated systems – watercourses in which flows are not regulated by dams, weirs or water storage schemes. A specific volume of water may be allocated but there can be no guarantee that the volume will still be available or supplied in any one year.

Unregulated – when used in the Environmental Register, this term refers to water that is supplied from an unregulated water system or water that is supplied from a regulated water system, but only during periods of declared “surplus” flows in the system.

Water access entitlements – a perpetual or ongoing entitlement to exclusive access to a share of water from a specified consumptive pool as defined in the relevant water plan.

Water Right (Vic) – High Security entitlement held by irrigators within the Victorian Irrigation Districts.

ANNEXURES TO THE BUSINESS PLAN

Annex A – Information Required in Proposals of Water Recovery Measures.

Annex B – Process for Nominating Measures to the Developmental Register and Eligible Measures Register.

Annex C – Information to Consider in Assessing “Other Matters”.

Annex D – Project Assessment Group.

Annex E – Outline of Contents of Watering Plans.

Annex F – Environmental Watering Group.

Annex G – Environmental Works and Measures Work Program.

Annex H – Accounting for Recovered Water.

Annex I – Overview of Water for the Environment.

Annex J – Consultation Groups and Possible Communication Activities.

Annex K – Initial Risk Assessment.

Annex L – Living Murray Environmental Watering Plan 2004-05 – Interim Arrangements.

Annex A – Information Required in Proposals of Water Recovery Measures.³

	Information requirements	Measures submitted under Interim Arrangements (Clause 36)	Measures submitted for listing on the Developmental Register	Measures submitted for listing on the Eligible Measures Register
Background information	Measure title (some measures also will have identifiable sub-components, cl. 28)	✓	✓	✓
	Date of application	✓	✓	✓
	Proponent (could be any interested party, cl. 27)	✓	✓	✓
	Measure summary: location; description of measure (usually illustrated on diagrams); volume to be recovered (GL); reliability profile; volume to be recovered (long term Cap equivalent ¹), projections of timing water recovery, links between sub-components of measures.	✓ Including Ministerial declaration that measure meets Clause 36 criteria.	✓ The measure would usually be described on conceptual diagrams	✓ The measure would be described on detailed design drawings
Relates to primary criteria – cl. 32	Consistency with the requirements from the <i>Living Murray Environmental Watering Plan</i> , including identifying possible transmission losses	Ministerial declaration.	✓	✓
	Cost (NPV of capital costs and recurrent costs) ³ <ul style="list-style-type: none"> • per GL at source • per GL of long term Cap equivalent¹ • per GL at location for accounting agreed in the Business Plan • timing of expenditure 	✓ Cost estimated within ± 10%	Cost estimated within ± 20%	Cost estimated within ± 10%
	Cost per GL in market for equivalent product (relevant to clause 38)	✓	Estimate	✓
	Crediting rate (cl. 37 & 38)	< \$1000/ML	-	✓
	Social, cultural and economic impacts, including third party impacts (cl. 33)	-	Key impacts identified	Key impacts analysed commensurate with standard practice ³
Relates to other matters – cl. 33	Agreement of relevant bodies (jurisdiction in which measure occurs, irrigation or water supply operators)	✓	✓	✓
	Salinity impact (cl. 33)	-	-	✓
	Other water quality outcomes (cl. 33)	-	-	✓
	Additional environmental benefits (cl. 33)	-	Benefits identified	Benefits analysed
	How water recovery would be monitored	Specified	Initial indication	Specified
Miscellaneous	Proof that the proponent would be entitled to water recovered	✓ Ministerial declaration	✓	✓
	Statutory approval requirements	In place or are able to be met	Identified (no 'measure stoppers' identified)	Fulfilled
	Community consultation	Advise consultation process ² (cl. 15)	Identification of groups or individuals to be consulted	Adequate consultation ² (cl. 15)
	Risks if measure implemented	✓	Preliminary identification	Detailed identification

1 – Assumes procedure to calculate the Long Term Diversion Cap has been agreed. The basis for calculating the quantity of water is to be explicit.

2 – This will vary between measures. For example, a greater level of analysis and consultation would be required for a large infrastructure improvement measure impacting on a range of values than for buying water in the market (for which the standard practice would be that already in the water market).

3 – The one-off cost is to include all foreseeable future costs such as operations and maintenance – although variations may be considered if significant additional environmental benefits can be demonstrated. The discount rate and return period would be used as for the salinity program: 30 years and 4%.

³ Proponent should identify where information provided in the package should be subject to commercial in confidence provisions.

Annex B – Process for Nominating Measures to the Developmental Register and Eligible Measures Register.

Developmental Register

1. Jurisdictions should submit their proposal to the MDBC Office in hard copy and electronic form.⁴
2. Within **one business day** of receiving a proposal nominated to the Developmental Register, the MDBC Office will notify the Project Assessment Group and make the proposal available to all jurisdictions via a secure link on the MDBC website.
3. Within **five business days** following receipt of the proposal, the MDBC Office will undertake a brief assessment on whether appropriate feasibility studies have been undertaken on the water recovery measures and that the relevant jurisdictions have been consulted.
4. The MDBC Office will provide their assessment and the proposal to the Project Assessment Group for out-of-session consideration against the *Primary Criteria*. The Project Assessment Group will have **15 business days** to consider the proposal. If agreement is not reached out-of-session, the PAG will consider the proposal in-session.
5. The PAG's assessment will be provided to the Living Murray Board for out-of-session consideration (for decision within **10 business days**). If agreement is not reached out-of-session, the Board will consider the proposal in-session.
6. The PAG's assessment will then be provided to the MDB Commission out-of-session (for decision within **10 business days**). If agreement is not reached out-of-session, the Commission will consider the proposal in-session.
7. Proposed measures that are not accepted for listing on the Developmental Register will be returned to the proponent, with advice on how to improve the measure for subsequent re-nomination.

Eligible Measures Register

1. Measures listed on the Developmental Register can be submitted to the MDBC Office for accreditation on the Eligible Measures Register at any time.
2. Within **one business day** of receiving a proposal for the Eligible Measures Register, the MDBC Office will notify the Project Assessment Group and will make the proposal available to all jurisdictions via a secure link on the MDBC website.
3. Within **5 business days** following receipt of the proposal, the MDBC Office will undertake a brief assessment against the assessment criteria and information requirements. The Office will then provide their assessment and the proposal to the Project Assessment Group. An independent assessment commissioned on the advice of the Project Assessment Group will be initiated, to be completed within **20 business days**.

⁴ Proposals nominated for listing on the Developmental Register and Eligible Measures Register should be submitted to Register of Water recovery Measures, Murray Darling Basin Commission, GPO Box 409, CANBERRA ACT 2601.

4. Within **fifteen business days** of the independent verification being completed, the Project Assessment Group will meet to consider the proposal and develop their advice for the Living Murray Board. During this time, the Project Assessment Group will also recommend a crediting amount for the measure. The MDBC Office will have **five business days** following the Project Assessment Group's meeting to prepare the Project Assessment Group's report for the Living Murray Board.
5. The MDBC Office will provide the proposal and the Project Assessment Group's report and recommendations to the Living Murray Board for out-of-session approval (decision within **15 business days**). The Living Murray Board will assess the proposed measure against the *Primary Criteria* and the *Other Matters*, and will also consider the recommended crediting amount. If agreement is not reached out-of-session, the proposal will be considered in-session at the next meeting of the Living Murray Board.
6. The MDBC Office will provide the proposal, the Project Assessment Group's report and the Living Murray Board recommendations to MDBC for out-of-session approval (within **15 business days**). If agreement is not reach out-of-session, the proposal will be considered in-session by the MDBC.
7. The proposal will be provided to the MDB Ministerial Council for out-of-session approval, including determination of an indicative crediting amount for the measure. MDB Ministerial Council will be given **15 business days** to consider the proposal. If agreement is not reached out-of-session, the proposal will be considered by the MDB Ministerial Council in-session.
8. Proposed measures that are not accepted for the Eligible Measures Register will be returned to the Developmental Register, with advice provided to the proponent on how to improve the proposal for subsequent re-nomination.

Annex C – Information to Consider in Assessing “Other Matters”.

Clause 33 of the Intergovernmental Agreement identifies matters other than the Primary Criteria that may be taken into account when assessing measures: social and economic impacts, and third-party impacts; salinity and water quality outcomes; and additional environmental benefits. There are a number of scales (eg. on irrigator directly involved in measure, other Irrigators in the system, local community, Indigenous community, basin community) at which these ‘other matters’ can be assessed, and the results can be summarised in a matrix.

Measure Type	Impacts on irrigator directly involved in measure	Impacts on Other Irrigators in the system	Impacts on Local community	Impacts on Indigenous community	Impact on Basin community
Infrastructure Measure					
Regulatory Change					
Market based measure					
Mixed					

Questions that may be used in discussions (initially by the Project Assessment Group) to consider these other matters are listed below.

Social and economic impacts, and third-party impacts

1. Are the social impacts of implementing the water recovery measure acceptable? In particular, are the impacts on irrigators directly involved, other irrigators in the irrigation system, the local community, the basin community, and the Indigenous community acceptable?
2. Has an adequate assessment of economic impacts been undertaken that includes clear identification of significant costs and benefits possible, and how these impacts would be monitored?
3. Are any impact mitigation strategies necessary, and have they been adequately designed?

Salinity and water quality outcomes

4. Has the salinity impact of implementing the water recovery measure been adequately analysed, and are the impacts acceptable?
5. Have water quality impacts been analysed, and are the impacts acceptable?

Additional environmental benefits

6. What additional environmental benefits would be expected associated with changes to flow regime in delivering the water to the six significant ecological benefits (significance, scale), or intrinsic to the project itself, would be expected as a result of the change in flow regime?

Annex D – Project Assessment Group.

1. Purposes

- (1) To establish an advisory committee under clause 35 of the Murray-Darling Basin Agreement to assess and provide advice to the Commission and its committees on water recovery measures nominated under the Living Murray Business Plan.
- (2) To delegate to the General Manager Natural Resources relevant powers of the Commission to help the Group achieve its purposes.

2. Definitions

In this resolution:

Agreement means the Murray-Darling Basin Agreement 1992.

Business Plan means the Living Murray Business Plan.

Government means one or more of the Governments of the Commonwealth, New South Wales, South Australia and Victoria and of the Australian Capital Territory.

Group means the Project Assessment Group established by clause 3.

Measure includes a measure proposed under the Business Plan and any project proposed under the Living Murray Environmental Works and Measures Program.

3. Establishment

There shall be a committee of the Commission, established under clause 35 of the Agreement, called the Project Assessment Group.

4. Constitution

- (1) The Group will comprise not more than 10 members appointed by the Commission on the recommendation of the Living Murray Board, from a list of up to 2 persons nominated by each Government.
- (2) In making appointments to the Group, the Commission must, as far as possible, ensure that:
 - (a) members have qualifications and experience relevant to the terms of reference of the Group; and
 - (b) members are drawn from persons nominated by a range of Governments.
- (3) Without limiting sub-clause 4(2), qualifications and experience in:
 - (a) hydrology;
 - (b) ecology;

- (c) project design, management and implementation;
- (d) financial analysis;
- (e) water infrastructure engineering; and
- (f) economics,

are relevant qualifications and experience.

- (4) The Commission must appoint a member to be Chairperson of the Group.
- (5) The following rules apply to the Group and its members:
 - (a) a member is appointed for three years (or such other period as may be resolved by the Commission) and is eligible for re-appointment;
 - (b) the Commission may, on the recommendation of the Living Murray Board, at any time remove a member from office;
 - (c) a member may resign by notice in writing given to the Chairperson of the Group;
 - (d) the Group may act, despite any vacancy in its membership;
 - (e) If a member is unable to attend a meeting of the Board, the member must, before that meeting, either:
 - (i) nominate to the Chairperson a person with the qualifications and experience referred to in paragraph 4(2)(a), who will attend the meeting instead of the member; or
 - (ii) advise the Chairperson in writing of the member's view in relation to any item of business which the agenda specifies will require a decision by the Board at that meeting.
 - (f) The Chairperson must ensure that every member present at a meeting has a copy of any written advice referred to in sub-paragraph 4(5)(e)(ii);
 - (g) subject to paragraph 4(5)(f), (g) and any rules made under paragraph 4(5)(h), the Group may regulate its own proceedings;
 - (h) the Group may, from time to time, co-opt any person for such period as it may determine;
 - (i) a person co-opted under paragraph 4(5)(f) may participate in deliberations of the Group but may not vote;
 - (j) the Commission may make rules, with which the Group must comply, about:
 - (i) its quorum;

- (ii) voting powers of its members; and
- (iii) the Group's proceedings.

5. Terms of Reference

The Terms of Reference for the Group are as follows.

- (1) To assess and to provide written advice to the Living Murray Board on whether a water recovery measure proposed under the Business Plan complies with the criteria referred to in clause 43 and clauses 54 - 58 of the Business Plan.
- (2) In making an assessment referred to in sub-clause 5(1) to consider the following:
 - (a) the adequacy of any feasibility assessment or detailed designs submitted by a proponent of the measure;
 - (b) the extent to which a proposed measure is likely to recover water with characteristics which contribute to the ecological objectives which the Business Plan seeks to promote;
 - (c) the volume of water which is likely to be recovered as a result of the proposed measure;
 - (d) the adequacy of the arrangements proposed by the proponent of a measure to ensure that the specified volume of recovered water, with the specified characteristics, will be available for the purpose specified for the proposed measure;
 - (e) the accuracy of estimates of costs, or the actual costs incurred, for each unit of recovered water to be made available to achieve the objects of the Business Plan, as a result of a proposed measure, or any component of a proposed measure;
 - (f) whether it will be practicable to deliver water recovered as a result of a proposed measure to whichever of the significant ecological assets referred to in clause 4 of the Business Plan is nominated in the proposed measure.
- (3) In making any assessment referred to in paragraph 5(1), to have regard to the results of any independent assessment of a proposed measure which may have been commissioned by the Commission.
- (4) At the request of the Commission or the Living Murray Board, to assess submissions to fund projects made under the Investment in Infrastructure Project referred to in clauses 50 and 51 of the Business Plan.
- (5) At the request of the Commission or the Living Murray Board, to help develop or to assess market-based measures referred to in clauses 60 to 64 of the Business Plan.

6. **Delegation**

- (1) Pursuant to clause 34 of the Agreement, the Commission hereby delegates to the General Manager Natural Resources power to do all things that are necessary or convenient to be done, for or in connection with, or as incidental to, the Group carrying out the terms of reference set out in clause 5, subject to the conditions and limitations set out in sub-clause 6(2).
- (2) The General Manager Natural Resources may only exercise a power under sub-clause 6(1):
 - (a) for the purpose of the Group carrying out a term of reference set out in clause 5; and
 - (b) in accordance with:
 - (i) any advice given by the Group; and
 - (ii) any directions given, and any policies or guidelines established by, the Ministerial Council or the Commission.

Annex E – Outline of Contents of Watering Plans.

The **Living Murray Environmental Watering Plan** will include:

- (a) ecological outcomes and objectives for the six significant ecological assets;
- (b) conceptual framework for the plan, including its relationship to other relevant Murray-Darling Basin Commission and River Murray Water activities, the *Asset Environmental Management Plans* and the Living Murray Environmental Works and Measures Program;
- (c) Operating rules for the management (including storage and delivery) of environmental water;
- (d) rules for the management of unregulated and/or surplus flows;
- (e) rules for the management of weirs and the barrages (consistent with the asset watering plans to which these structures are relevant);
- (f) strategies for trading in environmental water to achieve environmental outcomes;
- (g) framework for decision-making on any additional watering opportunities (including criteria for decision-making on any possible competing actions and consequent trade-offs);
- (h) rules for the accounting of environmental water;
- (i) identification of any legal constraints/risks to implementing the watering plan and actions to minimise these, including any assessment requirements for actions;
- (j) implementation roles and responsibilities;
- (k) potential actions for each asset, triggers for these actions and expected outcomes;
- (l) assessment of the likelihood of meeting conditions to trigger actions;
- (m) estimated water availability over the year – volumes and locations;
- (n) consultation requirements;
- (o) financial matters related to implementation of the Plan (including relevant elements from the \$150 million Living Murray Environmental Works and Measures Program);
- (p) monitoring and evaluation and review requirements;
- (q) reporting requirements, including for annual reports on the implementation of the *Living Murray Environmental Watering Plan* and *Asset Environmental Management Plans*; and
- (r) adaptive management processes.

Asset Environmental Management Plans will include:

- (a) assessment of environmental baseline;
- (b) ecological objectives for the asset, refining the objectives identified in the MDB Ministerial Council decision in November 2003;
- (c) water (flow, volume, timing, duration and security) needed to achieve the ecological objectives;
- (d) environmental watering priorities across the site;
- (e) potential actions for the asset, triggers for these actions and expected outcomes;
- (f) works required to maximise the effectiveness of environmental water applied to the site (thereby linking to the Living Murray Environmental Works and Measures Program);
- (g) identification of any legal constraints/risks to implementing the watering plan, and actions to incorporate or minimise these (including any relevant approvals processes);
- (h) management of other threatening processes that will be required to achieve the ecological objectives, for example removal of stock from the asset;
- (i) management arrangements at the site, including roles and responsibilities for implementation;
- (j) links with other plans which relate to the asset, including the *Living Murray Environmental Watering Plan*;

- (k) any cultural heritage, social and economic impacts of providing the recommended environmental water regime identified through targeted consultation;
- (l) ongoing consultation requirements at the asset, in particular with Indigenous peoples;
- (m) costs and funding sources;
- (n) monitoring and evaluation and review arrangements;
- (o) reporting arrangements; and
- (p) adaptive management measures.

Annex F – Environmental Watering Group

1. Purposes

- (1) To establish an advisory committee to prepare and keep up-to-date the Living Murray Environmental Watering Plan; to assess whether Asset Environmental Management Plans are consistent with the Living Murray Environmental Watering Plan; and to prepare and supervise the implementation of, the River Murray Channel Asset Environmental Management Plan.
- (2) To delegate to the Chief Executive relevant powers of the Commission:
 - a) to help the Group achieve its purposes; and
 - b) to act as Asset Manager for the River Murray Channel.

2. Definitions

In this resolution:

Agreement means the Murray-Darling Basin Agreement 1992.

Business Plan means the Living Murray Business Plan.

Government means one or more of the Governments of the Commonwealth, New South Wales, South Australia and Victoria and of the Australian Capital Territory.

Group means the Environmental Watering Group established by clause 3.

3. Establishment

There shall be a committee of the Commission, established under clause 35 of the Agreement, called the Environmental Watering Group.

4. Constitution

- (1) The Group will comprise:
 - a) not more than 8 persons appointed by the Commission from a list comprised of up to 2 persons nominated by each Government;
 - b) the River Murray Water Production Manager of the Commission, *ex officio*;
 - c) the River Murray Environmental Manager of the Commission, *ex officio*.
- (2) In making appointments under paragraph 4(1)(a), the Commission must, as far as possible, ensure that members have qualifications and experience relevant to the terms of reference of the Group.
- (3) Without limiting sub-clause 3(2), qualifications and experience in:

- a) environmental planning and management; and
 - b) water resources management,
- are relevant qualifications and experience.
- (4) The Commission must appoint a member to be Chairperson of the Group.
- (5) The following rules apply to the Group and its members:
- a) a member is appointed for 3 years (or such other period as may be resolved by the Commission) and is eligible for re-appointment;
 - b) the Commission may, on the recommendation of the Living Murray Board, at any time remove a member from office;
 - c) a member may resign by notice in writing given to the Chairperson of the Group;
 - d) the Group may act, despite any vacancy in its membership;
 - e) If a member is unable to attend a meeting of the Board, the member must, before that meeting, either:
 - (i) nominate to the Chairperson a person with the qualifications and experience referred to in sub-clause 4(2), who will attend the meeting instead of the member; or
 - (ii) advise the Chairperson in writing of the member's view in relation to any item of business which the agenda specifies will require a decision by the Board at that meeting.
 - f) The Chairperson must ensure that every member present at a meeting has a copy of any written advice referred to in sub-paragraph 4(5)(e)(ii);
 - g) subject to paragraph 4(5)(f), (g) and any rules made under paragraph 4(5)(h), the Group may regulate its own proceedings;
 - h) the Group may, from time to time, co-opt any person for such period as it may determine;
 - i) a person co-opted under paragraph 4(5)(f) may participate in deliberations of the Group but may not vote;
 - j) the Commission may make rules, with which the Group must comply, about:
 - (i) its quorum;
 - (ii) voting powers of its members; and
 - (iii) the Group's proceedings.

5. Terms of Reference

The Terms of Reference for the Group are as follows.

- (1) To prepare and propose to the Living Murray Board a Living Murray Environmental Watering Plan, as envisaged by the Business Plan, for consideration by the Commission and Ministerial Council.
- (2) Whenever the Group considers it appropriate (but not more than once each year) to make and to propose to the Living Murray Board, any revision of the Living Murray Environmental Watering Plan which it considers appropriate, for consideration by the Commission and Ministerial Council.
- (3) To prepare and propose to the Living Murray Board, annual watering plans to be made under the Living Murray Environmental Watering Plan, for consideration by the Commission and Ministerial Council.
- (4) By a date determined by the Commission, to prepare and submit to the Living Murray Board in every year, an annual report on the implementation of the Living Murray Environmental Watering Plan and the relevant annual watering plan during the 12 months ending on the preceding 30 June.
- (5) Prepare and propose to the Living Murray Board the River Murray Channel Asset Management Plan envisaged by the Business Plan, for consideration by the Commission.
- (6) Annually, or at such other intervals as the Commission may direct, to make and propose to the Living Murray Board, any revision of the River Murray Channel Asset Plan for consideration by the Commission.
- (7) To assess, and to provide written advice to the Living Murray Board on, whether each Asset Environmental Management Plan (and any annual water plan made under that Plan) prepared under the Business Plan, is consistent with:
 - a) the Living Murray Environmental Watering Plan;
 - b) the River Murray Water Annual Operating Plan;
 - c) other Asset Environmental Management Plans;
 - d) any other plan or policy of the Commission or Ministerial Council which the Group considers relevant.
- (8) To provide such advice to the Environmental Works and Measures Group relating to projects proposed or implemented under the Environmental Works and Measures Program, as the Commission may direct.
- (9) Wherever possible:
 - a) to co-operate with; and
 - b) to co-ordinate its activities with those of,
 - water and environmental managers from each Government;

- the Community Advisory Committee;
- the River Murray Environmental Manager;
- the Environmental Works and Measures Program Reference Group;
- River Murray Water; and
- River Murray Water's Water Liaison Committee.

6. Delegation

- (1) Pursuant to clause 34 of the Agreement, the Commission hereby delegates to the Chief Executive power to do all things that are necessary or convenient to be done, for or in connection with, or as incidental to:
- a) the Group carrying out the Terms of Reference set out in clause (5); and
 - b) acting as Asset Manager for the River Murray Channel and implementing the River Murray Channel Asset Environmental Management Plan,
- subject to the limitations set out in sub-clause 6(2).
- (2) The Chief Executive may only exercise a power:
- a) under paragraph 6(1)(a) for the purpose of the Group carrying out a term of reference set out in clause 5; and
 - b) under sub-clause 6(1), in accordance with:
 - (i) any advice given by the Group; and
 - (ii) any directions given, or any policies or guidelines established by, the Ministerial Council or the Commission.

Notes:

- (1) It is expected that the Group will continue to exist until 30 June 2009, unless otherwise determined by the Commission. The operation of the Group, including its relationship with other Commission committees and working groups, will be reviewed:
- a) before the expiration of 18 months after its constitution; and
 - b) at such other times as the Commission determines.
- (2) It is expected that the Group will be supported and its work assisted, by a network of experts nominated by each Government. The contributions of these experts will be co-ordinated by the River Murray Environmental Manager.
- (3) The Manager, Environmental Delivery Project will provide executive support for the Group and arrange for its meetings to be convened."

Annex G – Environmental Works and Measures Work Program.

Provided as a separate document.

Annex H – Accounting for Recovered Water.

Improved Water Resource Accounting

1. Water resource accounting systems, of which environmental water is one component, are fundamental tools in the planning for and management of water in the Murray-Darling Basin.
2. Improved water accounting systems capable of accurately accounting for the recovery and use of environmental water will be established at both the jurisdictional and Basin-wide scales.
3. Existing accounting systems will be expanded to include a register of water recovered under The Living Murray and will provide accounts detailing the use and management of environmental water at the six significant ecological assets. In addition to accounting for use at the SEAs, a Basin wide account will be developed to enable monitoring and reporting on the volume and spatial distribution of unregulated flows in the Murray-Darling Basin over time.
4. Water recovered through investment under the Intergovernmental Agreement will be designated “new environmental water” (“new e-water”) and the priority for its use will be to achieve the MDB Ministerial Council’s ecological objectives at the six significant ecological assets.
5. In addition to accounting for the use and management of “new e-water”, accounting systems will need to account for the use and management of environmental water that came into existence before 29 August 2003 (“old e-water”) and any other water management factors that may impact on the significant ecological assets.
6. The distinction between the different components of the water accounting system is important and is characterised in Table 1.
7. “Old e-water” cannot be credited retrospectively against the \$500m investment in water recovery allocated under the Intergovernmental Agreement.
8. “Old e-water” can be used by States as they choose (not necessarily towards the Living Murray First Step Decision outcomes). In the case of the existing Barmah-Millewa Forest environmental water entitlement, originally created by the Ministerial Council in 1993, while this will be registered as “old e-water”, it will be managed for this Significant Ecological Asset consistent with the detailed framework of the *Living Murray Environmental Watering Plan*.
9. The use and management of “old e-water” and “other new e-water” will be accounted for through a similar accounting framework to that used for “new e-water”.
10. Accurate and complete accounting across “River Murray flow reductions” is necessary to satisfy Clause 46 referral requirements under the *Murray-Darling Basin Agreement*.
11. Groundwater impacts are an important component of the water accounting system. Groundwater will be incorporated into water accounting systems by 2006, in accordance with National Water Initiative timeframes [National Water Initiative IGA –

Clause 26 (i) & (ii)]. This will commence with an assessment of the priority areas for incorporation based upon the volume involved.

Table 1: Distinction between the different components of the water accounting system

Type	Characteristic	Application to SEAs	Application to other sites
“new e-water”	<ul style="list-style-type: none"> Water designated for environmental use on or after 29 August 2003 through funding allocated under the Intergovernmental Agreement. 	YES (Exclusively)	YES (Incidentally in the delivery of water to the River Murray)
“old e-water”	<ul style="list-style-type: none"> Water designated for environmental use before 29 August 2003. 	YES (Potentially)	YES
“other new e-water”	<ul style="list-style-type: none"> Non-TLM applications of environmental water that was designated for environmental use on or after 29 August 2003 through funding other than that allocated under the Intergovernmental Agreement. 	YES (Potentially)	YES
“River Murray flow reductions”	<ul style="list-style-type: none"> Other water management factors (e.g. farm dams, reductions in base flows) and tributary environmental initiatives Where there are environmental benefits from this type of water, these benefits will be recorded. 	NO Potential negative impacts	Potentially YES (eg., on tributaries)

Accounting for Environmental Water recovery

12. Water recovered for the environment will be recorded on environmental water registers.
13. Registers will be maintained in the State or Territory where the water is recovered and at an aggregated Basin-wide scale by the MDBC Office.
14. The environmental water registers, at both scales, will include the following information associated with the recovered environmental water:
 - (a) Source of water recovered;
 - (b) Estimated average volume delivered to the River Murray channel;
 - (c) Long Term Cap Equivalent volumes (in the valley in which the project is located – refer to paragraph 16 & 18-41 for further discussion of this issue);
 - (d) Associated Cap impact in tributaries, where relevant;
 - (e) Security and reliability characteristics;
 - (f) Channel capacity sharing characteristics;
 - (g) Type of water recovered (regulated or unregulated);
 - (h) Storage/call location(s) if regulated water;
 - (i) Geographic limitations on its application to the six significant ecological assets; and
 - (j) Trading of environmental water where appropriate.

15. Key terms relevant to the Environmental Water Register have the following meaning:

- (a) *LTCE*: Long Term Cap Equivalent – the volume registered for a particular recovery work or measure calculated using the accepted best practice Cap computer simulation model for that system as the:
 - a. long term average contribution to the Cap; or
 - b. potential contribution to long term average flows in the relevant river valley.

The LTCE is a common approach to the quantification of a volumetric definition of a recovery project and in itself does not represent a policy position.

- (b) *Regulated*: water is supplied from a system that is regulated by one or more major storages and can be ordered or “called” on either to be released from storage or to be supplied at a nominated diversion point.
- (c) *Unregulated*: water is supplied from an unregulated water system. Alternately water is supplied from a regulated water system but only during periods of declared “surplus” flows in the system.
- (d) *Inside Cap (Share)*: An entitlement for which water use is accounted as use by the relevant State under Schedule F of the *Murray-Darling Basin Agreement*.
- (e) *Outside Cap (Rule)*: An entitlement for which water use is not accounted as use by the relevant State under Schedule F of the *Murray-Darling Basin Agreement*.

16. Both state based and Basin-wide registers will be externally audited on an annual basis by the Independent Audit Group.

Calculating Long Term Cap Equivalent

17. The Long Term Cap Equivalent (LTCE) is defined at paragraph 14 and, once an agreed methodology has been developed (refer text from paragraph 31 below), will be used as a common metric for the following:

- (a) The \$/ML crediting rate for a proposal (this is important in establishing the cost effectiveness component of the project prior to implementation – especially under Clause 36 of the IGA);
- (b) The volume against which investment will be reported; and
- (c) Where appropriate, the level at which the Cap will be adjusted following implementation of proposals that recover water within Cap.

18. The LTCE credited against a particular proposal will include the equivalent volume of the potential contribution to long term average flows in the relevant river valley, including:

- (a) The reduction in the valley Cap for water recovered from inside the Cap; and/or
- (b) The long term average reduction in evaporation and seepage for water recovered from outside the Cap

19. The ratio between entitlement and LTCE is defined as the “Cap Factor”. The Cap Factor reflects the level of usage of a particular entitlement under a given scenario as compared to the volume of the license itself.

20. The Cap Factor for a particular product provides a basis for the translation of differing products to a common volumetric measure.
21. This common volumetric measure is for use in making financial choices and in communicating the overall progress in the implementation of The Living Murray First Step Decision. The Cap factor has not been developed to provide a basis for determining the conversion of entitlements between different levels of security.
22. Table 2 provides the Cap factor for the various water products in New South Wales, Victoria, South Australia and the Australian Capital Territory under the following scenarios:
 - (a) “current conditions development scenario”; and
 - i. The current conditions development scenarios are those represented by readily available model outputs. The actual level of development described will differ between models, and may be a number of years behind real current development levels.
 - (b) “ultimate development scenario”.
 - i. The “ultimate development scenario” defines the level of activation for the range of products presented:
 - Assuming effective full activation of high security products (a policy choice made by each jurisdiction); and
 - Once this policy choice has been made, the Cap factor for other products is able to be determined based upon:
 - The entitlements available in the relevant valley;
 - The limits imposed by Cap availability in the relevant valley; and
 - The stated priorities in regard to supplying the various types of water product in each jurisdiction.
 - ii. The Cap Factors under the “ultimate development scenario” are based upon the work of the Interstate Water Trade Project Board in 2004.
23. Cap factors under the “ultimate development” scenario will be used to determine the Long Term Cap Equivalent volume for crediting, reporting and, where appropriate, Cap adjustment.
24. The volume expected under the current development scenario will also be reported *for information only* to enable investors to assess the amount of water likely to be available in the shorter term.

Table 2: Cap Factors for water products in New South Wales, Victoria, South Australia and the Australian Capital Territory

	<i>For information only</i>	<i>The basis of crediting and reporting calculations</i>
Product	Cap Factor under “Current Conditions development scenario**”	Cap Factor under “ultimate development scenario”
New South Wales – Murray		
Murray High Security	**0.55	0.95
Murray General Security	**0.76	0.82
Murray Supplementary License	**0.73	0.00
New South Wales – Murrumbidgee		
Murrumbidgee High Security	0.34	1.00
Murrumbidgee General Security	0.74	0.70
Murrumbidgee Supplementary License	0.60	0.00
Victoria – Murray		
Murray High Security (Water Right or License)	0.66	0.95
Murray Infrastructure Savings	1.00	1.00
Murray District Security (Water Right & Sales)	1.46	1.18
Murray PD Security (License & Sales)	1.16	1.12
Murray - Low Security (Sales)	TBC	TBC
Murray Unregulated flow	0.00	0.00
Victoria – Goulburn/Loddon/Campaspe		
Goulburn High Security (Private Diverter)	0.70***	0.95
Goulburn Infrastructure Savings	1.00	1.00
Goulburn District Security (Water Right & Sales)	1.31	1.30
Goulburn PD Security (License & Sales)	0.80***	1.18
Loddon High Security (License)	TBC	TBC
Goulburn/Loddon Low Security (Sales)	TBC	TBC
Campaspe High Security (Water Right or License)	TBC	TBC
Campaspe Low Security (Sales)	TBC	TBC
South Australia		
Country Towns	0.74	1.00
Irrigation (Highland and Swamps)	0.91****	0.91
Infrastructure Improvements	1.00	1.00
Australian Capital Territory		
ACT Unregulated	TBC	1.00

* Current Conditions development scenarios are those represented by readily available model outputs. The actual level of development described will differ between models, and may be a number of years behind real current development levels.

** The MSM model used to calculate long term average annual Murray diversions cannot report usage by entitlement type. Estimates have been made using usage by groups and entitlements available to that group.

*** Anecdotal only, but private diverters are a very small proportion of entitlements. District Water Right & Sales make up over 95% of entitlements.

**** Current conditions for this entitlement group is assessed as having achieved that of ultimate development

25. The Cap factors used are able to be refined over the medium term up to 25 June 2007 (the date for the three year review of the Intergovernmental Agreement). This will allow for the incorporation for the effects of Government policy changes over this time into these calculations.

Special Crediting – Case 1: NSW Supplementary License

26. The approach to calculating volumes to credit against particular proposals using the Cap factors under the “ultimate development scenario” does not encourage the purchase of supplementary allocation as its long term Cap equivalent may reduce over time.

27. Given that Governments may wish to purchase high volumes of supplementary allocation that could potentially be used to achieve outcomes at the SEAs in the short term, rules will be developed to permit the purchase of supplementary entitlements as part of the first step decision with the arrangements for this product:

- (a) to be based upon those developed to permit temporary trade;
- (b) supported by appropriate financial crediting arrangements including risk apportionment in the event that the availability of this product diminishes.

Special Crediting – Case 2: Water recovery in the ACT

28. As the ACT is yet to set a Cap, its LTCE will be assumed, for the time being, to be its current rate of extraction. This will result in a Cap Factor of "1.00".

29. The Cap factors arising from an agreed Cap for the ACT, when adopted by the Ministerial Council, will be used to determine potential or actual impact on Cap of water recovery options in the ACT.

Further Defining Water Products

30. The LTCE will not describe all features of recovered water products to enable their coordinated management for environmental outcomes. Full and proper definition of environmental water products will need to include definition the following characteristics:

- (a) Access to Channel Capacity
 - i. During particular period of operation; the capacity of the River Murray channel and to deliver water becomes the limiting factor. This also occurs at places in the Murrumbidgee and Goulburn river systems.
 - ii. In the absence of agreement and based on the principle of no third party impacts, the access of an environmental entitlement will be equivalent to the characteristics of the water product from which it was sourced.
 - iii. Further exploration/development of channel access rules that could potentially result in “win win” outcomes for both the environment and consumptive users should be considered.
- (b) Reliability
 - i. Another aspect of the water product that will be useful to investors is the expected long term reliability profiles of products recovered.

Crediting and Reporting of Recovered Water

31. Water recovered will be credited against financial and volumetric targets at the source of recovery except where water recovered is delivered as an unregulated flow, where it will be credited against financial and volumetric targets at the River Murray channel.
32. In relation to this matter, the Intergovernmental Agreement states that:
- (a) Clause 17: *“The priority for investment under the IGA is the recovery of water to implement the Living Murray First Step decision in regard to achievement of specific environmental objectives and outcomes for six significant ecological assets; ...”*;
 - (b) Clause 18: *“Any measures to address water overallocation or other environmental objectives in other areas of the Basin under this Agreement must be agreed by all Parties to this Agreement”*;
 - (c) Clause 65: *“Improved environmental outcomes in tributaries of the Murray River are to be promoted through the use of the recovered water where this is consistent with and does not compromise the achievement of the environmental objectives agreed for the six significant ecological assets identified under the Living Murray First Step decision (refer Clause 17)”*; and
 - (d) Clause 66: *“The Parties will use their best endeavours to ensure that no detrimental effect on the environmental condition of Murray-Darling system, including its tributaries, will result from the recovery of water under this Agreement”*.
33. The priority for investment in water recovery will be for proposals which can achieve the highest benefit at the SEAs for the least cost. Given that water recovered from tributaries may be more useful than water recovered from the River Murray, significant volumes of tributary water are likely to be recovered.
34. When delivering environmental water to the assets from the tributaries, water is likely to be lost in transmission meaning that some recovered water may not reach the SEAs. The amount of water recovered not available to the six SEAs will depend on the arrangements adopted through the *Living Murray Environmental Watering Plan*. As an initial estimate this may be of the order of 10%⁵.
35. An indicative crediting amount will be used until the post-implementation audit has been conducted. The MDB Ministerial Council will confirm the final crediting amount on the basis of the post-implementation audit. This will ensure projects are credited for actual water recovered rather than a pre-implementation estimate.

Accounting for Environmental Water Use

36. All uses of environmental water will be managed and accounted consistent with the *Living Murray Environmental Watering Plan*. While environmental water not recovered through investment under the Living Murray (refer Table 1) is only potentially available for the priorities of the First Step Decision, it is envisaged that this water will be applied in a manner consistent with the *Living Murray Environmental Watering Plan*.

⁵ On the basis of the tributaries providing approximately 40% of water recovery opportunities by volume, and losses in delivering that water being in the order of 25%, this is likely to represent around 10% of the investment under The Living Murray.

37. Through the integrated environmental management approach defined in the *Living Murray Environmental Watering Plan*, long-term average volumes to be applied to each of the six significant ecological assets will be able to be determined.
38. Total long-term average volumes will be commensurate with the volume available on the environmental water register.
39. Consistent with the *Living Murray Environmental Watering Plan*, the actual volumes delivered to each significant ecological asset will be accounted for and reported on an annual basis and will include:
 - (a) how much water was released for each asset;
 - (b) how much was delivered to each asset;
 - (c) how much was used (i.e. consumed in the application to that asset);
 - (d) how much water was returned to the River Murray channel; and
 - (e) the net use of the environmental account.

Calculating Losses

40. In attributing losses, it will be assumed that water delivered within the river channel will not incur any incremental loss and that the losses from overbank flow will be calculated on a pro-rata basis using the best available estimate of the incremental loss.
41. The extent to which losses are incurred in the tributaries will depend on the watering regime adopted under the *Living Murray Environmental Watering Plan*. There will be numerous management options available to environmental managers that can be used to deliver flows to the SEAs from the tributaries with low losses.

Return Flows from Environmental Watering

42. An agreed approach for dealing with "return flows" from environmental watering is required. Importantly, this is a technical estimation issue, not an accounting issue. Any refinement in the estimation of return flows for a particular Significant Ecological Asset will be able to be applied retrospectively up to 25 June 2007 (the date for the three year review of the Intergovernmental Agreement).
43. The interim approach will be the adoption of an agreed estimate of the return flows which will be then be:
 - (a) available to downstream SEAs; and/or
 - (b) re-regulated for consumptive use (with appropriate crediting to the environmental account).

Providing Security for Environmental Water

44. Each jurisdiction has their own arrangements for preserving the integrity of environmental water and accounting for its use and management at the State and regional scales. Arrangements for achieving this in each jurisdiction are presented in Annexure J.

Basin Account – ensuring volume and spatial distribution of unregulated flows is monitored and reported

45. In addition to accounting for use at the SEAs, a Basin wide account will be developed to enable monitoring and reporting on the volume and spatial distribution of unregulated flows in the Murray-Darling Basin over time.
46. If all actions post-29 August 2003 were incorporated on the Register or accounted for through the application of Clause 46 (of the Murray-Darling Basin Agreement), such an account would serve as a back-up only. However there are likely to be some non-TLM environmental actions and other water management actions (e.g., farm dams, reductions in base flows) that do not make the Register, for this reason such an account is required to ensure integrity of investment.
47. This methodology, or a variation based on long term modelling results, could also be applied for other locations in the Basin (e.g., other sites on main stem of Murray as desired, Balranald, Menindee inflows, McCoy's Bridge).
48. While jurisdictions retain responsibility for “surplus flows” they will comply with Clause 46 of the *Murray Darling Basin Agreement* at any time when assignment of water resources to tributary ecological assets is being considered. The relative merits of the various options will be evaluated through this process.

Trade of Environmental Water

49. Water recovered for the environment and held as a tradeable entitlement may be traded on the temporary market at times when this is consistent with the *Living Murray Environmental Watering Plan*.
50. The existing rules for water trade, including processes for Cap adjustment, will be used to manage environmental water trade unless specific rules require modifications.
51. To ensure tradability, environmental entitlements will need to have the same characteristics of other tradable entitlements.
52. Trade revenue will be separately accounted by the investing parties and set aside for investment to achieve objectives under the *Living Murray Environmental Watering Plan*.

The Cap in the relevant valley will be appropriately adjusted to reflect trade of environmental water.
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Independent Review

53. The Intergovernmental Agreement requires that the management of the impacts on the Long Term Cap Equivalents resulting from the recovery and delivery of water will be subject to annual external audit. The existing Independent Audit Group will provide this function.

Financial Accounting

54. Jurisdictions will establish financial records of expenditure credited against funding commitments, including for any trade in recovered water. Jurisdictions are to ensure that these records are externally audited on an annual basis.

Annex I – Overview of Water for the Environment.

Issue	New South Wales	Victoria *	South Australia	ACT
Terminology	Environmental Water	Environmental Flows		Environmental Flows
Legislation	Water Management Act 2000	Water Act 1989	Water Resources Act 1997	Water Resources Act 1998
What is the security of Environmental Water?	<p>Water Management Act 2000 defines environmental water.</p> <p>Two types:</p> <p>1. <i>Planned environmental water</i> Committed by management plans for fundamental ecosystem health or other specified environmental purposes, and, except for environmental contingency allowances, cannot be used for any other purpose.</p> <p>2. <i>Adaptive environmental water</i> Committed by the conditions of access licenses for specified environmental purposes.</p> <p>Management plans must contain provisions for the identification, establishment and maintenance of planned environmental water (environmental water rules) The rules are based on models which contain assumptions, so while rules cannot be changed, actual volumes of environmental water may vary. This may include end-of-system surplus</p>	<p>Under the Water Act 1989, bulk entitlements are issued to rural and urban water authorities and are a legal entitlement to water.</p> <p>For regulated rivers, water is generally provided for the environment via conditions on the bulk entitlement of the water authority. The bulk entitlement fully defines the environmental entitlement, its security and the basis of its use (for example, a requirement on an authority to release a particular environmental flow regime from a storage). In some cases, however, bulk entitlements may be provided specifically for the environment (such as when allocations are required for wetland watering).</p> <p>For unregulated rivers environmental flows are governed by stream flow management plans or, in lower priority rivers, by Statewide management rules. Environmental flows provided through the plans must be sufficient to sustain agreed</p>	<p>Water for environmental purposes can be held as part of the non-consumptive pool (ie, environmental water not allocated), or as an allocation under a license specified as being for environmental purposes.</p> <p>The water allocation plan (WAP) is the primary tool for control of the allocation, use and management of water. The WAP can protect both types of environmental allocation. Water in the non-consumptive pool is not allocated for consumptive purposes unless the WAP makes specific provision for this, and this provision accords with the identified environmental requirements and the objects of the Act. The WAP can also control the trading rules that apply to licenses issued for environmental purposes.</p> <p>Environmental licenses could also be vested in a Trust, and the rules of the Trust specify the circumstances under which trading might take place.</p>	<p>Water flows are protected in the ACT under the Environmental Flow Guidelines.</p> <p>Environmental Flow Guidelines are a disallowable instrument under the Water Resources Act 1998 (the Act) that set out a methodology for the calculation of environmental flows to be used as the basis of a Water Resource Management Plan (WRMP) for the ACT.</p> <p>The WRMP is also a disallowable instrument under the Act.</p> <p>Environmental flows take priority over all other uses of water when determining allocations under the WRMP</p> <p>The Territory Plan defines the primary and secondary use within subcatchments of the ACT. These definitions are articulated in the WRMP.</p>

	<p>water that is available for, but not targeted to, icon sites. Management plans must contain provisions relating to adaptive environmental water. These might include provisions to “protect” licensed environmental water downstream to its target.</p>	<p>ecological values and be consistent with Statewide requirements.</p> <p>Outside of the cap, any water savings will become part of the Environmental Reserve. The Victorian Water Act will be amended to give the Environmental Reserve the equivalent status to water allocated from consumption.</p>	<p>The River Murray WAP would need to be amended to reflect the management regime agreed for environmental water, including temporary counter cyclical trading if this is considered appropriate.</p>	
<p>Related Legislation and Strategies</p>	<p>Regional Environmental Plans</p> <p>Environmental Planning and Assessment Act 1979</p> <p>Protection of Environment Operations Act 1997</p> <p>Catchment Management Authorities Act 2003</p> <p>Natural Resources Commission Act 2003</p> <p>Murray-Darling Basin Act 1992</p> <p>Note, while the Water Management Act 2000 is the primary legislation, there is nothing in that Act that prevents other legislation overriding it.</p>	<p>Murray-Darling Basin Act 1993</p> <p>Groundwater (Border Agreement) Act 1985</p> <p>Environment Protection Act 1970</p> <p>Planning and Environment Act 1987</p>	<p>In relation to protection of water resources in the Murray, the most direct Acts are the Water Resources Act 1997 (and NRM Act 2004 once in operation, likely to be from 1 July 2005), River Murray Act 2003, Murray-Darling Basin Act 1993.</p> <p>Acts which can control development and other activities, and in that way have an impact on health of the river’s catchment are the Animal and Plant Control Act 1986, Aquaculture Act 2001, Coast Protection Act 1972, Development Act 1993, Environment Protection Act 1993, Fisheries Act 1982, National Parks and Wildlife Act 1972, Native Vegetation Act 1991, and Soil Conservation and Land Care Act 1989. [The Natural Resource Management Act 2004 will repeal the Animal and Plant Control Act and Soil Conservation and Land Care Act].</p>	<p>Territory Plan</p> <p>National Capital Plan</p> <p>Environment Protection Act 1997</p> <p>Nature Conservation Act 1980</p> <p>Nature Conservation Strategy 1998</p> <p>Utilities Act 2000</p> <p>Seat of Government Acceptance Act (Cmth)</p> <p>Canberra Water Supply (Googong Dam) Act 1974 (Cmth)</p> <p>“Think Water, Act Water” Strategy</p>

			It should be noted that significant amendments were made to each of the above Acts by the <i>River Murray Act 2003</i> to ensure that the interests of the River Murray are given priority in planning and management decisions taken under those Acts.	
Level of Discretion Who can change the allocation of environmental water (up or down, or trade it)	<p>Subject to authorisation by the Minister, catchment management authorities may assist in developing, implementing and monitoring Water Sharing Plans (WSPs).</p> <p>WSP have a duration of 10 years and are to be reviewed after 5 years, including the environmental water rules.</p> <p>The Minister has the right to amend management plans (WSP) and hence the amount of water available to the environment. This must be done by an order in the Gazette and must have the concurrence of the Minister for the Environment. The Natural Resources Commission provides advice on whether plans are achieving progress on catchment action plan standards and targets before a Minister makes any changes.</p> <p>Environmental water is fixed for 10 years, or longer if a plan is “rolled over” on NRC advice, but the NRC can recommend changes in a plan at</p>	The Minister for the Environment holds environmental water under a bulk entitlement.	<p>License variations (to reflect increases or reductions of water allocations, including consequent upon trade) are made by the Minister administering the <i>Water Resources Act</i>. The Minister has delegated the function to responsible officers within the Department of Water, Land and Biodiversity Conservation.</p> <p>Trading rules are set out in the WAP. The Minister’s decision regarding an application to trade River Murray allocation must be made in accordance with the WAP, and in the public interest, consistently with the regulations (if any), and after taking into account the terms and requirements of the <i>Murray-Darling Basin Agreement</i> and any relevant resolution of the Ministerial Council under that Agreement.</p> <p>Reductions of water allocation may be made by the Minister with the consent of the licensee, or where there is a demonstrated environmental need to reduce allocations, or to give effect to</p>	The Environment Protection Authority has functions under the Water Resources Act to administer and amend the Environmental Flow Guidelines thus determining the amount of water allocated to the environment. This decision must be tabled and approved by the Legislative Assembly.

	the 5 year review period.		a change in the WAP requiring allocations to be reduced.	
If environmental water allocations are altered, what consultation or transparency is involved who must be notified of a proposed change, or notified once a change is made?)	<p>(See level of discretion above.)</p> <p>Following the 2004 amendments to the relevant Acts, there is now a clear, transparent and scientifically robust process for reviewing the rules, involving the independent NRC.</p> <p>The amendments did not alter the need for concurrence by the Minister for the Environment on any changes to environmental water rules in a plan.</p> <p>There will be opportunities for input from the public and stakeholders. Users will receive adequate notice of any proposed changes in access.</p>	The Water Act 1989 requires the Minister for the Environment to undertake consultation in amending bulk entitlements for the environment.	<p>Environmental requirements are identified in both the catchment plan and the WAP. Changes in environmental allocations would be achieved by a change in the WAP. The WAP may be amended by the Minister following comprehensive public consultation by the Board. (Exceptions to this process are where the changes are of a minor nature and do not affect allocations, or where they are required to achieve consistency with the State Water Plan. Amendments to the State Water Plan are made by the Minister and must be gazetted, and must also be published in the newspaper inviting submissions).</p> <p>The WAP and any changes to it must be consistent with the State Water Plan, and both plans must be consistent with and seek to further the object of the <i>Water Resources Act</i>. (The object of the Act is, broadly, the management of the state's water resources consistently with the principles of ecologically sustainable development, and in a way that is consistent with the objects and objectives of the <i>River Murray Act 2003</i>).</p>	If changes are made to the management plan the Environment Protection Authority must prepare a written notice (a notifiable instrument) of the amendment and publish the notice in a daily newspaper. A comprehensive public consultation process would be undertaken. Amendments or repeals, once approved by the Minister, are a disallowable instrument and must be notified.

			<p>Changes in environmental allocation may also effectively be made by the Minister acting on specific powers in the <i>Water Resources Act</i> for recovering water where there is a demonstrated environmental need to reduce allocations (see below at issue 5). The Minister's powers must be exercised by a proportionate reduction of allocations or, following public consultation, by a scheme set out in regulations.</p> <p>Licensees would be notified of the changes (the form of the notice would vary according to which method was used). Changes would be reflected in the Register.</p>	
How is environmental water managed?	<p>The water sharing plans under the Act set out provisions for the management of environmental water. In the future, catchment management authorities may assist in developing these plans if authorised by the Minister.</p> <p>DIPNR has prime responsibility for management. In regulated systems, this is through conditions on State Water and other dam owners' works approvals to effect the desired release regimes. Where environmental contingency allowances are provided for, fine-scale decisions on activation of the allowances may be made by the CMAs. Apart from this, CMAs are</p>	<p>The bulk entitlement process provides the opportunity to define and protect the water remaining in the river as "environmental flows". During this process, flow regimes and operating rules are reviewed. Where this is the case, operating rules will be modified by agreement with water authorities to improve environmental outcomes.</p> <p>In unregulated rivers, streamflow management plans set environmental objectives, negotiated environmental flows.</p>	<p>The River Murray Catchment Board is responsible for managing environmental water in a way that gives effect to environmental requirements identified in its catchment plan and WAP. The Board is an instrumentality of the Crown, and is subject to the control and direction of the Minister administering the <i>Water Resources Act</i>. It is required to report annually on the extent to which it is implementing its plan, and to which implementation of the plan has succeed in achieving the object of the Act.</p> <p>Where a portion of the environmental</p>	<p>The Environment Protection Authority prepares the Water Resource Management Plan which sets out the flows required to meet environmental needs and specifies water allocations for a 10 year period. Flows required for environmental needs are specified in the Environmental Flow Guidelines.</p> <p>The Environment Protection Authority is responsible for managing environmental flows in accordance with the management plan under the Act.</p>

	<p>unlikely to be involved in decision-making in relation to planned environmental water.</p> <p>In unregulated and groundwater systems, the main tool is a publicly available water determination by the Minister.</p> <p>In all systems, both the NRC and the CMAs have a role in monitoring the impact of water sharing plans on catchment health.</p> <p>CMAs will be able to own environmental water licenses. They may also hold and deal in access licenses.</p>		<p>water requirements is to be met through wetland licenses, the licensee is obliged to comply with license conditions imposed by the Minister consistently with rules about wetland management licenses set out in the WAP.</p> <p>If recovered water is to be managed in a particular way or for particular purposes that do not fit within the current River Murray WAP, the WAP would need to be amended to reflect the management regime agreed for environmental water, including temporary counter cyclical trading if this is considered appropriate.</p>	
Recovering Water for the Environment	<p>The Minister can recover water by changing plan rules, acquiring or reducing access licenses (licenses can be acquired through regulatory taking with compensation, or in the market), and instigating works or more efficient processes.</p> <p>The latter would be effected through conditions on the works approval of State Water.</p> <p>Under the CoAG NWI IGA, a risk assignment model now limits the amount of change at plan renewal without compensation.</p>	The Minister administering the Water Act 1989 may recover water for the environment by investing in water savings and investing in water infrastructure projects and other mechanisms (refer White Paper).	<p>The Minister administering the <i>Water Resources Act</i> can recover water for the environment:</p> <ul style="list-style-type: none"> • using direct Ministerial powers for recovering water where there is a demonstrated environmental need to reduce allocations; • to give effect to a change in the WAP requiring allocations to be reduced to increase the environmental allocation; • through purchase schemes such as ‘compulsory tender’ schemes; or • by direct purchase through the water market. <p>Other bodies are also able to purchase</p>	The Minister may reduce licenses to take water if there is an impact on quality, quantity, environmental flows or other environmental values.

			water on the market – for example, the River Murray Catchment Board and the Minister for the River Murray have the power to do this.	
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* Information under Victoria is based on current allocations of environmental water. It does not take into account the recently released white paper *Our Water Our Future*.

Annex J – Consultation Groups and Possible Communication Activities.

1. Groups to be considered during consultation for development of measures and application of water

- (a) Community - rural and urban communities inside and outside the Murray Darling Basin, and metropolitan areas.
- (b) Business (production) – water authorities, irrigators, irrigation companies, commodity groups, processing companies & commercial fishers.
- (c) Business (service) – financial, rural services, tourism and recreation.
- (d) Government – Commonwealth Government, State / Territory governments, MDBC, catchment authorities & local governments.
- (e) Environment – national, regional, local groups / interests.
- (f) Indigenous – Indigenous nations, Indigenous agencies and Councils.
- (g) Technical – scientists, engineers, environmental and social scientists, economists, farm managers, agronomists and horticulturalists.

2. Possible communication activities.

Task	Timeframe	Key stakeholders / audiences	Responsibility
Provide progress reports to meetings of the Community Advisory Committee.	Ongoing	Community, Businesses, Environment & Indigenous.	MDBC Office.
Provide articles and media releases to regional media on progress with First Step implementation and outcomes.	Ongoing	Community, Businesses, Government, Environment, Indigenous & Technical.	Jurisdictions and MDBC Office.
Provide regular information updates and fact sheets on the MDBC web-site, outlining progress with recovery, managing and accounting for environmental water. Links to the web site should be available on jurisdictional sites.	Ongoing	Community, Businesses, Government, Environment, Indigenous & Technical.	Jurisdictions and MDBC Office.
Make the Eligible Measures Register available on MDBC web-site (subject to commercial in confidence material being removed).	October 04	Community, Businesses, Government, Environment, Indigenous & Technical.	MDBC Office and jurisdictions.
Make the <i>Living Murray Environmental Watering Plan</i> available on MDBC web-site.	October 04 (initial plan) and when amended.	Community, Businesses, Government, Environment, Indigenous & Technical.	MDBC Office and jurisdictions.
Make the <i>Asset Environmental Management Plans</i> available on MDBC web-site.	January 05 and then whenever amended.	Community, Businesses, Government, Environment, Indigenous & Technical.	MDBC Office and jurisdictions.
Make progress report for MDB Ministerial Council available on web-site.	July each year.	Community, Businesses, Government, Environment, Indigenous & Technical.	MDBC Office and jurisdictions.

Annex K – Initial Risk Assessment.

Rating = Severity x likelihood, where low = 1, medium = 2 and high = 3

Risk	Likelihood	Severity	Rating	Mitigation
Insufficient number of measures come forward leading to: - Initiative driven by water supply rather than the water needs of the assets. - Reduced competition between measures reduces cost-efficient investment.	Medium	High	6	<ul style="list-style-type: none"> • Measures able to be submitted by parties other than jurisdictions. • Developmental Register enables future measures to be brought to the attention of investing jurisdictions.
Insufficient diversity between measures to enable water needs of assets to be met.	Low	High	3	<ul style="list-style-type: none"> • Developmental Register enables future measures to be brought to the attention of investing jurisdictions. • Intergovernmental Agreements allows a wide range of water recovery mechanisms to be brought forward in measures. • Develop other eligible measures to provide more choices to partner governments. These measures could be used to enable better matching between water needs of assets and the environmental water portfolio.
Lack of public confidence regarding protection of recovered water.	Medium	Medium	4	<ul style="list-style-type: none"> • Institutional arrangements for protecting environmental water outlined in the Business Plan. • Transparent accounts for recovered water at a basin and jurisdictional level. • Clear accounting for any traded water, with benefits of trade communicated.
That recovered water is not actively managed to deliver maximum environmental benefit (lazy water).	Low	Medium	2	<ul style="list-style-type: none"> • Trading of recovered water permitted within set protocols – results in use of water to derive maximum environmental benefit. • Transparent accounts for recovered water at basin & jurisdictional level.
Long lead times between investment and delivery of recovered water.	Medium	Medium	4	<ul style="list-style-type: none"> • Encourage progressive implementation of measures to allow some water to be recovered earlier. • Invest in measures with shorter lead times if possible. • Communicate the long-term environmental benefits of measures that have longer lead times.

Concern that things should be happening sooner (public and ministerial).	High	Medium	6	<ul style="list-style-type: none"> • Communicate the long-term environmental benefits of measures that have longer lead times. • Ensure that institutional arrangements are established promptly to enable investment to commence. • Utilise interim arrangements provided for in Clause 36 of the Intergovernmental Agreement. • Support to measures at feasibility assessment stage through the \$1.2 million Investment in Infrastructure Program. • Continue improving works and measures at the assets through the \$150 million Environmental Works and Measures Program to enable efficient delivery of water. • Develop water recovery mechanisms with shorter lead times to implementation than infrastructure improvements.
Lead-time between application of recovered water and improvement of the ecological condition of the assets.	High	Medium	6	<ul style="list-style-type: none"> • Communicate projected environmental benefits associated with investment and application of water. • Develop ecological indicators which allow interim improvements to be measured.
Non-visual improvements to assets (the public cannot actually ‘see’ the change).	High	Low	3	<ul style="list-style-type: none"> • Communicate non-visual environmental improvements.
Increasing deterioration of assets between now and when water is delivered.	Medium	Medium	4	<ul style="list-style-type: none"> • Ensure that institutional arrangements are established promptly to enable investment to commence. • Utilise interim arrangements provided for in Clause 36 of the Intergovernmental Agreement. • Use Environmental Works and Measures Program to produce greater environmental benefits from existing water application.
Management of unregulated water prevents the environmental water delivering anticipated benefits.	Low	High	3	<ul style="list-style-type: none"> • “Basin Account” as part of water accounts to track volume and distribution of unregulated flows.
Ongoing dry conditions result in delivered water having negligible impact.	Medium	High	6	<ul style="list-style-type: none"> • Use <i>Living Murray Environmental Watering Plan</i> to ensure strategic application of water.

Annex L – Living Murray Environmental Watering Plan 2004-05 – Interim Arrangements.

Provided as a separate document.