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From Taking, to Capping to Returning: the Story of Restoring Environment Flows in the Murray Darling Basin in Australia

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## 1. The Federation of Australia

In 1901 six separate colonies federated to become the Commonwealth of Australia.

The process of federation was almost derailed by a dispute over how the new constitution should address the sharing of the waters of the River Murray between the (then) colonies of New South Wales, Victoria and South Australia. The Colony of South Australia, the downstream colony, had argued for the Commonwealth to be given the power to manage the waters of the River Murray, which was fiercely resisted by the upstream colonies. South Australia's principal interest at the time was navigation and while it was not successful in including a power for the Commonwealth over the River Murray, it was successful in ensuring the Commonwealth had power over navigation. The Commonwealth was not however given any specific head of power to deal with the River Murray, or with water resources or the environment more generally.<sup>2</sup>

The history of the creation of Australia and the constitutional sharing of powers between the States and the Commonwealth has had a significant influence on the measures that have been taken over the past 100 years to manage the shared resources

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<sup>1</sup> For more information on the IUCN Environmental Law Programme see: [www.iucn.org/themes/law](http://www.iucn.org/themes/law)

<sup>2</sup> Section 100 of the Constitution provides that the Commonwealth shall not "by any law or regulation of trade or commerce, abridge the right of a State or the residents therein to the reasonable use of the waters of rivers for conservation or irrigation", a provision that has never been fully tested. The Commonwealth has used many other heads of power to legislate on environmental issues, including legislating for the domestic implementation of international treaties under its 'external affairs' power.

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of the Murray Darling Basin. This has resulted in a co-operative approach being adopted and the collective efforts of the Commonwealth, the States of South Australia, Victoria, New South Wales, Queensland, and the Australian Capital Territory, together with the community, is known as the Murray Darling Basin Initiative (the Initiative).<sup>3</sup> This cooperative approach continues today.

The Commonwealth's most effective tool in addressing environmental issues to date has been through the use of its financial strength, which it has used to bring about desired change.<sup>4</sup>

In a clear departure from taking a co-operative approach, the Commonwealth legislated in 1999 to create new Federal environmental legislation, the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), through which the Commonwealth asserted the full extent of its Constitutional powers, to take a stronger leadership role in relation to environmental issues of 'national environmental significance'.<sup>5</sup> The EPBC Act applies to the whole country, not just the Murray Darling Basin, and involves an assessment and approval process for actions that may have a significant impact on identified matters of national environmental significance, including Ramsar listed wetlands, nationally listed threatened species and threatened ecological communities and nationally listed migratory species.

## 2. The Murray Darling Basin – some basic facts

The Australian Aboriginals were the first to discover the bountiful resources of the Murray Darling Basin, more than 70,000 years ago. The Basin and its floodplains shaped, and is part of, their beliefs and lives. The Basin has also shaped important elements of modern Australian history, and as the nation's first great transport network, fostered the development of towns and agricultural industry.<sup>6</sup>

The Murray Darling Basin spans across much of five jurisdictions, is over 1,000,000 million square kilometers in area, or 14% of Australia, home to two million people and Australia's most productive region for irrigated agriculture (with over 70% of all of Australia's irrigated agriculture occurring within the Basin). The City of Adelaide, with a population of over one million, relies on the River Murray for up to 90% of its water supply in drought years. Today the Basin enriches Australia by an estimated \$23 billion per year. Agriculture produce now exceeds \$10 billion, mining \$3 billion, tourism and leisure around \$6.5 billion, electricity \$0.3 billion and commercial fishing and other industries \$2,5 billion.

The Murray River is approximately 2,500 kilometers in length, commencing in the Snowy Mountains of New South Wales, entering the sea at the Coorong on the southern coast of South Australia. The Darling River, Australia's longest, is approximately

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<sup>3</sup> For more information see: [www.mdbc.gov.au](http://www.mdbc.gov.au)

<sup>4</sup> In particular through the implementation of the National Competition Policy and the Natural Heritage Trust.

<sup>5</sup> See Scanlon and Dyson, *Will Practice Hinder Principle: Implementing the EPBC Act*, EPLJ, Volume 18, February 2001 at page 14.

<sup>6</sup> See *The Living Murray* Discussion Paper, July 2002 at page 13. See [www.thelivingmurray.mdbc.gov.au](http://www.thelivingmurray.mdbc.gov.au) for the full text.

2,740 kilometers in length, from its source in the south east of Queensland to its confluence with the River Murray at Wentworth.

Basin run off prior to regulation was approximately 24,000 GL, and today diversions account for about half of the annual runoff, with about a quarter reaching the sea. Flows to the sea from the mouth of the River Murray are today 27% of natural (pre development) flows.

The Basin in each State and Territory <sup>7</sup>			
State	Percentage of Basin	Percentage of State	Total Diversions
Queensland	24.55	14.63	5.4 % or 611 GL
NSW	56.65	74.79	54.5 % or 6194 GL
Victoria	12.32	59.96	33.9 % or 3858 GL
South Australia	6.49	6.98	5.9 % or 667 GL
ACT	0.22	100	0.4 % or 44 GL

### 3. Interstate Agreements to Manage the Shared Resources of the Basin

The first agreement was between the States of New South Wales (NSW), Victoria, South Australia (SA) and the Federal (or Commonwealth) Government (ratified by legislation in each jurisdiction) in 1914, known as the River Murray Waters Agreement. This agreement, which took almost 15 years to negotiate,<sup>8</sup> dealt principally with the sharing of the waters of the stem of the River Murray between NSW, Victoria and SA.

The Agreement has evolved over the years, and in 1985 an agreement known as the Murray Darling Basin Agreement was signed, which:

- expanded the focus from the stem of the River Murray to the whole of the Basin;
- included natural resource management across the entire basin, with an increased focus upon water quality as well as quantity; and
- established a Ministerial Council as the peak policy body under the Agreement.

This current agreement is dated 1992<sup>9</sup> and in 1996 the upper most State, Queensland joined the Agreement, and the Australian Capital Territory agreed to participate in certain aspects of the Initiative through a memorandum of understanding in 1998 (with Canberra being the only capital city within the Basin itself).

The purpose of the current Agreement is to “promote and coordinate the effective planning and management for the equitable efficient and sustainable use of the water,

<sup>7</sup> Sources: P Crabb, *Murray Darling Resources*, MDBC 1997 and MDBC, Murray Darling Cap on Diversions Water Year 1997/98.

<sup>8</sup> The River Murray Commission established under the Agreement did not meet until 1917.

<sup>9</sup> And was ratified by legislation in all participating jurisdictions in 1993.

land and other environmental resources of the Murray Darling Basin.”<sup>10</sup> This broad focus on the sustainable use of all of the environmental resources of the Basin is reinforced throughout the Agreement.

In its broadest sense the Initiative involves two separate but related issues, namely:

- The sharing and distribution of the waters of the River Murray between NSW, Victoria and SA in accordance with the Agreement; and
- The development of policies and programs to promote the integrated catchment management of the Basin.

The institutional arrangements for the Initiative are set out in the Agreement.

#### 4. Institutional Arrangements for the Murray Darling Basin

The institutional arrangements are:

- The Ministerial Council – the peak policy making body under the Agreement;
- The Commission – the body responsible for administering the agreement and providing advice to the Council;
- The Community Advisory Committee – established by the Ministerial Council in 1986 to provide community views directly to the Council; and
- The Office of the Commission – the secretariat of the Commission, holding a wide array of delegated authority.

##### 4.1 The Ministerial Council

The Ministerial Council was established in 1985 and is responsible for considering and determining major policy issues of common interest. It is the peak body under the Initiative.

The Council consists of up to three Ministers from each State and the Commonwealth and one from the ACT (who has observer status). Members are drawn from Ministers who have prime responsibility for matters relating to water, land and environment<sup>11</sup> and the Commonwealth Chairs the Council, traditionally through the Minister with responsibility for agriculture.<sup>12</sup>

The Initiative is in effect an inter jurisdictional compact between the Commonwealth and States that provides a means for dealing with matters of common interest. It requires high-level political engagement and the establishment of the Ministerial Council in 1985 represented a significant step forward in managing the Basin as it provided a regular forum for this to occur.

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<sup>10</sup> Clause 3(2) requires any provision of the Agreement to be interpreted in a manner that promotes the purpose or object underlying the Agreement.

<sup>11</sup> See Clause 8(3) of the Agreement.

<sup>12</sup> The current Chair being Minister Warren Truss, Federal Minister for Agriculture, Fisheries and Forestry

The achievements of the Ministerial Council over the last 15 years stand in stark contrast to the achievements made over the first 15 years of federation. They are testament to the strength of the Federation of Australia.

The major achievements of the Ministerial Council include<sup>13</sup>:

➤ The 1988 Salinity and Drainage Strategy.

From 1975-85 salinity levels when measured at Morgan exceeded 800 EC units 42% of the time. As a result of the implementation of the Salinity and Drainage Strategy, including groundwater management schemes costing \$50 million, salinity levels currently exceed 800 EC units 8 % of the time, with average salinity being 520 EC units.<sup>14</sup>

➤ The 1995 Cap on water diversions.

This is the most significant decision ever taken by the Council, through which all jurisdictions voluntarily agreed to cap their own diversions from the Basin.<sup>15</sup>

➤ The 1997 Pilot Program for permanent interstate trade.

This has allowed water to move to more valuable uses and has meant that the cap on diversions has not been a cap on development.<sup>16</sup>

All major achievements, but quite clearly more needs to be done.

#### 4.2 The Community Advisory Committee (CAC)

The Ministerial Council established the CAC as a Committee in 1986. It is responsible for providing direct advice to the Ministerial Council on matters referred to it by the Council and Commission, and to provide advice on the views of the Basin's communities.

The CAC is comprised of an independent chair and 26 members, 21 of who are chosen on a catchment or regional basis. Of the remaining five members, four are drawn from four peak non-government groups and there is an appointee to provide an individual Aboriginal perspective.

Under the leadership of current Chair,<sup>17</sup> the CAC has been an active, independent, and powerful community voice in providing an alternative source of advice to Council. Members also actively participate in Commission working groups and committees.

#### 4.3 The Murray Darling Basin Commission

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<sup>13</sup> Other more recent initiatives that could be referred to include: The MDBMC, 1999 *Salinity Audit*, MDBMC 2001 *Basin Salinity Management Strategy* and MBDMC 2001 *Integrated Catchment Management Strategy*.

<sup>14</sup> See 1999 Salinity Audit at pages 11-13.

<sup>15</sup> Queensland has agreed to a cap on diversions but is awaiting the finalisation of its water resources plans before it agrees on the level of diversions.

<sup>16</sup> See Dyson and Scanlon, *Trading in Water Entitlements in the Murray Darling Basin – Realizing the Potential for Environmental Benefits*, IUCN ELP Newsletter, Issue 1, 2002 at page 14 (available from [www.iucn.org/themes/law](http://www.iucn.org/themes/law)).

<sup>17</sup> Leith Bouilly.

One can trace the Commission back to 1917. Up until 1985, the Commission was the peak body under the various Agreements. Since then the Commission has answered to the Ministerial Council.

The current Commission was established under the 1992 Agreement and it requires each government to appoint two Commissioners who between them represent “water, land and environmental resource management.”<sup>18</sup> Two Deputy Commissioners are also appointed by each government. The ACT has observer status.

Traditionally, State Commissioners have been the heads of relevant State government departments, and Commonwealth Commissioners have been deputy level secretaries of the relevant Commonwealth departments.<sup>19</sup> An independent President, appointed by unanimous vote of the Ministerial Council, chairs the Commission.

The Commission is responsible for:

- Providing policy advice to the Ministerial Council and giving effect to decisions of the Council.<sup>20</sup>
- Administering the Agreement, including the sharing and distribution of the waters of the River Murray, overseeing and directing the implementation of approved works and measures, and coordinating efforts at achieving integrated natural resource management across the Basin.<sup>21</sup>

The Agreement requires the Commission to examine the possible effects that the exercise of its powers or functions, or the implementation of works or measures, is having on the water, land, and other environmental resources of the Basin. In doing so it may have regard to the need to give directions that will improve water management and environmental objectives consistent with the overall framework established for the distribution of waters.

The Commission does not own any infrastructure or any land, which is all owned by the Contracting Governments, normally through the Constructing Authorities. The Constructing Authorities build, own, and operate the joint works and measures that have either been included in, or subsequently agreed through, the Agreement for and on behalf of the Commission. The Council or Commission therefore authorises the joint works and measures<sup>22</sup> but is not responsible for their implementation, which is carried out by a nominated Contracting Government.<sup>23</sup>

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<sup>18</sup> See Clause 20(2) of the Agreement.

<sup>19</sup> The author is not aware of any non public servant being appointed to the Commission, other than the head of corporatised bodies such as Goulburn-Murray Water and SA Water. This has been by tradition rather than being required by the Agreement.

<sup>20</sup> The Commission also supports a significant investigation, research, development, and education effort and seeks to maximise the return on public investment in natural resource management by coordinating the many different funding programs that operate in the Basin.

<sup>21</sup> It also has a role, inter alia, in considering and commenting on proposals that may “significantly affect the flow, use, control or quality of water” in the River Murray. See clause 46 of the Agreement.

<sup>22</sup> And the Commission subsequently declares them to be ‘effective’ and monitors their ongoing operation.

<sup>23</sup> This may become important in the context of the application of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.

#### 4.4 The Office of the Commission

The Office is not specifically recognised in the Agreement, but the Commission has the power to employ staff, which it does through the Canberra based Office of the Commission.

This Office of around 70 highly skilled staff, has been a key driving force of the Initiative and has played a vital role in helping the Initiative get through some difficult challenges.<sup>24</sup> The Office also provides support to the Ministerial Council, the Commission and the CAC.

The work of the Office is separated into River Murray Water, an internal ring fenced business unit to manage the sharing and distribution of water in accordance with the Agreement, and Natural Resource Management. Since 2001, an Environmental Manager has been appointed to the Office to closely monitor the environmental aspects of water options for the River Murray and its tributaries, and to provide the Commission with advice on how any arrangements could be better coordinated.

#### 5. Major Challenges Confronting the Basin

The management of the River Murray, and subsequently the Basin, has been a challenge since well before federation. The challenges have steadily increased as development pressures, and consequential environmental and social pressures have risen. Challenges being experienced today include:

- Irrigation induced salinity - an issue that was first seriously addressed through the Salinity and Drainage Strategy of 1988.
- Dryland salinity - a far more serious problem than irrigation induced salinity due to its Basin wide impacts, the scale of the threat and the limited options for its amelioration.<sup>25</sup> (The Federal Government has taken a national approach to tackling this Australia wide problem through the National Action Plan on Salinity and Water Quality).
- Operating in the context of increasingly sophisticated water markets - managing water trading to balance competing economic, social and environmental demands on the system.
- Managing environment flows for a healthy system - possibly the most important issue for the next decade, which will involve significant changes to both the quantity of water left in river and the management of flows for enhanced environmental benefit.
- Higher community expectations and changing community values - including a call for greater transparency in the operation of the Commission.

#### 6. Environment Flows – the Evolution

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<sup>24</sup> Much to the credit of Chief Executive, Don Blackmore.

<sup>25</sup> A Vegetation Bank has been proposed by the Ministerial Council to accelerate the development of plantations in highly effected priority areas. See 1999 Salinity Audit.

## 6.1 The Taking Years

The decades leading to Federation and up to the time of the Cap on diversions were decades of taking, with little comprehension in many areas of the limits to taking for consumptive uses.<sup>26</sup>

Governments and the Australian public actively supported irrigation for over 100 years, which has generated great prosperity for the nation and its communities. Diversions grew from the 1870's but the rate of growth grew sharply in the 1950's and 1960's. For example diversions tripled in the 50 years to 1994. Amongst other matters, irrigation was seen as a means of increasing the intensity of farming which allowed schemes for the settlement of returned soldiers from the First and Second World Wars.<sup>27</sup>

## 6.2 The Decision to Cap Diversions

During the mid to late 1980's and early 1990's there was a growing recognition that there needed to be a better balance achieved between taking for consumptive uses and providing for non consumptive use, resulting in the decision taken by the Ministerial Council in 1997 (following an interim decision in 1995) to cap diversions from the system at 1993/94 levels.

This decision was brought about by several factors, which are discussed below.

### 6.2.1 The Water Audit Report and the Independent Audit Group

In 1995 the Ministerial Council completed an audit on the level and rate of growth of water extractions from the Murray Darling Basin.<sup>28</sup> The results of the Audit demonstrated that the increasing levels of diversions from the system could not be sustained. This resulted in a decision by the Ministerial Council in 1995 that a balance needed to be struck between consumptive and in stream uses of the rivers of the Basin, and a decision to place an immediate moratorium on further diversions, while the precise details of a future cap could be determined. The decision was to place an interim cap on the volume of diversions associated with the 1993/94 levels of development.

The Council established an Independent Audit Group in 1996 to investigate and report on the progress in implementing the Cap, the effectiveness and consistency in approach between the States in implementing the Cap, equity issues that needed to be resolved and options for resolving inconsistencies and equity issues. The Report of the Audit Group formed the basis of the decision to implement a permanent cap in 1997, together with the final details of the Cap.

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<sup>26</sup> With some notable exceptions, such as the State of South Australia which capped diversions in 1960.

<sup>27</sup> See Hallows and Thomson, *The History of Irrigation in Australia*, Australian National Committee on Irrigation and Drainage, Mildura.

<sup>28</sup> This report was triggered by a paper presented in June 1993 by the (then) Lead Minister for South Australia, Minister Klunder, on *The Changing Demands for Surface Water in the MDBC*, to recognize that the over commitment of surface water represented a problem of high priority requiring urgent political direction.

The decision to implement the Cap was seen as a vital step to ensuring security of supply to existing users and to establishing a cross border water trading regime.

#### The Cap on Diversions

The Cap on diversions was introduced in 1995 and limits the amount of water extracted from the Basin's rivers. In regulated rivers diversions are limited to what would have been diverted under 1993-94 levels of development. In unregulated rivers the Cap may be expressed as an end-of-valley flow regime.

The Cap has been applied in this way, with small variations, in NSW, Victoria and South Australia which combined account for 94 per cent of the Basin's diverted water. Queensland and the ACT take a total of 6 per cent, and their Cap and the way it is determined has not yet been finalised.

The Ministerial Council implemented the Cap as a way a first step towards striking an appropriate balance between the economic and social benefits obtained from the development of the Basin's water resources, and the environmental uses of water in the rivers.<sup>29</sup>

#### 6.2.2 The Impact of National Competition Policy

The decision to cap diversions was given further support through the National Competition Policy, April 1995<sup>30</sup>, an agreement between the Commonwealth and State and Territory Governments to progress a nationally coordinated approach to microeconomic reform in return for a series of national competition tranche payments, based upon the effective implementation of the reform agenda.

The reform agenda included so called 'related' reforms,<sup>31</sup> including the strategic framework for the reform of the Australian water industry, adopted by all Australian governments in 1994. Through including the 'related reforms', the National Competition Policy entrenched the following issues on the national agenda:

- Identifying and managing assets;<sup>32</sup>
- Efficient pricing;
- Trade in water rights;
- Environment flows; and
- Community involvement.

More specifically, this strategic framework included provisions relating to urban and rural pricing, separating water allocations or entitlements from land title, institutional reform, water trading, third party access to infrastructure, environment flows and community consultation.

<sup>29</sup> Source: *The Living Murray* Discussion Paper at page 17.

<sup>30</sup> See National Competition Council, *Compendium of National Policy Agreements – Second Edition*, June 1998.

<sup>31</sup> See National Competition Council, *Compendium of National Policy Agreements* at page 99.

<sup>32</sup> With the Commission overseeing the management of over one billion dollars worth of ageing assets through the contracting governments.

In the context of environmental flows the framework required all jurisdictions to, inter alia:

- Give priority to formally determining allocations or entitlements to water, including for the environment as a legitimate user of water;
- For stressed, or over allocated rivers, to provide a better balance in water resource use including appropriate allocations to the environment in order to restore/enhance the health of river systems; and
- Before undertaking significant new irrigation or dam construction, to ensure that the environmental requirements of the river system are first met.

All jurisdictions were also required to have regard to the work of the Agriculture and Resource Management Council of Australia and the Australia and New Zealand Environment and Conservation Council in the area, which produced a joint report, National Principles for the Provision of Water for Ecosystems in July 1996.

### 6.3 The Need to Return Water to the System

The National Competition Policy resulted in a lot of work being undertaken in all jurisdictions to reform institutions, legislation and to undertake greater scientific research and community consultation. As a result, the late 1990's and the early 2000's saw a growing recognition that in order to achieve a healthy, functioning and sustainable system, there was a need to start returning water to the river for non consumptive purposes: for environment flows.

#### 6.3.1 The Salinity Audit

The need to return water to the system was given major political impetus in the Murray Darling Basin as a result of the findings of a Salinity Audit released by the Ministerial Council in 1999. This report included findings that showed that assuming no intervention measures were taken, over the next 20-50 years salinity levels at Morgan on the River Murray (the off take for water going to the City of Adelaide) would exceed World Health Organization standards for drinking water. Further, many tributaries of the system would have salinity levels far exceeding these levels, including the tolerable levels for both irrigation and maintaining native habitat. This resulted in serious alarm from the community, in particular the 1.2 million residents of the City of Adelaide.

Political momentum gathered, and national and state based media outlets ran a constant flow of stories and articles dedicated to the health of the system. Community and political awareness reached an all time high, and it became generally accepted that too much water was being taken from the system. Something had to be done and governments and Parliaments needed to act.

This evolution represents a major shift in community values and attitudes, which has been reflected in the political response taken to the issue of environment flows in Australia.

## 7. Moving from Principle to Practice

The Cap was always seen as a means to an end, with the overall objective of creating a healthy system only being possible through identifying environmental water requirements and flow regimes and by establishing a supporting management and institutional framework, including trading water.<sup>33</sup>

Following much deliberation and political maneuvering between jurisdictions, in March 2001 the Ministerial Council took a major decision to adopt a vision for the Basin setting out 15 high level objectives for a healthy River Murray. The vision was originally put forward by the community through a community reference panel working with the MDBC Environment Flows Project Board.

This was a critical decision as it set the framework for future work.

The adopted vision was for... ‘a healthy River Murray system, sustaining communities and preserving unique values’. This was supported by the following ‘high level (but none the less specific and aspirational) objectives’:

### River health objectives

1. Protect and restore key habitat features in the river, riparian zone, floodplain and estuary to enhance ecological processes
2. Protect and restore healthy riverine and estuarine environments and high value floodplain and wetlands of national and international importance
3. Prevent the extinction of native species from the riverine system.
4. Overcome barriers to the migration of native fish species

### Environmental flow objectives

5. Reinstatement ecologically significant elements of the natural flow regime
6. Keep the Murray mouth open to maintain navigation and fish passage and to enhance estuarine conditions in the Coorong
7. Significantly improve connectivity between and within riverine, wetland, floodplain and estuarine environments

### Water quality objectives

8. Substantially improve water quality in the Murray system to a level that sustains ecological processes, environmental values and productive capacity.
9. Manage salinity to minimise impacts on ecological processes and productivity levels.
10. Manage nutrient levels to reduce the occurrence of blue-green algal blooms.
11. Minimise the impact of potential pollutants such as sediment and pesticides within riverine environments.

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<sup>33</sup> See for example *Setting the Cap*, Report of the Independent Audit Group, November 1996 at page viii.

## Human dimension objectives

12. Implement an adaptive approach to the management of the River Murray consistent with the ICM Policy Statement, monitoring ecological outcomes and reviewing operations in the light of new information
13. Gather, evaluate and disseminate the community's living, scientific and intuitive knowledge to optimise environmental flow strategies
14. Ensure participation of the entire community by recognising the cultural and historical relationship to the river, its landscape and its people and acknowledging the past to effect the future
15. Recognise the importance of a healthy River Murray to the economic, social and cultural prosperity of communities along the length of the River

The vision and objectives served to provide direction to an expert panel of scientists from across Australia known as the Expert Reference Panel,<sup>34</sup> established to advise how much water is required for a healthy River Murray. Several scenarios were presented depending upon what values were being managed for and the results of subsequent research.

Based upon this advice, in April 2002 the Council decided to engage the entire community in an 18 month long consultation process addressing three different scenarios for achieving additional flows in the River Murray. The three scenarios revolve around how much water to return to the river annually, 350GL, 750GL or 1,500GL. They are not options but a reference point for a consideration of the costs, benefits and issues involved. The Council also took several other important decisions, including a recognition of:

- the need to spend \$150 million on modifying dams, weirs, and locks and other measures to make the best use of all of the water that is currently available to the environment; and
- the importance of establishing water trading arrangements, the efficiency of which will depend upon a clear definition of access rights to water.

The consultation is to be led by a three person body to be known as the Independent Community Engagement Panel. These citizens will help make sure the community is fully engaged and understand the issues involved. Interestingly, a recent survey of 321 stakeholders has found that 95% of those surveyed supported the principle of environment flows for the River Murray, but this dropped to less than 40% if the community was not actively engaged in the decision making process.<sup>35</sup>

The Ministerial Council will publish a future report after the work on the costs and benefits has been completed, to facilitate a discussion on the trade offs that will have to be made if additional environmental flows are to be provided. This is in the context of

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<sup>34</sup> See Jones G et al, *Independent Report of the Expert Reference Panel on Environmental Flows and Water Quality Requirements for the River Murray System*. CRC for Freshwater Ecology Report to the Murray Darling Basin Ministerial Council, February, 2002.

<sup>35</sup> *The Living Murray* Discussion Paper, at page 32.

the clear intention of the Ministerial Council to ensure that any changes to existing arrangements are considered as a part of “an open, transparent, accountable and fair decision-making process.”<sup>36</sup>

### 7.1 What is an ‘environmental flow’?

The Living Murray Discussion Paper describes an 'environmental flow' as “any river flow pattern provided with the intention of maintaining or improving river health” and further describes it to include:

- making best use of water currently available to the environment;
- saving water lost in channels and other distribution systems and redirecting it to the environment; and
- reducing the amount of water removed from the river for human use.<sup>37</sup>

The Living Murray Discussion Paper also recognizes that a healthy river does not simply depend upon its flow pattern, but also on the condition of the entire catchment.

### 7.2 The Questions to be tackled

There are many difficult trade offs to be addressed through this process, and this is recognized by all involved. The desire of the Ministerial Council is to ensure that all is done to best determine the costs and benefits of the scenarios put forward and to fairly take account of all views and impacts, so that informed decisions can be taken. This is to ensure that the costs and benefits of any measures are fairly distributed.

Major issues to be tackled include:

- How much water to return to the river.  
This includes a determination of what values are being managed for.
- Where the water will come from.  
For example, from all users, predominantly upstream users, or to be diverted from other sources.
- How the water will be recovered.  
Options include, reducing entitlements, investing water savings from the rehabilitation of existing schemes, and from the closing down of uneconomic irrigation areas, back into the river.
- How the water will be identified and managed.  
Options include establishing an independent ‘bank’ for environmental water, working through an environment manager, or through community groups to manage the water.
- Whether exiting users will be compensated where water is taken to return to the river.

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<sup>36</sup> *The Living Murray* Discussion Paper at page 9.

<sup>37</sup> See page 6, see also page 30 for a more complete definition.

Compensation may or may not be legally payable, and the law in each jurisdiction varies. The legal obligation to pay and the political ramifications of a failure to compensate are separate issues. Issues of structural adjustment and compensation for deliberate flooding also arise.

➤ Who will pay.

All or some exiting users, the governments, the community at large, or a mix of all of them.

➤ How the possible compulsory taking of water will be addressed where property rights and a trading market in water rights has been established.

The implementation of National Competition Policy has created new rights and expectations, and a vibrant market in water trading, both intra and inter state. However, consistency in definitions of water access rights across jurisdictions remains unresolved.

➤ How additional volumes of water will be managed for maximum environmental benefit.

More water alone is not the answer. The timing and extent of flows and the management of the water infrastructure is equally important.

➤ How progress will be monitored in improving river health.

The public investment in returning water to the river will be in the order of hundreds of millions of dollars. The impact of such a major investment will need to be monitored and measured and an adaptive management approach applied to achieve the best return.

These issues and many more are addressed in the documentation produced to facilitate community engagement, namely The Living Murray Discussion Paper of July 2002.

## 8. Summary

The story of environment flows in the Murray Darling Basin, is one that involves satisfactorily resolving difficult issues of common interest in a federal system, political maneuvering, a drive for microeconomic reform, an improving knowledge base and changing community values.

No one factor has been decisive of itself, but a main driver has been clear evidence of a deteriorating natural resource base that has propelled a determination on the part of the community, and politicians, to reverse the decline in order to protect both productive capacity and environmental values.

The voluntary decision to cap diversions in 1995 was a momentous one, and the decision to adopt a vision for a healthy river system was a major milestone. The most difficult decisions are yet to come, but what is clear is that the community will be an integral part of whatever options are taken and nothing is going to stop the momentum to see more water returned to the system.

This reflects a dramatic shift in community values over a relatively short period of time.

# Community Engagement

Environmental Flows and Water Quality Objectives for the River Murray Project

## Opportunities for community input

