Chapter 1

Introduction

1.1 This is the final report of the Senate Rural and Regional Affairs and Transport References Committee's (the committee) inquiry into the management of the Murray-Darling Basin (the inquiry). The Basin Plan is one of the most significant and strongly debated water reforms in Australian history. This report examines the development of the Basin Plan and the likely consequences that it and related government policies will have on the Murray-Darling Basin in the coming years and decades. Although the Basin Plan is now in place, the committee considers that the evidence and recommendations in this report can provide valuable input into the ongoing adaptive management process that is central to the implementation of the Basin Plan.

Information about the inquiry

1.2 The Senate referred the inquiry to the committee on 28 October 2010. The committee is required to deliver this final report on 13 March 2013. The inquiry's terms of reference specifically require the committee to investigate the 'the development and implementation of the Basin Plan.'[1] The full terms of reference are included in Appendix 1.

1.3 The inquiry has received 381 submissions (including many in relation to the coal seam gas interim report tabled on 30 November 2011). The committee held a total of 14 public hearings in Canberra and interstate. A list of submissions and witnesses can be found in appendices 2 and 3 respectively.

1.4 Due to the extensive changes between the Guide and the final Basin Plan, this final report focuses on evidence received since the tabling of the interim report on coal seam gas in November 2011. In particular, the evidence presented draws extensively on the committee's hearings between April and November 2012 as these relate most directly to the final Basin Plan tabled in Parliament in November 2012. Where appropriate, the final report also covers issues that were discussed in the committee's second substantive interim report tabled on 3 October 2012.

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1 Note: for the purposes of the report, the Guide to the Proposed Basin Plan will be referred to as 'the Guide' and the various iterations of the Proposed Basin Plan and the final Basin Plan, will be referred to as 'the Basin Plan'. Where it is necessary to refer to the specific iterations of the Basin Plan (except the final version) the versions will be identified by the month of release i.e. the Basin Plan (November 2011), the Basin Plan (May 2012), the Basin Plan (August 2012), and the final Basin Plan. Please note that where direct quotes are used the original nomenclature remains.

Acknowledgements

1.5 The committee would like to thank all those organisations and individuals that have made submissions to the inquiry and appeared as witnesses at public hearings. The committee is mindful that because of the length of the inquiry and the significant changes to the Basin Plan since the release of the Guide, a large number of early submissions to the inquiry are not referenced in the interim or final reports. This is essentially because the detail contained in those submissions has become outdated due to the significant changes that have occurred during the development of the Basin Plan. However, the committee considers that the early submissions referring to the Guide were essential in shaping the committee's thinking throughout the inquiry and contributing to the public debate about the development of the Basin Plan.

Note on references

1.6 References to committee Hansard are to the proof versions. Page numbers may vary between the proof and official version of the Hansard. Evidence referred to in the final report draws primarily on the committee Hansards. However, due to the wide ranging issues relevant to the development and implementation of the Basin Plan, where appropriate, the committee has drawn on additional information from various government and parliamentary reports and research papers.

Structure of the report

1.7 The report is divided into eight chapters as follows:

- Chapter 1 outlines the conduct of the inquiry (including the two interim reports), the structure of the report, and background to the development of the Basin Plan and associated policies and legislation.
- Chapter 2 discusses the management of surface water under the Basin Plan including the modelling for the sustainable diversion limits (SDLs), the baseline diversion limits (BDLs), the 2750 GL/y reduction in the environmentally sustainable level of take (ESLT) and the relaxed constraints 3200 GL/y reduction in ESLT scenario.[2]
- Chapter 3 discusses the treatment of groundwater SDLs, BDLs, and the increased groundwater extraction under the Basin Plan including the issue of surface water and groundwater connectivity.
- Chapter 4 reviews the use of infrastructure investments, environmental works and measures and the constraint management strategy under the Basin Plan.

2 For the purposes of this report the terms "environmentally sustainable level of take", "ESLT", "reduction in take" and "return of additional water to environment" are used interchangeably especially in regards to the 2750 GL/y figure.

- Chapter 5 details the trade in water across the Basin and notes the issues of sleeper licences, distressed sellers and the 'Swiss cheese' effect.
- Chapter 6 outlines the different types of water entitlements in the Basin and the impact these have on the development and implementation of the Basin Plan.
- Chapter 7 discusses the socio-economic impacts of the Basin Plan and the process and criticism of stakeholder and industry engagement by the Murray-Darling Basin Authority (MBDA) and the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC).
- Chapter 8 notes future areas of research and development that the committee identified would assist in developing a more environmentally, social and economically productive and sustainable Basin system.

Interim reports

Coal Seam Gas – Murray-Darling Basin interim report

1.8 Over the course of this inquiry, the committee received evidence about the impact of coal seam gas (CSG) mining on the Murray-Darling Basin. This evidence is set out in more detail in the committee's interim report, *Management of the Murray-Darling Basin Interim Report: the impact of mining coal seam gas on the management of the Murray-Darling Basin*.[3] The report had additional terms of reference, took submissions (submission numbers from about 200 to 370 relate to CSG mining), and reported with 24 recommendations on 30 November 2011.

1.9 The report examined the economic, social and environmental impacts of CSG mining on matters including: the sustainability of water aquifers; water licensing arrangements; landholder's property rights and values; prime agricultural land; the food task; and regional towns and communities. North-west New South Wales and south-west Queensland were the main regions of focus due to the rapid expansion of the industry in these areas.

Second interim report: the Basin Plan

1.10 The purpose of the second interim report was to detail the committee's concerns with the MDBA's Basin Plan as at October 2012. The committee's concerns arose from criticisms about the Basin Plan and its development identified by a wide variety of stakeholders including farmers, rural communities, scientists, and environmentalists. Because the Basin Plan is a legislative instrument, the Parliament

3 Senate Rural and Regional Affairs and Transport References Committee, *Management of the Murray-Darling Basin Interim Report: the impact of coal seam gas on the management of the Murray-Darling Basin*, November 2011.

had no ability to debate amendments to improve the Basin Plan. The Basin Plan was either to be agreed to as presented or disallowed in its entirety.

1.11 The report made eight recommendations covering the topics of surface water, groundwater, environmental outcomes and socio-economic impacts of the Basin Plan.

1.12 At the time of the interim report (3 October 2012), the Minister for Sustainability, Environment, Water, Population and Communities, the Hon Tony Burke MP, had stated his intention to present the Basin Plan to Parliament before the end of 2012. As noted below, the final Basin Pan was tabled in Parliament 26 November 2012 and commenced the following day.[4]

Background to water regulation and the Basin Plan[5]

1.13 This background section briefly outlines key historic water regulations relating to the Murray-Darling Basin. The 1995 Cap on diversions, National Water Initiative (NWI), the *Water Act 2007* (Water Act), and the background to the development of the Basin Plan including the Guide will be discussed in turn.

Basin-wide cap

1.14 Due to concerns about the increase in water extraction in the Murray-Darling Basin in the 1980s and 1990s, the Murray-Darling Basin Ministerial Council (ministerial council)[6] published an audit of the use of water resources in the Basin. The audit found that from 1988 to 1994, there was a 7.9 per cent increase in the overall water consumption in the Basin to 10 780 GL/y. The audit also found 'that average diversions could increase by a further 14.5 per cent if expansion under 1993/94 management rules was unrestricted'.[7]

1.15 Due to the results of the audit, the ministerial council decided in June 1995 to introduce an interim cap on diversions from the Basin – this was later made permanent and effective from 1 July 1997. The cap is subject to some state variations, and in

4 As noted below, the Basin Plan effectively passed the Parliament after defeated disallowance motions in the House of Representatives on 29 November 2012 and the Senate on 28 November 2012. However, its commencement is the day following registration with an exception is made for chapter 12 which commences on 1 July 2014, see *Basin Plan*, section 1.04.

5 Note: paragraphs 1.19 to 1.33 are largely reproduced from the committee's second interim report.

6 The ministerial council consists of ministers responsible for environment, land and water resources from the Commonwealth, Australian Capital Territory, New South Wales, Queensland, South Australian and Victorian governments.

7 Murray-Darling Basin Commission, *The Cap: Providing security for water users and sustainable rivers*, www2.mdbc.gov.au/__data/page/86/cap_brochure.pdf, p. 2 (accessed 1 March 2013).

New South Wales and Victoria it defined as 'the volume of water that would have been diverted under 1993/94 levels of development'.[8] The other Basin states and territory (Queensland, South Australia and the Australian Capital Territory) 'have agreed to different levels of development as their Cap.'[9] States are responsible for their own compliance with the cap, however, annual audits are undertaken and where a breach of the cap occurs, it needs to be explained and actions and timeframes for compliance have to be reported to the ministerial council.[10] The cap is now governed by the *Water Act 2007* and in 2019 it will be replaced by the Basin Plan's sustainable diversion limits.[11]

National Water Initiative

1.16 In 2004, the Council of Australian Governments (COAG) agreed to establish a 'national blueprint of water reform' called the NWI. The NWI – implemented through the Water for the Future program – aims to improve Australia's water efficiency with COAG governments agreeing to:

- prepare comprehensive water plans;
- achieve sustainable water use in over-allocated or stressed water systems;
- introduce registers of water rights and standards for water accounting;
- expand trade in water rights;
- improve pricing for water storage and delivery; and
- better manage urban water demands.[12]

1.17 The National Water Commission (NWC) conducts biennial reports into the implementation of the NWI and completed reports in 2007, 2009 and 2011.

Water Act 2007

1.18 The Water Act came into effect on 3 March 2008 and provides the framework for major reforms in the management of water resources in Australia. Prior to the Water Act, Australia's water resources were managed predominantly by individual states and territories. For the Murray-Darling Basin, the relevant states signed the River Murray Waters Agreement in 1914 (which later provided for the Murray-

8 Murray-Darling Basin Commission, *The Cap: Providing security for water users and sustainable rivers*, www2.mdbc.gov.au/__data/page/86/cap_brochure.pdf, p. 2 (accessed 1 March 2013).

9 MDBA, www.mdba.gov.au/programs/the-cap (accessed 1 March 2013).).

10 Murray-Darling Basin Commission, *The Cap: Providing security for water users and sustainable rivers*, www2.mdbc.gov.au/__data/page/86/cap_brochure.pdf, pp 4–5, (accessed 1 March 2013).

11 MDBA, www.mdba.gov.au/programs/the-cap (accessed 1 March 2013).

12 SEWPaC, National Water Initiative, www.environment.gov.au/water/australia/nwi/index.html (accessed 1 March 2013).

Darling Basin Commission) and water reforms required agreement in all states to proceed.[13] The Water Act was a departure from this and for the first time the states signed over some of their water responsibilities to the Commonwealth. In particular, the Water Act provides for the following:

- the establishment of the Murray-Darling Basin Authority (MDBA) with the functions and powers to ensure that Basin water resources are managed in an integrated and sustainable way;
- the requirement of the MDBA to develop the Basin Plan;
- the establishment of the Commonwealth Environmental Water Holder (CEWH) to manage the Commonwealth's environmental water portfolio, including restoring environmental assets of the Murray-Darling Basin;
- the Australian Competition and Consumer Commission (ACCC) being given a major role in developing and enforcing water charge and water market rules in line with the NWI; and
- the Bureau of Meteorology having additional water information functions.[14]

1.19 The objects of the Water Act were to provide clear parameters about the management of the Basin's water resources, including to:

- give effect to relevant international agreements relevant to the use and management of Basin water resources;
- promote the use and management of the Basin water resources 'in a way that optimises economic, social and environmental outcomes', which includes the return to environmentally sustainable levels of take;
- improve water security of the Basin water resources;
- ensure that the management of Basin water resources takes into account the broader management of natural resources in the Basin.[15]

1.20 The legislative objectives are discussed in further detail in the Senate Legal and Constitutional Affairs References Committee report, *A Balancing Act: provisions of the Water Act 2007*.[16]

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13 SEWPaC, www.environment.gov.au/water/australia/water-act/index.html (accessed 1 March 2013)

14 SEWPaC, the Water Act, www.environment.gov.au/water/australia/water-act/index.html (accessed 1 March 2013).

15 Section 3 of the *Water Act 2007*.

16 Senate Legal and Constitutional Affairs References Committee, *A Balancing Act: provisions of the Water Act 2007*, June 2011.

1.21 As noted above, a key part of the legislation was the development of a Basin Plan and the MDBA undertook a lengthy consultation and drafting process to develop this Basin Plan. The steps undertaken by the MDBA are outlined briefly below.

Guide to the Proposed Basin Plan, October 2010

1.22 In October 2010, the MDBA released the *Guide to the proposed Basin Plan* (the Guide) which outlined proposals for public consultation. In its release, the MDBA stated the Guide was the 'landmark first-stage document in the process of establishing a plan' for the long-term management of the Basin.[17] The MDBA stated that the Guide was for 'consultation purposes only' and that it was intended to facilitate discussion on proposals for further refinement.[18]

1.23 The Guide proposed that the additional surface water needed to achieve desired environmental outcomes was between 3000 and 7600 GL/y. However, the MDBA determined that reductions in take greater than 4000 GL/y would not meet certain requirements of the Water Act and, therefore, explored scenarios ranging from 3000 to 4000 GL/y.[19]

1.24 The Guide, and the subsequent consultation process, was subject to significant and vigorous public debate. This debate has been outlined in multiple public reports, including the House of Representatives committee inquiry into the impact of the Murray-Darling Basin Plan in Regional Australia report titled, *Of drought and flooding rains: Inquiry into the impact of the Guide to the Murray-Darling Basin Plan*.[20] The government (including MDBA and SEWPaC) responded to a number of issues raised in this report when developing the Basin Plan.

Proposed Basin Plan, November 2011

1.25 Based on stakeholder feedback, the MDBA continued to amend proposals (from the Guide) to manage the Basin system and on 28 November 2011 released the first version of the Basin Plan (November 2011). Again, this document was developed for the purposes of further consultation. Accompanying the Basin Plan (November 2011) was the *Plain English Summary of the proposed basin plan* which attempted to set out the key aspects of the proposals in easy to understand language.

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17 MDBA, *Basin Guide released for public consultation*, 8 October 2010, www.mdba.gov.au/media_centre/media_releases/basin-plan-guide-released-for-public-discussion, (accessed 17 September 2012).

18 MDBA, *Guide to the proposed Basin Plan*, Volume 1, Overview, 8 October 2010.

19 MDBA, *Guide to the proposed Basin Plan*, Volume 1, Overview, 8 October 2010, pp xxi and 125–128.

20 House Standing Committee on Regional Australia, *Of drought and flooding rain: Inquiry into the impact of the Guide to the Murray-Darling Basin Plan*, May 2011, www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=ra/murraydarling/report.htm.

1.26 In Basin Plan (November 2011), the MDBA outlined the specific long-term ESLT including the target of a reduction in take of 2750 GL/y in surface water to achieve certain environmental outcomes. This plan also proposed increases to the levels of groundwater SDLs from 2095 GL/y in the Guide to 4340 GL/y (see chapter 3).[21] The Basin Plan (November 2011) was followed by a 20-week consultation period. It was intended that the results of this consultation period would 'inform the development of the Basin Plan.'[22]

Proposed Basin Plan – a revised draft, May 2012

1.27 Following this consultation period, the MDBA released a revised draft of the Basin Plan in May 2012.[23] This version incorporated changes which were raised during the consultation process and also reflected new information. Supporting Basin Plan (May 2012) was a summary of the changes and information received through the MDBA's public consultation process. The Basin wide return of surface water to the environment remained at 2750 GL/y; however, the total groundwater SDL figures had been reduced from 4340 GL/y to 3184 GL/y.[24]

1.28 The Basin Plan (May 2012) was provided to the Murray-Darling Basin ministerial council. The ministerial council had a six-week period to consider and comment on the Basin Plan (May 2012) and make suggested changes.[25]

Ministerial council comments on draft Proposed Plan

1.29 On 9 July 2012, the ministerial council provided the MDBA with its additional comments on Basin Plan (May 2012). The comments raised by the ministerial council as a whole included:

- a sustainable diversion limit (SDL) adjustment mechanism to be developed which recognises works and measures, investment in infrastructure and on-farm water efficiency to recover water;
- further modelling of a 3200 GL/y without constraints scenarios to be undertaken to determine what environmental outcomes may be achieved;
- equitable downstream apportionment and water recovery to be divided fairly between states;

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21 MDBA, *Proposed Basin Plan consultation report*, May 2012, p. 46.

22 MDBA, *Plain English summary of the proposed Basin Plan*, November 2011, p. vii.

23 MDBA, *Proposed Basin Plan – a revised draft*, May 2012, http://download.mdba.gov.au/revised-BP/PBP_reviseddraft.pdf.

24 MDBA, *Addendum to the proposed Groundwater Baseline and Sustainable Diversion Limits: Methods Report*, July 2012, p. 2.

25 MDBA, *Changes to the draft Basin Plan released*, 28 May 2012, www.mdba.gov.au/media_centre/media_releases/changes-to-the-draft-basin-plan-released, (accessed 17 September 2012).

- removing the formal 2015 review in the Plan;
- SDLs to commence in 2019 and accredited water resource plans to stand for 10 years (i.e. until 2029);
- additional work to be undertaken regarding groundwater SDLs; and
- insertion of a clause making it clear that the obligation to 'bridge the gap' between current and future SDLs will not be passed from the Commonwealth to the states.[26]

1.30 In addition to the Council's feedback, each Basin state provided individual state-based comments to the MDBA for further consideration. These comments detailed state-specific concerns. This included the call from South Australia for more water to be recovered for environmental purposes, and the contrary arguments from Victoria and New South Wales for less water to be returned due to social and economic impacts on communities.[27]

Altered Proposed Basin Plan, August 2012

1.31 After receiving the ministerial council comments, the MDBA also sought further advice from 'the Basin Community Committee, national peak bodies, key scientists and technical experts, indigenous representatives and local government representatives from areas most likely to be affected by the Ministers' propositions.'[28]

1.32 On 28 August 2012, following this further consultation, the MDBA released the Basin Plan (August 2012). The MDBA indicated that it attempted to incorporate matters where there was a consensus position among basin states.[29] The main changes that were reflected in the Basin Plan (August 2012) included:

- apportionment of downstream shares among jurisdictions to be consistent, equitable and transparent. The options to achieve this were subject to further discussion within the ministerial council to reach a consensus position. As such no formal changes were made on this issue in the Basin Plan;
- inclusion of an SDL Adjustment Mechanism to take into account 'efficiencies and savings achieved through various initiatives in the

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26 Murray-Darling Basin Ministerial Council, *Attachment A – Council as a whole comments*, 9 July 2012, http://download.mdba.gov.au/revised-BP/AttachmentA_Main.pdf, (accessed 17 September 2012).

27 *Note*: see Ministerial Council state specific comments, 9 July 2012, Attachments D, F and G. www.mdba.gov.au/proposed-basin-plan.

28 www.mdba.gov.au/have-your-say/view-submission (accessed 25 September 2012).

29 The Hon. Craig Knowles, *Transmittal letter to the Hon. Tony Burke MP*, 6 August 2012, http://download.mdba.gov.au/altered-PBP/APBP-Transmission-letter-from-MDBA-Chair-to-Minister-Burke-06-August-2012.pdf, (accessed 17 August 2012).

Basin that could lead to adjustment of SDLs.'[30] The Basin Plan (August 2012) provides a framework and the MDBA indicated it would continue to work with jurisdictions to finalise detailed guidelines underpinning this mechanism; and

- further adjustment to groundwater SDLs based on additional information provided by Basin states regarding groundwater aquifers.[31]

1.33 The Basin Plan (August 2012) was also provided to the Commonwealth Minister, the Hon. Tony Burke MP on 28 August. Minister Burke later provided further feedback to the MDBA for consideration.

Final Basin Plan

1.34 The final Basin Plan was presented to Parliament on 26 November 2012. There were defeated disallowance motions in the House of Representatives on 29 November 2012 and the Senate on 28 November 2012. The Basin Plan commenced the day after its registration.[32]

1.35 A central feature of the final Basin Plan is the maintenance of 2750 GL/y as the reduction in the environmentally sustainable level of take. However, the Basin Plan also incorporated the following key changes since the Basin Plan (August 2012):

- further changes to the SDL adjustment mechanism including:
  - the clear separation of the adjustment mechanism from the establishment of SDLs;
  - provisions relating to a further 450 GL/y reduction of ESLT through infrastructure efficiency measures; and
  - the requirement for the MDBA to consult and seek submissions in addition to Ministerial approval before adjustments are tabled in parliament;
- agreement about how the 971 GL downstream component of the reduction in take is shared (apportioned) between Basin states;
- provisions requiring up-to-date climate change assessments in future reviews of the Basin Plan;

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30 The Hon. Craig Knowles, *Transmittal letter to the Hon. Tony Burke MP*, 6 August 2012, http://download.mdba.gov.au/altered-PBP/APBP-Transmission-letter-from-MDBA-Chair-to-Minister-Burke-06-August-2012.pdf, (accessed 17 August 2012).

31 The Hon. Craig Knowles, *Transmittal letter to the Hon. Tony Burke MP*, 6 August 2012, http://download.mdba.gov.au/altered-PBP/APBP-Transmission-letter-from-MDBA-Chair-to-Minister-Burke-06-August-2012.pdf, (accessed 17 August 2012), p. 2.

32 An exception is made for chapter 12 which commences on 1 July 2014, *Basin Plan*, section 1.04.

- some changes to groundwater limits (total Basin SDL set to 3334 GL/y) and the requirement for review, within two years of the Basin Plan, of the limit of take from three aquifers in NSW and Victoria; and
- the provision for some water trading rules not applying to trades for delivering held environmental water. The provision applies in limited conditions.[33]

33 MDBA, Changes to the Basin Plan, www.mdba.gov.au/basin-plan/changes-to-the-basin-plan, (accessed 3 March 2013).