Australian Government

Australian Government response to the Senate Select Committee on the Murray-Darling Basin Plan report: Refreshing the Plan

February 2017

Introduction

The Senate Select Committee inquiry on the Murray–Darling Basin Plan presented its final report on 17 March 2016. The majority report made 31 recommendations addressing issues that are of great importance to farmers and communities throughout the Murray–Darling Basin and other stakeholders. The Committee received almost 400 submissions to this inquiry.

Minority reports from the Australian Labor Party, the Australian Greens, and Senator Nick Xenophon support the Murray–Darling Basin Plan and associated water reform. The report by the former Senator John Madigan includes 19 recommendations.

There are a number of recommendations made in the Committee's final report which focus on state issues, such as the operation of state desalination plants, water entitlement purchases by state governments and management of water storages. All such issues are for the relevant state government to consider in the first instance.

The Australian Government recognises the importance of the issues raised in the report and provides the following responses to the recommendations.

The Australian Government's approach to implementing the Basin Plan

The Australian Government is determined to implement the Basin Plan in a way that ensures the economic and social wellbeing of Basin communities, while delivering on the environmental objectives of the Plan.

In the north, the Northern Basin Review has provided an opportunity to closely examine the impacts of water recovery on Basin communities and explore the most effective way to deliver environmental outcomes. The highly variable nature of the less-regulated northern Basin presents unique challenges and opportunities in water resource management.

The Northern Basin Review was enabled under the Basin Plan because at the time it was written, less was known about the northern Basin than the more developed southern connected system. The data generated as part of the Northern Basin Review and the subsequent recommendations made by the Murray-Darling Basin Authority will lead to amendments to the Basin Plan, and guide its implementation. On 22 November 2016 the Northern Basin Review was released together with proposed Basin Plan amendments, including those arising from the Northern Basin Review. Public consultation on the proposed Basin Plan amendments will occur between November 2016 and February 2017. The Government is grateful to the many stakeholders who have engaged in the review.

The Sustainable Diversion Limit (SDL) Adjustment Mechanism provides an opportunity to optimise the economic, social and environmental outcomes in the southern Basin. Supply measures provide the opportunity to deliver environmentally equivalent outcomes without requiring as much water to be recovered from consumptive purposes. Thirty-seven supply measures were agreed to by the Murray–Darling Basin Ministerial Council on 22 April 2016. A

previous independent stocktake showed that supply measures have the potential to provide an offset of around 508 gigalitres in the southern Basin.

Following a request by the Ministerial Council the Basin Plan was amended to provide for a second notification of measures to the SDL adjustment mechanism by 30 June 2017. This additional step will allow for a second tranche of supply measure projects to be considered. Basin state ministers also reiterated their request for Basin state government officials to consider opportunities for a wider range of complementary projects, such as carp control, to provide triple bottom line benefits under the Basin Plan.

The Ministerial Council also agreed to the types of projects that may be considered as efficiency measures under the SDL Adjustment Mechanism. In accordance with the Basin Plan, any efficiency measure projects must have positive or neutral social and economic outcomes.

A list of all agreed SDL adjustment projects is available on the Authority's website.

Committee majority recommendations

1. **The committee recommends that no further reductions in water entitlements occur until the Northern Basin review, and any subsequent assessments, have been completed. The committee recommends that the review should also consider alternative means of water recovery, particularly in the Condamine-Balonne catchment, in order to minimise the economic and social impact of the Plan in the Northern Basin. This would include consideration of the following options:**

    - **recovery of water upstream of Beardmore Dam;**
    - **use of private storages to more efficiently store environmental water and reduce evapotranspiration (the sum of evaporation and plant transpiration) losses;**
    - **implementation of environmental works and measures to more efficiently delivery environmental water to key environmental assets; and**
    - **temporary trade of water to make best use of Commonwealth water assets when environmental needs have been met.**

Agreed.

The Murray–Darling Basin Authority has completed its review of the northern Basin. The focus of the review was to improve the evidence base from which decisions about water recovery settings could be confidently made using a triple-bottom line approach — weighing up social, economic and environmental considerations. As a part of the review, the Authority has consulted with various stakeholder groups in the north to seek their views on the implementation of the Basin Plan.

The Authority also considered a range of actions in addition to water recovery that could be implemented to reduce the adverse social and economic impacts of the Basin Plan while also providing opportunities for improved water management to enhance the use of environmental water.

As a result of its review, the Authority has proposed that the overall water recovery target in the northern Basin reduce from 390 gigalitres on average to 320 gigaligtres provided there are commitments from Basin state governments to implement a range of measures to improve water management.

Through the Department of Agriculture and Water Resources, the Australian Government has established the Northern Basin Programmes Taskforce to investigate how to achieve the remaining water recovery in the northern Basin in ways that minimise the impact on communities. Drawing from key industry and community stakeholder input, the taskforce will provide advice on ways that avoid further water purchase and deliver social and economic benefits to communities. The Taskforce may also make recommendations to assist progress of toolkit measures.

The Taskforce may also make recommendations to assist progress of toolkit measures, including temporary trade of environmental water. Temporary trade of water from one location to another provides protection for water holders to ensure the water reaches its destination. As a toolkit measure, temporary trade is important to ensure environmental water can be delivered at appropriate times to key environmental assets, and will help to meet environmental targets under the proposed 320 gigalitre water recovery target.

Under the Healthy Headwaters Water Use Efficiency Program, entitlement holders above Beardmore Dam became eligible to participate in this on-farm infrastructure programme from January 2016.

The Government will consult with Basin state governments on its water recovery strategy and ensure that any recoveries are strategic and minimise risk of over-recovery.

2. The committee recommends that the Murray-Darling Basin Authority, as part of its ongoing social and economic work, undertake and publish a thorough assessment of the estimated and actual social and economic impacts of the implementation of the Plan, including of pursuing the remaining water recovery for the Condamine-Balonne catchment and other similarly distressed areas.

Agreed.

The *Water Act 2007* and Basin Plan require regular periodic reporting of social and economic impacts. The first of these reports will be completed in 2017, with a second report due in 2020 and subsequent reports every 5 years thereafter.

The Murray–Darling Basin Authority is collecting social and economic data to inform its role in evaluating and reviewing the Basin Plan, including through the Northern Basin Review. Reporting of this work occurs in a number of ways including through Basin Plan annual reports and in the reports prepared for the Northern Basin Review. The social and economic assessment conducted as part of the Northern Basin Review is available on the Authority's website.

3. The committee recommends that the MDBA address the existing over-recovery in the Macquarie Valley and other 'terminal' systems such as the Gwydir Valley, with a view to limiting recovery to amounts which address valley-specific environmental needs.

Agreed.

The Basin Plan identifies only the Lachlan and Wimmera-Mallee as terminal systems. The northern Basin is regarded as a connected system. Both the Macquarie and Gwydir valleys connect into the Barwon−Darling River above certain flows.

The final recovery amounts required in these rivers will not be settled until the process to amend the Basin Plan is completed. Public consultation on the current proposed Basin Plan amendments, which includes amendments related to the Northern Basin Review recommendations, is taking place between November 2016 and February 2017.

The proposed new local recovery volume in the Macquarie is 55 gigalitres, which is a 10 gigalitres reduction from Basin Plan settings. The results of the northern Basin review show that local environmental needs in the Macquarie can be met with this lower volume.

The proposed local recovery target for the Gwydir Valley is the same as the current Basin Plan settings. The modelling scenario used as the basis for the proposed amendment assumed that the Gwydir would not need to contribute to the shared reduction amount. The opportunity exists for the New South Wales and Queensland governments to request changes to the way in which the shared reduction is distributed between catchments, which may minimise the risk of over-recovery in any catchment.

4. The committee recommends that federal and state governments examine options for securing Broken Hill's water supply as recommended by the Broken Hill City Council, including raising the trigger point for releases, and improving infrastructure storage at Menindee Lakes.

Agreed.

Broken Hill's water supply is the responsibility of the New South Wales Government. On 16 June 2016, the New South Wales Government announced that it would fund the construction of a pipeline from the River Murray to secure water supply to Broken Hill.

The Australian Government is committed to improving the management of the Menindee Lakes in partnership with the New South Wales Government.

The rules for the operation of the Menindee Lakes, including the trigger points, are an important element of the operation of the River Murray system. Any rule changes require the agreement of all relevant Basin jurisdictions.

5. The committee recommends that an environmental watering plan be developed for the Menindee Lakes, provided that Adelaide's water supply and that of South Australian irrigators and landholders dependent on the Murray, is secure.

Agreed.

There is an existing agreement between the Australian and New South Wales Governments, which provides funding to investigate infrastructure and operational changes at the Menindee Lakes which could help reduce significant evaporation losses without adversely impacting third parties including downstream users and the environment. As part of this work, the New South Wales Government is investigating the environmental watering requirements for the Menindee Lakes to ensure that the environmental values are maintained under potential changed operational arrangements being investigated for the system.

6. The committee recommends the Commonwealth assume liability for damage to private property from environmental watering events, including to both landholders and third parties, except to parties who have given prior consent to such flooding.

Not agreed.

Legal responsibility for any adverse impacts due to the release of water from storages is with the relevant authority that manages the storage. Operators are bound to act at all times in accordance with the relevant operating procedures in fulfilling orders placed for consumptive or environmental water.

River operators will not deliver environmental flows at levels above the operational limits that apply to all water deliveries, including irrigation orders.

7. The committee recommends that the MDBA and state governments address the issue of third party impacts from environmental watering events during the development of constraints proposals, and clearly communicate with landholders who are likely to be affected by such events.

Agreed.

The development of constraints proposals is the responsibility of Basin state governments as set out in the *Intergovernmental Agreement on Implementing Water Reform in the*

Murray-Darling Basin. The Murray–Darling Basin Authority's 2013 Constraints Management Strategy, developed under the Basin Plan to assist states in the development of constraint proposals, stated that projects need to:

- recognise and respect the property rights of landholders and water entitlements holders;
- not create any new risks on the reliability of entitlements;
- be identified in consultation with affected parties to determine if impacts can be appropriately addressed and mitigated to enable changes to proceed;
- identify and aim to achieve net positive impacts for the community;
- be worked through in a fair and transparent/equitable way; and
- work within the boundaries defined by the *Water Act 2007*, the Basin Plan and relevant state water access and planning systems.

State government agencies in Victoria, New South Wales and South Australia will be responsible for the ongoing consultation with potentially affected landholders and communities on their proposals to deliver higher flows while managing any potential impacts.

8. The committee recommends that the MDBA review its communication methods, particularly with regard to projects still in development such constraints proposals, and improve its ability to incorporate the views of communities and landholders into decisions and reports.

Agreed.

The Murray–Darling Basin Authority has its communications methods under continuous review.

9. The committee recommends the federal government work with the Victorian government to ensure adequate accountability and scrutiny of the Goulburn Murray Water Connections Project, by initiating a judicial inquiry into the operation of the Goulburn Murray Water Connections Project. Further, given the use of Commonwealth funds on the project, the committee recommends the Australian National Audit Office should consider an audit of the project.

Not agreed.

The Australian and Victorian governments jointly commissioned an independent review of the Goulburn-Murray Water Connections Project Stage 2 which identified concerns about the ability of the project to deliver the agreed outcomes on time and within budget. In response to the review, the Victorian Government - which is responsible for delivering the project - is resetting the project using the remaining funding. The reset announced by the Hon. Lisa Neville on 7 September 2016 was agreed with the Australian Government.

The Auditor-General, Mr Grant Hehir has advised the Inquiry Committee that on the basis of the number of previous investigations and reviews undertaken, and the commitments of the Australian and Victorian Governments, he does not intend to commence an audit of the project at this time.

10. The committee recommends the government evaluate the effect on irrigators and the environment of the SA government purchasing irrigation water on the water market while declining to use its desalination plant. The committee also recommends the government undertake a study of the cost of upgrading pipeline delivery of water to irrigators and livestock owners on both sides of the lower lakes.

Agreed in part.

The Australian Government's financial contribution to the Adelaide desalination plant was subject to South Australia reducing its reliance on the River Murray as detailed in the *Implementation Plan for Augmentation of the Adelaide Desalination Plant*.

South Australia has provided annual reports on Environmental Water Allocations, use and outcomes in line with the requirements in Schedule 1 of the Implementation Plan.

SA Water trade is subject to the Basin Plan water trading rules, and their own State water trading rules. These rules are consistent for all water market participants.

Under the Sustainable Rural Water Use and Infrastructure Program, the Government provided $116.9 million to South Australia to fund a suite of projects under South Australia's *Lower Lakes Integrated Pipeline Project*. Three components funded were:

- Irrigation Water Component - to supply irrigation water from the River Murray at Jervois to the Langhorne Creek and Currency Creek districts.
- Potable Water Component - to supply stock and domestic water to Narrung and Poltallock Peninsulas adjacent to Lake Albert and the Langhorne Creek District; and
- Point Sturt and Hindmarsh Island Potable Water Pipelines component – to supply potable water for stock and domestic purposes to communities on Sturt Peninsula and Hindmarsh Island.

Any further investment in upgrading pipelines for irrigators and livestock owners at the Lower Lakes is a matter for the South Australian Government.

11. The committee recommends that Bird Island be removed by the South Australian Government and MDBA to improve water flow through the Murray mouth.

Not agreed.

A combination of barrage flows and dredging is achieving the minimum connectivity targets required to allow sufficient tidal exchange between the ocean and the Coorong. This programme is managed under arrangements agreed by all Basin governments.

The wet winter in the eastern states has produced large, unregulated flows down the river system. Recent wet conditions have significantly increased the volumes of water flowing over the barrages. These flows serve a number of important functions, such as improving water quality by flushing salt from the system and alleviating the need for dredging.

Removing Bird Island and other additional accumulated sand will not only require a major one-off expense but would also incur additional dredging effort and cost into the future, as increasing connectivity increases the rate of sand deposition.

12. The committee recommends the MDBA calculate the economic value of fresh water evaporated from the lower lakes.

Not agreed.

Such an analysis would imply an objective of drying the Lower Lakes, which is not the Government's intention.

13. The committee recommends the government undertake a detailed study to inform whether a reassessment of the Coorong's Ramsar listing from a fresh water system to an estuarine system is more appropriate.

Not agreed.

The Coorong, Lakes Alexandrina and Albert Wetland Ramsar site comprises twenty-three wetland types, including estuarine waters, coastal brackish/saline lagoons, permanent freshwater lakes, permanent freshwater marshes, and seasonally flooded agricultural land. As such, it is not listed primarily as a freshwater system, but as a complex of freshwater, estuarine and saline wetlands.

The South Australian Government is about to update the Ramsar Management Plan that is anticipated to include variable water levels actions, and management triggers for salinity and ecological connectivity, including Murray Mouth openness.

14. The committee recommends the government undertake cost-benefit analyses of the following options for adapting the management of the Lower Lakes and Coorong, and their social, economic and environmental impacts throughout the basin:

- **removing all of the barrages;**
- **removing some of the barrages;**

- **modifying some of the barrages (such as Tauwitcherie and Mundoo);**
- **allowing the ingress of salt water into the Lower Lakes during periods of low flow; and**
- **investigating the construction of an additional lock at a location above Lake Alexandrina, such as near Wellington, SA, either in concert with the above options or as a single change.**

Should such analysis indicate that one or more of these leads to more positive social, economic and environmental outcomes than the current basin plan, the committee recommends the Plan be amended accordingly.

Agreed in principle.

The Australian Government has already funded the preparation of the 'Coorong, Lower Lakes and Murray Mouth Recovery Project'. From this project 'A long-term plan for the Coorong, Lower Lakes and Murray Mouth' was developed to address the problems facing the Lower Lakes and Coorong by:

- restoring Coorong lagoons, lake and lakeshore habitat through revegetation, translocation of Ruppia, management of pests and protective fencing;
- managing the barrages to provide greater variability in lake levels, including managing the lakes to lower levels;
- reducing salinity levels in the Coorong lagoons through the south east flows restoration; and
- supporting the reintroduction and recovery of native fish in the lakes, and
- constructing fishways to allow some fish species to move more freely between the lakes, the Murray Mouth Estuary and the sea in order to complete their life cycles.

The negative effects of sea water introduction identified in the Long-Term Plan include acidity mobilisation, release of metal contaminants, hypersalinity, eutrophication and impacts on freshwater ecological functions.

The Basin state governments have also jointly funded work by SA Water to upgrade or automate the barrages to enable management which is more responsive to local conditions.

15. **The committee recommends the government commission an independent feasibility and hydrology study into a connector between Lake Albert and the Coorong to assess the environmental and economic costs and benefits of the connector, and compare this to the current practice of lake cycling.**

Noted.

This work has already occurred.

The feasibility, costs and benefits of a connector between Lake Albert and the Coorong was examined as one of six options in the Lake Albert Scoping Study undertaken in 2013-14 by the South Australian Government. The outcomes achievable by a Coorong Connector were directly comparable to Lakes Level Cycling (variable lake levels). The study was jointly funded by the Australian and South Australian governments under the Coorong, Lower Lakes and Murray Mouth Recovery Project.

16. The committee recommends the government direct the Productivity Commission to investigate the value of foregone production and food processing due to reduced irrigation water under the Plan.

and

19. The committee recommends that the Commonwealth Government request the Productivity Commission to undertake a full cost-benefit analysis of the Murray Darling Basin Plan.

Agreed in principle.

The *Water Amendment (Review Implementation and Other Measures) Act 2016* requires regular reporting of social and economic impacts of the Plan. The first report is due in 2017.

The *Water Act 2007* also requires a five yearly audit of the effectiveness of the implementation of the Basin Plan. The Productivity Commission will be undertaking the first of these audits in 2018.

In the interim, the Murray–Darling Basin Authority continues to collect social and economic data to monitor and evaluate the effects of the Basin Plan. The Authority's most recent Basin Plan annual report was released in January 2016 and is available on the Authority's website. The 2016 annual report is expected to be released in early 2017.

There have been a number of other socio-economic studies undertaken to understand the costs and benefits of the Basin Plan by a range of organisations, researchers and consultants. These are available on the Authority's website. For example, the Australian Bureau of Agricultural and Resource Economics and Sciences undertook modelling of the potential impacts of water recovery under the Basin Plan in 2010, including possible changes in the gross value of irrigated agriculture.

17. The committee recommends that the government assess the operation of the Snowy Mountains Hydro-electric Scheme to determine the priority of irrigation and energy production.

and

18. The committee recommends the operation of the scheme be assessed, and adjusted as required, to give more effect to social, economic and environmental considerations of local and downstream communities.

Agreed in principle.

The Snowy Water Licence is scheduled for a statutory review in 2017. The review will consider the obligations placed on Snowy Hydro under the Licence. Governments will have the opportunity at this time to consider the balance between water and energy production priorities.

20. The committee recommends that state governments make every effort to promote SDL Adjustment Mechanism projects in their jurisdiction to achieve the 650GL target.

Agreed.

On 22 April 2016 the Murray–Darling Basin Ministerial Council agreed to a package of supply, efficiency and constraint measures which have since been formally notified to the Murray-Darling Basin Authority to allow for the formal operation of the SDL adjustment mechanism. The volume of adjustment from the package of supply measures will be determined through the assessment of the projects through the assessment framework set out in the Basin Plan. The final SDL adjustment outcome will not be known until the Authority has modelled the full package of proposals.

As requested by the Murray-Darling Basin Ministerial Council, the Australian Government passed amendments to the Basin Plan (through the *Water Legislation Amendment (Sustainable Diversion Limit Adjustment) Act 2016)* in November 2016 to provide for a second notification step by 30 June 2017. This will provide Basin state governments with an opportunity to develop and refine projects that can further improve the outcomes of the Basin Plan while ensuring the continued success of irrigation in the Basin through sound investment in infrastructure whether on or off farm.

21. The committee recommends that no further buybacks of water occur and that action to recover the additional 450GL of water through efficiency measures is delayed until the SDL Adjustment Mechanism target is met and the socio-economic impacts of water recovery to date are known.

Agreed in part.

The Australian Government is committed to implementing the Basin Plan in full and on time. The Government is also committed to adhering to the *Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin* and implementing the Basin Plan in ways that deliver environmental outcomes while ensuring the social and economic wellbeing of Basin communities.

The Government's approach to water recovery in recent years has been to prioritise investment in productivity-enhancing water infrastructure and to cap surface water purchases at 1,500 gigalitres.

The Government will review its water recovery strategy, including the need for any future purchase requirements, following the work undertaken by the Northern Basin Programmes Taskforce and the operation of SDL adjustment mechanism.

The Government is working with the States to investigate efficiency measures programmes that meet Basin Plan requirements. The first programme, a revised on-farm irrigation efficiency programme, is being piloted in South Australia. Efficiency measures programmes will only roll-out where water users can realise benefits from participating and where there are neutral or beneficial socio-economic outcomes.

Under the Principles for the new proposed *IGA Schedule for implementing the SDL adjustment mechanism*, the Murray–Darling Basin Ministerial Council agreed on 22 April 2016 that the Government would ensure that any efficiency measures programme would complement gap-bridging efforts. Therefore, the Government will not run efficiency measure programmes in ways that could conflict with gap-bridging efforts.

The Basin Plan requires that any efficiency measure programmes have neutral or positive socio-economic outcomes. Open tender buybacks are not permitted as part of the efficiency measures programme.

22. The committee recommends that the government investigate the costs and benefits of a real-time national water trading register, and whether private platforms provide or can complement such arrangements.

Agreed in part.

The former National Water Markets System Project was a co-operative Australian and state government initiative. A number of challenges were encountered in developing and seeking to provide a common platform across all states and the initiative was terminated in 2014.

The Australian Government continues to monitor developments in technology as well as activity in markets with a view to future developments in trading platforms and the provision of information to markets.

The Business Research and Innovation Initiative was launched on 17 August 2016 by the Government. The focus is to help drive innovation within Australia's small and medium businesses whilst addressing Government service delivery challenges.

One of the five challenges launched is for proposals using emerging digital platforms to improve the ease of access to water markets, increase market participation, improve community confidence in Australia's water markets and also better assist in sustainable management of water resources.

23. The committee recommends that the government coordinate with the basin state governments to undertake a comprehensive assessment of carryover rules and regulations and investigate the potential for amendment of the rules.

Agreed in principle.

Carryover rules will be reviewed by the Basin state governments as part of the process of developing water resource plans for accreditation under the Basin Plan. Any carryover rules developed by the Basin state governments are to be included in water resource plans, where relevant under section 10.12(1)(b) of the Basin Plan.

24. The committee recommends the government assess, objectively value and publish data on the various uses of water in the Murray-Darling Basin.

Agreed.

Data are published regularly by the Australian Bureau of Agricultural and Resource Economics and Science and the Australian Bureau of Statistics on the value of irrigated agricultural production in the Murray–Darling Basin. The Bureau of Meteorology publishes the National Water Account, which provides information about water stores and flows, water rights and water use. It also reports on the volumes of water traded, extracted and managed.

The Murray–Darling Basin Authority and Basin state governments also provide comprehensive reports on water take (surface and groundwater) on an annual basis.

Further information on data on the use of environmental water is provided in response to majority report recommendation 26 below.

25. The committee recommends that the government amend the *Water Act 2007* to make clear the equal standing of economic, social and environmental needs and outcomes.

Not agreed.

In 2014, as required under Section 253 of the *Water Act 2007*, a review of the Act was carried out by an independent Panel of experts - Mr Eamonn Moran PSM QC (chair), Mr Peter Anderson, Dr Steve Morton, and Mr Gavin McMahon.

The Panel found that "the Act's framework does provide for the achievement of economic, social and environmental outcomes". It also emphasised the continuing challenge of balancing these outcomes in implementing the Basin Plan.

The Basin Plan also specifies that a key objective is to optimise social, economic and environmental outcomes arising from the use of Basin water resources.

26. The committee recommends that the MDBA, Commonwealth Environment Water Holder and basin states conduct greater monitoring, objective evaluation and communication of environmental watering activities, and that the MDBA collate and publicly report this information.

Agreed.

The Basin Plan sets out the reporting obligations and principles for undertaking environmental monitoring and evaluation for state and Australian Government agencies, broadly as follows:

- Murray–Darling Basin Authority monitors and reports on the changes in environmental health at a Basin-scale (including the achievement of the Basin Plan's objective and the Basin-wide Environmental Watering Strategy targeted outcomes)
- Basin state governments report on the changes in environmental health over time at a wetland and catchment scale
- Commonwealth Environmental Water Holder monitors and reports on the outcomes from Commonwealth environmental watering (including the contribution to the Basin Plan's environmental objectives).

All environmental water holders report annually to the Authority on the use, purposes and results of environmental water use, including with regard to: the volume, timing and location of water delivery; the Basin annual environmental watering priorities, water quality and salinity targets; and, how local communities have been engaged. This information is collated by the Authority and informs its own evaluation and reporting processes, including the Basin Plan Annual Report.

The Commonwealth Environmental Water Holder has a comprehensive monitoring, evaluation, reporting and improvement programme including operational monitoring for all Commonwealth environmental watering actions, and intervention monitoring that aims to understand the environmental response to watering actions. All Commonwealth Environmental Water Office monitoring and evaluation design documentation, reports and results are made available on the Commonwealth Environmental Water Office website and by distribution through local stakeholders.

27. The committee recommends that the government fund the expansion of the Commonwealth Environmental Water Holder's existing Long Term Intervention Monitoring Project to include more sites around the basin and provide greater monitoring and evaluation of basin environmental watering activities.

Not agreed.

The Commonwealth Environmental Water Holder's $30 million Long Term Intervention Monitoring Project is monitoring and evaluating the contribution of Commonwealth environmental water delivery in the Murray–Darling Basin over the 5 years to June 2019.

Under the project monitoring and evaluation is being undertaken at seven areas within the Murray–Darling Basin selected to provide optimal possible coverage of areas where Commonwealth environmental watering will occur and to complement monitoring activities already being undertaken by others including Basin state governments and the Murray–Darling Basin Authority.

28. The committee recommends the Victorian and NSW governments, as operators of the relevant storages, implement measures to mitigate cold water pollution that is undermining recovery efforts of native fish.

Noted.

This recommendation is a matter for the New South Wales and Victorian governments.

29. The committee recommends the MDBA conduct a review of the impact of cold water releases on native fish and develop risk assessments and mitigation strategies to ensure that cold water releases do not impact on native fish.

Agreed in principle.

The Basin-wide environmental watering strategy highlights the importance of addressing water quality issues such as cold water pollution to support native fish outcomes in the Basin.

Addressing cold water pollution is the responsibility of those owning and operating dams, which are generally state governments. In the case of the River Murray System, which the Murray-Darling Basin Authority operates on behalf of New South Wales, Victoria and South Australia, such studies have been undertaken and mitigation strategies are in place.

Environmental water holders also help manage cold water pollution through the timing of watering actions. Environmental watering typically targets the cooler time of year (particularly in the southern Basin), to align with natural cues including those for native fish spawning. Other options include timing releases with downstream tributary flows, which will dilute the cold water, and releasing water at a rate and/or volume unlikely to cause a significant risk in receiving water temperatures.

30. The committee recommends that the MDBA work with basin state governments to investigate the efficiency and effectiveness of salt interception schemes and combine their use and other complementary measures to manage salinity in the basin.

Agreed.

As part of the Basin Salinity Management 2030 (BSM2030) the Murray-Darling Basin Authority is working with Basin state governments to conduct a three year trial, commencing in 2016, to investigate the efficiency and effectiveness of operation of salt interception schemes in response to forecasted salinity risk outlook. Depending on the findings of this trial, the salt interception scheme operations will be refined to improve their efficiency and effectiveness.

Under the BSM2030, the salt interception schemes and other on-going and new salinity control measures will continue to play a critical role in protecting the river system from salinity.

31. The committee recommends the Commonwealth fund and facilitate accelerated work on the restoration of surface flows from the south-east of South Australia into the lower Coorong, and undertake a feasibility study into the potential for redirecting all existing drainage discharges from the South East into the Coorong.

Agreed in part.

The South East Flows Restoration management action of the Coorong Lower Lakes and Murray Mouth Recovery Project aims to divert additional water from the Upper South East area into the Coorong South Lagoon, using a combination of natural watercourses, new and upgraded constructed floodways and drains, to reduce salinity in the lagoon.

The existing South East drainage system already delivers on average 30 gigalitres per year to the Coorong at Salt Creek. The further project will provide an additional 26 gigalitres per year on average.

In addition to providing additional water to freshen the Coorong when needed, the system also includes structures so that water can be diverted away from the Coorong, or retained, to make sure too much fresh water does not enter the Coorong and lower salinity below the point that support local species.

Dissenting Report (former) Senator Madigan – Recommendations

1. **The Commonwealth Water Act 2007 must be amended to indisputably give equal balance to the triple bottom line i.e. social, economic and environmental values.**

See response to majority report recommendation 25.

2. **The *Water Act 2007* must be amended to remove reference to the 450GL and links to the Sustainable Diversion Adjustment mechanism. The $1.77 billion must be redirected to meet other objectives arising from the Basin Plan.**

Not agreed.

Efficiency measures are an agreed component of the SDL adjustment mechanism as requested by all Basin governments to improve the socio-economic and environmental outcomes associated with the Basin Plan.

3. **We must review the MDBA's Regulatory Impact Statement (2012) to account for omissions and inclusion of relevant information evident in the implementation phase of the Murray Darling Basin Plan.**

Agreed in principle.

Updated information on the impacts of the Basin Plan implementation is being collected and reported on an ongoing basis, including through the Basin Plan Annual Report.

4. **We must amend/extend current timeframes and project eligibility for the Sustainable Diversion Limits (SDL) adjustment mechanism.**

and

5. **We must have an allowance within the scope of 650GL of SDL projects to enable adaptive management and the development of further project options to deliver environmental outcomes that may not be fully explored or developed prior to the June 2016 deadline.**

See response to majority report recommendation 20.

6. **The Murray Darling Basin Plan's focus on flow objectives to the Lower Lakes must be reviewed to avoid massive third party impacts (social, economic and environment) on Basin communities. The Plan must incorporate the physical realities of the Murray, Edward and Wakool and Goulburn river systems and acknowledge that the Murray Darling Basin Authority's proposed flow targets to the SA border are unachievable.**

Agreed in principle.

The baseline environmental targets and outcomes in the Basin Plan and the Basin-wide Environmental Watering Strategy take into account the existing physical constraints of the system.

The Basin Plan also recognises the potential for flow constraints to be relaxed to allow enhanced environmental outcomes as set out in Schedule 5 of the Basin Plan

7. **Federal, New South Wales, Victoria and South Australian governments should be encouraged to investigate the development of localised projects in South Australia to deliver environmental benefits for the Coorong, Lower Lakes and Murray Mouth. Federal investments should be on the condition that SDL credits generated help offset the shared downstream targets for the Murray (971GL.) (The Coorong Connector should not be considered unless part of a broader package of measures.)**

See response to majority report recommendation 14.

8. **We need an independent investigation of the accountability, performance and independence of the MDBA with emphasis on the basis and validity of its conclusions and recommendations to government in the development and implementation of the Murray Darling Basin Plan.**

and

9. **The MDBA must be instructed and made accountable to facilitate open access and transparency on all of its models and assumptions used in decisions associated with the Plan.**

Agreed in principle.

As a Commonwealth agency all Murray–Darling Basin Authority activities are subject to full disclosure and external scrutiny, including by the Parliament.

The Authority used a variety of tools and models when developing the Basin Plan. Technical reports describing how these tools and models were developed and used to inform aspects of the Basin Plan have been made publicly available.

The Authority also uses hydrological models developed by the states for rivers other than the Murray. These models have been developed over recent decades and are calibrated to large sets of observed and historical data (such as flows, river operator behaviour and irrigation trends). In developing their models, Basin state governments have engaged extensively with community and industry groups ensuring key stakeholders are familiar with state models and their underpinning assumptions.

In addition, the Productivity Commission will inquire into the effectiveness of the implementation of the Basin Plan in 2018.

10. The MDBA's roles, responsibilities and future functions must be reviewed and restructured to incorporate regional decisions in all aspects of the Basin Plan – social, economic, environment.

Agreed in principle.

The Basin Plan is delivered in part through accredited state water resource plans which cover all regions of the Basin. At present there are 36 such plans, and the Basin state governments are expected to adapt those plans to suit local conditions provided there is overall consistency with Basin Plan settings.

11. The Federal Government must cease acquisition of further productive water (except for strategic benefits which is agreed to by relevant parties) until there has been a full analysis of social and economic impacts, an evaluation of environmental benefits achieved with water already acquired and it is evident there will be no adverse third party impacts on irrigation and private property.

See response to majority report recommendation 21.

12. Federal and state governments must be completely transparent and ensure full consultation with affected parties and stakeholders on all Murray Darling Basin Plan implementation decisions. This includes the Sustainable Diversion Limits adjustment mechanism, the Constraints Management Strategy and any proposed river or storage dam operational changes to ensure decisions do not undermine the reliability of irrigation supplies or property rights of private landholders or cause detrimental environmental impacts.

See response to majority report recommendations 7 and 8.

13. **The Constraints business cases must provide a realistic, compelling case, developed in full consultation with affected stakeholders, and establish that proposed measures will be achievable and will deliver the expected outcomes. The cases must provide a positive case for investment before any decisions to proceed are made.**

See response to majority report recommendation 7.

14. **Impacts on all upper tributary catchments must be acknowledged and investigated so that the focus is not only on the main stems of the Murray, Goulburn and Murrumbidgee rivers when delivering environmental flows.**

Agreed.

In seeking smarter ways to operate rivers the focus is necessarily on the reaches downstream of major storages, as there is little opportunity to manage flows in unregulated reaches.

15. **Government agencies must clearly establish timing, frequency, duration and extent of proposed environmental flows in order for stakeholders to make informed decisions in the development of the business cases on constraints.**

Noted.

See response to majority report recommendations 7 and 8.

16. **The MDBA must address how the Constraints Management Strategy can proceed considering Upper Goulburn Catchment landowners have refused to negotiate easements to mitigate flooding impacts, and the Federal and State governments have stated they will not forcibly acquire easements or intentionally flood private property without consent.**

See response to majority report recommendation 7.

17. **Federal and state governments must avoid manipulation of water markets or water use through references to high value crops or preferred industries.**

Agreed in principle.

The Government does not determine what a ‘high value use’ is. The Government continues to monitor the market and be receptive to feedback from market participants. Any evidence of manipulating the water market should be brought to the attention of regulatory authorities.

18. I strongly object to overseas entities being permitted to trade in our water.

Noted.

19. Monitoring and evaluation of the Basin plan and environmental flows must include both negative and positive impacts to enable full evaluations.

See response to majority report recommendation 26.