



EDOs of Australia

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Mr Neil Andrews
Chair
Murray Darling Basin Authority
GPO Box 1801
Canberra ACT 2601
By email: submissions@mdba.gov.au

Dear Mr Andrews,

Northern Basin Review

EDOs of Australia welcome the opportunity to comment on the proposed amendments to the Basin Plan (**Proposed Amendments**).

We are a network of independent not-for-profit community legal centres that specialise in public interest environmental law. Our clients include environmental organisations, as well as community groups, Aboriginal groups and farmers located throughout the Basin.

We have extensive experience advising on the *Water Act 2007* (**Water Act**) and Basin Plan. Our law reform and policy work includes submissions responding to the Draft Basin Plan, strategies made pursuant to the Basin Plan, and various amendments to the Water Act.¹

We have consistently argued that while the Water Act requires the Basin Plan to optimise socio-economic (as well as environmental) outcomes, this can only be achieved if the river system is managed sustainably into the future. Failure to do so will ultimately undermine the long-term viability of the industries and communities that depend on a healthy Murray-Darling.

In summary, EDOs of Australia **do not support** the proposal to increase sustainable diversion limits (**SDLs**) in the Northern Basin, or for specified groundwater sources. We also **strongly oppose** the proposed amendments to Part 4, Chapter 6 and to clauses 10.20(1)(a) and (b), as well as the deletion of clause 12.17. Our reasons are set out in the body of this submission, which focuses on the legal implications of the Proposed Amendments. It is divided into the following nine sections:

1. Role of socio-economic factors
2. Role of science
3. International obligations
4. Toolkit measures
5. Compliance
6. Method for determining compliance (Part 4, Chapter 6)
7. Menindee Lakes
8. Groundwater
9. Trade

¹ Our submissions are available online at: <http://www.edo.org.au/water1>

1. Role of socio-economic factors

The proposal to increase SDLs in the Northern Basin forms part of a clear trend to promote increased consideration of socio-economic outcomes. This is contrary to the objects, purpose and other key provisions of the Water Act, as identified in advice provided by the Australian Government Solicitor (**AGS**) in 2010² regarding the role of socio-economic factors in the Basin Plan.

Similarly, we note the legal opinion of two of Australia's most eminent constitutional lawyers, Professor George Williams and Dr Paul Kildea, who have indicated that any attempt to overtly or implicitly privilege socio-economic factors over environmental outcomes would be unconstitutional and to that extent may result in the Plan 'being struck down by the High Court.'³ Like the AGS, they have also made it clear that a so-called 'triple bottom line approach' is not consistent with the requirements of the Act.

We also note that the Water Act requires the Basin Plan to be developed on the basis of best available socio-economic analysis.⁴ However, we are concerned that the Proposed Amendments are not based on research and analysis that would satisfy this requirement. For example:

- Documents obtained under the *Freedom of Information Act 1982 (FOI Act)* by our client, the Inland Rivers Network (**IRN**), indicate that socio-economic modelling was provided to certain industry groups for comment and amendment prior to being finalised. However, this information was not provided to other stakeholders for comment. Inequitable access, potential influence and lack of transparency all raise questions as to the objectivity of the socio-economic evidence underpinning the proposed 70GL reduction.
- Documents obtained under the FOI Act by our client, the IRN, indicate that total jobs in Warren actually *increased* after the Millennium Drought.⁵ This information has not been objectively reported in the publicly available report entitled 'Northern Basin Review – technical overview of the socio-economic analysis.' Rather, this report focuses on job loss during the Millennium Drought; it also imputes job losses to water recovery rather than water scarcity during the drought.⁶
- In their submission responding to the Proposed Amendment, the Murray Lower Darling Rivers Indigenous Nations (**MLDRIN**) questions the methodology used to determine impacts on Aboriginal communities, analysis of this information and the actual decision-making process.
- A number of towns in the Northern Basin have been omitted from the analysis. This includes Wilcannia, which has a significant Aboriginal community.

In summary, we are concerned that the final recommendation is not based on socio-economic analysis that would meet the requirements of the Water Act.

² Dated 28 October 2010.

³ Williams, G, Kildea, P, The Water Act and Murray-Darling Basin Plan, *Public Law Review* (2011) 22. PLR 9. Available online at: <http://sites.thomsonreuters.com.au/journals/2011/05/19/journals-excerpt-the-water-act-and-the-murray-darling-basin-plan/>

⁴ Water Act, s. 21(4)(b).

⁵ From 941 in 2010 to 1013 in 2012. Data for the years thereafter was not made available.

⁶ MDBA, *Northern Basin Review - Technical overview of the socioeconomic analysis*, 2016, pp. 42-43.

2. Role of science

The Water Act requires the Basin Plan to be developed on the basis of best available scientific knowledge.⁷ However, the report entitled 'Hydrologic Modelling for the Northern Basin Review' (**Hydrologic Report**) states that '[t]he 320 GL option recommended by the Authority is not provided as a model scenario in this report, but most of its aspects were drawn from existing scenarios.'⁸ This implies that this option has either not been modelled or its actual results have been deemed unfit for publication. Either way, failure to recommend an option based on a published, modelled scenario undermines the scientific credibility of the Northern Basin Review. Further to this point, merely extrapolating from one of reported modelled scenarios in order to reach the 320 GL option is not scientifically robust without proper sensitivity analysis. In short, there is insufficient evidence to demonstrate that this option is based on best available scientific knowledge. Accordingly, it is unlikely to satisfy the requirements of the Water Act.

We also note that the true impact of reduced water recovery under the scenarios that were actually modelled has not been reported comprehensively. Specifically, the report claims that there is only a *slight* reduction in the likelihood that 20 to 22 flow indicators will be met under the modelled 320 GL scenarios (compared to the current 390 GL scenario).⁹ However, a more detailed analysis of the data indicates that the probability that these indicators will be met under any of the 320 GL scenarios is *considerably lower* for some indicators,¹⁰ for example in the Culgoa.¹¹

Furthermore, the same assumptions have not used for all of the reported modelled scenarios. This is a significant methodological flaw which makes it difficult to meaningfully compare outcomes between each of these scenarios. The combination of incomplete reporting and methodological inconsistency undermines the overall scientific robustness and credibility of the Review. This in turn reinforces the likelihood of the recommended option falling foul of the legal requirement to develop the Basin Plan on the basis of best scientific knowledge.¹²

3. International obligations

It is well established that the Water Act and Basin Plan derive the majority of their constitutional validity from a suite of environmental treaties to which Australia is signatory.¹³ These include the Convention on Biological Diversity (**Biodiversity Convention**), Ramsar Convention, and a number of treaties protecting migratory birds.¹⁴

In their 2010 advice regarding the role of socio-economic factors in the Basin Plan, the AGS specified that the Biodiversity Convention and Ramsar Convention 'establish a framework in which environmental objectives have primacy but the implementation of environmental objectives allows consideration of social and economic factors'. Williams and Kildea reinforce this hierarchy, stating that:

⁷ Water Act, s. 21(4)(b).

⁸ MBDA, *Hydrologic Modelling for the Northern Basin Review*, 2016 p. 3.

⁹ MDBA, *The Northern Basin Review. Understanding the economic, social and environmental outcomes from water recovery in the northern Basin*, 2016, p. 2.

¹⁰ Compared to the current 390 GL scenario.

¹¹ 'The likelihood of a healthy outer [Culgoa] floodplain is considerably reduced under the 320 GL and 278 GL scenarios': MDBA, *Environmental outcomes of the Northern Basin Review*, 2016, p. 110.

¹² Water Act, s. 21(4)(b).

¹³ Water Act, ss. 3(b), 9.

¹⁴ Bonn Convention; Republic of Korea-Australia Migratory Bird Agreement; Japan-Australia Migratory Bird Agreement; China-Australia Migratory Bird Agreement.

The Water Act, both as to its own terms and when read in light of its constitutional underpinnings, recognises that a Basin Plan must be prepared to give effect to the relevant international conventions. In doing so, social and economic factors must also be taken into account. However, these latter factors cannot be given such weight as would prejudice the faithful implementation of the international environmental conventions upon which the validity of the Act depends¹⁵.

With this in mind, there is considerable doubt as to whether the obligations contained in the Ramsar Convention, the Convention on Biological Diversity and various treaties protecting migratory birds will be properly implemented under a 2,750 GL + adjustment mechanism scenario. It is therefore unacceptable – and potentially unlawful – to further reduce the volume of water available to the Macquarie Marshes and Gwydir Wetlands, as provided for under the Proposed Amendment.¹⁶ Specifically, it is proposed to return 12GL to the consumptive pool in the Macquarie catchment, and 14 GL in the Gwydir.¹⁷

While the modelling for the 320 GL C scenario indicates that all four indicators are met in the Macquarie catchment, two are met with a high level of uncertainty.¹⁸ There is also evidence to suggest that meeting these targets is not sufficient to restore the health of the Macquarie Marshes.¹⁹ Furthermore, four of the nine indicators for the Gwydir fail to even meet the ‘high uncertainty’ threshold, which means that there is a high probability that these ecological targets will not be met.

We further note the Commonwealth Government lodged an Article 3.2 notice with the Ramsar Secretariat in 2009 in relation to the Macquarie Marshes indicating that the Marshes were likely to experience a change in ecological character.²⁰ In this notice, the Government stated that ‘the most significant action in place to help respond to the threats currently facing the Macquarie Marshes and other important waterways, is the Australian Government’s AUD\$3.1 billion Restoring the Balance in the Murray-Darling Program’. The notice goes on to state that the goal of this Program is to ‘acquire water entitlements from willing sellers that represent value for money, and use the water allocated to them for the environment.’

It is difficult to reconcile the Article 3.2 notice and its contents with the MDBA’s more recent (and likely future) position in relation to the Macquarie River catchment. In addition to the proposal to return 12GL to the consumptive pool as part of the Proposed Amendment,²¹ the MDBA has indicated that an additional 31GL may be added to the consumptive pool in the Macquarie catchment following the completion of a joint Commonwealth-NSW project to

¹⁵ Williams and Kildea, note 3.

¹⁶ MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, p. 18 (Macquarie - reduction of 10 GL local and 2 GL shared recovery); p. 22 (Gwydir - reduction of 14 GL shared recovery).

¹⁷ MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, 2016, p. 18 (Macquarie - reduction of 10 GL local and 2 GL shared recovery); p. 22 (Gwydir - reduction of 14 GL shared recovery).

¹⁸ To reiterate, as the 320 GL option that was recommended by the MDBA is not discussed in the published materials, it is unclear whether any of these four indicators will actually be met under that option (and at what level of certainty).

¹⁹ Ren, Shiquan, Kingsford, Richard T., Statistically Integrated Flow and Flood Modelling Compared to Hydrologically Integrated Quantity and Quality Model for Annual Flows in the Regulated Macquarie River in Arid Australia, *Environmental Management* (2011) 48:177–188.

²⁰ <http://www.environment.gov.au/water/topics/wetlands/database/pubs/28-art-3-2-notification-20090717.pdf>

²¹ MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, 2016, p. 18 (10 GL local and 2 GL shared).

reassess 'planning assumptions'. It is argued that this water should be made available on the basis that the Macquarie is 'over-recovered'.²²

Documents obtained under the FOI Act by our client, the IRN, indicate that Macquarie Food and Fibre has sought to persuade the MDBA that the Macquarie is 'seriously over recovered' by increasing cap factors from 42% to 53%. However, there is no clear justification provided in the reports underpinning the Northern Basin Review for the proposal to adjust cap factors, other than a desire to increase the volume of water available for consumptive use in the short-term. Conversely, there are strong arguments that can be made against the proposed adjustment, including likely future impacts on general security licence holders and the environment.

To summarise, there is considerable doubt as to whether the relevant treaties will be properly implemented under the existing Basin Plan. It is therefore possible that any proposal to reduce the volume of water available to the environment, and in particular to Ramsar wetlands, would be unlawful. The MDBA must ensure that national and international obligations to prioritise environmental protections are upheld.

4. Toolkit measures

The 320 GL option recommended by the MDBA includes a suite of 'toolkit measures'.²³ While we support the implementation of some of these measures, we do not support their implementation in lieu of water (that is, 'complementary measures' or offsets), as per the Northern Basin Review. We further note that these measures have no statutory basis and to that extent cannot be legally enforced, except to the extent that they are already provided for under the Basin Plan. Where these measures are provided for under the Plan, it is unclear why a non-statutory equivalent is being put forward under the Review. Specifically, the following toolkit measures should be given effect under a properly implemented Basin Plan:

- Protection of environmental flows in the Barwon-Darling and Condamine Balonne. This water should be protected via shepherding.²⁴
- Protection of environmental water via the imposition of cease-to-pump rules. We note that there is no legal basis to the argument that the imposition of such rules is not permitted under the Basin Plan.²⁵
- Removal of constraints in the Gwydir catchment. Constraints are provided for under Chapter 7 of the Basin Plan (which provides for the removal of constraints pursuant to a 'constraints management strategy' (CMS)).²⁶ We note that the removal of constraints in the Gwydir is discussed in the CMS.²⁷

We further note that certain event-based mechanisms in the toolkit are unlikely to be effective as stand-alone measures. In particular, temporary trade and store and release do not prevent the extraction of environmental water if entitlement holders further downstream are entitled to pump and have sufficient water in their account to do so. Rather, and as

²² MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, 2016, p. 12. The Gwydir is also the subject of this joint project, with the possibility that 15 GL will be returned to the consumptive pool on the basis that it is 'over-recovered'.

²³ MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, 2016, Appendix D, p. 52.

²⁴ Shepherding in the Barwon-Darling constitutes a PPM. See Basin Plan, cl. 7.15.

²⁵ For example, such rules may be required in order to properly implement PPMs, or the Ramsar Convention.

²⁶ Basin Plan, cl. 7.08.

²⁷ MDBA, *Constraints Management Strategy – 2013 to 2024*, pp. 61-2.

previously indicated, cease-to-pump rules can and should be implemented under a properly implemented Basin Plan (that is, under accredited water resource plans).

5. Compliance

We note that compliance remains a significant issue in the Northern Basin. We are aware that this issue has been raised by the Northern Basin Advisory Committee at a number of meetings, as well as the broader community during Phase 1 of community consultation for the Northern Basin Review. Issues include inaccurate metering, failure to meter, failure to keep logbooks, self-reporting and allegations of water theft. Failure to comprehensively investigate and address these problems completely undermines water markets which in turn jeopardies the success of the Basin Plan. This necessarily extends to the environmental outcomes sought in the Northern Basin, which as outlined above will be further compromised under any 320 GL scenario.

To summarise, it is impossible to ensure compliance with cap when there is either no will to enforce the law, or no capacity to do so due to ongoing issues with metering and self-reporting of take. The MDBA should therefore focus on working with the Basin States to rectify these issues, rather than further reducing the volume of water available to the environment.

6. Method for determining compliance (Part 4, Chapter 6)

EDO NSW strongly opposes the proposed wording of clause 6.11(5), which will result in cap exceedance for surface water resources being credited to the relevant account if the exceedance is 'beyond the control' of the Basin State.²⁸ We submit that broad discretion to apply clause 6.11(5) should be removed and replaced with a limited and clearly defined set of events that qualify as 'being beyond the control' of the State in question. Failure to effectively limit the 'beyond control' exemption may have **serious consequences** for long-term cap compliance, which would in turn undermine the purpose of the Basin Plan.

Similarly, we oppose the wording of 6.12C(4)(b) (which concerns groundwater resources) on the grounds outlined above.

On this basis, and given the importance of compliance to the overall success of the Basin Plan, we recommend that further, targeted consultation be undertaken with a view to resolving this issue.

7. Menindee Lakes

The MDBA has stated that reducing water recovery in the Northern Basin by 70 GL will only reduce inflows into Menindee Lakes by 10-15 GL/year, and into South Australia by 5-10 GL/year.²⁹ It has indicated that it will be able to minimise impacts on inflows into the Lakes and into South Australia due to updated science regarding connectivity between the Barwon-Darling and its tributaries, and by strategically targeting certain licences. We consider these assumptions implausible on the following grounds.

First and as noted above, the MDBA has indicated that the 320 GL option that it is recommending is not based on any of the scenarios discussed in the publicly available

²⁸ As per cl. 6.12(4)(b).

²⁹ MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, 2016, p.31. This represents a long-term annual average.

materials. Accordingly, there is no scientifically rigorous basis for claiming that impacts on inflows can be limited to 10-15 GL/year under the recommended option.

Second, there is no guarantee that the Commonwealth will be able to acquire the specific licences required to ensure that impacts on the Lakes are minimised.

Third, title searches indicate that two entities upstream of Bourke own approximately 70% of all entitlements held on the Barwon-Darling River. The Water Sharing Plan for the Barwon-Darling Unregulated and Alluvial Water Sources 2012 (**BD WSP**), combined with greatly increased pump sizes, allow these entities to divert significant volumes of 'A Class' or low flow water. This necessarily includes the Commonwealth's held environmental water, including environmental water flowing into the Barwon River from its tributaries (all of which are upstream of Bourke). In the absence of rule changes designed to protect environmental water, it is therefore likely that any water that the Commonwealth does manage to recover as part of this 'targeted strategy' will be vulnerable to extraction.

In short, it is likely that impacts on inflows into Menindee Lakes and associated impacts on South Australia will be greater than asserted. As a consequence, there is an urgent need for further scientific investigation and modelling.

8. Groundwater

EDOs of Australia do not support the proposal to increase SDLs for the nominated groundwater sources. Specifically, there is insufficient scientific evidence to suggest that the increased SDLs will be sustainable in the longer term.

Furthermore, we do not support the proposed amendment to clauses 10.20(1)(a) and (b), both of which weaken the protection offered to aquifers and connected groundwater-surface water systems under accredited water resource plans.

We also seek further clarification regarding the environmental and social impact of the altered groundwater resource plan boundary changes and amalgamations, as this information has not been included in the relevant report.³⁰

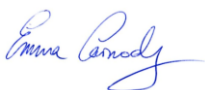
9. Trade

Water markets can only work if restrictions can be applied to prevent perverse outcomes on the environment and other users. EDOs of Australia is therefore opposed to the proposed deletion of clause 12.17. To clarify, this deletion removes the possibility of imposing a volumetric limit on trade for a purpose specified in clause 12.18. As noted in this latter clause, the imposition of a volumetric limit on trade may be necessary to protect, *inter alia*, hydrologic connectivity or the needs of the environment.

Please do not hesitate to contact us if you have any queries regarding our submission.

Kind Regards,

Dr Emma Carmody



Policy and Law Reform Solicitor

³⁰ MDBA, *Proposed groundwater amendments to the Basin Plan – additional information*, November 2016.