

Water Amendment Bill 2018
EDO NSW Briefing Note and Key Issues Summary
25 May 2018

This briefing note is divided into the following 5 Parts:

- Part 1: Introduction
- Part 2: Background
- Part 3: Analysis of Bill
- Part 4: Analysis of NB Instrument
- Part 5: Analysis of AM Instrument

Part 1: Introduction

On 10 May 2018, the Water Amendment Bill 2018 (**Bill**) was tabled in the Australian House of Representatives. The primary purpose of the Bill is to facilitate the re-tabling of the Basin Plan Amendment Instrument 2017 (No. 1) (**NB Instrument**). In order to understand the implications of the Bill, it is therefore necessary to analyse the NB Instrument, which was disallowed by the Australian Senate on 14 February 2018.

Similarly, as both the Bill and NB Instrument interact with the recently passed Basin Plan Amendment (SDL Adjustments) Instrument 2017 (**AM Instrument**), we have deemed it necessary to include an analysis of the AM instrument in our briefing note.

Part 2: Background

Before doing so – and in order to understand the significance of the Bill – it is necessary to place it within the broader context of national water laws and policies developed and implemented over the last decade. Briefly, within this timeframe, the focus has shifted from reinstating an environmentally sustainable level of take (**ESLT**) in accordance with the requirements of the *Water Act 2007* (Cth) (**Water Act**)¹ to privileging short-term socio-economic outcomes in certain parts of the Basin.² This reorientation is evidenced by:

- legislating a reduction figure of 2750GL/year (subject to adjustments), which is likely to breach core requirements of the Water Act;

¹ Water Act, s. 23(1).

² For a detailed analysis, see Carmody, E, *Chapter 2: The Unwinding of Water Reform in the Murray-Darling Basin: A Cautionary Tale for Transboundary River Systems*. In Holley, Cameron and Sinclair, Darren (Eds.), *Reforming Water Law and Governance - From Stagnation to Innovation in Australia*. Springer, 2018.

- amendments to the Water Act in 2012 to include the adjustment mechanism which is designed to reduce the volume of actual water recovered for the environment by up to 650GL/year;³
- amendments to the Water Act in 2013 which made the acquisition of 450GL of additional water discretionary, limited its acquisition to purported savings from on-farm efficiency projects and did not include an enforceable link to environmental outcomes in South Australia;⁴
- amendments to the Water Act to impose a 1500GL limit on the outright purchase of water entitlements. Above 1500GL, only entitlements that are connected to on-farm efficiency projects and purported savings from these projects may be purchased. We note the increasing body of literature critiquing the transparency, water accounting and actual savings associated with these projects,⁵ as well as the fact that purchasing water in this manner costs the taxpayer approximately four times as much as the outright purchase of water entitlements;⁶
- the push to use so-called 'complementary measures' (that is, natural resource management actions) as a substitute for environmental flows - despite the dearth of evidence supporting the use of these actions as offsets for actual water. It is our view that NRM actions should be *in addition to* water recovery;⁷
- closed-tender 'strategic' purchases of low security water entitlements of questionable environmental value – in some instances for well above market rate. Specifically, the Commonwealth's procurement information system, Austender, indicates that the Department of Agriculture and Water Resources (**DAWR**) spent \$182, 352, 078 in 2017 on such purchases from five entities;⁸
- the Northern Basin Review and associated recommendation by the Murray-Darling Basin Authority (**MDBA**) to – *inter alia* - reduce the recovery figure in the Northern Basin by 70GL. Our submission responding to the NBR identified a number of legal issues with the proposed recommendations. This submission is attached at **Annex A**;
- the publication of the Draft Determination for the purposes of Chapter 7 of the Basin Plan (the proposed adjustment volumes for affected water resource units). It is our view that elements of this process were likely to have breached core requirements of the Basin Plan and Water Act;⁹
- the recent passage of the AM Instrument which reduces the volume of actual water recovered for the environment by 605GL¹⁰ and authorises Basin State governments to implement the 36 associated supply measure projects. These projects carry with them a high level of uncertainty and consequently risk for Basin water resources and communities. This is in part due to either inadequate information or a lack of

³ Water Amendment (Long-term Average Sustainable Diversion Limit Adjustment) Act 2012. Incorporated, *inter alia*, ss. 23A and 23B into the Water Act.

⁴ Water Amendment (Water for the Environment Special Account) Act 2013. Incorporated as Part 2AA of the Water Act.

⁵ See for e.g.: Adamson, D. and A. Loch (2014). Possible negative sustainability impacts from 'gold-plating'

infrastructure. *Agricultural Water Management* 145(Nov), pp. 134-144; Dr David Adamson, Dr Adam Loch, Assoc. Prof Sarah Wheeler and Prof Jeff Conner, *Submission to the Standing Committee on Agriculture and Water Resources: Inquiry into water-use efficiency in Australian agriculture*, 2017.

⁶ Productivity Commission, *Market Mechanisms for Recovering Water in the Murray-Darling Basin*, Productivity Commission Research Report, March, 2010, p. 129.

⁷ See for e.g.: <https://www.mdba.gov.au/publications/independent-reports/CSIRO-complementary-measures-assessment-method>

⁸ Information available on Austender: <https://www.tenders.gov.au/>

⁹ By failing to notify the specific details of efficiency measure projects, including the specific water resource units affected: Basin Plan, cl. 7.12(4).

¹⁰ With a legislated 'net effect' of 543GL/year: Basin Plan, Schedule 6A.

transparency in respect of these projects.¹¹ Significantly, it is our view that the AM Instrument is likely to have breached core requirements of the Water Act and possibly elements of the Basin Plan;¹²

- the uncertain status of NSW's Prerequisite Policy Measures – as well as the legally questionable interpretation of clause 7.15 of the Basin Plan contained in its Prerequisite Policy Measure Implementation Plan (June 2017). This interpretation could be used to avoid the inclusion of rules-based protection of environmental flow in water resource plans;¹³
- recent suggestions that the licensing of significant volumes of floodplain harvesting in NSW can be accommodated within the Basin Plan framework by increasing Baseline Diversion Limits (**BDL**) and Sustainable Diversion Limits (**SDLs**). We note that BDLs¹⁴ and SDLs can only be lawfully changed by an amendment to the Basin Plan tabled in Parliament and that the result of doing so for the purposes of floodplain harvesting in NSW is in any case likely to breach core requirements of the Water Act.

The foregoing analysis demonstrates that a variety of statutory and non-statutory mechanisms have been employed to reduce the volume of water recovered under the Basin Plan, to maximise consumptive use and to ensure that additional water recovery is non-binding (and is tied to purported savings from on-farm efficiency projects). It is likely that this trajectory has included a number of breaches of the Water Act and possibly the Basin Plan. For example, the Basin Plan and certain past and proposed amendments thereof are not likely to be consistent with the core objective of the Water Act, which is the imposition of SDLs that reflect an ESTL. While this constitutes a legally binding obligation, it is not a mere legal technicality: failure to ensure that water resources in the MDB are consumed sustainably (which is the essence of the ESTL test) will invariably result in the incremental deterioration of the Murray-Darling system. This includes but is not limited to the 16 internationally significant wetlands located in the MDB and listed under the Ramsar Convention.

Part 3: Analysis of Bill

Purpose of the Bill

The Bill allows a legislative instrument to amend the Basin Plan that has been disallowed to be re-tabled and subsequently reconsidered by Parliament. The *Legislative Instruments Act 2003* (Cth) already allows a legislative instrument that has been disallowed to be re-tabled in Parliament.¹⁵ It is therefore necessary to analyse why the Bill is being used to facilitate reconsideration of the NB Instrument.

First, and as indicated in the Explanatory Memorandum accompanying the Bill,¹⁶ it is being tabled so as to circumvent the community consultation provisions provided for in the Water

¹¹ Wentworth Group of Concerned Scientists, *Murray-Darling Basin Plan: Requirements for SDL adjustment projects*, May 2018. <http://wentworthgroup.org/2018/05/requirements-for-sdl-adjustment-projects/2018/>

¹² See Part 5 of this briefing note.

¹³ https://www.water.nsw.gov.au/_data/assets/pdf_file/0004/723334/Pre-requisite-Policy-Measure-Implementation-Plan.pdf

¹⁴ We note that this is acknowledged in the MDBA's Position Statement 3D – Changes to BDLs: https://www.mdba.gov.au/sites/default/files/pubs/WRP-position-statement-3D-changes-to-BDL_0.PDF

¹⁵ The executive is prohibited from remaking a legislative instrument that is the same in substance as a disallowed instrument within six months (s. 48(1)) unless otherwise provided by the relevant House (s. 48(2)).

¹⁶ Available at:

https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=6112

Act.¹⁷ That is, the Bill will overcome the need to place the NB Instrument on public exhibition for a minimum of eight weeks and for the MDBA to review and consider all submissions responding to that Instrument. This is particularly problematic as the version of the NB Instrument that was placed on public exhibition in late 2016 is different to the current version. Some of these changes are significant, notably those set out in the newly inserted cl. 6.05(6) and cl. 7.14A, which provide for water recovered in one valley to count toward recovery requirements in another valley.¹⁸ Furthermore, this approach cannot be reconciled with the Australian Government's stated commitment to improved transparency in respect of water management.¹⁹

Second, it is possible that the Bill is being tabled to defeat a provision in the *Legislative Instruments Act 2003*. Specifically, s. 12(2) of this Act invalidates clauses in legislative instruments that first, apply retrospectively and second, disadvantage or impose additional liabilities on a person or persons.²⁰ However this 'prohibition' can be overcome if an enabling statute (such as the Water Act) expressly authorises the inclusion of such clauses in the subordinate instrument.²¹ To that end, the Bill includes transitional provisions that state that a request that has already been made by a Basin State under cl. 6.05 to reallocate water recovery from one valley²² to another is to be expressed as having been made in 'anticipation' of this new clause.²³ In other words, a request that has already been made – despite the fact that the NB Instrument was disallowed and therefore could not have authorised such a request – will be retrospectively validated.

As noted above, it is legal for the Bill to expressly provide for the retrospective application of a provision in a legislative instrument. However, the Australian Government Solicitor has stated that while the 'enabling Act for a legislative instrument may give a broader power to make detrimental retrospective instruments... this is rare.'²⁴ Assuming the Bill is being tabled to overcome the relevant provision in the *Legislative Instruments Act 2003*, it is possible to conclude that this is being done despite the fact that it deviates significantly from legislative norms.

Third, the Bill provides for the Minister to direct the MDBA to prepare an amendment to the Basin Plan that is 'the same in effect' as an earlier amendment that has been disallowed.²⁵ It further states that that such a direction is a non-disallowable instrument. This differs considerably from the provisions in the Water Act that would otherwise apply to a proposal to

¹⁷ Water Act, s. 47.

¹⁸ These provisions allow a Basin State to make a 'reallocation adjustment request' in relation to the shared reduction volume for valleys within a designated zone. Clause 6.05 concerns 'reallocation adjustment requests' made by 1 July 2018. Clause 7.14A concerns 'reallocation adjustment requests' made either before 1 July 2016 (under cl. 7.23 – which is to be repealed under the NB Instrument) or between 1 July 2016 and 30 June 2017 and expressed to be made 'in anticipation' of the insertion of the new cl. 7.14A.

¹⁹ See for e.g.: <https://www.mdba.gov.au/media/mr/compliance-review-delivers-greater-transparency-water-resource-plans>

²⁰ The question turns on whether the provisions are creating future rights in relation to past events, or imposing a retrospective commencement date in relation to those past events. See for e.g.: *Uren v Commonwealth of Australia* [2017] FCAFC 30.

²¹ *Legislation Act 2003*, s. 12(3).

²² Water recovery that forms part of the shared reduction amount for a water resource unit can be transferred to another resource unit provided the total SDLs for each of the named six 'zones' remain the same and the shared recovery volume for each SDL resource unit is not increased. The replacement cl. 6.05 provides for six large zones (within which sit multiple water resource units).

²³ The proposed, relevant sub-clause is 6.05(6).

²⁴ Australian Government Solicitor (AGS), *Legislative Instruments – issues in design*. No 102, 26 February 2014, p. 12.

²⁵ Bill, cl. 49AA.

amend the Basin Plan. Specifically, under the relevant provisions in the Basin Plan,²⁶ it is the MDBA – not the Minister – that decides that it will prepare an amendment to the Plan. This is in keeping with its status as an independent statutory authority. By authorising the Minister to direct the MDBA by way of a non-disallowable instrument (i.e., no Parliamentary oversight) to prepare an amendment to the Basin Plan, the independence of the MDBA is significantly compromised.

While there are limited circumstances under the Water Act in which the Minister may direct the MDBA in respect of a proposed amendment, these directions must not relate to ‘any aspect of the Basin Plan that is of a factual or scientific nature;...’.²⁷ By way of contrast, the Bill is in part designed to facilitate the retrospective application of cl. 6.05 – which is of a scientific nature insofar as ‘relocating’ recovered or ‘saved’ water affects SDLs, which are supposed to be informed by science and reflect an ESLT.

In summary, the purpose of the Bill appears to be to facilitate a series of legal exceptions, including in relation to the recently disallowed NB Instrument.

Part 4: Analysis of NB Instrument

Part 3 of this Briefing Note included a brief analysis of the proposed cl. 6.05 of the NB Instrument. Furthermore, our submission responding to the Northern Basin Review (attached at **Annex A**) sets out our concerns regarding the version of the Instrument that was put on public exhibition in late 2016. Notably, it concludes that the proposal to reduce water recovery in the Northern Basin by 70GL is unlikely to meet several of the core requirements of the Water Act.

Clause 7.14A

This part will therefore focus on the proposed cl. 7.14A of the NB Instrument, which as noted above was not included in the version of the NB Instrument that was placed on public exhibition.

By way of background, cl. 7.14A(3)(a)(i) seeks to amend the Basin Plan to retrospectively authorise a reallocation adjustment request that was made before 1 July 2016 under the current reallocation adjustment provision in the Basin Plan – but which did not entirely satisfy the requirements of that provision. The provision in question is cl. 7.23, which the NB Instrument seeks to repeal and replace with cl. 7.14A.²⁸

Under the current cl. 7.23, a Basin State is entitled to make a request to reallocate SDL resource unit shared reduction amounts within five designated zones. The first of these zones includes all major river systems in the Northern Basin.²⁹ Under cl. 7.23, the MDBA is then required to propose an amendment to the Basin Plan that reflects the altered SDLs ‘as soon as practicable after 30 June 2016.’ This proposal and any subsequent amendment are to be made under ss. 23A and 23B of the Water Act – the sections that specifically concern adjustment mechanism-related amendments to the Basin Plan. No proposal to amend SDLs in accordance with a reallocation adjustment request under cl. 7.23 has resulted in an amendment to the Basin Plan, which means that the full suite of requirements under that clause has not, to the best of our knowledge, been satisfied.

²⁶ Basin Plan, Subdivision F, Division 1, Part 2 (in particular s. 45).

²⁷ Basin Plan, cll. 44(5)(a); 48(5)(a).

²⁸ Note that this provision concerns shared reduction amounts.

²⁹ See cll. 7.23, 6.05 (current).

Similarly, cl. 7.14A (a)(ii) seeks to amend the Basin Plan to retrospectively authorise a reallocation adjustment request that was made after 1 July 2016 but before 30 June 2017. The request is to be expressed ‘in anticipation’ of the NB Instrument being passed and resulting in cl. 7.14A being added to the Basin Plan. In other words, a request that has already been made – despite the fact that the NB Instrument was disallowed and therefore could not have authorised such a request – will be retrospectively validated.

It is our view that cl. 7.14A is likely to be unlawful for the following reason:

- Reallocating water savings associated with the adjustment mechanism is unlikely to result in SDLs that reflect an ESLT; it is also unlikely to be based on best-available scientific knowledge, as required by the Water Act.³⁰

It is further our view that cl. 7.14A may fall foul of the *Legislative Instruments Act 2003*:

- This is because it appears to involve the retrospective application of certain provisions in a legislative instrument. As noted above, this may invalidate the clause to the extent that it causes detriment to at least one person.³¹

Clause 7.14A also gives rise to the following questions and comments:

- Unlike the current cl. 7.23, cl. 7.14A does not include an explicit requirement to propose an amendment to the Basin Plan under s. 23A of the Water Act within a specific timeframe (on the basis of a reallocation adjustment). However, as the title of cl. 7.14A is ‘Shared reduction amounts to be applied in determining adjustments’, we can assume that a reallocation adjustment request will form part of a proposal by the MDBA to amend SDLs in the Basin Plan at the ‘reconciliation date’ in 2024.³² This is reinforced by the amendments to Schedule 2 of the Basin Plan that occurred as a consequence of AM Instrument (which is discussed in Part 5, below).
- The MDBA may only propose adjustments to SDLs for ‘the water resources of a particular water resource plan area (or a particular part of those water resources)’.³³ The MDBA has not proposed a reallocation adjustment in relation to a specific water resource plan area under s. 23A of the Water Act. As noted above, this may occur as part of the 2024 adjustment mechanism reconciliation process. However, there is still ongoing uncertainty regarding how SDLs in the Northern Basin in particular will be affected by the reallocation of ‘water savings’.

Part 5: Analysis of AM Instrument

As noted above, the Bill cannot be considered in isolation from other aspects of Basin laws, policies and processes. This is particularly true in relation to the AM Instrument, which recently became part of the Basin Plan.

By way of background, the AM Instrument allows water recovery to be reduced by 605GL on the basis of States implementing 36 supply measure projects in the southern Murray-Darling

³⁰ Water Act, ss. 23(1), 21(4)(b).

³¹ As noted above, the question turns on whether the provisions are creating future rights in relation to past events, or imposing a retrospective commencement date in relation to those past events. See for e.g.: [Uren v Commonwealth of Australia \[2017\] FCAFC 30](#).

³² Water Act, s. 23A; Basin Plan, cl. 7.11.

³³ Water Act, s. 23A (1)(a).

Basin.³⁴ Supply measure projects generally involve either changes to rules which affect the delivery of water, or infrastructure projects. They are supposed to deliver ‘equivalent environmental outcomes’ (as determined by a formula set out in Schedule 6 of the Basin Plan).³⁵ That is, they are required to deliver outcomes equivalent to those that could be achieved if that additional 605GL of water was actually in the river.³⁶ Again, ‘equivalent outcomes’ is not literal – it is to be demonstrated in a model and by reference to relatively complex formula set out in the aforementioned schedule.

In addition to changing the volume of water that has to be recovered under the Basin Plan, the AM Instrument changes the SDL formula for water resource units set out in Schedule 2. Specifically, the formula for the water resource units in the Northern Basin now includes the addition of an SDL adjustment amount. Schedule 2, Items 1 to 12 inclusive (which concern water resource units in the Northern Basin), is attached at **Annex B**. This demonstrates how the new formula is set out for these resource units.

This amendment appears to have been made in anticipation of a reallocation adjustment request forming part of future amendments to the Basin Plan in 2024 (which is the ‘reconciliation date’ for the adjustment mechanism).³⁷ However, this is not entirely clear. Also, it is unclear how amending the Basin Plan on the basis of such a reallocation could satisfy the requirement that the Plan be based on best-available scientific knowledge.³⁸ In any case, it is our view that the AM Instrument is unlikely to be consistent with certain requirements of the Water Act. This view was recently expressed by the Murray-Darling Basin Royal Commission in Issues Paper 2.³⁹

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³⁴ As noted in the AM Instrument, downward adjustments cannot exceed 543GL (due to the 5% limits of change rule). This means that a minimum of 62GL of up-water must be acquired through efficiency projects. See Schedule 6A.01.

³⁵ Basin Plan, cl. 7.15, Schedule 6.

³⁶ These are modelled outcomes.

³⁷ Basin Plan, cl. 7.11.

³⁸ Water Act, s. 21(4)(b).

³⁹ https://www.mdbrc.sa.gov.au/sites/g/files/net3846/f/issues-paper-round_2-mdbrc.pdf?v=1525066265

Annex A

24 February 2017

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.⁴⁰

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

⁴⁰ 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 2010⁴¹ 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.'⁴² 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.⁴³ 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.⁴⁴ 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.⁴⁵
- 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.

⁴¹ Dated 28 October 2010.

⁴² 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/>

⁴³ Water Act, s. 21(4)(b).

⁴⁴ From 941 in 2010 to 1013 in 2012. Data for the years thereafter was not made available.

⁴⁵ 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.⁴⁶ 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.'⁴⁷ 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).⁴⁸ 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,⁴⁹ for example in the Culgoa.⁵⁰

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.⁵¹

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.⁵² These include the Convention on Biological Diversity (**Biodiversity Convention**), Ramsar Convention, and a number of treaties protecting migratory birds.⁵³

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:

⁴⁶ Water Act, s. 21(4)(b).

⁴⁷ MBDA, Hydrologic Modelling for the Northern Basin Review, 2016 p. 3.

⁴⁸ MBDA, The Northern Basin Review. Understanding the economic, social and environmental outcomes from water recovery in the northern Basin, 2016, p. 2.

⁴⁹ Compared to the current 390 GL scenario.

⁵⁰ 'The likelihood of a healthy outer [Culgoa] floodplain is considerably reduced under the 320 GL and 278 GL scenarios': MBDA, *Environmental outcomes of the Northern Basin Review*, 2016, p. 110.

⁵¹ Water Act, s. 21(4)(b).

⁵² Water Act, ss. 3(b), 9.

⁵³ 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 depends⁵⁴.

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.⁵⁵ Specifically, it is proposed to return 12GL to the consumptive pool in the Macquarie catchment, and 14 GL in the Gwydir.⁵⁶

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.⁵⁷ There is also evidence to suggest that meeting these targets is not sufficient to restore the health of the Macquarie Marshes.⁵⁸ 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.⁵⁹ 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,⁶⁰ 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

⁵⁴ Williams and Kildea, note 3.

⁵⁵ 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).

⁵⁶ 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).

⁵⁷ 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).

⁵⁸ 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.

⁵⁹ <http://www.environment.gov.au/water/topics/wetlands/database/pubs/28-art-3-2-notification-20090717.pdf>

⁶⁰ 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'.⁶¹

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'.⁶² 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.⁶³
- 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.⁶⁴
- 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)).⁶⁵ We note that the removal of constraints in the Gwydir is discussed in the CMS.⁶⁶

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

⁶¹ 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'.

⁶² MDBA, *The Northern Basin Review - Understanding the economic, social and environmental outcomes from water recovery in the northern basin*, 2016, Appendix D, p. 52.

⁶³ Shepherding in the Barwon-Darling constitutes a PPM. See Basin Plan, cl. 7.15.

⁶⁴ For example, such rules may be required in order to properly implement PPMs, or the Ramsar Convention.

⁶⁵ Basin Plan, cl. 7.08.

⁶⁶ 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.⁶⁷ 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.⁶⁸ 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 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.

⁶⁷ As per cl. 6.12(4)(b).

⁶⁸ 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.

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.⁶⁹

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

⁶⁹ MDBA, *Proposed groundwater amendments to the Basin Plan – additional information*, November 2016.

Annex B
Basin Plan – Schedule 2 (Items 1 – 12 inclusive)

	Column 1	Column 2
Item	Surface water SDL resource unit (code)	Long-term average sustainable diversion limit for SDL resource unit
Queensland		
Warrego-Paroo-Nebine water resource plan area		
1	Paroo (SS29)	The limit is the BDL minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note: The Authority estimates the BDL to be 9.9 GL per year and therefore this limit is estimated to be 9.9 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.
2	Warrego (SS28)	The limit is the BDL minus 8 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note 1: The Authority estimates the BDL to be 128 GL per year and therefore this limit is estimated to be 120 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note 2: As of 30 June 2012, the reduction achieved is estimated to be 8 GL per year and thus the gap remaining is estimated to be zero GL per year in relation to the local reduction amount for this SDL resource unit.
3	Nebine (SS27)	The limit is the BDL minus 1 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note 1: The Authority estimates the BDL to be 31 GL per year and therefore this limit is estimated to be 30 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note 2: As of 30 June 2012, the reduction achieved is estimated to be 1 GL per year and thus the gap remaining is estimated to be zero GL per year in relation to the local reduction amount for this SDL resource unit.
Condamine-Balonne water resource plan area		
4	Condamine-Balonne (SS26)	The limit is the BDL minus 100 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note 1: The Authority estimates the BDL to be 978 GL per year and therefore this limit is estimated to be 878 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount. Note 2: As of 30 June 2012, the reduction achieved is estimated to be 28 GL per year and thus the gap remaining is estimated to be 72 GL per year in relation to the local reduction amount for this SDL resource unit.

	Column 1	Column 2
Item	Surface water SDL resource unit (code)	Long-term average sustainable diversion limit for SDL resource unit
Moonie water resource plan area		
5	Moonie (SS25)	<p>The limit is the BDL minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 84 GL per year and therefore this limit is estimated to be 84 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to exceed the local reduction amount of zero GL per year. It is estimated that 1 GL per year of held environmental water is available to contribute to the calculation of the SDL resource unit shared reduction amount for the SDL resource units in the northern Basin shared zone.</p>
Queensland Border Rivers water resource plan area		
6	Queensland Border Rivers (SS24)	<p>The limit is the BDL minus 8 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 320 GL per year and therefore this limit is estimated to be 312 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to be 4 GL per year and thus the gap remaining is estimated to be 4 GL per year in relation to the local reduction amount for this SDL resource unit.</p>
New South Wales		
Intersecting Streams water resource plan area		
7	Intersecting Streams (SS17)	<p>The limit is the BDL minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 114 GL per year and therefore this limit is estimated to be 114 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to exceed the local reduction amount of zero GL per year. It is estimated that 8 GL per year of held environmental water is available to contribute to the calculation of the SDL resource unit shared reduction amount for the SDL resource units in the northern Basin shared zone.</p>

	Column 1	Column 2
Item	Surface water SDL resource unit (code)	Long-term average sustainable diversion limit for SDL resource unit
Barwon-Darling Watercourse water resource plan area		
8	Barwon-Darling Watercourse (SS19)	<p>The limit is the BDL minus 6 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 198 GL per year and therefore this limit is estimated to be 192 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to exceed the local reduction amount of 6 GL per year. It is estimated that 16 GL per year of held environmental water is available to contribute to the calculation of the SDL resource unit shared reduction amount for the SDL resource units in the northern Basin shared zone.</p>
New South Wales Border Rivers water resource plan area		
9	NSW Border Rivers (SS23)	<p>The limit is the BDL minus 7 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 303 GL per year and therefore this limit is estimated to be 296 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to be 4.6 GL per year and thus the gap remaining is estimated to be 2.4 GL per year in relation to the local reduction amount for this SDL resource unit.</p>
Gwydir water resource plan area		
10	Gwydir (SS22)	<p>The limit is the BDL minus 42 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 450 GL per year and therefore this limit is estimated to be 408 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to exceed the local reduction amount of 42 GL per year. It is estimated that 8 GL per year of held environmental water is available to contribute to the calculation of the SDL resource unit shared reduction amount for the SDL resource units in the northern Basin shared zone.</p>
Namoi water resource plan area		
11	Namoi (SS21)	<p>The limit is the BDL minus 10 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 508 GL per year and therefore this limit is estimated to be 498 GL per year minus</p>

	Column 1	Column 2
Item	Surface water SDL resource unit (code)	Long-term average sustainable diversion limit for SDL resource unit
		<p>the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to exceed the local reduction amount of 10 GL per year. It is estimated that 7 GL per year of held environmental water is available to contribute to the calculation of the SDL resource unit shared reduction amount for the SDL resource units in the northern Basin shared zone.</p>
Macquarie-Castlereagh water resource plan area		
12	Macquarie-Castlereagh (SS20)	<p>The limit is the BDL minus 65 GL per year (local reduction amount) minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 1: The Authority estimates the BDL to be 734 GL per year and therefore this limit is estimated to be 669 GL per year minus the SDL resource unit shared reduction amount plus the SDL adjustment amount.</p> <p>Note 2: As of 30 June 2012, the reduction achieved is estimated to exceed the local reduction amount of 65 GL per year. It is estimated that 24 GL per year of held environmental water is available to contribute to the calculation of the SDL resource unit shared reduction amount for the SDL resource units in the northern Basin shared zone.</p>