Submission on the proposed Murray-Darling Basin Plan

The Australian Network of Environmental Defender’s Offices (ANEDO) consists of nine independently constituted and managed community environmental law centres located in each State and Territory of Australia. Each EDO is dedicated to protecting the environment in the public interest. EDOs provide legal representation and advice, take an active role in environmental law reform and policy formulation, and offer a significant education program designed to facilitate public participation in environmental decision making.

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1. Introduction

The Australian Network of Environmental Defender’s Offices (ANEDO) is a network of 9 community legal centres in each state and territory, specialising in public interest environmental law and policy. Our offices have been involved in the development of the Commonwealth Water Act 2007 (Water Act) since its inception, and have had extensive involvement in the development of the Basin Plan to date, advising environment groups on the development of the Basin Plan, attending meetings with the Murray-Darling Basin Authority (MDBA), giving evidence at Parliamentary inquiries and making submissions to the MDBA.

As lawyers, our submission focuses on the legal issues with the Proposed Basin Plan (draft Plan). In particular we focus on two things:

1) areas where the draft Plan does not comply with the Water Act;

2) areas where the draft Plan complies with the Act, but could be improved to better meet the objectives of the Water Act.

EDO Victoria recently released its legal analysis of the draft Basin Plan. This submission builds on that legal analysis but covers a broader number of issues and gives additional recommendations for how the draft Plan can be improved. In particular this submission includes a detailed analysis of what is required to give effect to international instruments as required by the Water Act.

ANEDO believes that having a robust and effective Basin Plan is vitally important for the future of the Murray-Darling Basin. In our view, although there are a number of problems with the legal instrument itself, most of these issues could be resolved with minor changes. The major legal issue is not with the legal instrument itself, but with the way decisions have been made regarding the environmentally sustainable level of take and the sustainable diversion limits (SDLs). This too can be addressed if the MDBA reconsidered its approach to setting SDLs to ensure it aligned with the Act. We urge the government to continue to improve the Basin Plan so that it can meet the objectives set out for it by Parliament.

2. Executive Summary

The key purpose of the Water Act is to return extraction in the Basin to long term sustainable levels to support both the ecosystems that depend on the Basin and continued productive use of the Basin.
ANEDO believes that having a robust effective Basin Plan is vitally important for the future of the Murray-Darling Basin. In our view the Proposed Basin Plan (draft Plan) does not comply with the Act in a number of respects. In addition, it is clear from the draft Plan and the associated explanatory materials that the approach that has been taken in the development and drafting of the Basin Plan has been to consistently give provisions their weakest interpretation and/or give effect to them in the weakest way.

Although there are a number of problems with the legal instrument itself, most of these issues could be resolved with minor changes. The major legal issue is not with the legal instrument itself, but with the way the MDBA has made decisions regarding the environmentally sustainable level of take and the sustainable diversion limits. The considerations it has used to make these decisions do not accord with the requirements of the Act and therefore the Plan may be invalid. These issues could be resolved if the MDBA reconsidered its approach to setting SDLs to ensure it aligned with the Act. We urge the government to continue to improve the Basin Plan so that it can meet the objectives set out for it by Parliament.

Summary of recommendations:

Management objectives:

- In order to ensure full compliance with the intent of the Water Act, the draft Plan should adopt the language of the Act and ensure that its objectives fully align with the Act’s objectives.

- The management objective for the Basin Plan as a whole in 5.02 should reflect the language and objectives of the Water Act, particularly sections 3, 20 and 21.

- The management objectives for the SDLs in 5.05 should include the objective of protecting and restoring ecosystems and maintaining ecosystem function and the productive base of the system as per the language and objectives of the Water Act.

Calculating the environmentally sustainable level of take and sustainable diversion limit:

- The MDBA should recalculate the environmentally sustainable level of take (ESLT) based on an uncompromised assessment of what is required to maintain a healthy environment, and to maintain the ecosystem services that allow production to continue. Potential negative social and economic impacts, system constraints, State Government interests or any other matter should not be factored in to the calculation of the ESLT. The ESLT should be calculated with reference to what the ESLT characteristics are for the Basin, and how much water they will need to maintain their function and health.
• The MDBA should use a management objective for the Basin that accords with the Act as stated in the recommendation above, and use that objective to frame its consideration of the ESLT.

• Instead of prioritising social and economic concerns and system constraints, the MDBA should recalculate the SDLs by determining the maximum long term average annual quantity of water that can be taken from the Basin on a sustainable basis, ensuring that it reflects the ESLT and gives effect to the international agreements. Once this is determined, the MDBA should achieve the SDLs in such a way that it optimises economic, social and environmental outcomes.

• Although socio-economic impacts are relevant to determining SDLs, the possibility of negative socio-economic impacts cannot be used as a reason to reduce the SDLs to the point where they are no longer sustainable and are compromising the ESLT characteristics and failing to meet the requirements of the international agreements.

• The SDLs must be recalculated to ensure they are set at a level that protects and restores key parts of the environment as per the MDBA’s own identification of ESLT characteristics.

• If it is not possible to meet all the ESLT characteristic requirements at the present time, with the present operating system and the present level of scientific knowledge, the MDBA should develop a pathway that will achieve that over time. It is not open to the MDBA to abandon that goal in favour of a lesser objective.

• If there is a lack of scientific knowledge about sustainability of resources in some parts of the Basin a precautionary approach must be taken in line with the precautionary principle.

Consideration of system constraints:

• Although system constraints are a relevant consideration in making the Basin Plan, there is no indication in the Water Act that they should override the key objectives of the Water Act or the Plan. Therefore the Water Act indicates that while constraints must be taken into account, they must be discounted wherever possible, and for those that can’t, work should be done to lessen their impact so that the objectives of the Act can be met.

• Reconsideration of constraints must occur before 2019 when the SDLs will be set and come into force and another amendment of the Basin Plan would be required.
If constraints are a barrier to achieving the requirements of the Act, it should be clearly stated how constraints will impact the outcomes, with a program outlined in the draft Plan as to how they will be overcome.

Any removal of constraints should lead to more water being returned to the system, rather than more water being given to consumptive use consistent with the objectives of the Act.

Increase to groundwater extraction:

- Unless the MDBA can provide scientific evidence that establishes that increasing groundwater extraction by the amount set out in the draft Plan is sustainable according to the requirements of the Act, the Basin Plan should require a decrease in groundwater extraction in accordance with the currently available science.

- The MDBA should ensure that proposed SDLs for all surface water systems take account of SDLs in relevant groundwater systems, unless the surface water system is definitively known to have no connection to groundwater.

- The MDBA should be wary of putting the Commonwealth in the situation of allowing significant increases in groundwater extraction based on inadequate scientific information, only to require massive decreases in future years when full scientific evidence and effects of climate change become apparent. This could open the Commonwealth to massive liability and cause significant and unnecessary impacts on water users who took up the offer of increased groundwater use only to lose their water rights under future Basin Plans.

2015 review of the SDLs:

- The language which evidences bias towards increasing SDLs is not reflective of the Water Act and therefore must be removed from the explanatory materials or this may affect interpretation and implementation of the draft Plan.

- The draft Plan should set out in more detail the factors that must be considered in the review including the latest climate modelling and the latest science on the environmental requirements of the Basin.

Implementation of international agreements:

- The MDBA should conduct a thorough analysis of all international agreements listed in the Water Act, particularly the Biodiversity Convention and Ramsar
Convention, with a view to ensuring that the Basin Plan upholds the obligations contained in those agreements.

- The MDBA should set out in detail how the Basin Plan will meet the requirements of the international agreements.

- Where the requirements of the international agreements are not likely to be met under the current draft Plan, the MDBA should revisit and redesign those elements of the draft Plan that can assist in meeting international obligations. For example, it should ensure that enough water will be available to meet its environmental targets so that Ramsar wetlands and important areas of biodiversity are restored and protected.

- Under both the Biodiversity Convention and Ramsar Convention, the projected impacts of climate change must be considered when determining water allocations in the Murray-Darling Basin.

Consideration of climate change:

- The MDBA should incorporate climate change projections into its modelling rather than relying on historical variations which are not a true indicator of likely climate change variations. It should take scientific advice on the most appropriate climate change scenario to incorporate, using a precautionary approach.

Environmental and water quality and salinity targets:

- The environmental and water quality and salinity targets in the draft Plan should be binding.

- If there are concerns around the ability to meet the targets as soon as the Basin Plan comes into force and/or around the ability of the States to meet them 100% of the time, two options could be included in the Basin Plan:

  1. If there are standards to address water quality and environmental problems that are highly desirable, but the States do not believe they can currently be met, the draft Plan should include a pathway to achieving them over time. Lower targets could be set in the initial years that increase over time to achieve the level of water quality and environmental quality that is necessary to meet water quality and environmental objectives. This would provide realistic binding targets that the States must comply with, and clear pathway to achieving objectives.
2. If States are concerned that due to climatic and other unforeseeable events it will be impossible to meet water quality and environmental targets 100% of the time, the Basin Plan should include binding targets but state that they only need to be met (say) 90% of the time, and include criteria for the circumstances under which the targets do not have to be met.

Compliance provisions:

- The SDLs should be binding on all States with 0% leeway, with discretion for the MDBA to not declare non-compliance up to 20% if the State has a reasonable excuse.
- The draft Plan should contain some criteria of the types of circumstances that will constitute a reasonable excuse so that all stakeholders are aware of this from the outset.
- To avoid negative impacts from a State using up its cumulative credits the Basin Plan should include rules that determine limits to the amount of credit that can be accumulated, and how and when States can use any credit accumulated.

Reliability of entitlements:

- Clause 9.09(2) should be removed from the draft Plan to remove the uncertainty and weakening of water resource plan obligations. Clause 9.09(1) is a strong enough statement of intent in relation to preserving reliability.

Full discussion of these issues is set out below.

3. The purpose of the Water Act and the Murray-Darling Basin Plan

The key purpose of the Water Act is to return extraction in the Basin to long term sustainable levels to support both the ecosystems that depend on the Basin and continued productive use of the Basin. It does this by requiring the development and implementation of a Basin Plan that gives effect to relevant international agreements, sets sustainable extraction levels based on best available science, and optimises social, economic and environmental outcomes. Other purposes of the Basin Plan are to improve water security for all users and for water to reach its most productive use through efficient water trading.

The aim of the Basin Plan is to manage water resources in the Basin in a way that is environmentally sustainable, protects ecosystems, improves water security for all uses of Basin

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1 This can be seen through the objects of the Act, the purpose and basis of the Basin Plan in ss3, 20 &21.
2 Water Act 2007 ss 20, 21, 22.
3 Water Act 2007 s23
water resources, and allows efficient trade so that water can go to its most productive use. An important consideration when developing Basin Plan is how the use of Basin water resources has negatively impacted on biodiversity and ecosystems, particularly Ramsar wetlands, and the requirement to implement special measures and wise use of Basin water resources to protect and restore those ecosystems.

The Water Act and the Basin Plan are based on a recognition that current extraction levels are unsustainable and have been for a number of years, and that this is causing environmental degradation, impacting on human use of the water (e.g. through salinity), and affecting water security for all users. The purpose of the Basin Plan is to return extraction to sustainable levels to fix those problems. It is clear from the provisions of the Water Act that the requirement in the Act to reduce extraction levels is not solely aimed at ensuring the health of Basin ecosystems; it is also an attempt to make extraction sustainable to ensure human use of the resource can continue.

Comments on the general approach to developing the Basin Plan

In interpreting the Water Act, provisions can be categorised into three main types:

- Those where the requirements in making the Basin Plan are quite clear.

- Those where the Water Act provides some discretion as to how the requirements of the Act can be achieved.

- Those that contain some flexibility in the way they can be interpreted, as the drafting does not point to one overriding meaning.

In our view the Proposed Basin Plan (draft Plan) does not comply with the Act in a number of respects. Specific analysis of the key legal flaws with the draft Plan is set out from section 4 below.

In addition, from our review of the draft Plan and the associated explanatory materials it appears that the approach that has been taken in the development and drafting of the Basin Plan has been to consistently give provisions their weakest interpretation and/or give effect to them in the weakest way. Instances of when this has occurred are outlined below. This has the

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4 *Water Act 2007* s21
5 *Water Act 2007* s21
6 This intent can be seen throughout the Act, in particular in s3, the definition of ‘environmentally sustainable level of take’ in s4, ss20 & 21, and in the explanatory memorandum. This is discussed further below.
7 For example the SDL provisions, the need to give effect to international agreements, the contents of the Basin Plan.
8 For example the determination of what is a ‘key environmental asset’ & ‘key ecosystem function’.
9 For example the requirement to make water quality and salinity targets could be interpreted as requiring binding targets, or allowing the option of non-binding targets.
effect of weakening the Plan and making it more difficult to meet the objectives and purposes of the Water Act. Although it may legally permissible to take this path, it is against the spirit and intent of the Act, and the purpose for which the MDBA was established.

This first iteration of the Basin Plan is especially important as it sets up the frameworks and procedures and institutional arrangements that, once established, will likely continue through many further iterations of the Basin Plan and Australian water management more generally. If a weak approach is adopted to setting up these structures in order to avoid inter-State or political ramifications it will impact water management for far longer than this first Basin Plan. This first iteration of the Basin Plan should be used to set up frameworks and procedures and institutional arrangements that will provide the best possible opportunity of achieving the purposes of the Water Act into the future.

4. Management objectives of the Basin Plan

Background

The Water Act requires the Basin Plan to contain ‘management objectives and outcomes to be achieved by the Basin Plan’. Although they are not operational in the sense that they are not mandatory requirements that must be achieved, they set the scope and tone for the rest of the Basin Plan and provide parameters that other elements of the Basin Plan should be aligned with. The Water Act states that the management objectives and outcomes must be consistent with the purposes in s20 of the Act, and must address environmental outcomes, water quality and salinity, sustainable diversion limits and trading in water access rights.

The Problem

Rather than take management objectives directly from the Water Act, the objectives that appear in the draft Plan appear to reflect a deliberate shift away from the Act. However, the Act does not allow the MDBA to shift from the Act’s objectives to pursue divergent objectives.

Two objectives in particular don’t wholly accord with the Act - the objectives for the Basin Plan as a whole in clause 5.02 and the objectives for the SDLs in clause 5.05.

The management objectives for the Basin Plan as a whole in 5.02 focus on achieving a ‘healthy working basin’ and the optimisation of economic, social and environmental outcomes. They also mention the international agreements and water security. This is a very selective choice of objectives and in fact leaves out the main objective of the Act and Basin Plan which is establishing environmentally sustainable limits on the water that can be taken from the Basin.

The management objectives for the SDLs in 5.05 similarly focus disproportionately on
economic considerations such as recovering water through water use efficiency, improving certainty for water users and providing time for entitlement holders to adjust to the SDLs. These are all valid objectives for the SDL, but more relevant for the SDL objectives is to protect and restore ecosystems and maintain ecosystem function and the productive base of the system, none of which are mentioned in the SDL objectives. A limited reference to protection of ecosystems in light of climate change only appears in the management outcomes\textsuperscript{11}.

**Recommendations**

- In order to ensure full compliance with the intent of the Water Act the draft Plan should adopt the language of the Act and ensure that its objectives fully align with the Act’s objectives.

- The management objective for the Basin Plan as a whole in 5.02 should reflect the language and objectives of the Water Act, particularly sections 3, 20, 21.

- The management objectives for the SDLs in 5.05 should include the objective of protecting and restoring ecosystems and maintaining ecosystem function and the productive base of the system as per the language and objectives of the Water Act.

**5. Determining the environmentally sustainable level of take and sustainable diversion limits**

The key component of the Water Act and the Basin Plan is the requirement to establish sustainable diversion limits (SDLs) across the Basin.

We have two primary concerns about the way the SDL have been calculated – 1) concerns about possible negative social and economic impacts have been prioritised above the question of what is sustainable, and 2) the SDLs in the draft Plan appear likely to compromise many parts of the environment. In our view this is the key area in which the draft Plan does not comply with the Water Act. These issues are discussed in detail below.

The Basin Plan must set sustainable extraction limits for the Basin – the SDLs. The SDLs are described in the Water Act as the maximum long term average annual average quantities of water that can be taken on a sustainable basis from the Basin or a part of the Basin.\textsuperscript{12} SDLs must reflect an ‘environmentally sustainable level of take’ (ESLT).\textsuperscript{13} ESLT is defined as the level at which water can be taken from the water resource which, if exceeded, would

\textsuperscript{10}Water Act 2007 s22 item, 4
\textsuperscript{11} In clause 5.05(2)(a)
\textsuperscript{12} Water Act 2007 s22 item 6
\textsuperscript{13} Water Act 2007 s23
compromise key ecosystem functions, key environmental assets, the productive base of the water resource, and key environmental outcomes including ecosystem function, biodiversity, water quality and water resource health.\textsuperscript{14} It should be noted that this definition is focused not just on maintaining healthy ecosystems, but also ensuring the natural physical processes that support human use of the Basin can continue to function (i.e. removal of pollution and salt, preventing algal blooms etc). In part, this is referred to in the Act as the productive base. Essentially, the ESLT is the level of water that can be taken out of the system for human use without compromising the environment and the productive base of the system.

**Calculating the environmentally sustainable level of take**

**Background**

The first step in determining the SDLs is to calculate the ESLT for the Basin.

The clear directive of the Act for determining the ESLT is that it must be a level which if exceeded would not compromise key environmental assets, key ecosystem functions, the productive base of the resource and key environmental outcomes (termed ‘ESLT characteristics’ hereafter). Essentially it is supposed to be an uncompromised calculation of what is required to maintain a healthy environment, and to maintain the ecosystem services that allow production to continue. There is no provision at this stage to factor in any potential negative social and economic impacts, any system constraints, any State Government interests or any other matter. The two things required here are to determine what the ESLT characteristics are for the Basin, and then how much water they will need to maintain their function and health. As there is no further guidance in the Act on the ESLT characteristics, the MDBA has some discretion in how to determine those ESLT characteristics, provided it is consistent with the objectives and provisions of the Act.

**The problem**

Rather than determining the ESLT in the method described above, the ESLT is based on a mix of environmental, socioeconomic and operational factors\textsuperscript{15} For example supporting documents to the draft Plan state that the calculation of the ESLT ‘incorporates the assessment of the social and economic benefits and costs to changes in water use’ and ‘provides for the integration of environmental, social and economic considerations at several key decision points’.\textsuperscript{16} For example in determining the flow requirements of key environmental assets the MDBA has factored in local water management arrangements and physical and operational

\textsuperscript{14} *Water Act 2007* s4
\textsuperscript{15} See in particular part 6.2.2 of Murray-Darling Basin Authority, *The proposed ‘environmentally sustainable level of take’ for surface water of the Murray-Darling Basin: methods and outcomes*, November 2011.
constraints in the system that prevent environmental water from being delivered. In our view these are irrelevant considerations under administrative law and therefore cannot be used to make a decision regarding the ESLT.

There is no evidence that an uncompromised ESLT for the Basin has been determined in developing the Basin Plan. This is partly supported by the MDBA’s statement that a reduction amount was chosen, and then the environmental outcomes that could be achieved from that amount were modeled, rather than the other way around.

Further, the MDBA has adopted the overall management objective of “achieving a healthy working Murray-Darling Basin, including a healthy environment, strong communities and a productive economy” and then determined the ESLT that aligns with this objective. However as noted in part 4 above there is no legal basis for this objective – it does not does not accord with the Act and is not consistent with the ESLT definition. It is not open to the MDBA to choose an objective that does not accord with the Act. Doing so may be considered ultra vires in administrative law. Framing the ESLT in this way distorts the entire consideration of the ESLT.

Calculating the sustainable diversion limits

Once the ESLT characteristics are defined and the ESLT is determined, the SDLs can be developed.

Background

As noted above the SDLs are the maximum long term average annual average quantities of water that can be taken on a sustainable basis from the Basin or a part of the Basin and must reflect an ‘environmentally sustainable level of take’. The Act does not contain a definition of ‘sustainable’, however the explanatory memorandum for this provision of the Water Act states that “the intention is to ensure that water is taken from Basin water resources on an environmentally sustainable basis rather than based on historical levels of surface water use as is the case for current long-term diversion caps set under Schedule F of the Murray-Darling Basin Agreement.”

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18 See for example p 18 of Murray-Darling Basin Authority, *The proposed ‘environmentally sustainable level of take’ for surface water of the Murray-Darling Basin: methods and outcomes*, November 2011
19 Murray-Darling Basin Authority, *The proposed ‘environmentally sustainable level of take’ for surface water of the Murray-Darling Basin: methods and outcomes*, November 2011, p. 2
20 *Water Act 2007* s22 item 6
21 *Water Act 2007* s23
22 Explanatory Memorandum Water Bill 2007, 10 August 2007, para 54.
The way this provision is drafted indicates that the concept of SDLs is broader than that of the ESLT. It must reflect the ESLT but does not necessarily have to be the same number.

A fundamental requirement of the Act is that Basin Plan must give effect to Australia’s obligations under treaties such as the Ramsar Convention and the Convention on Biodiversity. The primary way to do this is through the SDLs (i.e. ensuring there is enough water in the system to meet the requirements of those treaties). The requirements for properly implementing the international agreements is discussed in Part 9 below.

Although much prominence has been given in the debates on the Basin Plan to the requirement to ‘optimise environmental, social and economic outcomes’ this is not in fact a priority requirement of the Act. The requirement to ‘optimise’ is mentioned twice in the Act, in the s3 objectives of the Act and the s20 purposes of the Basin Plan. It is a lower order requirement than many of the others in the Act, as it is mentioned only in guiding provisions (purposes and objectives) rather than operational provisions, and in the objects provision is expressed to be subject to the requirement to give effect to international agreements. This does not mean that socio-economic issues are irrelevant to the SDLs – they are relevant and must be considered as discussed below.

The primary requirement when setting the SDLs is therefore to determine the maximum long term average annual quantity of water that can be taken from the Basin on a sustainable basis, ensuring that it reflects the ESLT and gives effect to the international agreements. There is some discretion allowed to determine what is sustainable at this stage. Once this is determined, the MDBA should achieve the SDLs in such a way that it optimises economic, social and environmental outcomes. The MDBA has discretion as to how to do this – for example it could include measures such as allocating SDLs to water resource areas according to where it will have the least socio-economic impact (provided ESLT characteristics are not compromised).

If it were not possible to meet all the ESLT characteristic requirements at the present time, with the present operating system and the present level of scientific knowledge, the MDBA should develop a pathway that will achieve that over time. It is not open to the MDBA to abandon that goal in favour of a lesser objective. Further if there is a lack of scientific knowledge about sustainability of resources in some parts of the Basin a precautionary approach must be taken in line with the precautionary principle.23

Therefore although socio-economic impacts are relevant to determining SDLs, the possibility of negative socio-economic impacts cannot be used as a reason to reduce the SDLs to the point where they are no longer sustainable and are compromising the ESLT characteristics and failing to meet the requirements of the international agreements. If this occurred the Basin

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23 The precautionary principle is a relevant consideration when making the draft Plan under s21(4).
Plan would not meet the purpose of the Water Act which is to achieve sustainable extraction levels in the Basin.

The problem

The MDBA’s approach to determining SDLs does not accord with the above analysis. There appear to be two main flaws with the way the SDLs have been calculated – 1) concerns about possible negative social and economic impacts have been prioritised above the question of what is sustainable, and 2) the SDLs that have been set appear likely to compromise many parts of the environment.

Prioritising socio-economic impacts

The SDL for the Basin is set at the same level as the ESLT – 10,873GL. This indicates that the SDL suffers from the same problems as the ESLT does – that concerns about socio-economic factors have been a determining factor in setting the SDLs rather than being used for optimisation after the SDL has been determined. Further, as the SDL must reflect the ESLT, it would be near impossible to have a proper calculation of the SDL if the method for determining the ESLT is flawed. The calculation of the SDL therefore relies on an irrelevant consideration and may therefore be unlawful.

There are many other provisions in the Act that consider socio-economic impacts and provide ways to minimise any negative impacts on those affected. This includes transitional provisions allowing SDLs to be phased in over a number of years, as well as lag time for WRPs to come into force. In addition the Government’s commitment to buy back or pay for irrigation upgrades for all water needed to achieve the SDL significantly reduces the impact on water users. Reducing the SDLs to avoid negative socio-economic impacts is not one of options provided by the Act, as it will not help to achieve the key purpose of the Act which is sustainable extraction.

Failure to meet environmental requirements

As noted above, the SDLs must reflect the ESLT, which requires the ESLT characteristics to not be compromised.

It is outside our expertise to comment on whether the method for determining ESLT characteristics, environmental targets and water requirements is valid. However we note the CSIRO review of the validity of the ESLT determination, including environmental targets. The CSIRO review states that the proposed SDLs do not achieve the majority of the targets, and that higher SDLs should be modelled in order to properly assess what higher SDL levels

24 CSIRO Science Review of the Environmentally Sustainable Level of Take for the Murray Darling Basin November 2011
could achieve.25 The report states “the proposed SDLs would be highly unlikely to meet specified ecological targets even in the absence of future climate change”.26 CSIRO also states that it is not clear how the proposed SDLs were arrived at, but presume it reflects socio-economic considerations.27

The Act does not allow the environmental requirements to be compromised in this way – it is contrary to both the intent and the letter of the Act. The Act clearly provides that the Basin Plan and SDLs must be set at sustainable levels that protect and restore key parts of the environment28. The MDBA has identified what those key parts are through its environmental targets, but the SDLs it proposes will fail to meet the majority of them according to CSIRO. This does not comply with the Act.

Recommendations

- The MDBA should recalculate the ESLT based on an uncompromised assessment of what is required to maintain a healthy environment, and to maintain the ecosystem services that allow production to continue. Potential negative social and economic impacts, system constraints, State Government interests or any other matter should not be factored in to the calculation of the ESLT. The ESLT should be calculated with reference to what the ESLT characteristics are for the Basin, and how much water they will need to maintain their function and health.

- The MDBA should use a management objective for the Basin that accords with the Act as outlined in the recommendation above, and use that objective to frame its consideration of the ESLT.

- Instead of prioritising social and economic concerns and system constraints, the MDBA should recalculate the SDLs by determining the maximum long term average annual quantity of water that can be taken from the Basin on a sustainable basis, ensuring that it reflects the ESLT and gives effect to the international agreements. Once this is determined, the MDBA should achieve the SDLs in such a way that it optimises economic, social and environmental outcomes.

- Although socio-economic impacts are relevant to determining SDLs, the possibility of negative socio-economic impacts cannot be used as a reason to reduce the SDLs to the point where they are no longer sustainable and are compromising the ESLT characteristics and failing to meet the requirements of the international agreements.

25 CSIRO Science Review of the Environmentally Sustainable Level of Take for the Murray Darling Basin November 2011 p29
26 CSIRO review p 30
27 CSIRO Science Review of the Environmentally Sustainable Level of Take for the Murray Darling Basin November 2011 p30
28 See s23 and the definition of ‘environmentally sustainable level of take’ in s4; and s21(1)-(5) of the Water Act.
- The SDLs must be recalculated to ensure they are set at a level that protects and restores key parts of the environment as per the MDBA’s own identification of ESLT characteristics.

- If it is not possible to meet all the ESLT characteristic requirements at the present time, with the present operating system and the present level of scientific knowledge, the MDBA should develop a pathway that will achieve that over time. It is not open to the MDBA to abandon that goal in favour of a lesser objective.

- If there is a lack of scientific knowledge about sustainability of resources in some parts of the Basin a precautionary approach must be taken in line with the precautionary principle.

6. The MDBA’s consideration of constraints in setting SDLs

Background

It is clear that system constraints were a very important limiting factor in setting SDLs.\(^{29}\) The MDBA has stated that it would be very difficult to return more than 2750GL to the system because physical and operating constraints would prevent that water from being delivered. It is clear that this has had a strong influence in the decision making process when setting the SDLs.\(^{30}\)

The problem

From a legal perspective it is questionable whether such strong weight can be given to such a consideration. The Water Act does not mention the concept of ‘constraints’. However the Act acknowledges that there is currently productive use of the Basin and that this will continue, thereby acknowledging the altered state of the Basin\(^{31}\). In addition, constraints could be considered to be one of the socio-economic factors that must be optimised once other requirements are met. Constraints are therefore relevant to the determination of how the Basin should be managed.

However, although constraints must be considered, there is no indication in the Water Act that they should override the key objectives of the Water Act or the Plan – i.e. to give effect to


\(^{30}\) See for example Murray-Darling Basin Authority, *The proposed ‘environmentally sustainable level of take’ for surface water of the Murray-Darling Basin: methods and outcomes*, November 2011 p 3

\(^{31}\) See for example s3, s20, s21(4)
international agreements, and to return extraction to sustainable levels. Therefore the Water Act indicates that while constraints must be taken into account, they must be discounted wherever possible, and for those that can’t, work should be done to lessen their impact so that the objectives of the Act can be met. This would require an active program to remove or minimise constraints to ensure that the SDLs do meet the requirements of the Act as soon as possible.

This does not appear to be the current approach of the MDBA. A number of constraints have been identified but no solutions to overcome those constraints has been proposed so that the SDLs are not as greatly affected by them.

There are problems with the current treatment of constraints beyond the interpretation issue. The MDBA has said that constraints will be assessed by the 2015 review or the 2019 implementation of the SDLs. They have also said that if constraints can be overcome by the 2015 review date, that can result in the SDLs being increased (i.e. in less water being returned to the system from consumptive use). There are two problems with this position. The first is that it is too late by 2019 to be overcoming constraints. As constraints have been a key factor in determining the SDL, a program to overcome constraints must be in place as soon as possible so that the SDLs can be adjusted to take account of that. By 2019 the SDLs will be set and it will require another amendment to the Basin Plan to change them.

Secondly the MDBA’s statement that removal of constraints can lead to more water being retained for consumptive use is illogical. If constraints are a key reason why more than 2750GL cannot be returned to the system, then removal of constraints should allow that number to increase not decrease. If the MDBA use removal of constraints as an opportunity to decrease the 2750GL figure then their claim that constraints is a key reason more water cannot be returned to the environment must be false.

Recommendations

- Although system constraints are a relevant consideration in making the Basin Plan, there is no indication in the Water Act that they should override the key objectives of the Water Act or the Plan. Therefore the Water Act indicates that while constraints must be taken into account, they must be discounted wherever possible, and for those that can’t, work should be done to lessen their impact so that the objectives of the Act can be met.

- Reconsideration of constraints must occur before 2019 when the SDLs will be set and come into force and another amendment of the Basin Plan would be required.
If constraints are a barrier to achieving the requirements of the Act, it should be clearly stated how constraints will impact the outcomes, with a program outlined in the draft Plan as to how they will be overcome.

Any removal of constraints should lead to more water being returned to the system, rather than more water being given to consumptive use consistent with the objectives of the Act.

7. Increases to groundwater extraction

Background

The draft Plan proposes an increase to ground water extraction of more than double the current extraction levels. According to the Wentworth Group of Concerned Scientists, there is no publicly available peer reviewed science to show this increase is sustainable. They state that the publicly available science, including the previous work of the MDBA to develop the Guide to the Plan, supports the need for a decrease in groundwater extraction in order to reach sustainable levels. 32 The MDBA has not released scientific evidence to support its proposed increases.

In the case of Victoria, the draft Plan proposes to increase extraction in 7 of the 15 SDL resource areas, and maintain current levels of extraction in 7 resource areas. Only one resource area has a recommended decrease. 33 The MDBA has therefore determined that the current levels of extraction set by the Victorian Government are sustainable in 14 of the 15 resource areas. However the Victorian Auditor-General found in October 2010 that the Victorian Government did not know whether current groundwater extraction levels were sustainable as the Government did not have adequate information on stocks, extraction and recharge rates, or the interconnection between groundwater and surface water. 34 The MDBA has not released any information to indicate that they have more data now to support this conclusion than when the audit was conducted.

33 See Plain English Summary p88.
The problem

In the absence of scientific evidence to justify the increase to groundwater extraction across the Basin, then the proposed substantial increase in groundwater extraction goes against the fundamental purpose of the Act which is to ensure that extraction is set at long term sustainable levels. As noted above, the MDBA has no power to make decisions outside this legal framework, regardless of any political, social or economic justification. In particular, if there is no scientific basis for the increase then the MDBA’s approach breaches two key requirements of the Water Act: - that SDLs be set at sustainable extraction levels as outlined in Part 3 above; and the requirement to for the MDBA to act on the best available science.35

A further important requirement is for the MDBA to act in accordance with the precautionary principle.36 Case law has stated that the precautionary principle will apply in decision-making where there is a threat of serious or irreversible environmental damage and scientific uncertainty as to the environmental damage.37 For example, in 2010 the Victorian Civil and Administrative Tribunal held that a water authority could not issue a groundwater licence until there was greater scientific certainty as to the sustainability of extraction from the groundwater resource.38 If the MDBA does not have enough scientific evidence to determine whether groundwater extraction should increase or decrease the precautionary principle requires it to take a conservative approach.

The groundwater increase also has implications for the setting of surface water SDLs. The National Water Commission has stated that groundwater and surface water systems should be treated as being connected, unless there is clear proof that they are not.39 Many of the surface and groundwater systems in the Basin are connected, and in some systems the level of connectivity is unknown.40 Increasing groundwater extraction will therefore have a direct impact on surface water SDLs in many of the systems in the Basin. A proposed increase in groundwater extraction therefore must be taken into account when setting surface water SDLs, and in most cases would require more water being removed from consumptive use than would be required if groundwater extraction were to remain the same. According to the Wentworth Group the MDBA’s current modelling for surface water SDLs does not factor in groundwater.41

35 Water Act 2007 s21(4).
37 Telstra Corporation v Hornsby Shire Council (2006) 67 NSWLR 256
38 Alanvale Pty Ltd & Anor v Southern Rural Water & Ors[2010] VCAT 480
40 Wentworth Group of Concerned Scientists, Statement on the 2011 draft Murray-Darling Basin Plan, January 2012, p13
Recommendations

- Unless the MDBA can provide scientific evidence that establishes that increasing groundwater extraction by the amount set out in the draft Plan is sustainable according to the requirements of the Act, the Basin Plan should require a decrease in groundwater extraction in accordance with the currently available science.

- The MDBA should ensure that proposed SDLs for all surface water systems take account of SDLs in relevant groundwater systems, unless the surface water system is definitively known to have no connection to groundwater.

- The MDBA should be wary of putting the Commonwealth in the situation of allowing significant increases in groundwater extraction based on inadequate scientific information, only to require massive decreases in future years when full scientific evidence and effects of climate change become apparent. This could open the Commonwealth to massive liability and cause significant and unnecessary impacts on water users who took up the offer of increased groundwater use only to lose their water rights under future Basin Plans.

8. 2015 review of SDLs

Background

The draft Plan includes a provision for a 2015 review of the SDLs. In theory the review may result in a recommendation to amend the SDLs up or down.

The problem

Although the MDBA should not fetter its discretion by pre-empting the outcome of the review, language in the plain English summary of the draft Plan does that. It states “Between now and 2015 we can expect to learn more about the river system…this may mean the 1468GL proposed for recovery could be reduced significantly – perhaps in the order of hundreds of gigalitres.” This view is echoed in regards to the constraints issue – the MDBA states that if constraints are removed and environmental outcomes can be achieved with less water the 2015 review would allow the SDLs to increase (i.e. more water for consumption).

There is no acknowledgement in the explanatory documents that the 2015 review could also result in the SDLs being decreased, for e.g. due to factors such as new knowledge about the

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42 Proposed Basin Plan cl 6.07
43 Plain English Summary p-viii
needs of the system or better understanding of climate impacts, or advances in irrigation and farming water efficiency. The language indicates that the MDBA already has a bias towards the review resulting in an increase to consumptive water. It is not open to the MDBA to fetter its discretion in this way.

**Recommendations**

- The language which evidences bias towards increasing SDLs is not reflective of the Water Act and therefore must be removed from the explanatory materials or this may affect interpretation and implementation of the draft Plan.

- The draft Plan should set out in more detail the factors that must be considered in the review including the latest climate modelling and the latest science on the environmental requirements of the Basin.

**9. Implementation of international agreements**

**Background**

An important element of the Basin Plan is giving effect to the international agreements listed in the Water Act. The Basin Plan derives the majority of its constitutional validity from the ‘relevant international agreements’ listed in the Water Act. These international agreements are defined to include eight environmental treaties to which Australia is signatory. The Act states that the Basin Plan must give effect to these agreements to the extent that they are relevant to the use and management of Basin water resources.

While the Basin Plan does include implementation of relevant international agreements as a management objective, this is a high-level goal that is not supported by additional provisions specifying how it will be executed. That is, neither the Basin Plan nor its associated documentation set out firstly what is required under these agreements, and secondly how the Plan will give effect to these requirements.

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44 MDBA, River management – challenges and opportunities, 25 November 2011, p4
45 This section of the submission provides a brief overview of the requirements of the international agreements. We have done further analysis of this issue and can provide more information if useful.
46 Water Act 2007 ss 3, 20(a) & 21(1).
48 A ‘relevant international agreement’ is defined in section 4 of the Water Act to include: the Ramsar Convention; the Biodiversity Convention; the Desertification Convention; the Bonn Convention; CAMBA; JAMBA; ROKAMBA; the Climate Change Convention; any other international convention that is relevant to the management of basin resources and prescribed in the regulations for the purposes of this paragraph.
49 Water Act 2007 ss 3, 20(a) & 21(1).
50 Proposed Basin Plan, clause 5.02 (2) (b).
This is a significant omission, and one that we have chosen to examine through the lens of two of the relevant international agreements, namely the Convention on Biological Diversity (the Biodiversity Convention) and the Ramsar Convention.

Our analysis unfolds in two stages. First, we outline the obligations in each of these treaties that are relevant to the use and management of Basin water resources. Second, we discuss whether these obligations have in fact been given effect in the Plan.

Our choice of these two Conventions is not arbitrary. In the first instance, the Water Act pays particular attention to the implementation of the Biodiversity Convention and the Ramsar Convention under the Basin Plan. For example, sections 21 (2) and 21 (3) of the Act, which concern the general basis on which the Basin Plan is to be developed, have been drafted so as to reflect the wording of these two Conventions.

Furthermore, the Biodiversity Convention is the principal international legal instrument seeking to protect and restore biological diversity generally. Its mandate also extends to respecting, preserving and maintaining indigenous practices relevant to the conservation and sustainable use of biodiversity. As such, it is broad in scope and to that extent includes numerous obligations which are applicable across the entire Murray-Darling Basin.

Finally, the Murray-Darling Basin has 16 wetlands included on the Ramsar List of Wetlands of International Importance. These wetlands support a plethora of migratory birds, as well as threatened and endangered species; many also contain sites of cultural importance to Aboriginal Australians. Water regulation in the Basin is therefore inextricably linked to the Ramsar Convention. As such, the Convention is a litmus test of Australia’s overall commitment to managing resources in a way that upholds its international legal obligations.

While our choice of the Biodiversity Convention and Ramsar Convention is deliberate, it is not to be construed so as to negate the importance of the other international agreements specified in the Water Act. Rather, we are mindful that the Basin Plan is required to give effect to all of these agreements to the extent that they are relevant to the use and management of Basin water resources. Accordingly, we strongly encourage the MDBA to conduct a thorough analysis of the remaining treaties with a view to ensuring that the Basin Plan upholds their obligations.

51 Biodiversity Convention, Article 8 (J).
Why is the Basin Plan required to implement the Biodiversity Convention and Ramsar Convention?

There are four central legal arguments as to why the Basin Plan is required to implement the Biodiversity Convention and Ramsar Convention.

Firstly, the Basin Plan must be drafted in accordance with the requirements of the Water Act. Failure to do so would invalidate the Plan. With this in mind, the Act clearly states that the purpose of the Basin Plan includes managing Basin water resources in a way that promotes the objects of the Act, in particular by giving effect to ‘relevant international agreements’. The Act also specifies the general basis on which the Basin Plan is to be developed. This includes implementing relevant international agreements and promoting the conservation of all declared Ramsar wetlands in the Murray-Darling Basin.

Secondly, the constitutional validity of the Water Act depends largely on properly implementing the ‘relevant international agreements’ specified in the Act.

Thirdly, the High Court has evinced a clear preference for interpreting domestic legislation in a way that fulfils Australia’s international legal obligations. Further to this point, the Acts Interpretation Act 1901 explicitly provides that statutory provisions may be interpreted in light of treaties referred to in the statute.

Lastly, the Vienna Convention on the Law of Treaties is unequivocal regarding the responsibilities of contracting parties. Specifically, it provides that ‘every treaty in force is binding upon the parties to it and must be performed by them in good faith.’ Furthermore, ‘a party may not invoke the provisions of its internal law as justification for its failure to perform a treaty.’ While environmental treaties are often undermined by a dearth of strong enforcement mechanisms, non-compliance is nevertheless a deliberate show of bad faith which in turn reflects poorly on Australia’s commitment to international legal processes and environmental protection.

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53 The Basin Plan is a statutory instrument which must comply with the requirements of the enabling legislation.
54 Water Act 2007, section 20 (a)
55 Water Act 2007, section 21 (1)
56 Water Act 2007, sections 21 (1), 21 (3).
57 The High Court has developed a series of principles which must be applied when incorporating treaties into Australian legislation. Failure to do so may invalidate the statute in question. See State of Victoria v Commonwealth 138 ALR 129.
59 Newcrest Mining (WA) Ltd v Commonwealth (1997) ALR 42.
60 Acts Interpretation Act 1901 (Cth), section 15AB (2) (d).
The Biodiversity Convention

Relevant obligations under the Biodiversity Convention

This submission refers to those articles in the Biodiversity Convention that are most relevant to the use and management of Basin water resources. Our interpretation of these articles is based on the criteria elaborated in the Vienna Convention on the Law of Treaties.  

By way of background, the Biodiversity Convention is a framework convention. As such, its articles are framed in general terms. However, substantive obligations prefaced with qualifying remarks such as ‘as far as possible and as appropriate’ and ‘in accordance with its particular conditions and capabilities’ must be interpreted in light of the principle of ‘common but differentiated responsibility’. As noted by the IUCN in their Guide to the Convention on Biological Diversity, ‘[t]he purpose of most qualifiers is to make the level of implementation commensurate to the capacities of each Party to meet the obligation at hand’.

As a G20 nation, Australia’s responsibilities under the Biodiversity Convention are therefore concomitant with the highest level of implementation. In practical terms, this means that the obligations discussed below can only be discharged by developing best-practice resource management and conservation measures in the Murray-Darling Basin.

The first – and arguably most important – of these obligations pertains to in-situ conservation of biological diversity. Specifically, Australia must (among other things): regulate or manage biological resources important for the conservation of biological diversity with a view to ensuring their conservation and sustainable use; rehabilitate and restore degrading ecosystems through the development and implementation of plans or

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63 It is beyond the scope of this submission to examine all articles that are relevant to the use and management of Basin water resources.
64 Vienna Convention on the Law of Treaties, Articles 31 (General rules of interpretation) and 32 (Supplementary means of interpretation).
67 Biodiversity Convention, Article 6 – General Measures for Conservation and Sustainable Use.
68 Biodiversity Convention, Article 8 – In-situ Conservation.
69 Biodiversity Convention, Article 8 (c).
other management strategies;\(^{70}\) and prevent the introduction of, control and eradicate alien species which threaten ecosystems, habitats or species.\(^{71}\)

The Convention’s articulation of ‘sustainability’ is also relevant to the use and management of Basin water resources. While parties may use their biological resources, they are required to do so in a manner that avoids or minimises adverse impacts on biological diversity.\(^{72}\) This is in part to be accomplished by integrating consideration of the conservation and sustainable use of biological resources into national decision-making processes.\(^{73}\)

Australia is further required to identify and monitor the components of biological diversity important for its conservation and sustainable use.\(^{74}\) Particular attention is to be paid to those components requiring urgent conservation measures and offering the greatest potential for sustainable use, respectively.\(^{75}\) Identification of processes and categories of activities likely to have significant adverse impacts on the sustainable use of biodiversity is also necessary.\(^{76}\)

The Biodiversity Convention is to be implemented in accordance with the ‘ecosystem approach’, which may be broadly defined as ‘a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.’\(^{77}\) The application of the ecosystem approach may be harnessed to facilitate the formulation of climate change mitigation and adaptation projects that contribute to biodiversity conservation and sustainable use.\(^{78}\)

Finally, the Convention is intended to operate synergistically with the Ramsar Convention, particularly for the purposes of conserving the biodiversity of inland river systems.\(^{79}\)

*Does the Basin Plan properly implement these obligations?*

The Basin Plan does not specify how it intends to implement those obligations in the Biodiversity Convention that are relevant to the use and management of Basin water resources. Nevertheless, it is clear that these obligations can only be met if the river

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\(^{70}\)Biodiversity Convention, Article 8 (f).
\(^{71}\)Biodiversity Convention, Article 8 (h).
\(^{72}\)Biodiversity Convention, Article 10 (b).
\(^{73}\)Biodiversity Convention, Article 10 (a).
\(^{74}\)Biodiversity Convention, Article 7 (a).
\(^{75}\)Article 8 (b).
\(^{76}\)Article 8 (c).
\(^{77}\)See COP 5, decision 23.
\(^{78}\)COP 7, Decision VII/15.
\(^{79}\)COP 9, Decision IX/19.
system contains a sufficient quantity of water to maintain and rehabilitate ecosystems across the Basin.

The MDBA has chosen 18 Key Ecological Asset indicator sites (iKEA) for hydrological modelling to determine SDLs across the Basin. That is, they have assumed that ‘the water requirements of iKEA encompass the water requirements of the full set of KEA…’. While we are not in a position to comment on the efficacy of this methodology, we submit that the MDBA should at the very least strive to uphold these targets with a view to meeting Australia’s international legal obligations under the Biodiversity Convention.

We are therefore concerned that the Basin Plan does not indicate whether 2,750 GL will be sufficient to meet the ecological targets for each of these iKEA. Specifically, the Basin Plan neglects to specify the volumes and timings of water required to satisfy these targets. In the absence of this information, it is difficult to assess whether the Plan will in fact conserve biological diversity and restore degraded ecosystems connected to all KEA across the Basin in accordance with the Convention.

While analysis of the Plan alone cannot definitively answer this question, the CSIRO has indicated that the proposed 2,750 GL will be insufficient to meet ‘all of the ecological targets being considered by the Authority’. Modelling used by the MDBA and South Australian Government reinforces this conclusion. For example, 2,750 GL will be insufficient to satisfy the targets set for the following iKEA: Barmah-Millewa Forest, the Riverland-Chowilla Floodplain and the Coorong, Lower Lakes and Murray Mouth.

On the basis of this evidence, we submit that the Plan does not implement the relevant obligations in the Biodiversity Convention in respect of these iKEAs. Given the importance of iKEA in determining SDLs for all KEA, we further submit that the Plan is unlikely to uphold the Convention across the Basin as a whole.

82 Note that this is not an exhaustive list.
We also note that the increased groundwater extractions proposed under the Plan are unlikely to be consistent with the requirements of the Biodiversity Convention. As noted in section 7 of this submission, the peer-reviewed science indicates that groundwater extraction must be decreased in order to conserve and rehabilitate water-dependent ecosystems in the MDB.\textsuperscript{86}

Further to this point, while the Basin Plan does not specify whether the proposed 300 GL per annum groundwater extraction in the Gunnedah-Oxley Basin constitutes a sustainable use, or one that conserves biological diversity,\textsuperscript{87} it is known that an extraction volume of 371 GL per year from this resource poses a high risk to aquifers and groundwater dependent ecosystems. It has also been associated with a high risk of increasing frequency and duration of low flows in rivers.\textsuperscript{88}

Finally, the CSIRO has indicated that the 2,750 GL recovery figure does not properly account for the projected impacts of climate change. This ‘represents a significant risk in the longer term’ to ecosystem health across the Basin.\textsuperscript{89} This is clearly inconsistent with the objectives and relevant obligations of the Biodiversity Convention.

In summary, we submit that the Basin Plan does not properly implement the Biodiversity Convention in the MDB.

**Ramsar Convention**

**Relevant Obligations of the Ramsar Convention**

For the purposes of this submission, we will focus on Article 3 of the Ramsar Convention and related secondary materials. According to this article, contracting parties must ‘formulate and implement their planning so as to promote…as far as possible the wise use of wetlands in their territory.’

The ‘wise use of wetlands’ has been defined by Conference of the Parties (COP) as ‘the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.’\textsuperscript{90}

\textsuperscript{90} Resolution IX.1, Annex A, 2005.
‘To promote’ is defined in the Oxford English Dictionary as ‘to further the growth, development, progress, or establishment of (a thing); to advance or actively support (a process, cause, result, etc.),’ while ‘as far as possible’ must be interpreted in light of the principle of ‘common but differentiated responsibility’. To that end, Article 3 gives rise to an obligation to develop best-practice policies and laws to advance the maintenance of the ecological character of Ramsar Wetlands.

The Wise Use Working Group has further developed ‘Guidelines for the implementation of the wise use concept’. These Guidelines are thematic compilations of COP decisions. As such, they must be considered by the Australian Government when formulating management strategies and laws for the ‘wise use’ of wetlands.

While it is beyond the scope of this submission analyse all of the observations and recommendations contained in these Guidelines, we will draw attention to those that are of particular relevance to the use of management of Ramsar wetlands located in the Murray-Darling Basin.

Firstly, it has been noted that the ‘degradation and loss of wetlands is more rapid than that of other ecosystems, and this trend is accelerating’. Accordingly, ‘[a]ctions to support water allocation to ecosystems, such as environmental flows, placing upper limits on water allocations (water ‘caps’), and new water management legislation, must be strengthened.’

Secondly, the Guidelines indicate that the Biodiversity Convention’s ‘ecosystem approach’ can be regarded as compatible with Ramsar’s overarching concept of ‘wise

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93 Note that according to Article 6 of the Ramsar Convention, those responsible for wetlands management must take into consideration COP decisions conservation, management and wise use of wetlands and their flora and fauna.

use’. By way of extension, they also note that ‘wise use policy and actions at site management levels are integral parts of sustainable development’.

Thirdly, the Guidelines suggest that ‘weak or incomplete laws’ undermine proper implementation of the Ramsar Convention. Specifically, they state that the maintenance of the ecological character of wetlands ‘depends on water supply of appropriate quantity and quality. This is rarely reflected in law and planning…’.

Finally, it is acknowledged that ‘global climate change is expected to exacerbate the loss and degradation of wetland biodiversity…’. Furthermore, ‘the assurance or reliability of water, especially under extreme climatic conditions, is just as critical an aspect of the allocation as its quantity and quality’. Accordingly, Australia must consider the projected impacts of climate change when determining water allocations in the Murray-Darling Basin.

**Does the Basin Plan properly implement these obligations?**

Again, the Basin Plan does not specify how it intends to facilitate the ‘wise use’ of Ramsar wetlands, or more generally implement the aforementioned actions specified in the Guidelines. Nevertheless, there is sufficient scientific data to conclude that 2,750 GL will not be adequate to maintain the ecological character of several Ramsar wetlands located in the Murray-Darling Basin, including those located in the Barmah Barmah-Millewa Forest and the Coorong, Lower Lakes and Murray Mouth.

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The Barmah-Millewa Forest

The Barmah-Millewa Forest is a designated hydrologic indicator site under the Basin Plan. The site contains the largest river red gum forest in Australia, as well as the largest extent of moira grass plains in Victoria. It is also an important drought refuge for waterbirds and contains 13 species recognised in international agreements. It is also listed as a Ramsar wetland.

Data suggests that only 21% of the Barmah-Millewa Forest is currently in good condition. Given the high importance of the site, the Guide to the proposed Basin Plan identified targets that maintain 100% of the current extent of freshwater meadows, shallow freshwater marshes, moira grass plains, red gum forest, red gum woodland and black box in good condition. The environmental flows required to achieve these goals range from 12,500-60,000ML/d (measured at Yarrawonga).

While the Basin Plan indicates that proposed flow regimes will be sufficient to satisfy the needs of lower-lying components of this wetland (that is, those that will be flooded with a water release of 25,000 ML), it goes on to state that ‘the duration of flow indicators above 25,000 ML/d will be difficult to achieve.’ As such, there will rarely, if ever, be sufficient water available to maintain 100% of red gum forest, red gum woodland and black box in good condition.

The Victorian Department of Sustainability and Environment has indicated that ‘any loss or substantial decline in the current area or health of red gum vegetation communities would signal a change in ecological character.’ This in turn would trigger Article 3 (2) of the Convention, according to which anticipated or actual changes in ecological character must be reported to the Ramsar Secretariat.

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102 Cunningham, SC, MacNally, R, Griffioen, P & White, KF, Mapping the condition of river red gum and black box stands in The Living Murray icon sites, a milestone report to the Murray-Darling Basin Authority as part of contract MD 1114, Murray-Darling Basin Authority, Canberra, 2009.
We submit that the aforementioned deficiencies constitute a significant derogation from the ‘wise use’ principle elaborated in the Ramsar Convention. Furthermore, failure to take into account the projected impacts of climate change will likely impact on the ecological character of the entire wetland in the long-term. This is clearly incompatible with the concept of sustainable development.

It therefore appears that 2,750 GL is inadequate for the purposes of implementing Article 3 (1) of the Ramsar Convention (and associated Guidelines) in the Barmah-Millewa Forest.

The Coorong, Lower Lakes and Murray Mouth

The Coorong, Lower Lakes and Murray Mouth (CLLMM) are a designated hydrologic indicator site under the Basin Plan. They have been described by the MDBA as ‘one of Australia’s most important wetland areas’, including ‘a diverse range of freshwater, estuarine and marine habitats which supports unique plant and animal life.’ Nevertheless, ongoing high upstream diversions, coupled with drought, have driven the wetlands to a point of crisis. The Coorong currently suffers from ‘low water levels, acidification, increased salinity and changes in ecological character.’ These changes have resulted in salt-tolerant species dominating the area; a decline in freshwater plants, local fish populations, migratory shorebirds and some species of waterbirds; and new species establishing ranges, thereby reducing the populations of others.

In spite of this degradation, the modelling presented by the MDBA does not clarify whether 2,750 GL will be sufficient to meet the ecological targets set for the CLLMM. Conversely, scientific analysis conducted on behalf of the South Australian Government

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111 The Murray-Darling Basin Authority, Hydrologic Modelling to inform the proposed Basin Plan: Methods and results, February 2012, page xiii.
indicates that ‘without changes as a part of its adaptive implementation, the Basin Plan is unlikely in the longer-term to maintain the ecological character of the…CLLMM Ramsar site.’\textsuperscript{112} Specifically, 2,750 GL will not prevent the accumulation of salt in the Lower Murray during drier periods (due to insufficient export through the Murray Mouth), while ‘extreme low-water levels and salinities may still occur in the Lower Lakes and Coorong under extended drought conditions.’ This in turn will ‘reduce the habitat available for fish and migratory waterbirds, and may threaten several endangered native fish in the CLLMM region.’\textsuperscript{113}

In light of this analysis, it appears that the Basin Plan does not uphold Article 3 (1) of the Ramsar Convention in the CLLMM. Furthermore, current and anticipated changes in ecological character trigger the reporting requirement under Article 3 (2) of the Convention.

We further note that ‘most of the 16 Ramsar-listed wetlands in…the MDB are degrading rapidly’.\textsuperscript{114} As such, the Murray-Darling Basin Authority must turn their attention to ensuring that Article 3 and associated Guidelines are properly implemented across the Basin as a whole.

Recommendations:

- The MDBA should conduct a thorough analysis of all international agreements listed in the Water Act, particularly the Biodiversity Convention and Ramsar Convention, with a view to ensuring that the Basin Plan upholds the obligations contained in those agreements.

- The MDBA should set out in detail how the Basin Plan will meet the requirements of the international agreements.

- Where the requirements of the international agreements are not likely to be met under the current draft Plan, the MDBA should revisit and redesign those elements of the draft Plan that can assist in meeting international obligations. For example, it should ensure that enough water will be available to meet its environmental targets so that Ramsar wetlands and important areas of biodiversity are restored and protected.


Under both the Biodiversity Convention and Ramsar Convention, the projected impacts of climate change must be considered when determining water allocations in the Murray-Darling Basin.

10. **Consideration of climate change**

**Background**

The requirements in the Water Act to take into account the precautionary principle and act on the basis of best scientific knowledge are particularly relevant to the consideration of climate change. The precautionary principle states that *where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation*. As noted above there is significant case law in Australia around the need to properly apply the precautionary principle in decision-making.

**The problem**

The MDBA has considered a range of climate change projections in its determination of SDLs. The MDBA has largely disregarded the higher and lower estimates by the CSIRO and other studies and concentrated on the median outcome for the Basin in 2030\(^{115}\). There is no indication that the median estimate is *more likely* to occur than the higher or lower predictions, just that it is the median.

However when actually applying climate change to the determination of the SDLs, rather than using projected 2030 climate projections to set baselines for the SDLs, the MDBA has used historical climate data from 1895-2009. It states that this is because “the median projected climate change impacts on streamflow are currently within the range of natural variability”\(^{116}\).

There are three issues with this:

1. the median climate change projection is not within the range of historical natural variability because climate change will cause a permanent shift or step change rather than a temporary fluctuation as has occurred in the past;

2. the precautionary principle favours a more conservative approach than using the median projection, particularly as climate predictions are still uncertain and there is no indication that the higher predictions are less likely than the median predictions;

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\(^{115}\) See Plain English Summary of Proposed Basin Plan p115 and the MDBA Factsheet on climate change and the Basin Plan.

\(^{116}\) Plain English Summary of Proposed Basin Plan p115
3. considering that the median projection that the MDBA has chosen is less variable than the climate for the past 100 years, a precautionary approach would suggest that the dryer scenarios should be used to set baselines.

**Recommendations**

- The MDBA should incorporate climate change projections into its modelling rather than relying on historical variations which are not a true indicator of likely climate change variations. It should take scientific advice on the most appropriate climate change scenario to incorporate, using a precautionary approach.

**11. Environmental Watering Plan and Water Quality and Salinity Management Plan**

**Background**

Water Act provides powers to set binding environmental targets, and water quality and salinity targets that the States must meet in order to achieve the management objectives of the Basin Plan.\(^{117}\) This is an opportunity to implement Basin-wide standards in a way that is not being done through inter-state management.

**The problem**

Although this appears to be the intent of the Act, the draft Plan gives these provisions their weakest interpretation and includes non-binding targets only.\(^{118}\) While targets have been specified in the draft Plan\(^{119}\), the draft Plan states that “if a target is not achieved this does not in itself mean that a person has acted inconsistently [with the Plan].\(^{120}\)

This significantly weakens the Commonwealth’s ability to achieve the management objectives of the Basin Plan. The management objectives are high level and non-measurable. The Commonwealth will have no power to require adherence to environmental outcomes or water quality and salinity outcomes and will not be able to take action for non-compliance with them. Therefore there is a high risk that these objectives will not be met, seriously undermining a key requirement of the Water Act.

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\(^{117}\) Water Act 2007 ss25 & 28. The wording of the Water Act and ability to make a legally binding Basin Plan gives MDBA power to make binding targets.

\(^{118}\) Case law to suggests that ‘targets’ should be interpreted to be more than just indicators of progress – see Nature Conservation Council of NSW v Minister Administering the Water Act 2000 [2005] NSWCA 9.

\(^{119}\) Water Act 2007 Chapter 8 & schedules 7&9.

\(^{120}\) Proposed Basin Plan clauses 7.07 & 8.09.
Recommendations

- The environmental and water quality and salinity targets in the draft Plan should be binding.

- If there are concerns around the ability to meet the targets as soon as the Basin Plan comes into force and/or around the ability of the States to meet them 100% of the time, two options could be included in the Basin Plan:

  4. If there are standards to address water quality and environmental problems that are highly desirable, but the States do not believe they can currently be met, the draft Plan should include a pathway to achieving them over time. Lower targets could be set in the initial years that increase over time to achieve the level of water quality and environmental quality that is necessary to meet water quality and environmental objectives. This would provide realistic binding targets that the States must comply with, and clear pathway to achieving objectives.

  5. If States are concerned that due to climatic and other unforeseeable events it will be impossible to meet water quality and environmental targets 100% of the time, the Basin Plan should include binding targets but state that they only need to be met (say) 90% of the time, and include criteria for the circumstances under which the targets do not have to be met.

12. Compliance provisions

Background

The Water Act states that Basin Plan must include a method for determining whether the SDLs have been complied with but provides no requirements as to what methods the Basin Plan must adopt. The MDBA therefore has discretion to determine this. One thing that is clear from the Act is that the Basin Plan and in particular the SDLs are to be legally binding on Basin States, water users and Commonwealth agencies.

The problem

Our main concerns around the compliance sections are that: 1) as currently drafted they will derogate from achieving other requirements of the Act; and 2) they do not represent good regulatory practice. The compliance requirements could have been made much stronger in order to better achieve the objectives of the Act.

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121 Water Act 2007 s22, item 8.
122 See for example ss34 & 35.
Clause 6.13 of the draft Plan sets out when States can be declared non-compliant with the SDLs. Non-compliance occurs if the State reports in its annual accounts that it has exceeded the SDL for a particular water resource unit by 20% or more and it does not have a reasonable excuse. Therefore the Commonwealth cannot take any compliance action against a State that has exceeded the SDLs by up to 19%. In addition a State could be non-compliant by 20% or more and provided it has a reasonable excuse will not be considered non-compliant.

This 20% buffer appears to have been derived from the rules for the current Murray-Darling Basin cap (MDB cap) where investigation of a State’s exceedence of the cap is only triggered if the State appears to be at least 20% over its cap.\(^\text{123}\) This may be appropriate for a cooperative interstate arrangement, especially where accounting for water extraction is imperfect, however it is not appropriate for the Basin Plan which is a legally binding extraction limit and for which it is expected that States will be able to provide reliable data. It is an unnecessarily excessive buffer that will significantly affect achievement of SDLs, particularly if all States are non-compliant by 20%. A better approach would be for the SDLs to be binding on all States with 0% leeway, with discretion for the MDBA to not declare non-compliance up to 20% if the State has a reasonable excuse.

There is also no indication in the draft Plan of what will constitute a ‘reasonable excuse’. This will make it almost impossible for the MDBA to legally reject any excuse by a State for non-compliance. It also fails to set up any expectation amongst the States of what may be reasonable. Including such a broad discretionary power will make it much harder for the MDBA to encourage or require compliance, thus making it harder to meet the objectives of the Basin Plan. The draft Plan should contain some criteria of the types of circumstances that will constitute a reasonable excuse so that all stakeholders are aware of this from the outset.

A further complication from this compliance model is that compliance will be recorded cumulatively across years. It is the cumulative balance which must not exceed 20% without a reasonable excuse. This is in line with the method established for compliance with the MDB cap under the Murray-Darling Basin Agreement which assesses compliance based on cumulative water use.\(^\text{124}\) This will have the positive benefit of not allowing States to be 19% over the SDL every year. However allowing a cumulative credit to build up over years could have very undesirable practical impacts. Presumably if a State is under its cap for a given year it will be allowed to use more water in subsequent years until it reaches the cumulative cap. There does not appear to be any limit to the number of years or amount of water that can be accumulated, and no rules surrounding how any credits can be used. If for example an upstream State is allowed to take its entire credit in one year, it could dramatically reduce

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\(^{123}\) Murray-Darling Basin Agreement, schedule E clause 16. (This rule applies to Victoria and NSW – different rules apply in other States).
available water for downstream users and ecosystems in low flow years. The draft Plan does not consider these practical impacts at all.

To avoid these impacts the MDBA should include rules in the Basin Plan that determine limits to the amount of credit that can be accumulated, and how and when States can use any credit accumulated.

A further point to note is that the MDBA in its explanatory documents\(^{125}\) states that “the 20% buffer also applies to any cumulative exceedence from the end of the first water accounting period after July 2019, having the effect of gradually tightening over time…” However the draft Plan contains no provisions to that effect.

**Recommendations**

- The SDLs should be binding on all States with 0% leeway, with discretion for the MDBA to not declare non-compliance up to 20% if the State has a reasonable excuse.

- The draft Plan should contain some criteria of the types of circumstances that will constitute a reasonable excuse so that all stakeholders are aware of this from the outset.

- To avoid negative impacts from a State using up its cumulative credits the Basin Plan should include rules that determine limits to the amount of credit that can be accumulated, and how and when States can use any credit accumulated.

**13. Reliability of entitlements**

**Background**

Chapter 9 of the draft Plan sets out what States must include in water resource plans to comply with the Basin Plan. Clause 9.09 contains an exemption that could affect State compliance with the Basin Plan. It states that water resource plans must meet the requirements of Chapter 9 in a way that will not result in a change in the reliability of water allocations in that area. However if it is not possible to meet the requirements of Chapter 9 in a way that does not preserve reliability of existing entitlements, the requirement has effect only to the extent that it does not result in a change of reliability.


The problem

This clause has the potential to undermine many other provisions of the draft Plan. It is not clear to what extent this provision would release States from the obligations in Chapter 9 and therefore this provision creates significant uncertainty. For example it is not clear if this clause could make the requirement to provide for environmental watering in a way that is consistent with the environmental watering plan and environmental objectives (cl 9.13) void. Or more fundamentally, if a State could not preserve existing reliability while meeting the SDLs, if the clause could have the effect of weakening the requirement to meet the SDLs (cl 9.12 -9.13).

Recommendations

- Clause 9.09(2) should be removed from the draft Plan to remove the uncertainty and weakening of water resource plan obligations. Clause 9.09(1) is a strong enough statement of intent in relation to preserving reliability.

For more information in relation to this submission please contact Nicola Rivers, Law Reform Director (EDO Victoria) on nicola.rivers@edo.org.au or (03) 8341 3100.