
The silence of the plan: Will the Convention on Biological Diversity and the Ramsar Convention be implemented in the Murray-Darling Basin?

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Over-extraction of water for consumptive use has left 20 out of 23 major river valleys in the Murray-Darling Basin in poor or very poor ecological condition. Coupled with climate change, which, as Young states, “represents a significant risk in the longer term” to ecosystem health across the Basin, the outlook for Australia’s largest river system is particularly grim. It was with this in mind that the Australian government resolved to oversee and direct State management of Basin water resources by enacting the Water Act 2007 (Cth). The Act’s objects include returning Basin water resources to environmentally sustainable levels of extraction, as well as protecting, restoring and providing for the ecological values and ecosystem services of the Murray-Darling Basin. They also include giving effect to several international environmental agreements, including the Convention on Biological Diversity and the Ramsar Convention, to the extent that they are relevant to the use and management of Basin water resources. This article examines the nature of the obligations contained in these two conventions, whether the Basin Plan is likely to implement them, and the legal consequences of failing to do so.

INTRODUCTION

Just over one year has passed since the Draft Murray-Darling Basin Plan was released for public comment. The historical context within which the Plan arose is fraught and complex, stretching back to the 1880s when water was first diverted from the Murray River for irrigation. Given this backdrop, it is unsurprising that the centrepiece of each iteration of the Basin Plan – a proposal to reduce surface water extractions in the Basin by 2,750 GL/year – has stimulated, rather than quelled, debate.

On the one hand, environmentalists have asserted that extractions must be reduced in accordance with the best publicly available science. While recent modelling of a 3,200 GL/year scenario with relaxed constraints arguably employs the most up-to-date methodology, reducing extractions by this volume will nevertheless only achieve 66% of the 112 targets set by the MDBA to measure ecosystem health across the Basin.¹ Consequently, the Wentworth Group still considers the Guide to the Basin Plan, which outlines what constitutes an environmentally sustainable level of take (ESLT) in the Basin,² to reflect the best available science. The Guide, which was released by the Murray-Darling Basin Authority (MDBA) in 2010, indicated that between 3,856 and 6,983 GL/year had to be removed from consumptive use in order to restore the health of water-dependent ecosystems across the Basin. On the other hand, irrigators have focussed on the perceived socioeconomic impacts of cutting water entitlements; the Basin Plan, they claim, will constitute the final, fatal blow to vulnerable farming communities.

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¹ Wentworth Group of Concerned Scientists, *Does a 3,200 GL Reduction in Extractions Combined with the Relaxation of Eight Constraints Give a Healthy Working Murray-Darling Basin River System?* (October 2012) p 2. Citing Murray-Darling Basin Authority (MDBA), *Hydrologic Modelling to Inform the Proposed Basin Plan: Methods and Results* (2012).

² Long-term average sustainable diversion limits (SDLs) must reflect an ESLT: *Water Act 2007* (Cth), ss 23, 4.

The Final Basin Plan has done little to assuage either side of the divide.³ While the adopted instrument maintains 2,750 GL/year as a baseline reduction figure for surface water SDLs, recent amendments to the *Water Act 2007* (Cth)⁴ explicitly empowered the MDBA to incorporate an “adjustment mechanism” into the Plan. This mechanism, which is provided for in Chapter 7,⁵ will effectively operate within a 2,100-3,200 GL/year bracket.⁶ Specifically, the mechanism will largely rely on “supply measures” and “efficiency measures” to respectively decrease or increase the 2,750 GL/year figure by a maximum of 5% of the Basin-wide surface water SDLs.⁷ The former will operate to enable less water to be delivered to the environment and more returned to consumptive use without compromising “benchmark environmental outcomes”,⁸ while the latter will be used to increase environmental flows without reducing consumptive use. The inclusion of an adjustment mechanism triggered by supply and efficiency measures raises two immediate questions. First, does the methodology for determining whether “benchmark environmental outcomes” will be maintained under a downward adjustment bear up to scientific scrutiny? Secondly, are water savings associated with irrigation upgrades capable of contributing to the medium and large flood events needed to restore water-dependant ecosystems across the Basin?⁹

A Bill currently before Parliament further proposes to finance 450 GL/year of environmental water via a “special account” that will enable Parliament to appropriate \$1.77 billion for this purpose. The present iteration of this Bill stipulates that the special account may only be drawn on to purchase water access rights that are linked to an adjustment of a long-term average SDLs. This will effectively limit “buybacks” acquired through this account to water saved as a result of on-farm efficiency measures “or an alternative arrangement proposed by a Basin State”.¹⁰ Furthermore, if the 2,750 GL/year is adjusted downward, then the 450 GL/year would be in addition to the *reduced figure*. In short, neither the adjustment mechanism nor the Bill guarantee that 3,200 GL/year will be returned to the environment.

The adjustment mechanism is plagued by other deficiencies, chief amongst them its inconsistency with other, core sections of the *Water Act*. For example, the Act requires the Plan to be developed on the basis of “best available scientific knowledge”.¹¹ Despite this requirement, the mechanism for surface water adjustments is not triggered by future science, including climate change modelling. This omission is particularly perplexing given that environmental watering under the Plan is underpinned by an adaptive management approach,¹² the objects of which include protecting and restoring water-dependent ecosystems and ensuring that they are resilient to climate change and other risks and

³ *Final Basin Plan*, adopted 22 November 2012.

⁴ *Water Amendment (Long-term Average Sustainable Diversion Limit Adjustment) Bill 2012* (Cth), assented to 21 November 2012.

⁵ See also *Final Basin Plan*, Schs 5, 6.

⁶ *Water Amendment (Long-term Average Sustainable Diversion Limit Adjustment) Bill 2012* (Cth), s 23A(4); *Final Basin Plan*, Ch 7, Pt 2. Note that Ch 7, Pt 3 enables a Basin State to propose an adjustment based on a reallocation of SDLs for a particular water resource. Chapter 7, Pt 4 provides that groundwater SDLs may be adjusted (by up to 5% of total groundwater SDLs) on the basis of “better information”. This includes scientific criteria such as knowledge regarding connectivity with surface water, as well as “Basin State policy and planning settings”.

⁷ *Water Amendment (Long-term Average Sustainable Diversion Limit Adjustment) Bill 2012* (Cth), s 23A(4).

⁸ *Final Basin Plan*, Ch 7, Sch 6.

⁹ At the *Water Law and Policy 2012 Conference* held at the Australian National University on 7 December 2012, Dr Richard Davis expressed his concern regarding the methodology outlined in Sch 6 of the Final Plan. He further noted that on-farm irrigation upgrades result in small, ongoing water savings which he likened to a “drip”. Thus they are incapable of producing or contributing to the large flows necessary to sustain a floodplain river system.

¹⁰ *Water Amendment (Long-term Average Sustainable Diversion Limit Adjustment) Bill 2012* (Cth), s 23A(2); *Final Basin Plan*, Ch 7, explanatory note.

¹¹ *Water Act 2007* (Cth), s 21(4)(b).

¹² *Final Basin Plan*, cl 8.04(1)(1)(b). The environmental watering plan for the entire Basin is outlined in Ch 8 of the Plan.

threats.¹³ In other words, the adjustment mechanism, which is inherently “adaptive” in nature, does not reflect the broader goals of the Plan’s adaptive management regime. Furthermore, the *Water Act* is clear regarding the purpose of the Basin Plan: to return over-allocated water resources to environmentally sustainable levels of extraction while optimising socioeconomic outcomes.¹⁴ That is, socioeconomic outcomes may only be considered within the context of a non-negotiable environmental bottom line. With this in mind, why is the reduction mechanism constrained to avoiding impacts to consumptive use? Moreover, a scientific review of the MDBA’s modelling for a 2,800 GL/year reduction scenario conducted by the CSIRO indicated that this figure would be insufficient to meet “several of the specified hydrologic and ecological targets”¹⁵ set by the MDBA for Basin “indicator sites” (which include 10 Ramsar wetlands). Accordingly, both the legitimacy of the baseline reduction of 2,750 GL/year, as well as the proposal to adjust this figure *down*, should be questioned.

The final version of the Plan also provides for a “constraints management strategy”. This Strategy, which must be developed within 12 months after the commencement of the Basin Plan, is required to identify and describe the “physical, operational and management constraints that are affecting, or have the potential to affect, environmental water delivery”, and evaluate “options, opportunities and risks to water users, communities and the environment, associated with addressing key constraints”.¹⁶ The inclusion of this strategy is based on the notion that “constraints” such as infrastructure, personal property (eg crops located on a floodplain) and rules in water-sharing plans place a ceiling on the volume of water that can be returned to the environment. While there is no doubt merit in identifying and (where feasible) removing *genuine* constraints, it is worth examining this issue against the backdrop of the *Water Act*, other relevant laws and policies, and scientific evidence.

First, as noted above, there is arguably no legal basis for focussing on socioeconomic outcomes at the expense of water-dependent ecosystems in the Basin. Secondly, the Parliaments of Australia are typically utilitarian in their approach to resolving conflicts between the State and private landholders where the greater public interest is at stake. For example, land may be compulsorily acquired in order to build roads and other infrastructure in exchange for compensation, while there is ample statutory precedent limiting or eliminating government liability, including in respect of flooding.¹⁷ In New South Wales, the *Civil Liabilities Act 2002* (NSW) also sets an extremely high threshold in respect of negligence claims against government. Thirdly, and perhaps most importantly, analysis indicates that constraints have relatively little impact on the ability to meet ecological targets set by the Plan for Ramsar wetlands.¹⁸ On this basis alone, it is difficult to justify limiting reductions in extractions to a maximum of 3,200 GL/year.

Where to from here?

Given the inherently polemical nature of water management in this country, it seems vital to return to first principles; to ask if the Final Basin Plan will uphold the *Water Act*. As this Act derives the majority of its constitutional legitimacy from the *Convention on Biological Diversity*¹⁹ (Biodiversity Convention) and Ramsar Convention,²⁰ the answer to this question depends largely on whether the Plan will implement these two treaties in respect of Basin water resources.

¹³ *Final Basin Plan*, cl 8.04(a), (b) and (c).

¹⁴ *Water Act 2007* (Cth), ss 3, 21.

¹⁵ Young WJ et al, *Science Review of the Estimation of an Environmentally Sustainable Level of Take for the Murray-Darling Basin – Final Report to the Murray-Darling Basin Authority* (CSIRO, November 2011) p 4.

¹⁶ *Final Basin Plan*, cl 6.07.

¹⁷ See eg *Local Government Act 1993* (NSW), s 733.

¹⁸ Australian Conservation Foundation, *Modelled Ecological Outcomes of the Proposed Basin Plan Surface Water Sustainable Diversion Limits* (2012).

¹⁹ *Convention on Biological Diversity 1992* (adopted 5 June 1992, entered into force 29 December 1993) [1993] ATS No 32.

²⁰ *Convention on Wetlands of International Importance 1971* (adopted 2 February 1971, entered into force 21 December 1975) [1975] ATS 48.

Before proceeding, it is necessary to briefly explain why these two treaties form the foundation upon which the *Water Act* and Basin Plan are built. In the first instance (and as discussed in a recent article by Professor Donald Rothwall),²¹ the *Water Act* derives the majority of its constitutional validity from a suite of environmental treaties known as the “relevant international agreements”.²² Most of these agreements are narrow in focus and to that extent cannot legitimise the sweeping mandate of the *Water Act* and Basin Plan. The notable exceptions are the Ramsar Convention and Biodiversity Convention. The relevance of the former is well-established: 16 of Australia’s 64 Ramsar-listed wetlands are located in the Murray-Darling Basin. The latter is the principal international legal instrument seeking to protect and restore biological diversity.²³ As such, it includes numerous obligations applicable to the use and management of Basin water resources.

The *Water Act* tends to reinforce this analysis by paying particular attention to the implementation of the Biodiversity Convention and Ramsar Convention under the Plan. For example, the Act specifies the general basis on which the Plan is to be developed.²⁴ While this includes implementing the relevant international agreements to the extent that they are relevant to the use and management of Basin water resources,²⁵ the section has been drafted so as to reflect the wording of these two Conventions.²⁶

Conversely, the Final Basin Plan says relatively little about how it will give effect to the Biodiversity Convention and Ramsar Convention. While it does include implementation of the relevant international agreements as an overall management objective,²⁷ this is a high-level goal that is not supported by detailed information in the environmental watering plan (EWP) regarding its execution.²⁸ Admittedly, the adaptive management regime underpinning the EWP has no business stipulating exactly when and how designated environmental assets will be watered.²⁹ However, it is arguable that the targets against which objectives are to be measured³⁰ could be more detailed and clearly linked to the obligations arising out of these two treaties. For example, are targets framed as “improvements” in the “hydrologic connectivity between the river and floodplain and between hydrologically connected valleys”³¹ and “condition of the Coorong and Lower lakes ecosystems and Murray Mouth opening regime”³² capable of satisfying the requirements of the Ramsar Convention and Biodiversity Convention? Naturally, this question cannot be answered without first apprehending the practical nature of the obligations contained in these Conventions.

²¹ Rothwell DR, “International Law and the Murray-Darling Basin Plan” (2012) 29 EPLJ 268.

²² *Water Act 2007* (Cth), s 9. Furthermore, the Basin States have only referred powers to the Commonwealth government under s 51(xxxvii) in respect of a limited number of matters, which include: ensuring critical human water needs are met under the Basin Plan (*Water Act 2007* (Cth), Pt 2A); extending the operation of Basin water charge and water market rules (*Water Act 2007* (Cth), Pt 4A); and transferring existing powers and functions from the Murray-Darling Basin Commission to the Murray-Darling Basin Authority (*Water Act 2007* (Cth), Pt 10A).

²³ In fact, it is one of the most widely ratified of all environmental treaties. See Birnie PW and Boyle AE, *International Law and the Environment* (2nd ed, Oxford University Press, 2002) p 568.

²⁴ *Water Act 2007* (Cth), s 21(1)

²⁵ *Water Act 2007* (Cth), ss 21(1), 21(3).

²⁶ *Water Act 2007* (Cth), ss 21(2) and (3).

²⁷ *Final Basin Plan*, cl 5.02(1)(a).

²⁸ *Final Basin Plan*, Ch 8 – “Environmental Watering Plan”.

²⁹ *Final Basin Plan*, cl 8.02(1)(b).

³⁰ *Final Basin Plan*, Sch 7 – “Targets to Measure Progress towards Objectives”.

³¹ *Final Basin Plan*, Sch 7(2)(b).

³² *Final Basin Plan*, Sch 7(2)(d).

INTERPRETING THE OBLIGATIONS CONTAINED IN THE BIODIVERSITY CONVENTION AND RAMSAR CONVENTION

The Biodiversity Convention and Ramsar Convention are both framework conventions, meaning that they tend to have broad objectives and rely on a mix of management systems and principles,³³ as opposed to highly prescriptive obligations. Though general in ambit, they are nevertheless to be interpreted in good faith as providing parties with latitude to determine how they will fulfil their obligations,³⁴ not scope to derogate from them.³⁵ That is, they are binding on all signatory states. The High Court has enshrined this maxim in Australian law, holding that treaty obligations do not need to be defined with the degree of precision required to establish a legally enforceable agreement under the common law. Put simply, absence of precision does not imply absence of international obligation.³⁶

The breadth of the obligations contained in framework treaties has predictably given rise to interpretive difficulties.³⁷ However, difficulty should not be confused with impenetrability, particularly as an interpretive schema does exist for the purposes of deciphering treaty obligations – framework or otherwise. The foundation of this schema is to be found in the *Vienna Convention on the Law of Treaties*,³⁸ according to which a treaty is to be interpreted “in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose”.³⁹ Where this yields a result that is ambiguous or obscure,⁴⁰ or manifestly absurd or unreasonable,⁴¹ secondary materials may be used to clarify the meaning.⁴²

To this foundation other principles relevant to the interpretation of framework obligations can be added. Perhaps the most important of these is the principle of “common but differentiated responsibility”. According to this principle, treaty implementation is to be concomitant with national capacity, thereby reflecting “an explicit equitable balance between developed and developing states”.⁴³ Thus substantive obligations prefaced with qualifying remarks such as “as far as possible and as appropriate” must be interpreted in light of this principle. That is, it is possible and arguably appropriate for a G20 nation (such as Australia) to develop and enforce best practice standards for the purposes of conserving biodiversity and wetlands. As noted by the IUCN in their Guide to the Convention on Biological Diversity: “The purpose of most qualifiers is to make the level of implementation commensurate to the capacities of each Party to meet the obligation at hand.”⁴⁴

³³ Fisher DE, “The Impact of International Law Upon the Australian Environmental Legal System” (1999) 16 EPLJ 372 at 373-374.

³⁴ *Vienna Convention on the Law of Treaties*, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980), Art 27.

³⁵ Glowka L, Burhenne-Guilmin F and Synge H, *A Guide to the Convention on Biological Diversity* (IUCN – The World Conservation Union, 1994) p 1.

³⁶ *Commonwealth v Tasmania* (1983) 158 CLR 1 at 24 per Dean J.

³⁷ Birnie and Boyle, n 23, p 617.

³⁸ In particular, Arts 31, 32.

³⁹ *Vienna Convention on the Law of Treaties*, Art 31(1).

⁴⁰ *Vienna Convention on the Law of Treaties*, Art 32(a).

⁴¹ *Vienna Convention on the Law of Treaties*, Art 32(b).

⁴² *Vienna Convention on the Law of Treaties*, Art 32.

⁴³ “Common but differentiated responsibility... sets lesser standards for developing states and it makes the performance of those standards dependent on the provision of solidarity assistance by developed states”: see Birnie and Boyle, n 23, p 101. This *may* be considered customary international law. See eg Bates G, *Environmental Law in Australia* (7th ed, Lexis, 2010) p 82.

⁴⁴ Glowka et al, n 35, p 4.

Finally, as with all framework conventions, details regarding implementation are contained in protocols, guidelines⁴⁵ and Conference of the Parties (COP) decisions. The presence of these materials on the Secretariat websites⁴⁶ further indicates that they are intended to play a central role in interpreting and implementing both treaties.

Do treaty obligations include Conference of the Parties decisions?

Generally speaking, the COP will meet periodically to review implementation of the treaty and develop actions to advance its objectives. Subsidiary bodies (such as scientific and technical committees) that report to the COP are charged with highlighting barriers to implementation and elaborating plans to overcome these obstacles.

COP decisions made under the Biodiversity Convention and Ramsar Convention concern matters such as climate change,⁴⁷ water resource management⁴⁸ and the intellectual and cultural heritage of Indigenous peoples.⁴⁹ Many of the decisions made at these COPs are therefore relevant to the management of the Murray-Darling Basin. As such, it is necessary to understand first their legal status, and secondly whether they are required by law to inform the drafting of the Basin Plan.

Both treaties includes an article establishing and describing the role of the COP. Article 23 of the Biodiversity Convention ascribes to the COP a range of procedural and substantive functions, which include:

- reviewing implementation of the Convention;⁵⁰
- reviewing advice provided by the Subsidiary Body on Scientific, Technical and Technological Advice;⁵¹ and
- considering and undertaking any additional action that may be required to achieve the purposes of the Convention “in light of the experience gained from its operation”.⁵²

Interestingly, Art 23 does not specify how the COP is to fulfil these functions; nor does it state whether the mechanism chosen for that purpose is legally binding. In any case, examination of the proceedings of COP meetings indicates that “decisions” are indeed passed in order to advance implementation of the Convention.⁵³

Article 6 of the Ramsar Convention likewise ascribes to the COP a range of procedural and substantive functions. These include:

- promoting and implementing the Convention;⁵⁴
- discussing additions and changes to the List of Wetlands of International Importance (the List);⁵⁵

⁴⁵ See eg *Report of the 3rd Meeting of the Conference of the Contracting Parties* (Rev), Rec C.3.3 on meaning of “wise use” (Ramsar Convention); *The Ramsar Handbooks for the Wise Use of Wetlands* (4th ed, Ramsar Secretariat, 2010), http://www.ramsar.org/cda/en/ramsar-pubs-handbooks-handbooks4-e/main/ramsar/1-30-33%5E21323_4000_0 viewed 4 December 2012; COP decisions II/8 and SBSTTA Recommendation V/10 adopting an ecosystem approach as the framework for the implementation of the objectives of the Biodiversity Convention.

⁴⁶ See Convention on Biological Diversity website: <http://www.cbd.int>; and Ramsar Convention on Wetlands website: http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1_4000_0.

⁴⁷ See eg COP 7 Decision VII/15 (Biodiversity Convention); Resolution VIII.3 (Ramsar Convention).

⁴⁸ See eg COP 4 Decision IV/4 (Biodiversity Convention); Resolution IX.3 (Ramsar Convention).

⁴⁹ See eg COP 3 Decision III/14 5 (Biodiversity Convention); Resolution V2.8 (Ramsar Convention).

⁵⁰ Biodiversity Convention, Art 23(4).

⁵¹ Biodiversity Convention, Art 23(4)(b).

⁵² Biodiversity Convention, Art 23(4)(i).

⁵³ *Convention on Biological Diversity, Conference of the Parties – Background and Status*, <http://www.cbd.int/cop> viewed 4 December 2012.

⁵⁴ Ramsar Convention, Art 6(1).

⁵⁵ Ramsar Convention, Art 6(2)(b).

- considering information regarding changes to the ecological character of wetlands included in the List;⁵⁶ and
- making general or specific recommendations to the contracting parties regarding the conservation, management and wise use of wetlands and their flora and fauna.⁵⁷

Unlike Art 24 of the Biodiversity Convention, Art 6 does explicitly require the COP to make or adopt decisions in order to fulfil certain functions. Nevertheless, the text does not indicate whether these decisions are formally binding.

While the Biodiversity Convention and Ramsar Convention are both silent as to the legal status of COP decisions, analysis of numerous decisions makes it abundantly clear that they are intended to maximise opportunities for effective, evidence-based implementation of both Conventions over time. COP decisions have also clarified the meaning of a number of key terms employed in each treaty,⁵⁸ which tends to suggest that the COP has quasi-judicial status. Can it therefore be extrapolated that their decisions are binding on contracting parties?

In short,⁵⁹ examination of the relevant literature indicates that no consensus has been reached in respect of this question.⁶⁰ As such, their legal status remains ambiguous, occupying the interface between institutional law and the law of treaties.⁶¹ This ambiguity is arguably of considerable significance. Rather than being unanimously classified as “soft law” (as is the case with most UN General Assembly resolutions),⁶² attempts are being made to grapple with the unique and dynamic role they play in advancing the objectives of environmental treaties in a rapidly changing world. As one commentator has noted:

The authoritative nature of COP law making powers, even if not legally binding, must, in the interim, be vigilantly preserved in the interests of protecting and promoting the inroads COPs have made in affording efficient and effective responses to environmental challenges...⁶³

History has shown us that domestic law takes time to shake off its anachronisms and confront existing challenges – be they social, economic or environmental. In the interim, responsibility falls to other mechanisms to manage natural resources in accordance with best available knowledge. This is particularly pertinent in the Basin, where over-extraction of water for consumptive use has left 20 out of 23 major river valleys in poor or very poor ecological condition.⁶⁴ That is, there is a strong case to be made in favour of the MDBA drafting the Basin Plan in light of relevant COP decisions made under the Biodiversity Convention and Ramsar Convention. As such, this article will discuss those decisions that are most relevant to the use and management of Basin water resources.

TREATY OBLIGATIONS

Biodiversity Convention

Australia signed the Biodiversity Convention at the United Nations Earth Summit in Rio on 18 June 1992. Since entering into force in December 1993, the Convention has been described as a

⁵⁶ Ramsar Convention, Art 6(2)(c).

⁵⁷ Ramsar Convention, Art 6(2)(d).

⁵⁸ See eg *Report of the 3rd Meeting of the Conference of the Contracting Parties* (Rev), Rec C.3.3 on meaning of “wise use” (Ramsar Convention).

⁵⁹ It is beyond the scope of this article to discuss this matter in great detail. For further information, see Camenzuli LK, *The Development of International Environmental Law at the Multilateral Environmental Agreements’ Conference of the Parties and its Validity* (IUCN – The World Conservation Union, 2008).

⁶⁰ See Brunée J, “COPing with Consent: Law-Making under Multilateral Environmental Agreements” (2002) 15 *Leiden Journal of International Law* 1; Camenzuli, n 59.

⁶¹ Camenzuli, n 59, pp 18-26.

⁶² Article 10 of the UN Charter gives the Assembly power to make “recommendations”. As such, GA resolutions are not “per se binding... [but] may become so in light of the subsequent conduct of states”. See Birnie and Boyle, n 23, p 23.

⁶³ Camenzuli, n 59, p 26.

⁶⁴ Murray-Darling Basin Authority, *Guide to the Proposed Basin Plan* (Vol 1, MDBA Publication No 60/10, 2010) p 13.

“landmark”⁶⁵ that has “significantly enhanced the scope and potential effectiveness of the international legal regime for conserving the earth’s biological diversity and ensuring the sustainable use of its components”.⁶⁶ The word “potential” was no doubt used advisedly: as with all environmental treaties, the Biodiversity Convention can only achieve its objectives if it is implemented at the national level.⁶⁷ In order to do so, it is necessary to understand the nature of the obligations contained therein. Close textual analysis of the Convention’s Articles and relevant COP decision will therefore be undertaken with a view to determining whether the Plan has given effect to those obligations relevant to the use and management of Basin resources.

Before proceeding, it is important to note that these Articles are in most instances prefaced with qualifying remarks such as “in accordance with its [the state’s] particular conditions and capabilities” and “as far as possible and appropriate”. The Convention will therefore be interpreted in light of the principle of “common but differentiated responsibility”. Given Australia’s status as a G20 nation, it can be argued that this is concomitant with the implementation of best-practice environmental management and conservation measures.

Article 1 – objectives

The objectives of a treaty set out its purpose and provide a basic framework for the interpretation of substantive articles.⁶⁸ Furthermore, the “Convention’s implementation, as well as its further development, have to conform to these objectives”.⁶⁹

The Biodiversity Convention’s objectives comprise several discrete components, which may be broadly described as:

- a) the conservation of biological diversity;
- b) the sustainable use of its components; and
- c) the fair and equitable sharing of the benefits arising out of the use of genetic resources.

While these elements are now well-enshrined in international and Australian law, it is still necessary to translate them into a practical resource management framework. It is arguable that the ecosystem-based approach presents itself in this instance as the most obvious choice. Not only does it “promote conservation and sustainable use in an equitable way”,⁷⁰ but the COP for the Biodiversity Convention has explicitly called on parties to apply the approach in accordance with 12 principles.⁷¹

Articles 3 and 4 – principle and jurisdictional scope

Taken together, these Articles embody the philosophical tension underpinning the Convention. On the one hand, Art 3 reasserts the sovereign right of states to exploit their resources in accordance with their own environmental policies. On the other, Art 4 provides that the provisions of the Convention apply to biodiversity found within the limits of each state’s national jurisdiction.

The preamble and objectives can assist to clarify the relationship between these two Articles and their impact on treaty implementation.⁷² First, only one of the 23 preambular declarations concerns state sovereignty; the remainder are heavily weighted in favour of conserving biodiversity, promoting Indigenous rights and acknowledging the needs of developing countries. Secondly, as noted above, the objectives can be construed as being concomitant with an ecosystem approach to environmental management. Furthermore, they do not mention state sovereignty.

⁶⁵ Glowka et al, n 35, p 3.

⁶⁶ Birnie and Boyle, n 23, p 568.

⁶⁷ Sjostedt G (ed), *International Environmental Negotiations: Process, Issues and Context* (Sage Publications, 1993) p 184.

⁶⁸ *Vienna Convention on the Law of Treaties*, Art 31(1).

⁶⁹ Glowka et al, n 35, p 15.

⁷⁰ IUCN, *The Ecosystem Approach* (2011), http://www.iucn.org/about/union/commissions/cem/cem_work/cem_ea viewed 4 December 2012.

⁷¹ Biodiversity Convention, COP 5, Decision V/6.

⁷² *Vienna Convention on the Law of Treaties*, Art 31(1).

As a strict reading of Arts 3 and 4 gives rise to a result that is “manifestly absurd or unreasonable”,⁷³ insofar as one Article nullifies the operation of the other, secondary materials may also be referred to for the purposes of clarifying its interpretation. To that end, COP decisions⁷⁴ and reports of the Executive Secretary of the Convention on Biological Diversity⁷⁵ confirm the expectation that states modify their behaviour in order to protect biodiversity within their jurisdiction. It can therefore be inferred that state sovereignty must be balanced against the responsibilities imposed on contracting parties if the Convention is to achieve its conservation goals.⁷⁶

Article 6 – general measures for conservation and sustainable use

Article 6 “essentially creates an obligation for national planning to prepare a blueprint, which, at a minimum, reflects how the obligations of the Convention will be fulfilled and how its objectives will be achieved”.⁷⁷

Article 7 – identification and monitoring

Broadly speaking, Art 7 imposes a requirement to, as far as possible and appropriate,⁷⁸ identify⁷⁹ and monitor⁸⁰ the components of biological diversity that are important for its conservation and sustainable use. Particular attention is to be paid to those elements in need of urgent conservation measures and offering the greatest potential for sustainable use.⁸¹ Furthermore, processes and activities that have or are likely to have adverse impacts on the conservation and sustainable use of biodiversity are to be identified and monitored.⁸² Data derived from identification and monitoring activities is to be maintained and organised.⁸³ A number of COP decisions have also reinforced the importance of implementing Art 7 at a national level.⁸⁴

Article 8 – in-situ conservation

This Article, which is arguably one of the most pertinent to environmental management in the Murray-Darling Basin, comprises 13 subclauses. The strength of the commitment arising out of each individual subclause ranges from mandatory implementation of a particular action, through to a less stringent requirement “to promote” or “to endeavour to do” something.⁸⁵

The first (mandatory) category, which comprises 10 subclauses, includes a requirement to: establish a system of protected areas;⁸⁶ develop guidelines for the management of these areas;⁸⁷ rehabilitate and restore degraded ecosystems and promote the recovery of threatened species;⁸⁸

⁷³ Vienna Convention on the Law of Treaties, Art 32(b).

⁷⁴ See eg Biodiversity Convention, COP 3, Decision III/9 – *Implementation of Articles 6 and 8 of the Convention*. This decision reaffirms “the great importance of the development and implementation by all Parties of national strategies, plans and programmes in accordance with Article 6 of the Convention”.

⁷⁵ *Report of the Executive Secretary of the Convention on Biological Diversity: Implementation of the Convention on Biological Diversity* (Background Paper 1, 2002) pp 4-5.

⁷⁶ Glowka et al, n 35, p 3.

⁷⁷ Glowka et al, n 35, p 29.

⁷⁸ As noted above, this is commensurate with best-practice identification and monitoring activities.

⁷⁹ Biodiversity Convention, Art 7(a).

⁸⁰ Biodiversity Convention, Art 7(b).

⁸¹ Biodiversity Convention, Art 7(b).

⁸² Biodiversity Convention, Art 7(c).

⁸³ Biodiversity Convention, Art 7(d).

⁸⁴ Biodiversity Convention, COP 3, Decision III/10; COP 5, Decision V/7; COP 6, Decision VI/7.

⁸⁵ It has been held that a requirement “to promote” does not give rise to an obligation to “look to the effect” of the likely action. See *New South Wales Council for Civil Liberties Inc v Classification Review Board (No 2)* (2007) 159 FCR 108.

⁸⁶ Biodiversity Convention, Art 8(a).

⁸⁷ Biodiversity Convention, Art 8(b).

⁸⁸ Biodiversity Convention, Art 8(f).

prevent the introduction of, control or eradicate alien species that threaten ecosystems, habitats or species;⁸⁹ respect, preserve and maintain knowledge and practices of Indigenous peoples relevant for the conservation and sustainable use of biological diversity;⁹⁰ and regulate or manage processes identified pursuant to Art 7 that have a significant adverse impact on biodiversity.⁹¹

The second, less stringent category comprises three subclauses, which include “promoting” the following activities: the protection of ecosystems, natural habitats and the maintenance of viable populations;⁹² and environmentally sound and sustainable development in areas adjacent to protected areas.⁹³

There are two central COP decisions that reinforce the importance of implementing Art 8.⁹⁴ These decisions also tend to remind parties of the rate at which biodiversity is disappearing and the need for immediate action. For example, it was noted that “the reduction in the number of species and the fragmentation and degradation of ecosystems and habitats call not only for conservation but also for inter alia sustainable use and restoration of habitats”.⁹⁵

Article 10 – sustainable use of the components of biological diversity

This Article requires parties to integrate consideration of the conservation and sustainable use of biological resources into national decision-making.⁹⁶ They must also: adopt measures designed to avoid or minimise impacts on biological diversity;⁹⁷ protect and encourage customary use of biological resources so far as they are compatible with conservation goals and sustainable use;⁹⁸ support local populations to develop and implement remedial action where necessary;⁹⁹ and encourage cooperation between government and the private sector regarding sustainable use of biological resources.¹⁰⁰

The COP has discussed the implementation of this Article in some detail, noting that sustainable use of biodiversity is fundamental to achieving the Convention’s objectives.¹⁰¹ They have further determined that it is to be achieved by applying an ecosystem-based framework to biodiversity conservation.¹⁰²

Climate change

The Biodiversity Convention does not directly refer to climate change and its impacts on biological diversity. Nevertheless, several of the Convention’s Articles can only be upheld if contracting parties interpret them in light of this phenomenon. For example, Art 7(c) requires parties to “identify processes and categories of activities which have or are likely to have significant impacts on the

⁸⁹ Biodiversity Convention, Art 8(h).

⁹⁰ Biodiversity Convention, Art 8(j).

⁹¹ Biodiversity Convention, Art 8(l).

⁹² Biodiversity Convention, Art 8(d).

⁹³ Biodiversity Convention, Art 8(e).

⁹⁴ Biodiversity Convention, COP 2, Decision II/7; COP 3, Decision III/9.

⁹⁵ Biodiversity Convention, COP 3, Decision III/9.

⁹⁶ Biodiversity Convention, Art 10(a).

⁹⁷ Biodiversity Convention, Art 10(b).

⁹⁸ Biodiversity Convention, Art 10(c).

⁹⁹ Biodiversity Convention, Art 10(d).

¹⁰⁰ Biodiversity Convention, Art 10(e).

¹⁰¹ Biodiversity Convention, COP 7, Decision VII/12.

¹⁰² See the *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity Convention*: COP 7, Decision VII/12, Annex II.

conservation and sustainable use of biological diversity”.¹⁰³ Furthermore, sustainable use of the components of biodiversity can only be realised if management strategies take into account actual and likely future impacts of climate change.¹⁰⁴

As the Convention does not explicitly address what has been described by Ban Ki Moon as the greatest challenge facing our generation, the COP has had to provide parties with more specific guidance regarding treaty interpretation and implementation under climate change. Indeed, their work in this regard constitutes one of the best examples of how a framework convention can be legitimately interpreted so as to take into account emerging environmental issues.

One of the COP’s first initiatives was to convene an Ad Hoc Technical Expert Group on Biological Diversity and Climate Change (Expert Group). To date the Expert Group has produced two reports. The first of these sought to encourage incorporation of biodiversity considerations into the implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.¹⁰⁵ The second focussed on climate change mitigation and adaptation measures to protect biodiversity.¹⁰⁶ Following the second report, the COP recommended applying the ecosystem approach to climate change mitigation and adaptation projects designed to facilitate biodiversity conservation and sustainable use at the national level.¹⁰⁷ Subsequent COP decisions have emphasised (inter alia) the importance of: promoting synergies between the Biodiversity Convention and other treaties addressing climate change;¹⁰⁸ integrating climate change activities into the programs of work of the Convention;¹⁰⁹ monitoring the impacts of climate change on biodiversity; and reducing or eliminating those impacts.¹¹⁰

Ramsar Convention

The Ramsar Convention on Wetlands was adopted in Ramsar, Iran in 1971 and entered into force in 1975. Australia was one of the first countries to sign the Convention, and in 1974 designated the world’s first Wetland of International Importance, namely Cobourg Peninsula in the Northern Territory.¹¹¹

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.

Articles 2, 3 and 4 of the Ramsar Convention are relevant to the use and management of Basin water resources. These, together with relevant COP decisions, will be examined in turn.

¹⁰³ Climate change arguably constitutes a “process” for the purposes of this Article.

¹⁰⁴ Articles 6, 8(i) and 10 of the Biodiversity Convention deal with the sustainable use of biological diversity.

¹⁰⁵ Ad hoc Technical Expert Group on Biological Diversity and Climate Change, *Interlinkages Between Biological Diversity and Climate Change: Advice on the Integration of Biodiversity Considerations into the Implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol* (Secretariat of the Convention on Biological Diversity, 2003).

¹⁰⁶ Ad hoc Technical Expert Group on Biological Diversity and Climate Change, *Connecting Biodiversity Mitigation and Adaptation Measures: Report of the Second Ad Hoc Technical Expert Group on Biological Diversity and Climate Change* (Secretariat of the Convention on Biological Diversity, 2009).

¹⁰⁷ Biodiversity Convention, COP 7, Decision VII/15; COP 10 Decision X/33.

¹⁰⁸ Biodiversity Convention, COP 8, Decision, VIII/30. These treaties include the UNFCCC and the *United Nations Convention to Combat Desertification*.

¹⁰⁹ Biodiversity Convention, COP 9, Decision IX/16.

¹¹⁰ Biodiversity Convention, COP 10, Decision X/33.

¹¹¹ Article 4 requires contracting parties to designate at least one wetland to be included on the List when signing the Convention or when depositing its instrument of ratification.

Article 2 – listing, national sovereignty, removal from the List

This Article contains six subclauses, the most relevant of which are 2, 3 and 5.

Subclause 2 outlines criteria for inclusion on the List of Wetlands of International Significance. Wetlands should be selected on the basis of their “international significance in terms [of] ecology, botany, zoology, limnology or hydrology”, while wetlands of international importance to waterfowl should be given priority during the listing process.

Subclause 3 pertains to maintenance of national sovereignty. The tension between national sovereignty and fulfilment of treaty obligations was explored in some detail in respect of the Biodiversity Convention. Those comments may be applied to the Ramsar Convention.

According to subcl 5, contracting parties may extend the boundaries of listed wetlands or conversely, delete or restrict the boundaries of a wetland included on the List due to “urgent national interests”. The latter triggers a requirement to notify the Secretariat at the earliest time possible. The COP has provided contracting parties with general guidance regarding the interpretation of “urgent national interests”. While noting that the determination of an “urgent national interest” ultimately lies with the party in question, the COP has suggested taking into account a range of factors such as: national interest in maintaining the integrity of the wetland; consideration of all reasonable alternatives; the value of habitat harbouring endemic, threatened, rare, vulnerable or endangered species; and the economic, social and ecological values of the site in question.¹¹²

Article 3 – wise use of wetlands, change in ecological character

Wise use of wetlands

According to the first subclause of 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”.¹¹³

The “wise use of wetlands” has been defined by the COP to the Ramsar Convention as “the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development”.¹¹⁴

While “to promote” does not necessarily give rise to an obligation to guarantee a particular outcome,¹¹⁵ it is arguable that any interpretation of this clause must be consistent with the “Guidelines for the Implementation of the Wise Use Concept”¹¹⁶ developed by the Convention’s Wise Use Working Group. These Guidelines, which comprise COP decisions organised around specific themes, make it clear that governments should do more than merely “promote” wetland conservation. For example, they claim that “weak or incomplete laws” undermine proper implementation of the Ramsar Convention. They further state that the ecological character of wetlands can only be maintained in the presence of “water supply of appropriate quality and quantity”, which is “rarely reflected in law and planning”,¹¹⁷ while “[g]lobal climate change is expected to exacerbate the loss and degradation of wetland biodiversity”.¹¹⁸

Change in ecological character

According to the second subclause of this Article, contracting parties shall arrange to be informed if the ecological character of any listed wetland in its territory has changed, is changing or is likely to

¹¹² Ramsar Convention, COP 8, Resolution VIII.20. A full list of matters to consider can be found at Ramsar Convention on Wetlands, *General Guidance for Interpreting “Urgent National Interests” under Article 2.5 of the Convention and Considering Compensation under Article 4.2* (2003), http://www.ramsar.org/cda/en/ramsar-about-sites-general-guidance-for/main/ramsar/1-36-55%5E20785_4000_0 viewed 4 December 2012.

¹¹³ Ramsar Convention, Art 3.1.

¹¹⁴ Ramsar Convention, COP 9, Resolution IX.1, Annex A.

¹¹⁵ See eg *New South Wales Council for Civil Liberties Inc v Classification Review Board (No 2)* (2007) 159 FCR 108.

¹¹⁶ *The Ramsar Handbooks for the Wise Use of Wetlands*, n 45.

¹¹⁷ “Laws and Institutions: Reviewing Laws and Institutions to Promote the Conservation and Wise Use of Wetlands” in *The Ramsar Handbooks for the Wise Use of Wetlands*, n 45, p 31.

¹¹⁸ “Wise Use of Wetlands: Concepts and Approaches for the Wise Use of Wetlands” in *The Ramsar Handbooks for the Wise Use of Wetlands*, n 45, p 31, p 11.

change as a result of technological developments, pollution or other human interference. The COP has developed working definitions of “ecological character” and “change in ecological character”, as well as “Guidelines for Describing and Maintaining the Ecological Character of Listed Sites”.¹¹⁹

In short, ecological character is defined as “the structure and inter-relationships between the biological, chemical, and physical components of the wetland”, while change in ecological character is defined as “the impairment or imbalance in any of those processes and functions which maintain the wetland and its products, attributes and values”. The terms “processes”, “functions”, “values”, “products” and “attributes” are further clarified by the COP.¹²⁰

Article 4 – compensating for loss of wetland resources

Subclause 2 is the most relevant aspect of this Article. According to this subclause, contracting parties should “as far as possible” compensate for any loss of wetland resources resulting from a deletion or restriction of wetland boundaries. In doing so, particular attention should be paid to creating additional nature reserves for waterfowl and protecting, in the same area or elsewhere, an adequate portion of the original habitat.

The COP has reinforced the importance of not only adhering to Art 2.4, but has called on contracting parties to integrate “rules for compensation” into national wetland policy. They also highlighted the importance of focussing on “like for like” habitat substitution.¹²¹

ARE THE OBLIGATIONS CONTAINED IN THE BIODIVERSITY CONVENTION AND RAMSAR CONVENTION IMPLEMENTED IN THE BASIN PLAN?

Biodiversity Convention

As noted above, the targets against which the EWP’s objectives will be measured over time are not explicitly linked to the aforementioned treaty obligations. Thus it is *prima facie* difficult to assess whether the Basin Plan will implement the Biodiversity Convention. Nevertheless, both commonsense and science dictate that these obligations can only be met if enough environmental water is set aside to maintain and restore ecosystems in the Murray-Darling Basin. The following analysis is based on that premise.

Targets for indicator sites

The MDBA conducted hydrologic modelling in order to determine the flows necessary to meet designated ecological targets for species and habitats connected to 18 Key Ecological Asset indicator sites (iKEA) across the Basin.¹²² The results from these proxy sites were then used to determine Basin-wide SDLs. While it is beyond the scope of this article to comment on the accuracy of this methodology, logic suggests that failure to satisfy the ecological targets set for these 18 sites has broader repercussions for water-dependent ecosystems in the Basin. This in turn would undermine efforts to properly implement the Biodiversity Convention.

It is therefore of some concern that a CSIRO report published in late 2011 (and commissioned by the MDBA) states that a 2,800 GL/year reduction in extractions will fail to satisfy the ecological targets of several of the 18 iKEAs.¹²³ More specific analysis has also revealed that reducing extractions by 2,750 GL/year will be insufficient to satisfy: four out of five targets for the Lower Balonne Floodplain, and the fifth at a high level of risk; one out of three targets for the Lower Macintyre River, and remaining two at a high level of risk; five out of six targets for the

¹¹⁹ See Ramsar Convention, COP 6, Resolution VI.1, Annex, Pt 1 – “Working definitions”.

¹²⁰ See Ramsar Convention, COP 6, Resolution VI.1, Annex, Pt 1 – “Working definitions”.

¹²¹ Ramsar Convention, COP 7, Resolution VII.21.

¹²² Murray-Darling Basin Authority, *Appendix B – Hydrologic Indicator Sites* (2010), <http://download.mdba.gov.au/Appendix-B-hydrologic-indicator-sites.pdf> viewed 4 December 2012.

¹²³ Young et al, n 15, p 12.

Barwon-Darling River, and the sixth at a high level of risk; and two out of five targets for the Lower Darling River, and the remaining three at a high level of risk.¹²⁴

On the basis of this evidence, it is arguable that the Plan does not implement (at the very least) the objects and Arts 6, 8(d), 8(e), 8(f), 8(l) and 10 of the Biodiversity Convention in respect of these iKEAs. Given the importance of iKEAs in determining SDLs for all KEAs, the Plan is unlikely to uphold these Articles across the Basin as a whole.

Groundwater

Evidence indicates that the increased groundwater extractions proposed under the Plan are inconsistent with the relevant Convention obligations. Specifically, the peer-reviewed science referred to in the Guide indicates that groundwater extraction must be *decreased* in order to conserve and rehabilitate water-dependent ecosystems in the Murray-Darling Basin.¹²⁵

The Wentworth Group noted in respect of groundwater extractions under the first proposed Basin Plan:

Current groundwater extractions across the Basin are 1,744 GL per annum. The 2010 Guide recommended these be reduced by over 160 GL per annum [to 1584 GL]. The draft Plan does the opposite and now increases groundwater extractions to 4,340 GL. This is a net increase of 2,760 GL per annum difference between that recommended in the 2010 Guide and the draft Basin Plan.¹²⁶

The final version of the Basin Plan sets groundwater extraction at 3,186 GL/year, which constitutes a net increase of 1,602 GL/year to the original figure of 1,584 GL/year noted in the Guide. If it is accepted that the Guide represents the best available science, it is possible to conclude that these groundwater provisions breach Arts 8 and 10 of the Convention.

Climate change

The CSIRO has indicated that the 2,750 GL/year 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.¹²⁷ This is manifestly inconsistent with the objectives and Arts 6, 7(c), 8(i) and 10 of the Biodiversity Convention, as well as several COP decisions. Furthermore, the “adjustment mechanism” would only fulfil these obligations if it were deployed to reflect the most up-to-date regional climate change scenarios for the Basin. Thus the mechanism would need to incorporate predictions regarding temperature, rainfall and point potential evaporation, which would have to be updated as the latest science became available. As noted above, the mechanism’s operation will be determined by “supply measures” and “efficiency measures”. That is, it will not incorporate best available science in respect of climate change, or other matters.

Alien species

The Native Fish Strategy for the Murray-Darling Basin 2003-13 lists alien species as one of eight major threats to the native fish populations of the Basin.¹²⁸ One of the most effective means of managing alien species is creating the conditions necessary for native fish, in particular predatory species, to flourish. Activities that have been shown to favour native fish over alien species include: increasing environmental flows to ensure floods across floodplains to stimulate native fish breeding; restoring more natural flow regimes; and habitat restoration, including restoring natural function of wetlands and floodplain habitats.¹²⁹

¹²⁴ La Nauze J, *Modelled Ecological Outcomes of the Proposed Basin Plan Surface Water Sustainable Diversion Limits* (Australian Conservation Foundation, 2012).

¹²⁵ Wentworth Group of Concerned Scientists, *Statement on the 2011 Draft Murray-Darling Basin Plan* (2012) pp 13-18.

¹²⁶ Wentworth Group of Concerned Scientists, n 125, pp 13-18.

¹²⁷ Young et al, n 15, p 20.

¹²⁸ Murray-Darling Basin Commission, *Native Fish Strategy for the Murray-Darling Basin 2003-2013* (2003) p 2, http://www2.mdbc.gov.au/_data/page/184/NFS_action.pdf viewed 4 December 2012.

¹²⁹ Ansell D and Jackson P (eds), *Emerging Issues in Alien Fish Management in the Murray-Darling Basin: Statement, Recommendations and Supporting Papers* (proceedings of a workshop held in Brisbane, 30-31 May 2006).

As it is beyond contention that a 2,750 GL/year reduction in extractions will fail to replicate natural flows in the river system and across floodplains, it is unlikely that the Final Plan will facilitate the control and eradication of alien fish species, as required under the Biodiversity Convention.¹³⁰

Endangered species

The Murray-Darling Basin is home to 35 species of nationally endangered, vulnerable and near threatened birds,¹³¹ with wetlands serving as habitat for several of these species. The Department of Sustainability, Environment, Water, Populations and Communities (SEWPAC) has highlighted the threats posed to nationally listed birds by wetlands that have been drained or degraded by overgrazing.¹³² For example, SEWPAC has noted in regards to the Australian Painted Snipe:

It is probable that the loss and alteration of wetland habitat since European settlement is a key factor in the species decline, particularly in the Murray–Darling Basin, an area known to be important to the Australian Painted Snipe.¹³³

As habitat for the Australian Painted Snipe includes the Barmah-Millewa forest,¹³⁴ it is possible to extrapolate that failure to meet the ecological targets set for this iKEA could impact on the long-term viability of this species. This would in turn represent a failure to uphold the requirements of Art 8(f) of the Biodiversity Convention, which pertains to the protection of threatened species.

The Australian Painted Snipe represents but one example of a threatened bird species likely to be further endangered by wetland degradation in the Murray-Darling Basin. As such, it may be assumed that under the Plan, Art 8(f) of the Convention will not be upheld more generally across the Basin.

Ramsar Convention

Again, the Basin Plan does not specify how it intends to facilitate the “wise use” of Ramsar wetlands, or more generally implement the actions specified in the Guidelines. Nevertheless, there is sufficient scientific data to conclude that 2,750 GL/year will not be adequate to maintain the ecological character of at least eight Ramsar wetlands located in the Murray-Darling Basin, namely: the Barmah-Millewa Forest; the Coorong, Lower Lakes and Murray Mouth (CLLMM); Narran Lakes; Lake Albacutya; Gunbower Forest; NSW Central Murray State Forests; and the Riverland-Chowilla Floodplain.¹³⁵ Furthermore, the “SDL adjustment mechanism” could only hope to fulfil the Ramsar Convention if it were used to meet the ecological targets set for Ramsar wetlands in the Basin, which would in turn maintain the ecological character of these wetlands. As indicated in the opening paragraphs of this article, 3200 GL/year would still fail to meet 33% of ecological targets for indicator sites across the Basin. This includes numerous targets for Ramsar wetlands.¹³⁶

This following discussion includes case studies of the Barmah-Millewa Forest and the CLLMM in order to examine the Plan’s deficiencies and their impact on Ramsar wetlands in more detail.

¹³⁰ Biodiversity Convention, Art 8(h).

¹³¹ Listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

¹³² Australian Government, *Nationally Threatened Birds of the Murray-Darling Basin* (Department of Sustainability, Environment, Water, Population and Communities, 2011), <http://www.environment.gov.au/biodiversity/threatened/publications/m-d-fact.html> viewed 4 December 2012.

¹³³ Australian Government, *Nationally Threatened Species and Ecological Communities – Australian Painted Snipe* (Department of Sustainability, Environment, Water, Population and Communities, 2003), <http://www.environment.gov.au/biodiversity/threatened/publications/pubs/painted-snipe.pdf> viewed 4 December 2012.

¹³⁴ Murray-Darling Basin Authority, n 122, “Murray Region”.

¹³⁵ Friends of the Earth, *Submission on the Proposed Basin Plan* (2012).

¹³⁶ See generally MDBA, n 1.

The Barmah-Millewa Forest

The Barmah-Millewa Forest is a designated hydrologic indicator site¹³⁷ 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 water birds and contains 13 species recognised in international agreements.¹³⁸

Data suggests that only 21% of the Barmah-Millewa Forest is currently in good condition.¹³⁹ 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 12,500-60,000 ML/day (measured at Yarrawonga).¹⁴⁰

While documentation accompanying the Basin Plan indicates that proposed flow regimes will be sufficient to satisfy the needs of lower-lying components of this wetland (ie those that will be flooded with a water release of 25,000 ML),¹⁴¹ it goes on to state that “the duration of flow indicators above 25,000 ML/day will be difficult to achieve”.¹⁴² As such, there will rarely, if ever, be sufficient water available to maintain 100% of the red gum forest, red gum woodland and black box in good condition. Furthermore, modelling of 3200 GL/year with relaxed constraints indicated that two ecological targets for red gum woodlands would not be met (due to high flow constraints),¹⁴³ while the site as a whole would still have to survive a maximum of 13 years between flooding under this scenario (as opposed to the pre-development maximum gap of five years).¹⁴⁴ Relevantly, 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 [in the Barmah-Millewa wetland] would signal a change in ecological character”.¹⁴⁵

The Coorong, Lower Lakes and Murray Mouth

The CLLMM is a designated hydrologic indicator site under the Basin Plan.¹⁴⁶ 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”.¹⁴⁷ Nevertheless, ongoing high upstream diversions, coupled with drought, have driven the wetlands “to a point of crisis”.¹⁴⁸ The Coorong currently suffers from “low water levels, acidification, increased

¹³⁷ Murray-Darling Basin Authority, *Assessment of Environmental Water Requirements for the Proposed Basin Plan: Barmah-Millewa Forest* (MDBA Publication No 16/12, 2012), http://download.mdba.gov.au/proposed/EWR_proposed_BP_Barmah_Millewa.pdf viewed 4 December 2012.

¹³⁸ Murray-Darling Basin Authority, *Guide to the Proposed Basin Plan: Technical Background* (2010), <http://download.mdba.gov.au/Murray-region.pdf> viewed 4 December 2012.

¹³⁹ Cunningham SC, MacNally R, Griffioen P and White KF, *Mapping the Condition of River Red Gum and Black Box Stands in The Living Murray Icon Sites* (Murray-Darling Basin Authority, 2009) – a milestone report to the Murray-Darling Basin Authority as part of contract MD 1114.

¹⁴⁰ Murray-Darling Basin Authority, n 138.

¹⁴¹ Murray-Darling Basin Authority, *Assessment of Environmental Watering Requirements for the Proposed Basin Plan: Barmah-Millewa Forest* (2012) p 17.

¹⁴² Murray-Darling Basin Authority, n 141, pp 14, 17.

¹⁴³ MDBA, n 1, p 76.

¹⁴⁴ Wentworth Group of Concerned Scientists, n 1, p. 3. Citing MDBA, n 1, pp 71-76 inclusive.

¹⁴⁵ Murray-Darling Basin Authority, n 141, p 9.

¹⁴⁶ The Murray-Darling Basin Authority, *Assessing Environmental Water Requirements* (2010), Ch 11 – *The Coorong, Lower Lakes and Murray Mouth*, p 4.

¹⁴⁷ The Murray-Darling Basin Authority, n 146, p 2. Citing the Department of Environment and Heritage and the Arts (2009).

¹⁴⁸ Kingsford RT, Walker K, Lester R, Young W, Fairweather P, Sammut J and Geddes M, “A Ramsar Wetland in Crisis – the Coorong, Lower Lakes and Murray Mouth, Australia” (2001) 62 *Marine and Freshwater Research* 255.

salinity and changes in ecological character”.¹⁴⁹ 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.¹⁵⁰ In spite of this degradation, the modelling presented by the MDBA does not clarify whether 2,750 GL/year will be sufficient to meet the ecological targets set for the CLLMM.¹⁵¹

Conversely, scientific analysis conducted on behalf of the South Australian government 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”.¹⁵² Specifically, 2,750 GL/year 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 water birds, and may threaten several endangered native fish in the CLLMM region”.¹⁵³

Furthermore, the ecological character of the CLLMM is particularly vulnerable to the impacts of climate change: “The proportion of the Coorong that is ‘healthy’ is expected to decrease with climate change, unless freshwater flows increase, particularly under the high global warming scenario.”¹⁵⁴

Following pressure from the South Australian government and conservation groups, the MDBA included a suite of “enhanced environmental outcomes” for the CLLMM in the Final Basin Plan. These outcomes, which include maximum average daily salinity levels for the Coorong, are to be pursued “under the Commonwealth’s program to increase the volume of water resources available for environmental use by 450 GL per year”.¹⁵⁵ However an independent scientific review of the 3,200 GL/year relaxed constraints model found that “while there are marked ecological improvements evident with 3,200 GL compared to the 2,800 GL scenario, many of the South Australian Government defined metrics are still not fully met”.¹⁵⁶ Furthermore, the 3,200 GL/year relaxed constraint model indicates that three of the MDBA’s key ecological targets for the CLLMM (including two pertaining to maximum salinity levels), would not be achieved.¹⁵⁷

CONCLUSION

While the obligations contained in the Biodiversity Convention and Ramsar Convention are framed in general terms, they are still legally binding.¹⁵⁸ To that extent, they must be implemented in the Basin Plan in accordance with the test outlined by the High Court. That is, the statute or instrument purporting to give effect to the treaty or treaties in question must be “appropriate and adapted” to this task.¹⁵⁹

¹⁴⁹ Pittcock J and Finlayson C, “Australia’s Murray, Darling Basin: Freshwater Ecosystem Conservation Options in an Era of Climate Change” (2011) 62 *Marine and Freshwater Research* 232.

¹⁵⁰ Kingsford et al, n 148.

¹⁵¹ The MDBA, n 1, p xiii.

¹⁵² Goyder Institute for Water Research, *Technical Report No 12/2, Expert Panel Assessment of the Likely Ecological Consequences in South Australia of the Proposed Murray-Darling Basin Plan* (2012) p vii.

¹⁵³ Goyder Institute for Water Research, n 152, p vii.

¹⁵⁴ Kingsford et al, *Engineering a Crisis in a Ramsar Wetland: The Coorong, Lower Lakes and Murray Mouth, Australia* (Australian Wetlands and Rivers Centre UNSW, 2009) p 19. Citing Lester et al, *Ecosystem States of the Coorong: An Ecosystem Response Model. Method Development and Sensitivity Analyses* (CSIRO, 2009) p 126.

¹⁵⁵ *Final Basin Plan*, cl 7.09(d) and (e); Sch 5.

¹⁵⁶ Memorandum from Tony Minns (Director), *Goyder Institute Peer Review of the South Australian Government Eco-hydrological Assessment of Additional Model Scenarios for the Basin Plan* (Goyder Institute for Water Research, 2012) p 1.

¹⁵⁷ Murray-Darling Basin Authority, *Hydrologic Modelling of the Relaxation of Operational Constraints in the Southern Connected System: Methods and Results* (October 2012) p xii.

¹⁵⁸ *Commonwealth v Tasmania* (1983) 158 CLR 1 at 24 per Dean J.

¹⁵⁹ See *State of Victoria v Commonwealth* (1996) 187 CLR 416; 138 ALR 129 at 146 (ALR).

The foregoing analysis strongly suggests that the Plan cannot satisfy this test. That is, reducing extractions by up to 3,200 GL/year renders it incapable of being appropriate and adapted to implementing treaties that foster the sustainable use, protection and rehabilitation of biodiversity on the one hand, and the wise use of wetlands on the other.

Based on the data presented in this article, it is possible to conclude that breaches of the Ramsar Convention (and associated Guidelines) would be particularly flagrant. Indeed, a reduction in extractions of up to 3,200 GL/year is arguably insufficient to support even a strict reading of Art 3(1), according to which contracting parties need only “promote” the wise use of wetlands. Finally, the predicted changes to the ecological character of at least eight Ramsar wetlands will trigger the reporting requirement stipulated in Art 3(2) of the Convention.

It is also probable that the Basin Plan will not meet the High Court’s test for partial treaty implementation insofar as reducing extractions by up to 3,200 GL/year has consequences across the Basin that are manifestly inconsistent with both Conventions.¹⁶⁰ Indeed, it is conceivable that these deficiencies are so substantial so as to invalidate the Plan on one of two grounds.¹⁶¹ First, the Basin Plan is required to comply with the requirements of the *Water Act*, which include implementing a series of “relevant international agreements”. Failure to do so would be fatal to the Plan.¹⁶² Secondly, the *Water Act* and Basin Plan derive the majority of their constitutional legitimacy from the Biodiversity Convention and Ramsar Convention. As such, failure to properly implement one or both of these Conventions is more likely to render the Plan unconstitutional than inadequate implementation of other relevant international agreements.

¹⁶⁰ *State of Victoria v Commonwealth* (1996) 187 CLR 416; 138 ALR 129 at 148 (ALR).

¹⁶¹ See *State of Victoria v Commonwealth* (1996) 187 CLR 416; 138 ALR 129 at 148 (ALR).

¹⁶² See *Project Blue Sky Inc v Australian Broadcasting Authority* (1998) 194 CLR 355.