

MURRAY-DARLING BASIN ROYAL COMMISSION

ISSUES PAPER No 2

A. The purpose of this Issues Paper

1. The main purpose of this Paper is to notify interested persons and organisations of the consideration the Commissioner has been giving to the following issues central to the Basin Plan, and to invite written submissions specifically in relation to these issues:
 - (a) the manner in which the *Water Act 2007* (Cth) (**Water Act**) has been construed in order to determine a long-term average sustainable diversion limit which reflects an *environmentally sustainable level of take* (**ESLT**);
 - (b) what the consequences of that construction might be for what is defined below as the proposed SDL Adjustment Amendment;

 - (c) what the consequences of that *Water Act* construction might be for what is defined below as the proposed NBR Amendment, and
 - (d) whether the Basin Plan itself complies with the *Water Act* if the Basin-wide long-term average SDL does not reflect an ESLT.
2. While these matters were raised at paragraph [28(a)] of the Commission's Issues Paper No 1, published in late March, it is considered that they are of sufficient importance to now warrant expansion in the more specific form they are addressed in this Paper.
3. The Commissioner wishes to make two further points at the outset of this paper:
 - a. The opinions expressed in this Issues Paper are not final. They do, however, represent views that the Commissioner considers have considerable force;

- b. This Paper raises the issue of the construction of the *Water Act* from a legal perspective, specifically in the context of its use of the term *environmentally sustainable level of take*. That task necessarily requires consideration of how ESLT is defined, including by reference to environmental criteria, and what role social or economic outcomes should play in the legal exercise of construing the *Water Act*. The views that the Commissioner expresses below are based on a purely legal interpretation of the Act. It does not follow that the Commissioner is in any way suggesting that social and economic outcomes are not important in the Basin Plan. They are clearly of vital importance to Basin communities, and insofar as they are reflected in the objects and purposes of the *Water Act* and Basin Plan. The legal issue, therefore, is whether social and economic outcomes are to be considered in determining an ESLT, or whether such outcomes are to be engaged with only after an ESLT has been determined.
4. The Commission now invites all persons and organisations relevantly interested in the construction aspects of the *Water Act* raised in this paper to provide a written submission to the Commission, limited to no more than ten (10) pages, by **1 June 2018**. The Commission will also directly invite certain persons and organisations to make a submission on these matters.
5. The Commission will hold hearings on these matters on dates that will be notified soon. The Commissioner then will likely deliver an Interim Report.

B. Introduction

6. On 14 February 2018, the Senate voted to disallow an amendment to the *Basin Plan 2012* (**Basin Plan**) which was proposed following the Murray-Darling Basin Authority's (MDBA) Northern Basin Review (**NBR Amendment**). The ultimate effect of the proposed amendment would have been to reduce the amount of surface water¹ required to be recovered for the environment in the northern Basin from 390GL to 320GL. This in turn would have reduced the total amount of water required to be recovered for the environment under the Basin Plan from 2,750GL to 2,680GL. Another way of saying this is that it raised by 70GL the Basin-wide long-term average

¹ This Issues Paper only concerns surface water.

sustainable diversion limit (**Basin-wide SDL**). That amendment was disallowed by the Senate on 14 February 2018.

7. A further disallowance motion before the Senate concerning the Basin Plan has been adjourned until 8 May 2018. This disallowance motion is in respect of a further proposed amendment to the Basin Plan which has followed the MDBA's approval of 36 supply measures submitted by Southern Basin States back in 2016 (**SDL Adjustment Amendment**). The ultimate effect of this SDL Adjustment Amendment would be to reduce the amount of water required to be recovered for the environment by 605GL – that is, it will increase the Basin-wide SDL by 605GL.²
8. In relation to the SDL Adjustment Amendment, the majority of the related supply measures are “proposed” projects, and also have not been implemented. Under the Basin Plan, they do not need to be implemented until 30 June 2024: Basin Plan s 7.12(3)(a).

9. Despite the fact that the majority of the measures for the SDL Adjustment Amendment have not yet been implemented, the proposed adjustment would, if made to the Basin Plan, have the immediate effect of raising the Basin-wide SDL by 605GL (i.e. by reducing the amount of water required to be recovered for the environment by that volume).
10. Presumably then, when Water Resource Plans are accredited by 1 July 2019, the sum total of their long-term average sustainable diversion limits would increase the Basin-wide SDL by 605GL – although this volume would have to be reduced to 543GL to take into account of the 5% rule: *Water Act* s 23A(4); Basin Plan s.7.19
11. The Commissioner considers that the proposed SDL Adjustment Amendment raises the following issues:

² The Commission notes that, technically speaking, given the amendment was to a legislative instrument, the SDL Adjustment Amendment has already come into force and the Basin Plan has already been amended. However, to avoid complex or confusing language of that nature, this Paper speaks in terms that the amendment has not yet been made.

- (a) is the proposed adjustment in accordance with a proper construction of the *Water Act*, bearing in mind that the Basin-wide SDL must always reflect an ESLT, as that term is defined in the Act?
 - (b) is it good policy in any event to increase the Basin-wide SDL (i.e. decrease the water to be recovered for the environment) prior to the implementation of all measures the subject of the SDL Adjustment Amendment, and an analysis of their actual impact?
- 12. The NBR Amendment was proposed by the MDBA on the basis of considerations arising from the Northern Basin Review and commitments by the Commonwealth and Northern Basin States to implement certain “toolkit” measures in the Northern Basin, as described in its Northern Basin Review Report. These toolkit measures have no statutory force, and cannot be implemented by the MDBA.
- 13. In a similar vein to the SDL Adjustment Amendment, despite the fact that the “toolkit” measures have no statutory force and have not yet been implemented, the NBR Amendment proposed to increase the Northern Basin SDL by 70GL with immediate effect. Naturally, given the disallowance on 14 February 2018, that did not eventuate. That currently disallowed amendment also raises the following issues:
 - (a) would the proposed NBR Amendment have been in accordance with a proper construction of the *Water Act*, bearing in mind that the Basin-wide SDL must always reflect an ESLT, as that term is defined in the Act?
 - (b) is it good policy in any event to increase the Basin-wide SDL (i.e. decrease the water to be recovered for the environment) prior to the implementation of all the “toolkit” measures upon which, at least in part, the proposed amendment was based?
- 14. As indicated above, it is mandatory for the Basin Plan to at all times reflect an *environmentally sustainable level of take*. This term is defined in the *Water Act* by entirely environmental criteria. The MDBA has, however, expressly indicated in a number of its reports that the current Basin-wide SDL (representing a recovery of water

for the environment of 2,750GL) has been based on what it describes, in simplistic terms, as a *triple bottom line* approach to the construction of the *Water Act*. That is, by seeking equal environmental, social and economic outcomes. The Commissioner is considering whether in taking this approach to the construction of the *Water Act* (which was no doubt taken in accordance with some legal advice it received), the MDBA has fallen into legal error. In short, the Commissioner is of the view that there is force in the proposition that the *Water Act*, properly defined, requires environmental considerations to be paramount, and that economic and social outcomes are irrelevant to the determination of an ESLT, and hence to the setting of a Basin-wide SDL. The Commissioner's view is based on:

- (a) the requirement in the *Water Act* that the long-term average sustainable diversion limit must reflect an *environmentally sustainable level of take* (s 23(1)), and the definition given to that term in s 4, which describe criteria that are exclusively environmental;
- (b) the objects and purposes of the *Water Act*, and the mandatory content of critical concepts, set out in ss 3, 20, 21, 22 and 23, and
- (c) the constitutional basis for enacting the *Water Act* – in particular, the implementation of various international agreements ratified by Australia concerning the restoration, maintenance and protection of the environment.

C. Does a recovery of 2,750GL of water for the environment reflect an ESLT?

Proper construction of the Water Act

15. There are strong textual and purposive reasons that support the view that the *Water Act* prioritises environmental outcomes over social and economic outcomes, and that such social and economic outcomes - while centrally relevant to other requirements of the Basin Plan - are extraneous to the determination of an ESLT. Those reasons include those discussed in the following paragraphs.
16. The *Water Act* relies on the implementation of various international agreements ratified by Australia for its constitutional validity: *Water Act* s 9(a). While other heads of

Commonwealth power are invoked, the apparently dominant Commonwealth legislative power for the purposes of the *Water Act* is the external affairs power: *Constitution* s 51(xxix).

17. A number of agreements and international conventions are mentioned in the Definitions section of the *Water Act* (s 4), but the most important are the *Ramsar Convention*³ and the *Biodiversity Convention*⁴.
18. The *Ramsar Convention* is concerned with wetlands and their ecological significance as “*regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl*”: see Preamble. The obligations imposed are concerned with the identification and conservation of wetlands of international importance, and the “wise use” of such wetlands, which has been defined by the Conference of Parties for the *Ramsar Convention* as “*the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development*”.
19. Article 2 of the *Ramsar Convention* requires the contracting parties to “*designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance*”, and Article 3 requires the parties to “*formulate and implement their planning so as to promote the conservation of wetlands included in the list, and as far as possible the wise use of wetlands in their territory*”.
20. There are 16 Ramsar wetlands in the Murray-Darling Basin.
21. The objects listed in Article 1 of the *Biodiversity Convention* are:
 - (a) the conservation of biological diversity;
 - (b) the sustainable use of the components of biological diversity, and

³ *Convention on Wetlands of International Importance especially as Waterfowl Habitat* (signed 2 February 1971) (***Ramsar Convention***).

⁴ *Convention on Biological Diversity* (signed 5 June 1992) (***Biodiversity Convention***).

- (c) the equitable sharing of the benefits of the genetic resources of biological diversity.
22. “Biological diversity” is defined in Article 2 to mean *“the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems”*.
23. Article 8 sets out a number of obligations on the parties to the Convention in order to achieve the Convention objectives. These include:
- (i) 8(c): a requirement that the parties *“regulate and manage biological resources important for the conservation of biological diversity”*;
 - (ii) 8(f): requiring the parties to *“rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans and other management strategies”*.
24. Further, Article 10 requires the parties to *“adopt measures relating to the use of biological resources to avoid or minimise adverse impacts on biological diversity”*.
25. The objects of the *Water Act* are set out in s 3 and are in the following terms:

3 Objects

The objects of this Act are:

- (a) to enable the Commonwealth, in conjunction with the Basin States, to manage the Basin water resources in the national interest; and
- (b) to give effect to relevant international agreements (to the extent to which those agreements are relevant to the use and management of the Basin water resources) and, in particular, to provide for special measures, in accordance with those agreements, to address the threats to the Basin water resources; and

- (c) in giving effect to those agreements, to promote the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes; and
- (d) without limiting paragraph (b) or (c):
 - (i) to ensure the return to environmentally sustainable levels of extraction for water resources that are over-allocated or overused; and
 - (ii) to protect, restore and provide for the ecological values and ecosystem services of the Murray-Darling Basin (taking into account, in particular, the impact that the taking of water has on the watercourses, lakes, wetlands, ground water and water-dependent ecosystems that are part of the Basin water resources and on associated biodiversity); and
 - (iii) subject to subparagraphs (i) and (ii)—to maximise the net economic returns to the Australian community from the use and management of the Basin water resources; and
- (e) to improve water security for all uses of Basin water resources; and
- (f) to ensure that the management of the Basin water resources takes into account the broader management of natural resources in the Murray-Darling Basin; and
- ~~(g) to achieve efficient and cost-effective water management and administrative practices in relation to Basin water resources; and~~
- (h) to provide for the collection, collation, analysis and dissemination of information about:
 - (i) Australia's water resources; and
 - (ii) the use and management of water in Australia.

26. Section 20 of the *Water Act* outlines the purposes of the Basin Plan. It is in the following terms:

20 Purpose of Basin Plan

The purpose of the Basin Plan is to provide for the integrated management of the Basin water resources in a way that promotes the objects of this Act, in particular by providing for:

- (a) giving effect to relevant international agreements (to the extent to which those agreements are relevant to the use and management of the Basin water resources); and
- (b) the establishment and enforcement of environmentally sustainable limits on the quantities of surface water and groundwater that may be

taken from the Basin water resources (including by interception activities); and

- (c) Basin-wide environmental objectives for water dependent ecosystems of the Murray Darling Basin and water quality and salinity objectives; and
- (d) the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes; and
- (e) water to reach its most productive use through the development of an efficient water trading regime across the Murray Darling Basin; and
- (f) requirements that a water resource plan for a water resource plan area must meet if it is to be accredited or adopted under Division 2; and
- (g) improved water security for all uses of Basin water resources.

27. Section 21 of the *Water Act* sets out the general basis upon which the Basin Plan is to be developed. Importantly, it is to be developed on the basis of two statutory “facts”: the fact that the use of the water resources of the Basin has had a significant adverse impact on its biodiversity, and the fact that it requires “special measures” to manage and conserve the Basin’s biodiversity. Section 21 is in the following terms:

21 General basis on which Basin Plan to be developed

Basin Plan to implement international agreements

- (1) The Basin Plan (including any environmental watering plan or water quality and salinity management plan included in the Basin Plan) must be prepared so as to provide for giving effect to relevant international agreements (to the extent to which those agreements are relevant to the use and management of the Basin water resources).
- (2) Without limiting subsection (1), the Basin Plan must:
 - (a) be prepared having regard to:
 - (i) the fact that the use of the Basin water resources has had, and is likely to have, significant adverse impacts on the conservation and sustainable use of biodiversity; and
 - (ii) the fact that the Basin water resources require, as a result, special measures to manage their use to conserve biodiversity; and
 - (b) promote sustainable use of the Basin water resources to protect and restore the ecosystems, natural habitats and species that are reliant on the Basin water resources and to conserve biodiversity.

- (3) Without limiting subsection (1), the Basin Plan must also:
 - (a) promote the wise use of all the Basin water resources; and
 - (b) promote the conservation of declared Ramsar wetlands in the Murray-Darling Basin; and
 - (c) take account of the ecological character descriptions of:
 - (i) all declared Ramsar wetlands within the Murray-Darling Basin; and
 - (ii) all other key environmental sites within the Murray-Darling Basin;

prepared in accordance with the National Framework and Guidance for Describing the Ecological Character of Australia's Ramsar Wetlands endorsed by the Natural Resource Management Ministerial Council.

Basis on which Basin Plan to be developed

- (4) Subject to subsections (1), (2) and (3), the Authority and the Minister must, in exercising their powers and performing their functions under this Division:
 - (a) take into account the principles of ecologically sustainable development; and
 - (b) act on the basis of the best available scientific knowledge and socio-economic analysis; and
 - (c) have regard to the following:
 - (i) the National Water Initiative;
 - (ii) the consumptive and other economic uses of Basin water resources;
 - (iii) the diversity and variability of the Basin water resources and the need to adapt management approaches to that diversity and variability;
 - (iv) the management objectives of the Basin States for particular water resources;
 - (v) social, cultural, Indigenous and other public benefit issues;
 - (vi) broader regional natural resource management planning processes;
 - (vii) the effect, or potential effect, of the Basin Plan on the use and management of water resources that are not Basin water resources;

- (viii) the effect, or the potential effect, of the use and management of water resources that are not Basin water resources on the use and management of the Basin water resources;
- (ix) the State water sharing arrangements;
- (x) any other arrangements between States for the sharing of water.

Basin Plan not to reduce protection of planned environmental water provided for under existing State water management laws

- (5) The Basin Plan must ensure that there is no net reduction in the protection of planned environmental water from the protection provided for under the State water management law of a Basin State immediately before the Basin Plan first takes effect.

Basin Plan not to be inconsistent with Snowy Water Licence

- (6) The Basin Plan must not be inconsistent with the provisions of the licence issued under section 22 of the *Snowy Hydro Corporatisation Act 1997* of New South Wales.
- (7) In applying subsection (6), a variation of the licence after the commencement of Part 2 of this Act is to be disregarded unless the variation is prescribed by the regulations for the purposes of this subsection.

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- 28. One observation that can be made concerning the above sections of the *Water Act* is that the extent to which the optimisation of economic and social outcomes is a purpose of the Basin Plan, it relates to the “*use and management of Basin water resources*”. The real issue is whether this is something that should be sought only after an ESLT is determined, or whether such outcomes form part of the determination of that level of take.
 - 29. When regard is had to the objects of the *Water Act*, the objects of the Basin Plan and the general basis upon which the Basin Plan is to be prepared, a fair observation that can be made is that environmental concerns appear to be dominant. That this is the case, however, seems to be made good by the requirements for the mandatory content of the Basin Plan, and the fact that the long-term average sustainable diversion limit for the Plan must reflect an ESLT.
 - 30. In addition to the general basis upon which the Basin Plan is to be prepared, the *Water Act* prescribes certain mandatory content. Under s 22 item 6, this includes the:

Maximum long-term annual average quantities of water that can be taken, on a sustainable basis, from:

- (a) the Basin water resources as a whole; and
- (b) the water resources, or particular parts of the water resources, of each water resource plan area.

31. In short, the Basin Plan must include a Basin-wide SDL, and each Water Resource Plan must include a long-term average sustainable diversion limit for the Water Resource Plan Areas.

32. Section 23(1) of the *Water Act* is in the following terms:

23 Long-term average sustainable diversion limits

(1) A long-term average sustainable diversion limit must reflect an environmentally sustainable level of take.

33. ESLT is defined in the following manner in s 4 of the *Water Act*:

Environmentally sustainable level of take for a water resource means the level at which water can be taken from that water resource which, if exceeded, would compromise:

- (a) key environmental assets of the water resource; or
- (b) key ecosystem functions of the water resource; or
- (c) the productive base of the water resource; or
- (d) key environmental outcomes for the water resource.

34. “Environmental assets” is defined to include:

- (a) water dependent ecosystems; and
- (b) ecosystem services; and
- (c) sites with ecological significance.

35. “Environmental outcomes” is defined to include:

- (a) ecosystem function;
 - (b) biodiversity; and
 - (c) water quality; and
 - (d) water resource health.
36. It seems clear that the definition of ESLT is to be determined on the basis of four criteria that are exclusively environmental considerations. Further, the word “compromise” in the definition of ESLT is almost certainly a reference to “*endangering*” or “*exposing to danger*”, or to “*make liable to danger*”: The Macquarie Dictionary; or to “*bring into danger*”: The Australian Concise Oxford Dictionary. That is, the ESLT in the Basin Plan (which must be reflected in the long-term average sustainable diversion limit) must be set at a level that does not put into danger:
- (a) key environmental assets;
 - (b) key ecosystem functions;
 - (c) the productive base⁵ of the water resource;
 - (d) key environmental outcomes.
37. “Ecosystem” is not defined in the *Water Act*, but a construction consistent with the objects of the Act is found in Article 2 of the *Biodiversity Convention*, which defines ecosystem as “*a dynamic complex of plant, animal, and microorganism communities and their non-living environment interacting as a functional unit*”. This emphasises that an ecosystem includes not just living things, but their environment – relevantly to the Basin, the water resources.
38. Based on the above, the Commissioner considers there is force to the proposition that the primary concern of the Basin Plan is, *first*, to set an ESLT, which is to be reflected in the Basin-wide SDL. This is mandatory.

⁵ The reference to “productive base” seems, consistently with the other three criteria, to be a reference to an environmentally productive base. This is the approach the MDBA has taken: MDBA, ‘The Proposed Environmentally Sustainable Level of Take for Service Water of The Murray Darling Basin: Method and Outcomes’, (November 2011) 30.

39. *Secondly*, that the long-term average sustainable diversion limit reflecting an environmentally sustainable level of take is to be determined solely on the basis of environmental criteria. Social and economic outcomes are irrelevant to this determination.
40. Economic and social outcomes should be optimised under the Basin Plan – indeed, they must be⁶ – but only after the setting of an ESLT. Once that matter is determined, and the long-term average sustainable diversion limit is set, then the water resources of the Basin must be used and managed in a manner that optimises environmental, social and economic outcomes.
41. Not only does this view seem to be supported by both the text of the *Water Act*, its objects and purposes, and the statutory facts upon which the Basin Plan is to be prepared, it arguably accords with common sense. A Basin Plan that sets an environmentally sustainable level of take, and after that process then has regard to optimising economic and social outcomes within the context of that level of take, has logical force. A Basin Plan that seeks to simultaneously grapple with economic, environmental and social outcomes might achieve the optimisation of none of them.

Evidence that the Basin Plan does not currently reflect an ESLT

42. The current Basin-wide SDL, which would need to be reflected in the Water Resource Plans to be accredited on or before 1 July 2019, amounts to a recovery of water for the environment of 2,750GL.
43. In various reports published by the MDBA leading to the enactment of the Basin Plan in 2012, it indicated that it had taken into account social and economic outcomes in the determination of the long-term average sustainable diversion limit.
44. For example, in the MDBA’s ‘Guide to the Proposed Basin Plan’ (2010) (**The Guide**), it advised that its hydrological analysis had identified that the volume of additional surface water that needed to be recovered for the environment to achieve an environmentally sustainable level of take was between 3,000GL per year and 7,600GL

⁶ *Water Act* s 20(d).

per year. This was the range of water needed to be recovered for the environment that was said to be based on the “*best available science*” (a requirement of the *Water Act*), and had been the subject of extensive expert and peer review: see the Guide (Volume 1) xvi, 108. In Volume 2 of the Guide, it is estimated that a range of Basin-wide reduction in diversions from 3,856GL to 6,983GL was needed to achieve environmental water requirements set out in the Guide. A 3,856GL reduction was described as having “high uncertainty” of achieving the environmental water requirements, and a 6,983GL reduction in diversions was described as having a “low uncertainty” of achieving environmental water requirements: see the Guide (Volume 2) 114.

45. However, the MDBA has construed the *Water Act* such that it considers that the optimisation of environmental, economic and social outcomes are three equal objectives. This “*interpretation has guided the Authority’s judgment about developing SDL proposals for the purposes of the discussion*”: see the Guide, 106. For this reason, while as stated above the best available science indicated a range of water recovery from the environment of 3,000GL to 7,600GL, the Authority “*placed an upper bound*” on the reduction of water to be used for consumptive use because “*any reduction in current diversion limits will result in social and economic impacts*”: see the Guide, 108.
46. The Guide reveals that the MDBA approached the determination of an ESLT as including a consideration of economic and social outcomes, rather than first determining what the ESLT should be with regard only to the definition of that term in the *Water Act*.
47. In its November 2011 report entitled ‘The Proposed Environmentally Sustainable Level of Take for Surface Water of The Murray-Darling Basin: Method and Outcomes’ (**ESLT Report**), the MDBA confirmed its approach in the course of discussing its analysis of modelling done on three scenarios of water recovery for the environment: 2,400GL, 2,800GL, and 3,200GL. While by this time the MDBA had indicated that it preferred the “indicator site” method for determining an ESLT (as distinct from an “end of system” flow analysis), its method of determining an ESLT incorporated an assessment of social and economic benefits, and the requirement of optimising environmental, social and economic outcomes: ESLT report, vi.

48. Further, in its Northern Basin Review, the MDBA has taken account of social and economic outcomes in reaching the view that the amount of water to be recovered for the environment in the Northern Basin should be reduced from 390GL to 320GL – a matter noted in the NBR Amendment, disallowed by the Senate: see para [78] below.
49. The MDBA also appears to have approached the word “compromise” in the definition of ESLT in a manner involving compromise between environmental, social and economic outcomes rather than in relation to the concept of “endangering” or “putting in danger” environmental criteria such as key environmental assets, and key ecosystem functions. In relation to the determination task before it, the MDBA said this:

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.

The task for determining an ESLT is therefore to determine the level of take that aligns with this objective and is consistent with the legal definition of ESLT provided in the Water Act. To do this, MDBA has approached implementing the concept of compromise in the definition of ESLT having regard to the objects of the Water Act, the purpose of the Basin Plan, the objective of a healthy working Basin and the wise use concept, and the need to optimise economic, social and environmental outcomes – in this sense taking into account a triple bottom line approach”: ESLT report, 2-3.

50. The Commissioner is inclined to take the view that this approach to the word “compromise” in the definition of ESLT in s 4 of the *Water Act* is not maintainable, or alternatively that he is presently unable to see how it is maintainable.
51. The framework for determining an ESLT was said to establish a comprehensive set of local environmental objectives and ecological targets that reflect the Basin-wide environmental objectives and targets of the Basin Plan, but then incorporated into this is an assessment of social and economic benefits and costs to changes in water use. The method takes into account the need to optimise environmental, social and economic outcomes by, amongst other examples, selecting ESLT options for testing that give consideration to economic, social and environmental outcomes: ESLT report, 16.

52. The MDBA's framework for determining an ESLT does not appear to be consistent with the definition of that term set out in the *Water Act*. In modelling ESLT options, the MDBA said that it "had to take into account social and economic implications": ESLT report, 66. As indicated above, the issue arises as to whether this demonstrates legal error.
53. There is evidence therefore from the MDBA reports that the approach to determining an ESLT has not been carried out in accordance with the proper construction of the *Water Act*.
54. There is also evidence that recovering an amount of water for the environment of 2,750GL does not, as a matter of fact, represent an ESLT in accordance with the definition of that term under the *Water Act*. It is not part of the purpose of this Issues Paper to set out all of the evidence in that regard. However, some examples of such evidence are set out in the following paragraphs.
55. In a report titled 'Science Review of the Estimation of an Environmentally Sustainable Level of Take for the Murray Darling Basin' (November 2011) (**CSIRO report**), the CSIRO expressed the opinion that the modelled 2,800GL reduction scenario "*does not meet several of the specified hydrologic and ecological targets*" for the Basin: CSIRO report, 4, 30. The CSIRO also expressed a concern that the ESLT as determined by the MDBA did not factor in any possible reduction in rainfall as a result of climate change protections: CSIRO report, 20.
56. In a report prepared by Jason Higham in March 2012 for the South Australian Department of Environment and Natural Resources entitled 'An Analysis of MDBA Modelling Output for the Draft Basin Plan: Hydrodynamic Modelling of the Coorong and Murray Mouth' (**DENR Report**), the opinion was expressed that, under the 2,750GL water recovery scenario:

there are multiple years within the 114 years modelled in which average salinities in the Coorong South Lagoon exceed known thresholds for important plants and animals...Only the provision of larger volumes (up to 3200GL) reduces the number and duration of consecutive years when salinity thresholds are exceeded ... under the

2750GL scenario ... the Coorong would remain at considerable risk of ecological degradation during dry periods: DENR report, ii & iii.

57. The Wentworth Group of Concerned Scientists have also published a number of reports in which they express concerns about a water recovery target of 2,750GL including that “*a net target of 2,800GL has no chance of restoring the rivers of the Murray Darling Basin to health*”: Wentworth Group of Concerned Scientists, ‘Does a 3,200GL reduction in extractions combined with the relaxation of 8 constraints give a healthy working Murray Darling Basin river system?’ (October 2012) 1; see also for example Wentworth Group of Concerned Scientists, ‘Review of Water Reform in the Murray Darling Basin’ (November 2017).
58. Without providing an exhaustive list of all Reports, analysis by the Goyder Institute for Water Research also suggest that there is some doubt about the capacity of a recovery of 2,750GL for the environment meeting all environmental watering requirements for some key environmental assets.
59. A further concern of the Commissioner is that the range of reduction in diversions changed from a range of 3,856GL (high uncertainty of achieving environmental water requirements) to 6,983GL (low uncertainty of achieving environmental water requirements) in volume 2 of the Guide, to a figure of 2,750GL in the ESLT report, which is now reflected in the current Basin Plan. In the ESLT report the MDBA said that its indicator site method for determining a reduction in diversions was “much more robust” than the method used 12 months prior in the Guide. However, there does not appear to be a great deal of publicly available information that demonstrates a proper scientific justification for the change between the Guide and the ESLT report referred to above. One possible explanation, which the Commissioner is interested to hear views on, is whether the change has resulted from a much greater focus on social and economic outcomes, as well as a change to modelling method.
60. The Commissioner is therefore concerned that the ESLT determined for the Basin Plan has resulted from:

- (a) advice being given to the MDBA which involved an incorrect construction of that term as it is defined in the *Water Act*, and
 - (b) that as a result of the MDBA following this advice, the Basin-wide SDL does not reflect an ESLT, which is a mandatory requirement for the Plan.
61. If the SDLs for the Basin Plan do not reflect an ESLT, there is a real risk that all or part of the Basin Plan is unlawful.
62. Further on this issue, it should be noted that the opinions expressed above in relation to the proper construction of the *Water Act* are substantially similar to those urged long ago in submissions made to the Senate Legal and Constitutional Affairs References Committee in 2011: see for example Mr Paul Kildea and Professor George Williams, Gilbert + Tobin Centre of Public Law, Submission to Senate Standing Committees on Legal and Constitutional Affairs, *Inquiry into Provisions of the Water Act 2007*, 16 March 2011; Australian Network of Environmental Defender's Offices, Submission to Senate Inquiry into Provisions of the Water Act 2007, March 2011. The potential unlawfulness of the Basin-wide SDL has also been the subject of academic papers: see for example Anita Foerster, "The Murray-Darling Basin Plan 2012: An Environmentally Sustainable Level of Trade-off", (2013) 16 *The Australasian Journal of Natural Resources Law and Policy* 1.
63. A contrary position appears to have been put on behalf of the Australian Government Solicitor: see Australian Government Solicitor, 'The Role of Social and Economic Factors in the Basin Plan', 25 October 2010. This opinion however, at least expressly, does not contain any discussion of the mandatory requirements set out in s 22 item 6 and s 23(1) of the *Water Act*, and in particular the defined term ESLT, and the environmental criteria that pertained to it.⁷
64. There is also evidence that the MDBA received advice (perhaps on more than one occasion), consistent with the Commissioner's concerns, that "it cannot compromise

⁷ See also Australian Government, 'Report of the Independent Review of the Water Act 2007' (November 2014) 3-5, which also does not expressly refer to the definition of "environmentally sustainable level of take" which must be reflected in the Basin-wide SDL.

the minimum level of water required to restore the system's environment on social or economic grounds": Murray-Darling Basin Authority, 'Plan for the Murray-Darling Basin – Role of Authority Chair' (Media Release, 7 December 2010), upon the resignation of Mr Michael Taylor AO as Chair of the MDBA. The Commissioner has not yet seen this advice.

Possible alternative courses or solutions

65. It is not part of this Issues Paper to consider what remedies (if any) might be granted if all or part of the Plan were challenged in a court. However, if the ESLT has been determined on the basis of an incorrect construction of the *Water Act*, the Commissioner is interested to know what level of take would have been determined as being “environmentally sustainable” if a “triple bottom line” approach had not been taken. That is, what would the determination of the Basin-wide SDL have been if it reflected an ESLT that had regard only to the environmental criteria of that term as defined in the *Water Act*? If the volume of water required to be recovered for the environment is greater than 2,750GL, then this should be reflected in the Basin-wide SDL. This question is particularly acute given that the original position of the MDBA was that between 3,000GL and 7,600GL of water was required to be recovered for the environment to meet environmental watering requirements.
66. In posing the above question, and in expressing the views he has on the proper construction of the *Water Act*, the Commissioner repeats what he said in paragraph [3] above that he is in no way indicating that he considers that social and economic outcomes should be seen as unimportant. They are clearly important to Basin communities, and in the context of the *Water Act* and Basin Plan. However, if social and economic outcomes are to be treated equally with environmental outcomes in the determination of an ESLT, it may be that the definition of this term in the *Water Act* needs to be amended, or other amendments need to be made to reflect a “triple bottom line” approach in the statute itself.
67. Alternatively, if the view is taken that environmental criteria alone should determine the ESLT, and that the remit is to optimise social and economic outcomes after this determination, then it may be that an amendment needs to be made to the Basin Plan so

that, by 1 July 2019, the long-term average sustainable diversion limit properly reflects an ESLT as that term is currently defined in the *Water Act*.

D. Proposed SDL Adjustment Amendment

68. The discussion in this Issues Paper concerning the SDL Adjustment Amendment is limited to matters concerning the proper construction of the *Water Act* and Basin Plan. No comment is currently made on the merit or appropriateness of any of the 36 supply measures that form part of the proposed adjustment to the Basin-wide SDL by means of an increase of 605GL (a 605GL decrease in the amount of water required to be recovered for the environment). This Issues Paper deals only with the question of the potential unlawfulness of this proposed SDL adjustment.
69. Adjustments of sustainable diversion limits are made pursuant to ss 23A and 23B of the *Water Act*. The process by which an adjustment is made is set out in Chapter 7 of the Basin Plan. This Chapter provides the definition of a “supply measure” and “efficiency measure”, which are in the following terms (s 7.04 of the Basin Plan):

A supply measure is a measure that operates to increase the quantity of water available to be taken in a set of surface water SDL resource units, compared with the quantity available under the benchmark conditions of development

NOTE: Examples include:

- reconfiguring suitable lakes or storage systems to reduce evaporation;
- reducing the quantity of water required to deliver water at a particular place, whether for purposes of consumptive or environmental use;
- changing the method of environmental watering in such a way that equivalent environmental outcomes can be achieved with a smaller quantity of water than was required under the benchmark conditions of development.

An efficiency measure is a measure that operates to decrease the quantity of water required for one or more consumptive uses in a set of surface water SDL resource units, compared with the quantity required under the benchmark conditions of development.

NOTE: Examples include:

lining channels to reduce water losses within an irrigation network;
 replacement of less efficient irrigation methods with drip irrigation.

70. Any supply measures that are relevant to an SDL adjustment must produce “*equivalent environmental outcomes with a lower volume of held environmental water than would otherwise be required*”: Basin Plan s 7.09(b). For efficiency measures, “*environmental outcomes must be increased, while maintaining or improving social and economic outcomes*”: Basin Plan ss 7.09(a), 7.17(2)(a) & (b). The method for calculation of a supply measure contribution is set out in Schedule 6 of the Basin Plan, and the method for calculating an SDL adjustment amount is set out in Schedule 6A.
71. Of the 36 supply measures that form the basis for the SDL adjustment, 19 of these measures are at a stage where they have only been “proposed”. The Basin Plan does not require them to be implemented until 30 June 2024: s 7.12(3)(a). Presumably, if they are not implemented until on or near that date, these measures will not be the subject of scientific analysis (other than through modelling) for the purposes of reconciliation under the Basin Plan until (potentially years) after this date.
72. Despite this, the SDL Adjustment Amendment will have been made years before (confirmed this year, if the Senate does not disallow the proposed adjustment). This is because, under s 7.10 of the Basin Plan, if the MDBA is notified of supply measures, it must as soon as practicable propose an SDL adjustment: ss 7.10(1)(b)(i), (ii). A “note” to the Basin Plan expressly states that an SDL adjustment determination may be made in relation to supply measures not yet operating, and that the determination will be made “*on the effect they will have when they have come into operation by 2024*”: Note to the Basin Plan under s7.20(2). Even leaving aside for a moment that this raises mere proposed measures to a level of certainty in terms of both implementation and effect, it more importantly raises the issue as to whether such an adjustment is lawful upon a proper construction of the *Water Act*.
73. For the purposes of this discussion, it is assumed (despite the concerns expressed above regarding the issue of the ESLT), that a Basin-wide SDL of 10,873GL (recovery of

2,750GL of water for the environment), currently does reflect an ESLT as required by the *Water Act*. It should be noted here also that in any SDL adjustment made under s 23B of the *Water Act*, that adjustment must still result in a long-term average sustainable diversion limit that reflects an ESLT: *Water Act* s 23A(3)(b).

74. However, if the Basin-wide SDL is increased by 605GL under s 23B of the *Water Act*, and this is done on the basis of supply measures that are in the main, proposals that have not yet been implemented, the issue arises as to whether the amended long-term average sustainable diversion limit will still reflect an ESLT at the time the adjustment is made, or as at 1 July 2019 when Water Resource Plans must be accredited. Without all measures being implemented, the issue arises as to whether they can be achieving the result the MDBA (or the Minister) considers may be possible to warrant an increase in the Basin-wide SDL.
75. There appears to be no textual scope in the *Water Act* to construe the requirement that the SDLs for the Basin Plan must reflect an ESLT as being something that is a mere future hope, or aspiration. The text of the *Water Act* seems to indicate that the Basin Plan must always contain an ESLT. If recovery of 2,750GL of water for the environment is required to achieve the ESLT, and that volume of water is reduced on the basis of the future environmental outcomes achieved by supply measures that are yet to be implemented, there is some doubt that the adjusted SDL reflects an ESLT.
76. As a final matter on this issue, the Commissioner notes that in relation to any adjustment of the sustainable diversion limits the MDBA, and the relevant Minister, must at all times in exercising their powers under Division 1 of the *Water Act* “*take into account the principles of ecologically sustainable development*”: *Water Act* s 21(4)(a).
77. An adjustment to the Basin-wide SDL based on a series of proposed supply measures, the outcome of which can be modelled but is ultimately uncertain, raises the issue as to whether this would be consistent with the principles of ‘ecologically sustainable development’⁸, and in particular the precautionary principle. That is so even if the

⁸ For a discussion concerning the concept of ecologically sustainable development, see for example: *BGP Properties v Lake Macquarie City Council* [2004] NSWLEC 399 at [82]-[114] per McClelland

modelling on the proposed measures represents the best available science. As “proposed” measures, which no doubt involve complex issues of hydrology and other sciences, their outcome cannot be certain.

78. While the 36 supply measures have been modelled by the MDBA, whether or not they will produce equivalent environmental outcomes to a recovery of 605GL of water to the environment will only be capable of being tested at a time when these proposals are implemented, and possibly only years after that. Making an immediate adjustment to the Basin-wide SDL (and hence the ESLT) does not appear to be consistent with the first and second conditions precedent of the precautionary principle of Ecologically Sustainable Development. It is an approach that seems to run the risk of serious environmental degradation in circumstances where there must be scientific uncertainty as to whether the supply measures will achieve their modelled results.

E. Northern Basin Review

79. The Commissioner has similar concerns in relation to the proposed amendment to the Basin Plan that was disallowed by the Senate on 14 February 2018.
80. That amendment to the Basin Plan proposed a 70GL reduction in the amount of water to be recovered for the environment from the Northern Basin (390GL down to 320GL).
81. The NBR Amendment was based on:
- (a) the economic, social and environmental outcomes of the Northern Basin Review; and
 - (b) commitments from the Commonwealth, Queensland and New South Wales Governments to implement ‘toolkit’ measures that will deliver improved environmental outcomes in the northern basin.⁹

CJ (Chief Judge); *Telstra Corporation v Hornsby Shire Council* [2006] NSWLEC 133; (2006) 67 NSWLR 256 at [107]-[120] per Preston CJ (Chief Judge).

⁹ *Basin Plan Amendment Instrument 2017 (No. 1)*, 5 (see “Note” under [15]). See also MDBA, ‘The Northern Basin Review – understanding the economic, social and environmental outcomes from water recovery in the northern basin (November 2016) 12 (**Northern Basin Review report**).

82. The language used above raises the concern again that the NBR Amendment proposes a Basin-wide SDL that does not reflect an ESLT, as it brings in social and economic considerations to a determination that is to be made on purely environmental criteria.
83. Also of concern is that the MDBA noted that “...under a 320GL recovery environmental outcomes are slightly reduced compared to the Basin Plan”: Northern Basin Review Report, 12. Reducing, even slightly, environmental outcomes because of social and economic considerations may be an appropriate policy approach, in relation to which the Commissioner makes no current comment. However, there is a real risk it is inconsistent with a proper construction of the *Water Act*, and in particular the definition of ESLT.
84. The “toolkit” measures themselves are briefly described in the Northern Basin Review Report. Four things can be said about these measures immediately:
- (a) they do not have statutory force;
 - (b) they are measures that are not within the MDBA’s “*remit, and cannot be implemented without commitments from the Australian, NSW and Queensland governments*”: see the MDBA report referred to in footnote 4 at the bottom of page 6 of that Report;
 - (c) there has been, arguably, very little detail made publicly available about these toolkit measures, and how they justify a 70GL reduction in the recovery of water for the environment; and
 - (d) they may never be implemented, nor achievable.
85. Further, it is again unclear to the Commissioner as to what degree of confidence the MDBA has either that:
- (a) the toolkit measures will be implemented in their entirety;

(b) they will produce the results that justify a reduction of the long-term average sustainable diversion limit proposed.

86. In any event, the toolkit measures have not currently been implemented, and the position is far from certain that they would be implemented on 1 July 2019 by which time Water Resource Plans must be accredited. If a recovery of 2,750GL of water for the environment is required to achieve an ESLT under the *Water Act*, there is a real issue as to whether a recovery of 2,680GL of water for the environment will achieve an ESLT if an amendment is made to the Basin Plan on the basis of unimplemented and uncertain “toolkit” measures.

F. Constitutional validity of the Basin Plan

87. As mentioned in paragraph [16] above, the *Water Act* and Basin Plan primarily rely on the Commonwealth Parliament’s external affairs power for their constitutional validity. It is a key object of both the *Water Act* and the Basin Plan to give effect to, and to implement, a number of international agreements that Australia has ratified, including the *Ramsar Convention* and the *Biodiversity Convention*. The relevant objectives of the conventions – which must be implemented through the Basin Plan – are set out in [17] to [24] above.

88. If the Basin-wide SDL does not reflect an ESLT, it is arguable that the Plan will fail to implement certain of the key objectives of both the *Ramsar Convention* and the *Biodiversity Convention*. If so, it would throw into doubt the validity of the Basin Plan. For a general discussion of this topic see: Emma Carmody, ‘The Silence of the Plan: Will the Convention on Biological Diversity and the Ramsar Convention be implemented in the Murray-Darling Basin?’ (2013) 30 *EPLJ* 56.

89. The Commissioner raises this issue briefly as a means of inviting submissions, but it is secondary to the construction issues raised above.

90. In relation to the related issue raised at [28(i)] of the first Issues Paper regarding the extent of Commonwealth power under the Constitution to impose obligations on the Basin States under the Basin Plan without a referral of power from those States, the Commissioner advises that this is likely to be a matter for a subsequent Issues Paper.

G. Submissions, public hearings and interim report

91. The Commission will be holding public hearings on the issues discussed above (and other issues) in late June, July, late August, and possibly September 2018. Dates will be notified shortly. The Commission invites written submissions from all interested persons specifically in relation to these issues by **Friday, 1 June 2018**. Any person lodging a written submission to the Commission under the current submissions invitation which expires on 30 April 2018, and which addresses the issues outlined in this Issues Paper, does not need to submit a further, separate submission.

92. Following the submissions process on these issues, and any public hearings, the Commissioner will most likely release an Interim Report dealing with the particular issues outlined in this Issues Paper.

30 April 2018
