

28 March 2019

Natural Resources Commission
GO Box 5341
Sydney NSW 2001

By email: nrc@nrc.nsw.gov.au

Dear Commissioner,

Re: Review of Water Sharing Plan for the *Barwon-Darling and Alluvial Water Sources 2012*

1. Thank you for the opportunity to provide input into the review, by the Natural Resource Commission (**NRC**), of the *Water Sharing Plan for the Barwon-Darling Unregulated and Alluvial Water Sources 2012*.
2. We welcome the decision to bring this review forward, as a valuable input into the preparation of a new water sharing plan (**WSP**), which will also function as a water resource plan (**WRP**) under the Commonwealth *Water Act 2007* and *Basin Plan 2012*. Given the number of issues which have come to light regarding water management in the Murray-Darling and, more particularly in the Barwon-Darling system, it is timely to have a thorough and independent evaluation to ensure that the mistakes of the past are not compounded in the new plan.
3. This submission is primarily directed towards the management of surface water, however, our comments in relation to duties under the *Water Management Act 2000 (NSW)* (**WM Act**) are also relevant to groundwater systems.

Evaluation Questions 1 and 2: Assessment against objectives and ways to better contribute to environmental outcomes

The fundamentals of the Act have been lost

4. A significant concern with both this WSP and the approach being taken to the preparation of a new WSP, is that the fundamental approach of the Act has been misplaced and replaced with an attempt to simultaneously balance the environmental, economic and social outcomes of the Act – an exercise which necessarily involves trading off the ecological health of the system for shorter term economic outcomes. This is not what the Act requires, or indeed allows.

5. The objects of the WM Act include, in section 3(b), the protection, enhancement and restoration of water sources and their associated ecosystems, ecological processes and biological diversity and their water quality. To understand how this object is implemented in the Act, and the priority it should be given, it is necessary to look to the water management principles and the statutory duties of decision-makers under the Act.
6. The water management principles are set out in section 5 of the Act and, importantly, the principles specific to water sharing contained in section 5(3) of the Act, which provides that, in relation to water sharing:
 - (a) *sharing of water from a water source must protect the water source and its dependent ecosystems*;
 - (b) *sharing of water from a water source must protect basic landholder rights; and*
 - (c) *sharing or extraction of water under any other right must not prejudice the principles set out in paragraphs (a) and (b).*
7. This provision must be read with section 9(1) which places a duty on any person exercising functions under the Act, including the Minister in preparing a water sharing plan under s50, to take all reasonable steps to exercise the power in accordance with the water management principles. The provision goes on to prescribe a duty to:

*“as between the principles for water sharing set out in section 5(3), to **give priority to those principles in the order in which they are set out in that subsection.**”*
8. Overall, these provisions mean that the WM Act does not mandate a series of trade-offs between environmental, economic and social outcomes. It requires that adequate water be available to protect the water source and its dependent ecosystems, with economic and social outcomes to be achieved through the fair sharing of the remaining available water.
9. The background document to the current water sharing plan contains some concerning indications that the plan was not prepared in a way that complies with this duty:
 - (1) section 6.2.5.2.1 outlines the decisions which sit behind the inclusion of clause 78(b) of the WSP. That clause contemplates that the plan may be amended to address adverse impacts on endangered aquatic communities or threatened species after 5 years of plan operation, but only if the amendments will not apply to stock and domestic access licences and do not substantially alter the long-term average annual extraction under class A, B or C licences. This clause would seem to invert the priorities mandated by the Act;
 - (2) section 6.2.1.3 outlines a decision not to attempt to meaningfully protect floodplain wetlands, which is similarly difficult to reconcile with the requirements of section 5(3);
 - (3) the decisions outlined in sections 6.2.5.2.2 – 6.2.5.2.4.3 to allow water extraction in low flow and no flow conditions under some licences despite acknowledging that significant literature has identified that the environmental needs for water are most critical at such times and that there is significant environmental risks associated with such take; and
 - (4) the decision outlined in section 6.1.2.1.2 to set the pumping threshold for A class licences “well short of the base environmental flow” in the 1998/99 flow rules (which evolved into the rules in the current WSP),

on the basis that “A class pumping has comparatively negligible impact on the river system”. Whether or not this was the case at the time, it is certainly not the case now.¹

10. This failure to adequately (or at all) reflect section 5(3) in preparation of the current WSP is of concern not only because of the effect this has already had on the ecological condition of the Barwon-Darling and on the exercise of basic landholder rights, but also because there are indications that this approach will be continued in the new WSP/WRP.²

Protection of flows – particularly from A class licences

11. There has already been significant public discussion of the differences between the draft and final versions of the current WSP and how and why these changes were made.
12. The most significant impact of these changes may have been to substantially increase the impact of take under A class licences through:
 - (1) Allowing access to low flow and no flow class water under clauses 47 – 48 (similar access to no flows is permissible for B class licences under clause 49 when flows are imminent);
 - (2) The carryover between water years permissible under the account management rules in clause 42;
 - (3) The conversion of other licence classes to A class licences under clause 63; and
 - (4) The unbundling of water access licences from land titles which has allowed class A licences to be attached not only to significantly larger pump sizes but also to be attached to storages (in the past class A licences were generally not attached to storage and water pumped for irrigation was directly applied to crops).
13. These rules are likely to have resulted in significant reductions in the volumes of, and times when, water is available for the environment³ and for the exercise of basis landholder rights.
14. These changes were imposed in a system which was already being operated in a way that failed to protect the low flows essential for the ecology of the river.⁴ Flow variability is also key to the ecological integrity of the

¹ Simpson (2017), Barwon-Darling: low flow environmental watering impediments and opportunities – report to Commonwealth Environmental Water Office, found at:

<http://www.environment.gov.au/water/cewo/publications/barwon-darling-low-flow-environmental-watering-impediments-opportunities>

² See, for example, section 1.1 of the *Barwon-Darling Watercourse Water Resource Plan (Surface Water SW12), Status and Issues Paper, DPI, February 2017*. That section incorrectly states that a principle guiding the Basin Plan is that “there will be no adverse impacts on water available to a water access licence holder” and, again incorrectly, that “NSW requires that WRPs balance social, cultural, economic and environmental needs of the community and catchments”.

³ Australian Academy of Science, 2019, *Report into Mass Fish Kill in the Menindee Region NSW* (see page 37 findings: “The NSW Barwon-Darling WSP, and changes to it in 2012, contributed directly to the decline of low flows, independent of rainfall, and hence the recent fish kills”)

⁴ Carlile P, Hydrological impacts of water management arrangements on low flows in the Barwon-Darling River System – Advice to the Commonwealth Environmental Water Office, October 2017, found at: <https://www.environment.gov.au/system/files/resources/3b5827e3-d678-4f3a-9368-0209677a8705/files/hydrological-impacts-water-management-arrangements-low-flows-barwon-darling-river-system.pdf>

Barwon-Darling system⁵ and it is evident that the rules which ended up in the current WSP are not adequate to ensure that flow pulses occur at the frequency, number or duration necessary for the health of the river.

15. Changes to the access rules applying to A class licences will be an essential step in the preparation of a plan which adequately reflects the requirements of section 5(3) of the WM Act.

Daily extraction limits (IDEL/TDEL) and water shepherding

16. Two significant weaknesses of the plan in its ability to meet the environmental objectives of the Act are:
 - (1) The lack of TDELs/IDELs to provide adequate planned environmental water (in particular, low flows); and
 - (2) The lack of rules to protect releases of held environmental water.
17. Limitations on the total amount of water that can be taken under all access licences in any given day (**TDEL**) and limits on the amount that can be taken under any individual access licence (**IDEL**), are important mechanisms which can contribute to allowing water to remain in the system to support ecological function and the exercise of basic landholder the rights.
18. Clauses 51 and 52 of the current WSP state that there are no TDELs and IDELs. This is despite the draft WSP including TDELs and contemplating that IDELs would be established within the life of the plan.
19. We support the inclusion of both TDELs and IDELs in the new WRP/WSP as an important mechanism to protect environmental water and basic landholder rights. However, the use of the IDEL mechanism should be supported by dealing rules which will ensure that any trade in IDELs (under the uncommenced section 71QA) does not result in an upstream concentration of IDELs which fails to provide adequate protection to environmental flows or basic landholder rights.
20. The access rules in Division 2 of the current WSP currently allow the lawful extraction of releases of held environmental water⁶ and, given that rights to take are triggered by the level of the flows, such releases may actually allow a class of licences to start pumping. The only mechanism currently available to prevent the take of held environmental water is a temporary water restriction under section 324 of the WM Act. Orders under section 324 are not an adequate long term solution for the shepherding of held environmental water because they are both discretionary and *ad hoc*. The new WRP must include rules which recognise that held environmental water is used differently from water taken under other water rights and, as a consequence, must be treated differently. In the absence of adequate water shepherding rules, the investment of public funds in the purchase of held environmental water will not achieve its intended purpose and will continue to result in windfall gains for the holders of water access licences.

⁵ Sheldon F (October 2017), Characterising the ecological effects of changes in the 'low flow' hydrology of the Barwon-Darling river – advice to the Commonwealth Environmental Water Holder, found at: <https://www.environment.gov.au/water/cewo/publications/barwon-darling-low-flow-environmental-watering-impediments-opportunities>

⁶ 'Held environmental water' is a water access right that is used for the purposes of achieving environmental outcomes and includes the water access rights acquired through 'buybacks' under the *Water Act 2007*.

Lack of performance indicators for environmental flows, basic landholder rights and cultural values

21. The WSP includes objectives in relation to environmental flows, cultural values and basic landholder rights in clause 10(a) – (c).
22. Any assessment of whether the WSP is meeting its own objectives, in particular the environmental objective in clause 10(a), should be informed by a clear identification of the planned environmental water intended to support this objective and specific and measurable performance indicators to assess whether the objective is being met.
23. The current WSP identifies planned environmental water, under clauses 15 – 17, quite generically as the water which remains following the application of the access rules contained in the plan and the application of the long-term average annual extraction limit. There are no specific objectives around the height, number, frequency or duration of environmental flows.
24. Not only is the planned environmental water produced by this plan apparently inadequate to achieve its own very limited stated objectives,⁷ but the plan lacks transparency in that it fails to inform stakeholders what its specific environmental objectives are.
25. While the plan does purport to list some performance indicators in clause 12, the listed items are not only vague but also fail to include any measurable criteria which could be monitored and reported against to identify whether the plan is having its intended effect.⁸
26. The absence of performance indicators is a significant lapse in transparency in the plan in that stakeholders are left initially unable to assess whether the water sharing rules were adequately designed to address the requirements of section 5(3) of the WM Act and subsequently, unable to assess whether the plan is performing as intended. It also often means that data is not collected to support government decision-makers in amending the plan⁹.
27. The preparation of a Long Term Watering Plan (**LTWP**) for the plan area under sections 8.18 to 8.22 of the Basin Plan should, if done correctly, go some way to establishing a WRP/WSP that contains objectives and performance indicators for the water resource and its dependent ecosystems. The LTWP should, pursuant to section 10.17 of the *Basin Plan 2012*, be an input into the development of access rules under the WRP. However, the fact that the LTWP is being prepared in concurrently with the WRP/WSP makes it quite opaque as to whether the LTWP is appropriately informing the development of the WRP.

⁷ See, for example, Wentworth Group (February 2019), Water Flows in the Murray-Darling Basin: Observed versus expected (found here: <https://wentworthgroup.org/2019/02/mdb-flows/2019/>). That report found that the flows at Wilcannia (indicative of the Barwon-Darling) failed to meet environmental flow targets indicative of riverine health. This demonstrates that even with additional held environmental water being added to the system, riverine health indicators are not being met.

⁸ See, for example, sections 26 and 27 and schedule 7 of the *Water Plan (Condamine Balonne) 2019*. While we make no comment on the adequacy of the performance indicators for maintaining ecological health, they are at least specific and measurable.

⁹ For example, section 6.2.1.2 of the background document to the current plan identifies that the only information available to evaluate the environmental performance of the 2000/01 flow rules was a single study on their effectiveness for algal suppression.

28. The new WRP/WSP should include specific and measurable performance indicators to enable the performance of the plan to be evaluated in relation to whether the plan is achieving environmental flows objectives, as well as its objectives relevant to access to water for basic landholder rights and cultural values.

Evaluation Question 5: Other comments for the commission to consider

Climate change

29. The Murray-Darling Basin is already experiencing the effects of climate change¹⁰ and, as these effects are increasingly felt, is likely to become hotter and potentially drier in the plan area.
30. The new WSP must include rules which will result in the protection of planned environmental water which is not only sufficient to support ecosystem functions under hotter and, most likely, drier conditions but do so in circumstances where demand for water for agriculture is likely to increase.

Connectivity

31. We welcome the NRC's decision to focus on connectivity of water sources, which is a necessary recognition of the fact that the management convenience of dividing surface water, ground and floodplain water into separate management plans is unlikely to appropriately reflect the interconnected nature of the system.
32. The importance of this approach has been highlighted by the findings of the independent inquiry into the recent fish deaths,¹¹ including that water take in Barwon-Darling tributaries had a significant impact on Menindee inflows and the uncertainty surrounding the impacts of floodplain harvesting.
33. There are statutory requirements at the state¹² and Commonwealth¹³ level which should ensure that plans for connected systems "speak to each other." However, we are concerned that the sheer number of water resource plans and long term watering plans currently in preparation, alongside multiple other water policy and planning projects including the NSW Floodplain harvesting policy, will make compliance with these requirements difficult in practice.

Conclusion

We request that the NRC consider:

- The extent to which the current WSP has failed to implement section 5(3) of the WM Act and steps which could be taken to redress this failure in the new WSP/WRP;
- That the changes made to the plan between draft and final versions appear to have materially worsened outcomes for both the environment and the

¹⁰ Vertssy et al, (2019), Independent Assessment of the 2018-19 Fish Deaths in the Lower Darling, found at: <https://www.mdba.gov.au/publications/mdba-reports/independent-panel-assess-fish-deaths-lower-darling>. See in particular findings 1 and 2 ("*exceptional climatic conditions, unparalleled in the observed climate record*" and "*amplified by climate change*").

¹¹ *Ibid*

¹² *Water Management Act 2000*, section 18(2).

¹³ *Basin Plan 2012*, section 10.05.

exercise of basic landholder rights. This is particularly the case for the rule changes applying to A class licences. We request that the NRC consider changes to water access rules to address the need for flow variability and the protection of low flows;

- The need for the new plan to, at minimum, include TDELS/IDELs and rules for the protection of held environmental water, as well as dealing rules to ensure that the implementation of IDELS does not have perverse consequences;
- The need for the new plan to include specific and measurable local performance indicators to provide transparency on whether, and to what extent, the plan is meeting its environmental objectives, as well as objectives relevant to the exercise of basic landholder rights and cultural values; and
- Steps to be taken to ensure that the preparation of the new WSP/WRP includes protections for planned environmental water which appropriately addresses climate change projections and the need for connectivity between plans for connected water systems.

Please do not hesitate to contact us on (02) 9262 6989 or Deborah.brennan@edonsw.org.au to discuss this submission, or if you require any further information.

Yours sincerely

EDO NSW

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