



**Submission in response to Proposed arrangements
for shepherding environmental water in NSW – Draft
for consultation**

prepared by

**EDO NSW
05 July 2012**

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Introduction

EDO NSW welcomes the opportunity to comment on the *Proposed arrangements for shepherding water in NSW – Draft for consultation* (the **Draft**).

We would like to state at the outset that we support the development of an effective shepherding framework to optimise the use of Commonwealth Environmental Water (**CEW**).

We are nevertheless concerned that the *Proposed arrangements for shepherding water in NSW* (**Proposed Arrangements**) will not guarantee delivery of CEW to environmental assets in the Murray-Darling Basin (**MDB**). This is particularly problematic insofar as this water was purchased by the Commonwealth as part of their 'Restoring the Balance in the Murray-Darling Basin' (**RtB**) program. Under this program, the Commonwealth has committed significant public funds - \$1.3 billion dollars - to buying back water for the environment.¹ Accordingly, all due care should be taken to ensure that CEW is indeed used to protect and restore water-dependent ecosystems in the MDB. EDO NSW therefore submits that the shepherding framework must be capable of realising and prioritising the environmental goals of the RtB program.

This submission is divided into three key sections.

- **Third party impacts** - The first section examines the *Memorandum of Understanding in relation to shepherding of water for the environment* entered into between the NSW Minister for Water and the Commonwealth of Australia (the MOU)². Particular emphasis is placed on understanding the extent to which the MOU imposes an obligation on the NSW Office of Water to develop a shepherding methodology that avoids 'third party impacts.'
- **Implications for shepherding methodology** - The second section discusses the implications of developing a shepherding framework built around avoidance of 'third party impacts', and whether it is indeed permissible to design a methodology on this basis. Specific examples are provided.
- **Recommendations** - The third section comprises a series of recommendations intended to tighten the link between the terms of the MOU and the Proposed Arrangements with a view to improving delivery of shepherded water to environmental assets in the MDB.

¹ <http://www.environment.gov.au/water/policy-programs/entitlement-purchasing/index.html>.

² The MOU was entered into in July 2010.

1. Third party impacts

In July 2010, the NSW Minister for Water and the Commonwealth of Australia entered into a *Memorandum of Understanding in relation to shepherding of water for the environment* (the **MOU**). In response to this MOU, the NSW Office of Water developed the Proposed Arrangements.

EDO NSW submits that the Proposed Arrangements are required to be developed in accordance with the terms of the MOU. By way of evidence, the MOU specifies that it 'sets out principles and processes which the parties have agreed to facilitate shepherding of environmental water.'³ The NSW Office of Water appears to be mindful of this obligation, noting in the Draft that '[the] MoU establishes a plan for investigating the development of a new water management framework to facilitate shepherding of CEW.'⁴

In spite of this acknowledgment, the Proposed Arrangements have been developed on the basis that shepherding must – above and beyond any other consideration - avoid 'impacts' on third parties. Specifically, the Draft notes that:

*A key aspect of the MoU is the underlying principle that there will be no impact on third parties as a result of water shepherding. This principle is central to the proposed shepherding methodology.*⁵

EDO NSW accordingly submits that in our opinion, the Proposed Arrangements do not accurately reflect (*inter alia*) the Objective⁶ or the Guiding Principles⁷ the MOU. That is, the terms of the MOU cannot be reasonably interpreted as directing the NSW Office of Water to develop a shepherding framework that is built around the idea of 'no third party impacts'. Furthermore, the Proposed arrangements seemed overly focussed on preventing *negative* third party impacts, and do not adequately acknowledge the significant potential for third party *benefits*. Our analysis is based on the following observations.

First, the Objective of the MOU is to:

...optimise the use of all water for the environment, to provide the capacity to deliver water to high priority environmental assets, and, in the case of in-stream environmental watering, to provide protection for environmental flows to pass through the system as far as transmission losses allow.

This clause may be broken down into four key elements, namely:

- Optimising the use of water for the environment;
- Delivering water to high priority environmental assets;
- Protecting environmental flows; and
- Accounting for transmission losses.

While the reference to transmission losses may be broadly interpreted as protecting the entitlements of other users, it may not be construed as overriding the first three elements. That is, these three elements clearly indicate that the overarching Objective of the MOU is to procure improved environmental outcomes, *not* to avoid third party impacts.

³ MOU, clause 4.

⁴ NSW Department of Primary Industries (Office of Water), *Proposed arrangements for shepherding environmental water in NSW – Draft for consultation*, page 1.

⁵ NSW Department of Primary Industries (Office of Water), *Proposed arrangements for shepherding environmental water in NSW – Draft for consultation*, page 1.

⁶ MOU, clause 14.

⁷ MOU, clauses 15 and 16.

Second, the Guiding Principles of the MoU, which are described as ‘the foundation for this MoU and the future action envisaged by this MoU’,⁸ comprise ten principles which apply generally to the shepherding of environmental water. An additional five guiding principles apply specifically to the shepherding of CEW.⁹

The first ten guiding principles include (but are not limited to): a prohibition on trading shepherded water for consumptive use;¹⁰ a reference to climate change and its impact on long term flows;¹¹ application of certain restrictions to shepherded water;¹² use of rules-based over event-based water management where practical;¹³ and incorporation of shepherding arrangements into water sharing plans (**WSPs**) where practical.¹⁴ The additional five guiding principles include (but are not limited to): a requirement that the NSW Office of Water deliver CEW in order to meet the environmental objectives of the Commonwealth consistent with State and Commonwealth legislation and the MOU;¹⁵ a requirement that the CEWH consult with relevant government agencies regarding the delivery of shepherded water;¹⁶ and a prohibition on extracting water downstream in anticipation of CEW being made available as a result of a shepherding event from an upstream water source.¹⁷

Of these fifteen guiding principles, only *one* refers to the relationship between shepherded water and other entitlements or allocations. Specifically, 15 (e) states that:

Entitlements and allocations held by water users in NSW will not be enhanced nor diminished as a result of environmental watering actions and shepherding of environmental water under this MOU.

Despite its minority status amongst the guiding principles, 15(e) appears to have been over-emphasised by the Office of Water resulting in the development of a shepherding methodology that seeks, above all, to avoid third party impacts.

This is problematic insofar as it constitutes a potentially skewed interpretation of both the subclause itself, and the guiding principles as a whole.

With respect to the former, the phrase ‘[e]ntitlements and allocations held by water users in NSW will not be enhanced nor diminished’ is not consistent with the notion of ‘no third party impacts’. Rather, it may be interpreted as meaning that a licence holder’s share in a given water source is to remain unchanged as a result of shepherding. This is not the same as avoiding all impacts on licence holders. For example, an impact that does not ‘diminish or enhance’ entitlements or allocations would be perfectly consistent with this subclause. Thus it would arguably be acceptable to include rules in a WSP that prohibit licence holders from pumping for a short period in order to facilitate a shepherding event. This will be discussed in greater detail in section 2.

With regards to the second, the guiding principles encompass fifteen separate principles. Clauses 15 and 16 of the MOU do not create a hierarchy with respect to these principles.

⁸ MOU, clause 15.

⁹ MOU, clause 16.

¹⁰ MOU, clause 15 (c).

¹¹ MOU, clause 15 (b).

¹² MOU, clause 15 (f).

¹³ MOU, clause 15 (h).

¹⁴ MOU, clause 15 (i).

¹⁵ MOU, clause 16(a).

¹⁶ MOU, clause 16(b);

¹⁷ MOU, clause 16 (e).

Accordingly, in our opinion the MOU does not empower the Office of Water to build an entire methodology around subclause 15(e).¹⁸

We note that one additional clause in the MOU refers to impacts on other water users. Clause 19 of the MOU specifies that ‘...NSW water users will not be adversely impacted by shepherding the Warrego water gifted to the Commonwealth...’. We would like to reiterate that an ‘adverse impact’ may not be construed as being the same as *an impact*. As the wording of clause 15(e) suggests, an impact may be beneficial. EDO NSW would further submit that an impact may be so minor or inconsequential so as to not unduly disadvantage a third party. In other words, it could not reasonably be interpreted as adversely affecting that party.

Two additional points need to be made about clause 19. First, it only relates to a specific parcel of water. To that extent, it is limited in application. Second, like clause 15(e), it must be read within the context of the entire MOU. This context includes, notably, an Objective which is clearly oriented toward protecting CEW in order to procure improved environmental outcomes, as well as the 15 guiding principles.

EDO NSW further submits that both clause 15(e) and clause 19 must be read within the context of Schedule 3 of the MOU. This Schedule provides that the ‘Implementation Plan for Water Shepherding in NSW (Stage 1)’ is subject to the ‘National Partnership agreement on Water for the Future.’ The Schedule further notes that the ‘objective in the National Partnership is to secure water supplies and to assist with climate change adaptation.’¹⁹

EDO NSW is familiar with the National Partnership. We are therefore aware that it seeks to ‘contribute to increase efficiency of rural water use, protect and improve the environmental health of freshwater and freshwater dependent ecosystems, prepare communities for climate change...’²⁰ While the National Partnership has a range of goals, it is clearly focussed on reducing consumptive use of water and improving environmental outcomes. In other words, its central guiding principle is not avoidance of ‘third party impacts.’

Schedule 3 also specifies that under the National Water Initiative, the Commonwealth:

has committed to be a financial partner in optimising the use of all water for the environment, to provide the capacity to deliver water to high priority assets, and, in the case of in-stream environmental watering, to provide protection for environmental flows to pass through the system as far as transmission losses allow.

This language, which mirrors word-for-word the Objective of the MOU, reiterates the clear link between water shepherding events and the realisation of specific environmental goals.

In conclusion, EDO NSW submits that the Proposed Arrangements must reflect the breadth of the MOU. As our analysis has indicated, this extends to creating a methodology that protects CEW for the purposes of advancing the MOU’s Objective. It is clear, therefore, that the MOU does not empower the Office of Water to make the principle of ‘no third party impacts’ ‘central to the proposed shepherding methodology’.²¹

¹⁸ This in any case may not be interpreted as being synonymous with avoiding all impacts on third parties.

¹⁹ MOU, Schedule 3, clause 1.

²⁰ Council of Australian Governments, National Partnership Agreement on Water for the Future, entered into in 2009.

²¹ NSW Department of Primary Industries (Office of Water), *Proposed arrangements for shepherding environmental water in NSW – Draft for consultation*, page 1.

2. Implications for shepherding methodology

EDO NSW submits that the decision to build a methodology around the notion of ‘no third party impacts’ undermines the intent of the MOU. The corollary of this is that water shepherding may be compromised, thereby reducing its capacity to achieve the environmental goals specified in the Objective, guiding principles and Schedule 3.

EDO NSW is accordingly concerned about certain aspects of the Proposed Arrangements. We will discuss each of these in turn.

Rules-based management

The *Water Management Act NSW (WM Act)* and associated WSPs are predicated on a rules-based approach to water management. While EDO NSW does not propose that this system be entirely reinvented for the purposes of facilitating water shepherding, we are mindful that:

...over the years it has proved difficult to protect rules-based [environmental] water from encroachments by entitlement-holders. The rules have always favoured entitlements when water supplies are reduced during droughts. The management rules have this bias because the original reason for building dams and regulating rivers was to supply water to agriculture and towns during the summer and in droughts when the natural flow is low. In addition, there is the burden of water theft, which the late Peter Cullen guesstimated was responsible for at least 20 per cent of all extractions. Most of that stolen water comes from the rules-based component of flow.²²

In light of the foregoing analysis, we are concerned that attempting to fit shepherding into an exclusively rules-based system weighted in favour of other entitlement holders (who must be protected from all impacts) will not ‘optimise the use of water for the environment.’²³ Rather, it may result in shepherded water being misappropriated and pumped by other licenced users.

While we acknowledge that entitlement holders may only pump in accordance with the conditions imposed upon their licence, there is a strong argument to be made in favour of protecting shepherded water as it moves through the system. First, there is no guarantee that the quantity of shepherded water pumped by other entitlement holders will be replaced by subsequent flows. Second, certain volumes of water are necessary to achieve particular environmental outcomes. This will be discussed in greater detail below under ‘Events-based management.’

Accordingly, EDO NSW is of the view that the WM Act and WSPs should be amended, with the latter including rules designed to protect shepherded water. For example, the relevant WSP(s) should include appropriate ‘cease to pump rules.’ This is perfectly feasible insofar as the MOU provides for the WM Act and WSPs to be amended in order to facilitate shepherding in accordance with the terms of the MOU.²⁴

²² Connell, Daniel, *The Role of the Commonwealth Environmental Water Holder*, in Connell, Daniel and Grafton, R. Quentin, eds, *Basin Futures Water reform in the Murray-Darling Basin*, ANU E Press, Australian National University, Canberra, 2011. Downloadable at:

<http://epress.anu.edu.au/apps/bookworm/view/Basin+Futures+Water+reform+in+the+Murray-Darling+Basin/5461/ch20.xhtml>

²³ MOU, Objective (clause 14).

²⁴ MOU, clause 9. Clause 22 (d) also provides for WSPs to be amended in the period before permanent arrangements are agreed so as to ‘facilitate the shepherding of CEW.’

Events-based management

As our comments in the previous section indicate, EDO NSW advocates a combined rules and events-based management framework. As the Proposed Arrangements must reflect the terms of the MOU, we have taken care to ensure that a combined approach is indeed permissible. In short, clause 15(h) of the MOU provides for shepherded water to be managed on an events basis. While we acknowledge that this clause does specify that ‘rules based water shepherding arrangements will be implemented in favour of events-based water management where practical,’²⁵ we submit that rules-based management may not be practical in certain circumstances (where practical is defined to mean ‘likely to succeed or be effective in real circumstances; feasible’).²⁶

For example (and as noted in the previous section), there will be instances where the volume of shepherded water pumped by other licence holders will not be replaced by subsequent flows. In cases such as these, an exclusively rules-based management structure will not be successful or effective insofar as success or efficacy is measured against the MOU’s Objective, in particular optimising ‘the use of all water for the environment’ and delivering water ‘to high priority environmental assets.’²⁷

The Office of Water has indicated that events-based management is not feasible in an unregulated river system. EDO NSW submits that there is sufficient anecdotal and documented evidence (held by farmers and the NSW Government, respectively) regarding timings of flows along the Barwon-Darling. With this in mind, it would be possible to create cease to pump rules that apply for short, fixed periods to enable shepherded water to move safely through the system.

Further to our comments regarding the proper construction of clauses 15(e) and 19, we submit that the occasional imposition of cease to pump shepherding rules would not ‘diminish’ or indeed ‘adversely impact’ the entitlements and allocations of other water users.

Storage in Menindee Lakes and use within the Barwon-Darling

Further to our previous comments, EDO NSW supports a methodology whereby water may be either shepherded to the Menindee Lakes or alternatively used within the Barwon-Darling.

With respect to the latter, we note that the Barwon-Darling region contains 64 Key Environmental Assets (**KEAs**) and three hydrological indicator sites.²⁸ With this in mind, it would be consistent with the MOU and Proposed Murray-Darling Basin Plan to shepherd CEW to KEAs in need of specific volumes of water.

As the Murray-Darling river is by nature a ‘flood and drought’ system, certain KEAs will only require additional ‘shepherded’ water on a relatively infrequent basis (every five years, for example). EDO NSW understands that the CSIRO, together with other government agencies, possess the data necessary to manage watering of these assets.

We would like to reiterate that having scrutinised the MOU, we can find nothing that would prevent the Office of Water from creating a flexible management framework that enabled water to be shepherded either to KEAs within the Barwon-Darling or to the Menindee Lakes.

²⁵ MOU, clause 15 (h).

²⁶ Oxford Dictionary. <http://oxforddictionaries.com/definition/practical>

²⁷ MOU, clause 14.

²⁸ Murray-Darling Basin Authority, Summary of Barwon-Darling Region (From the Guide to the Proposed Plan). http://download.mdba.gov.au/FactSheet_Barwon-Darling.pdf

Individual daily extraction limits for shepherding WALs

Under the Proposed Arrangements, an individual daily extraction limit will be imposed on shepherding WALs. We submit that a daily limit is problematic for two reasons.

First, it reflects the undue emphasis placed on avoiding ‘third party impacts’. Specifically, the daily limit is designed to avoid impacts on other licenced ‘shareholders’ in the Barwon-Darling.²⁹ As previously discussed, the MOU should not be interpreted so as to privilege these users over the environment. Further to this point, the MOU does not prohibit impacts on other entitlement holders; it merely specifies that entitlements and allocations may not be diminished as a consequence of shepherding. EDO NSW submits that a daily extraction limit is not necessary to protect the allocations of other licence holders. Rather, careful rules and events-based management of shepherded water will enable that water to be optimised for the environment without diminishing third party allocations. This will be discussed in greater detail later in this section.

Second, while CEW is held on a WAL, it is for all intents and purposes different to other licenced water insofar it was purchased by the Commonwealth with a view to restoring the health of the MDB. Placing a daily limit on a shepherding licence may compromise its capacity to be optimised for the purposes of achieving this goal. For example, specific timings and volumes of water are required to meet the ecological needs of KEAs. Placing a daily extraction limit on shepherding WALs will make it particularly difficult to manage them for the purposes of watering assets within the Barwon-Darling.

In light of this analysis, we strongly recommend creating a more flexible management system that recognises the true nature and purpose of shepherding WALs. We envisage this will involve a combination of WSP rules that allow for flexible management of extraction to meet environmental objectives at specific times. We imagine that larger extraction events would be relatively infrequent, and capable of being managed in such a way so as to not diminish other allocations (which we note may be extracted over an entire accounting year).

Forfeiting of water

Under the Proposed Arrangements, shepherded water that does reach the end-of-system within the fixed period ‘because it is extracted by other licence holders or used in-stream’ will be forfeited.³⁰ EDO NSW would like to make the following comments in respect of this proposal.

First, the example provided by the NSW Office of Water demonstrates why it is necessary to protect shepherded water with cease to pump rules. Again, as it is possible to estimate how long it will take this water to be shepherded through the tributary to the end-of-source, these rules can be imposed for a relatively short, fixed period.

Second, forfeiting water under these conditions arguably contravenes clause 15(e) of the MOU insofar as it potentially enhances the allocations of other water users.

Third, forfeiting shepherded water in these circumstances is again potentially based on an inaccurate construction of the MOU. That is, it reflects a desire to avoid all impacts – however trivial – on other entitlement holders at the expense of the environment. As stated, this is contrary to the terms of the MOU.

²⁹ NSW Department of Primary Industries (Office of Water), *Proposed arrangements for shepherding environmental water in NSW – Draft for consultation*, pages 10 -11 (shepherding within the Barwon-Darling); 15 (shepherding from regulated and unregulated tributaries to the Barwon-Darling).

³⁰ NSW Department of Primary Industries (Office of Water), *Proposed arrangements for shepherding environmental water in NSW – Draft for consultation*, page 12.

Menindee Lakes – first to spill

EDO NSW is concerned that the Proposed Arrangements will result in shepherded environmental water stored in the Menindee Lakes being treated as inferior to NSW and Victorian holdings. This is evidenced by the proposal for the ‘first spill’ to be debited from the Lower Darling shepherding WAL allocation account. This is not only inequitable, but will potentially undermine the purpose of shepherded CEW, which is to return water to the environment.

EDO NSW therefore recommends developing a more equitable accounting system that will protect and optimise shepherded water as per the MOU’s Objective.³¹

We also recommend that shepherded water stored in the Menindee Lakes that is used to meet critical human needs in Broken Hill be re-credited to the shepherding WAL allocation account when rainfall permits.

Accounting - carrying over water

The Proposed Arrangements outline the accounting methodology that will apply to shepherded water. We note that shepherding account balances originating from a parent licence in the Barwon-Darling will only be carried over from one accounting year to the next if this is permissible under the WSP for the Barwon-Darling.

EDO NSW is of the opinion that this will undermine the delivery of water to environmental assets. As previously indicated, specific volumes of water are required to meet the ecological needs of KEAs in the Barwon-Darling. With this in mind, it would be logical and indeed consistent with the terms of the MOU to develop an accounting system that permits shepherded water to be carried over for a certain number of years. In making this recommendation we would reiterate that CEW is qualitatively different to other allocations insofar as it was purchased with Commonwealth funds for the purposes of restoring health to the MDB. The accounting system used to manage shepherded water should therefore reflect its unique status.

³¹ MOU, clause 14.

3. Recommendations

In summary, EDO NSW makes the following recommendations with respect to the Proposed Arrangements. These Arrangements should:

- a) properly reflect the MOU, in particular its Objective and 15 Guiding Principles. Accordingly, the arrangements should not place undue emphasis on avoiding 'third party impacts' at the expense of optimising the use of shepherded environmental water;
- b) reflect the particular status of CEW. That is, CEW was purchased for the explicit purpose of restoring health to the Murray-Darling River system;
- c) comprise a combination of rules-based and events-based management. This will allow shepherded water to be optimised for the purposes of watering KEAs in the Barwon-Darling;
- d) provide for cease to pump rules to apply when water is being shepherded through the system;
- e) not provide for shepherded water to be forfeited if it does not reach the end-of-system within a fixed time. (We note that if (d) is implemented, the chances of water being forfeited are significantly reduced);
- f) create a flexible limit system that would involve a combination of WSP rules that allow for flexible management of extraction to meet environmental objectives at specific times;
- g) manage water that is stored in the Menindee Lakes in an equitable fashion. For example, shepherded water that is used to meet critical human needs should be re-credited to the shepherding WAL account; and
- h) provide for the Barwon-Darling WSP to include rules permitting shepherding account licences to be carried over for more than one year. This would enable CEW to be optimised for the purposes of watering KEAs at specific times.