

NSW



**DEFENDING THE ENVIRONMENT
ADVANCING THE LAW**

**Submission to Natural Resources Commission and
Department of Primary Industries – Water on the 10 yearly
review of water sharing plans**

prepared by

**EDO NSW
7 August 2015**

About EDO NSW

EDO NSW is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 25 years' experience in environmental law, EDO NSW has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO NSW is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

EDO NSW is part of a national network of centres that help to protect the environment through law in their states.

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Introduction

EDO NSW welcomes the opportunity to comment on the 10 yearly review of the following water sharing plans (**WSPs**):

- Lower Gwydir Groundwater Source (**Gwydir GWP**)
- Lower Lachlan Groundwater Source (**Lower Lachlan GWP**)
- Lower Macquarie Groundwater Sources (**Lower Macquarie GWP**)
- Lower Murray Groundwater Source (**Lower Murray GWP**)
- Lower Murrumbidgee Groundwater Sources (**Lower Murrumbidgee GWP**)
- Upper and Lower Namoi Groundwater Sources (**Upper and Lower Namoi GWP**)

For ease of reference, these WSPs shall be collectively referred to as the **Relevant Groundwater Plans**.

We note that different terms of reference (**ToR**) guide the review processes being undertaken by the Natural Resources Commission (**NRC**) and the Department of Primary Industries – Water (**DPI Water**). While the NRC is constrained by ToR contained in the *Water Management Act 2000* (**WM Act**) and in turn the *Local Land Services Act 2013* (**LLS Act**), DPI Water has broader discretion to determine how it will review the Relevant Groundwater Plans. To that end, DPI Water has indicated that it will focus on what changes are required to improve outcomes for the environment and water users; improve clarity, practicality and consistency; and reduce risks.¹ DPI Water has also indicated that its review will inform the development of corresponding water resource plans under the Basin Plan 2012 (**Basin Plan**).

We understand that the NRC and DPI Water will share and collate information gathered through their respective consultation processes. As such, our submission is divided into three sections. The first and second sections relate to the NRC and DPI Water review processes, respectively. The third section covers overlapping ToR from each of the review processes, namely 'Healthy and resilient water dependent ecosystems' (NRC) and 'Changes required to improve outcomes for the environment (DPI Water)'. Specifically, our submission will address the following matters:

1. Concerns regarding the ToR guiding the NRC review process;
2. Requirements under the Basin Plan; and
3. Improving the health and resilience of groundwater and groundwater dependent ecosystems.

This submission will therefore address matters which apply to the Relevant Groundwater Plans in a general sense, rather than recommending specific amendments to individual plans.

¹ <http://www.haveyoursay.nsw.gov.au/consultations/review-of-water-sharing-plans/?date=2015-06-12&id=1191>

1. Concerns regarding the ToR guiding the NRC review process

Lack of clarity

EDO NSW is of the view that there should be clear criteria against which to assess WSPs. To that end, we are concerned that the NRC's website does not provide sufficient information regarding the individual policies, plans and agreements guiding its review of the Relevant Groundwater Plans. While we understand that the NRC wishes to maintain an open-ended approach to this review, imprecise ToR may result in the public expending resources on submissions that focus on matters that fall outside of the NRC's statutory remit. This may in turn undermine the consultation process. The reasons for our concern are outlined below.

As you know, s. 43A of the WM Act sets out the terms of reference for the NRC's review of WSPs. As such, the current review of the Relevant Groundwater Plans is not an open-ended process. Specifically, the WM Act requires the NRC to assess:

(3)

- a) *the extent to which the water sharing provisions have materially contributed to the achievement, or the failure to achieve, the State priorities for local land services (within the meaning of the [Local Land Services Act 2013](#)) that relate to natural resource management,*
- b) *whether changes to those provisions are warranted.*

(3A)

If a report of the Natural Resources Commission under subsection (3) recommends changes to a management plan that will result in a reduction of water allocations in relation to which compensation might be payable under section 87AA, the Commission is to state in the report whether the purpose of the proposed changes is:

- a) *to restore water to the environment because of natural reductions in inflow to the relevant water source, including but not limited to changes resulting from climate change, drought or bushfires, or*
- b) *to provide additional water to the environment because of more accurate scientific knowledge that demonstrates that the amount previously allocated to the environment is inadequate.*

The NRC is also to have regard to 'any other relevant State-wide and regional government policies or agreements that apply to the catchment management area.'²

We note that the definition of 'State priorities for local land services' in the *Local Land Services Act 2013 (LLS Act)* is extremely broad,³ potentially encompassing dozens of

² WM Act, s. 43A (4) (b).

³ Local Land Services Act 2013, s. 4: *In this Act, **State priorities for local land services** includes any State-wide standards and targets, and any State and national priorities, for agricultural production, biosecurity, natural resource management or emergency management: (a) identified in a State Government policy or plan or an intergovernmental agreement, or (b) as advised by the Minister.*

policies, plans and intergovernmental agreements. For example, DPI Water's 'Key Policies' page includes an extensive list of potentially relevant documents, while the NRC site includes a range of natural resource management (**NRM**) standards and targets which are captured by the definition contained in the LLS Act.

While we note that the NRC has narrowed the scope of its review to a series of key questions grouped under three 'outcomes',⁴ it is not clear which plans, policies or intergovernmental agreements underpin this framework.

Notwithstanding this generality, the current ToR potentially exclude relevant assessment criteria.

First, as the definition included in the LLS Act only refers to 'State-wide standards and targets, and any State and national priorities... identified in a State Government **policy or plan or an intergovernmental agreement**...', it would be possible to argue that the NRC's review of the Relevant Groundwater Plans may exclude standards, targets and priorities outlined in legislation (such as the WM Act) or legislative instruments (such as the Basin Plan).⁵ The same is true of the requirement 'to have regard to any other relevant State-wide and regional government policies or agreements.' This is clearly problematic insofar as WSPs are produced pursuant to the WM Act, while the Basin Plan now guides water management across much of NSW.

Second, the ToR do not impose a direct requirement for the NRC to assess WSPs against best available science or ESD. While s. 3A (b) of the WM Act implies that the former is permissible and some relevant policies, plans and agreements do state that NRM should be based on latest evidence and ESD, we are of the view that a clear, legislative requirement to consider these two elements is vital. This is particularly true given the NRC's role as 'an independent body set up to help government find evidence-based solutions to complex natural resource problems.'⁶

In our view, WSPs should be assessed against clear criteria including:

- WM Act;
 - Basin Plan (where relevant);
 - ESD;
 - Best available science;
- Intergovernmental agreements, including Intergovernmental Agreement on a National Water Initiative (**NWI**).

⁴ These are: Productive and resilient water-dependent industries; Secure long-term water supplies for urban and rural communities; and Healthy and resilient water dependent ecosystems.

⁵ To clarify, plans, policies and agreements are categorically different to legislation.

⁶ <http://www.nrc.nsw.gov.au/our-functions-and-structure> (Accessed 6 August 2015).

Recommendations

1. The statutory ToR for reviewing WSPs require amendment. Specifically, they should be updated to explicitly require the NRC to assess WSPs against: the WM Act; (where relevant) the Basin Plan; the most up-to-date scientific evidence; the principles of ESD; relevant intergovernmental agreements; and policies specified by the NRC at the time of review.

2. Requirements under the Basin Plan

Chapter 10 of the Basin Plan outlines the requirements for water resource plans (**WRPs**). WRPs must be accredited by 1 July 2019 to coincide with the activation of sustainable diversion limits (**SDLs**) under the Basin Plan. It is therefore appropriate that this review process include consideration of how the Relevant Groundwater Plans will be adapted to meet the requirements set out in Chapter 10 of the Plan. EDO NSW notes that the following matters arguably require particular attention insofar as they either do not feature in WSPs or are not addressed to the extent necessary to comply with Chapter 10:

- Identification of priority environmental assets dependant on groundwater and development of rules which protect the same;⁷
- Identification of groundwater that is significantly connected to surface water and development of rules to protect environmental watering requirements;⁸
- Where necessary, development of rules that prevent structural damage to aquifers, and which protect connectivity between aquifers/between aquifers and surface water;⁹
- Where necessary, development of rules that prevent elevated levels of salinity and other types of water quality degradation within a groundwater SDL unit;¹⁰
- Identification and listing of additional interception activities which have the potential to have significant impact on water resources;¹¹
- Monitoring impact of interception activities;¹²
- Identification and description of current and future risks to the condition and continued availability of water in the water resource area;¹³
- Strategies to manage medium or high level risks to the condition and continued availability of water in the water resource area.¹⁴

We note that the recommendations outlined in section 3 (below) of this submission are relevant to compliance with Chapter 10 of the Basin Plan. Specifically, there is a need to amend the Relevant Groundwater Plans on the basis of best available science and to advance research where knowledge gaps still exist.

⁷ Basin Plan, 10.18.

⁸ Basin Plan, 10.19.

⁹ Basin Plan, 10.20.

¹⁰ Basin Plan, 10.21.

¹¹ Basin Plan, 10.23.

¹² Basin Plan, 10.24.

¹³ Basin Plan, 10.41, 10.42.

¹⁴ Basin Plan, 10.43.

Recommendations

1. This review should be undertaken with a view to establishing how the Relevant Groundwater Plans can be adapted to meet the requirements for WRPs set out in Chapter 10 of the Basin Plan.

3. Improving the health and resilience of groundwater and groundwater dependent ecosystems

Incorporate latest evidence

In 2004, the National Groundwater Committee (**NGC**) highlighted a range of knowledge gaps regarding groundwater and groundwater dependent ecosystems.¹⁵ It is our understanding that these knowledge gaps applied when the Relevant Groundwater Plans were enacted. As such, there is an urgent need to for the current review to amend these Plans on the basis of best available science. Furthermore, as there is still considerable scope to improve our understanding of groundwater and groundwater dependant ecosystems, rules in the Relevant Groundwater Plans should be updated as new information becomes available. Accordingly, the current review should involve comprehensive analysis of the latest data across the following areas (which were identified as key knowledge gaps by the NGC):

Integrated surface and groundwater management:

- Hydraulic connectivity between groundwater and surface water;
- Time-lag or response function between pumping groundwater and depletion in surface flow (and vice-versa) ;
- Interaction between surface water and groundwater quality.¹⁶

Land use change

- Impact of development on groundwater recharge;
- Impact of development on groundwater quality.¹⁷

Groundwater dependent ecosystem

- Character and value of groundwater dependent ecosystems at a catchment scale;
- Qualitative criteria on which to base protection of priority ecosystems;
- Different temporal and spatial scales for hydraulically connected surface/groundwater connected ecosystems.¹⁸

Other

- Salinisation of aquifers;
- Impact of climate variability on groundwater management.

We note that updating the Relevant Groundwater Plans on the basis of best available science (with a view to improving the ecologically sustainable management of water

¹⁵ National Groundwater Committee, *Knowledge Gaps for Groundwater Reforms*, May 2004.

¹⁶ National Groundwater Committee, *Knowledge Gaps for Groundwater Reforms*, May 2004, pp. 9-11.

¹⁷ National Groundwater Committee, *Knowledge Gaps for Groundwater Reforms*, May 2004, pp. 14-15.

¹⁸ National Groundwater Committee, *Knowledge Gaps for Groundwater Reforms*, May 2004, pp. 6-8.

resources) is either explicitly or implicitly consistent with key aspects of the NWI,¹⁹ the NSW State Groundwater Policy Framework Document (**NSW Groundwater Policy**)²⁰ and the NSW State Groundwater Dependent Ecosystem Policy (**NSW Groundwater Dependent Policy**).²¹

Recommendations

1. The health and resilience of the Relevant Groundwater Plans and associated water dependent ecosystems can only be improved if the Plans are amended on the basis of best available science concerning the aforementioned areas.
2. Evidence suggests that groundwater and surface water should be managed as a whole.²² To that extent, revision of rules in connected surface water plans should be undertaken with a view to incorporating latest knowledge regarding the impact of surface water extraction on groundwater, and vice versa.
3. Where knowledge gaps still exist, the rules in these Plans should be amended to reflect a precautionary approach,²³ which is consistent with one of the key principles underpinning ESD.
4. Funding should prioritise research into areas where knowledge gaps exist.
5. Further to recommendation 4, additional research is needed to understand the impact of development – in particular coal seam gas exploration and production and coal exploration and production – on groundwater, groundwater quality and connectivity between groundwater and surface water. In the meantime, a precautionary approach should be adopted in respect of these activities.

¹⁹ The NWI's objectives include to 'complete the return of all currently overallocated or overused systems to environmentally sustainable levels of extraction' (cl. 23 (iv)). The

²⁰ The NSW Groundwater Policy is based on the principles of ESD (see Principles 1, 2, 4).

²¹ The NSW Groundwater Dependent Policy notes that there is 'urgent need for research in the area of GDEs, particularly in aquifers identified as being at high risk.' Principles outlined in this Policy also rely on ESD (see Principles 1-5).

²² See for example Kelly, B.F.J et al, Aquifer heterogeneity and response time: the challenge for groundwater management, *Crop and Pasture Science*, 2013, 64, p. 1153. This is also consistent with the Intergovernmental Agreement on a National Water Initiative (**NWI**). Specifically, one of the NWI's objectives is 'recognition of the connectivity between surface and groundwater resources and connected systems managed as a single system' (cl. 23 (x)).

²³ We note that this view is also promoted in the NSW Groundwater Dependent Policy (Principle 4).