



Submission to Senate inquiry into Provisions of the Water Act 2007

March 2011

I am expert ecologist with more than 18 years experience in the management of the natural resources of the Murray-Darling Basin. In recent years, my work has focused on the Coorong, Murray Mouth and Lakes Alexandrina and Albert including the Ecological Character Description for the site, the Environmental Impact Assessment for the proposed weir near Wellington, the Ecological Risk Assessment for introducing seawater to Lake Alexandrina, the Environmental Water Requirements for the site, a community-driven assessment of risks to sustainable agriculture below Lock 1 and the Water Allocation Plan for the Angas Bremer Irrigation Management Zone, which I have undertaken with scientific colleagues, policy makers and community representatives. Following are the key points I submit to this inquiry into the Water Act.

1. In my view, several of the terms of reference for this inquiry show misunderstanding or oversimplification of the operation of the Water Act and the objectives it seeks to achieve.
2. The key purpose of the Water Act is to return extraction in the Basin to long-term sustainable levels to support the ecosystems that continued productive use of the Basin and rural communities depend upon. The Act is rightly based on a recognition that long-term socio-economic assets and functions depend on an ecologically functional Basin that provides essential ecosystem services. Environmental, social and economic water needs are indivisible and highly interconnected through the web of ecosystem components, processes and services. Wise management of the Basin's water resources can be achieved without amendments to the Act.

3. The Sustainable Diversion Limits (SDLs) and the 'environmentally sustainable level of take' requirements of the Act cover the ecosystem components and processes that make up the natural ecosystems in the Basin, as well as the ecosystem services that support wise use of the Basin. For example SDLs must be set at a level that maintains water quality within well-known tolerances of native plants and animals and supports ecological processes such as primary production, decomposition, recruitment and functional connectivity. Further examples would be that SDLs must be set at a level that would support ecosystem services such as preventing further formation of acid sulfate soils, nutrient cycling, water purification, limiting growth of pests (e.g. algal blooms), flushing excess salinity, heavy metals and other pollutants from the Basin through the Murray Mouth and regulating our local climates, which are all ecosystem services that are critical for wise social and economic use of the Basin.
4. The view of some stakeholders that the Water Act primarily or solely focuses on 'environmental' considerations with social and economic considerations treated secondarily is incorrect. The Act acknowledges that human use of the Basin should continue and that the Basin Plan should seek to optimise those uses. Use of water and other natural resources can only be optimized if the natural resources base does not degrade. Importantly, Australia has made an international commitment through signing the Ramsar Convention to wisely use our wetlands, particularly those listed as Wetlands of International Importance (e.g. Coorong and Lakes Alexandrina and Albert) and the Water Act, in its current form, provides the legislative framework for that to occur.
5. Many people appear to have a view that 'environmental' requirements are somehow distinct to productive or social water requirements. In actuality long-term sustainable extraction levels cover both ecosystem water requirements as well as water required to support wise productive and social uses of the Basin. Therefore SDLs should not be seen solely as an 'environmental' requirement but as water needed to support the interconnected needs of plants, animals, microbes, processes and people.

6. As an ecologist who has been involved extensively in translating scientifically derived environmental water needs into policy and planning, I would see the call by some stakeholders to legislatively require decision-makers to 'give equal weighting' to environmental, social and economic considerations as non-operational. Such a requirement will not assist policy makers (e.g. MDBA and the various Governments) in achieving the purpose of the Act, which is to achieve long-term sustainable extraction levels in the Basin.
7. The ecological condition of the Basin, overall, is in decline and the ecological functionality of the Basin has been seriously compromised by the actions of people since European settlement. In my mind, we have subsidized irrigation and other forms of development by allowing our natural resources base and ecological function to decline and unless this is adequately addressed by water use reform, the Basin ecosystems will fail to provide ecosystem services upon which people depend. It is imperative that SDLs be set and achieved in accordance with the existing Water Act as quickly as possible to prevent further degradation of the ecosystems upon which we depend.
8. The National Water Initiative (NWI) seeks to address decades of over extraction by State Governments and provide a more consistent and wise water management framework across all States. The Act is consistent with the NWI and should be implemented without amendments and without unnecessary delay. The Basin Plan arising from the Act should identify the risks to Basin water resources, propose strategies to treat or mitigate those risks found to be significant within environmental watering plans, water quality and salinity plans and long term average sustainable diversion limits (SDLs) as well as developing rules for trading Basin water resources in a manner consistent with achieving the vision of a healthy and resilient Basin.

Yours sincerely,

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