

WENTWORTH GROUP

OF CONCERNED SCIENTISTS

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The Committee Secretary
House of Representatives Standing Committee on Regional Australia
Parliament House,
CANBERRA ACT 2600

15th June 2012

Dear Secretary,

We are writing to make a formal submission to the Inquiry into certain matters relating to the proposed Murray-Darling Basin Plan. The Committee has been asked to consider three terms of reference with a focus on the second term of reference. Each of these is addressed below.

1. Significant progress has been made to date in water recovery with buybacks proving to be a cost effective way of obtaining water for the river. It is less clear how effective the irrigation infrastructure investments have been to date. A number of questions have been raised over the management of these programs with the latest being the Auditor General's report into the *Administration of the Private Irrigation Infrastructure Operators Program in New South Wales*.
2. Achieving a healthy working river in the Murray-Darling Basin is not just about watering specific sites like you might water the petunias in a small suburban garden. It is about returning the function of the river system. Therefore environmental works and measures that water only one site at the cost of the function of the river system have no role in the Murray-Darling Basin.

Science tells us that for the rivers, groundwater, wetlands, flood plains, lakes and estuaries to regain their ecological function and become healthy there must regularly be overbank flows that connect the channel to the floodplains, billabongs, and wetlands. Plants and algae in these places transfer and enrich the river water with energy, carbon, nutrient, and food web elements which then move back over time to the channel and drive the ecological activity along the length of the river. This process may be repeated many times along the path of these floodplain rivers.

Flow of water through all these components of the river system is fundamental to the ecological health and function of the Basin and the health of the fish, birds and invertebrates that call it home.

To model the function of the river system the Murray-Darling Basin Authority has used an approach of focusing on the water needs of the largest and most water intensive wetlands and floodplains along the system. According to the Authority "environmental water requirements specified at hydrologic indicators sites are intended to represent the broader environmental flow needs of river valleys or reaches and thus the needs of a broader suite of ecological assets and functions".

The basic assumption here is that if you deliver the volumes of water required to meet the needs of the key indicator sites the floodplains, billabongs and wetlands upstream and downstream will be watered as the water moves through the system.

This is a reasonable assumption and a practical approach to modeling the system as it would have been impossible to model every one of the Basin's thousands of floodplains and wetlands. However it becomes a problem when people forget that these sites are a proxy for the system as a whole and begin to believe a healthy river will be achieved if we water these sites alone.

A healthy river will not be delivered by using environmental works and measures to irrigate specific environmental assets with water that is kept in the channel upstream and downstream of the asset. That would be a landscape garden and would ignore the basic assumption underpinning all the Murray-Darling Basin Authority's work.

A healthy working river is about reconnecting the river channels to the floodplains wetlands and billabongs *along the length of the system*. Any new environmental works and measures projects must be able to show they can achieve this outcome, not simply be an expensive tool for some tokenistic watering of sites that were used as proxies for a modeling process.

3. The new groundwater Sustainable Diversion Limits in the revised draft Basin Plan are a mystery. This is the third set of different numbers the MDBA has provided. There is no scientific analysis to support the last two sets of numbers and why these are different to those in the Guide which were at least based on robust scientific studies of CSIRO and SKM. It looks awfully like the MDBA has a fixation with guessing to see what might be acceptable to stakeholders. What is equally worrying about the draft Basin Plan and the revised draft Basin Plan is that the modeling for the Sustainable Diversion Limit for surface water and the most recent estimate of Sustainable Diversion Limits for groundwater are still not connected.

The revised draft Murray Darling Basin Plan does not provide the information Parliament requires to make a decision on the future of the river system. The revised draft Murray-Darling Basin Plan should be rejected and this reform done properly so that the Australian taxpayers \$8.9 billion investment is not wasted.

Yours faithfully

Peter Cosier
on behalf of the Wentworth Group of Concerned Scientists