

WENTWORTH GROUP

OF CONCERNED SCIENTISTS

Mr Peter Cosier, Prof Tim Flannery FAA, Dr Terry Hillman AM, Prof Lesley Hughes, Prof David Karoly,
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Response to the Murray-Darling Basin Royal Commission Report 31/01/2019

State and Federal governments must be held to account for their actions to deliver the Murray-Darling Basin Plan and the billions of dollars expended so far. The Murray-Darling Basin Plan must be strengthened to provide hope for the river system and the communities it supports and save them from a bleak future.

The release of this report should act as a call to action for all governments and bodies involved in the Murray-Darling Basin. Evidence uncovered showed systemic failures in the implementation of the Basin Plan. We all lose if the Basin Plan fails.

The Wentworth Group of Concerned Scientists welcomes the release of the South Australian Royal Commission report into the Murray-Darling Basin. The Commission identifies key areas where delivery of the Basin Plan can be improved and highlights scientific failings in the implementation of the Water Act and Basin Plan which need to be rectified. The release of this Report provides opportunities to re-evaluate expenditure priorities to ensure the remaining resources are allocated in ways which will deliver most improvements to the health of the basin and the communities it supports.

The Murray-Darling Basin is not just a food bowl. It is a living ecosystem dependent on interconnected natural resources that underpin the livelihoods of two million people and agricultural production worth over \$24 billion. Continued health of the Basin's economy is dependent on maintaining resilient natural systems which in turn require the flow of water in rivers. Like much of Australia the Basin is subjected to periods of "droughts and flooding rains"; the reality of these climate shifts over millennia has enabled nature to develop coping mechanisms that withstand the stresses of climatic extremes. But over the last century extraction of water, especially for irrigation, has reduced river flows to a point where the capacity of natural systems to recover from these extremes is under threat. This puts the overall health of the Murray-Darling Basin at risk including the capacity to sustain productive regional economies for future generations. Climate change, soil degradation and increasing demand for food are further factors creating challenges to the management of water resources under the Murray-Darling Basin Plan and the Water Act.

From the perspective of the Wentworth Group, these challenges can be addressed in a number of ways. The Royal Commission findings offer us an opportunity to provide specific recommendations as to how to best use our scientific understanding of Basin processes to improve the delivery of a Plan for the 21st century. Fundamental to our thinking is the need to provide sufficient water to ensure that environmental conditions are resilient to not just climate shifts as recorded in recent history, but to conditions projected under climate change.

The Wentworth Group supports the Commission's main recommendations. In particular, recommendations to thoroughly implement the environmental provisions of the Water Act are

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essential to improving the declining health of the river. The Wentworth Group supports strengthening the Basin Plan, increasing pressure on Murray-Darling Basin related government organisations to responsibly deliver their elements of the plan, and to refocus on the health of the river system. Developing appropriate responses to less water availability, particularly under a changed climate, are key scientific recommendations. The Wentworth Group particularly supports recommendations related to the use of the best available science in decision making. The Commission's findings identify many reasons why the Basin Plan is not on track. We hope that the Murray-Darling Basin Authority and basin governments embrace the Commission's recommendations to develop lasting solutions to the critical issues facing Australia's most important water system.

The Wentworth Group welcomes the Commission's recommendations requiring new determinations of the ESLT and SDL Basin-wide to make them comply with the Water Act. These must be constructed with a primary focus on the environment, providing no compromise in restoring and protecting key environmental assets and ecosystem functions, and with no consideration of a 'triple bottom line approach'. In line with this the 70 GL reduction from the NBR should be immediately repealed as should the 1,500 GL cap on buybacks.

The release of this report should act as a call to action for all governments and bodies involved in the Murray-Darling Basin. Evidence uncovered showed systemic failures in the implementation of the Basin Plan. We all lose if the Basin Plan fails. The Wentworth Group recognises that the Basin Plan water recovery target is insufficient to restore health to the environment and prevent further damage and would welcome an increase in the target above 3,200 GL. The Wentworth Group provided evidence to the Royal Commission of its independent assessment of the Basin Plan in 2018, which the Commissioner's findings today reflect.

The Wentworth Group identified the following recommendations, which are required to restore integrity to the water reform process and the future health of the environment:

1. Guarantee recovery of the full 3,200 GL of water as a **minimum** step to ensuring that water recovered achieves measurable improvements to the health of the MDB;
2. Ensure application of **best available science** is central in all decision-making;
3. Use compliance and regulatory powers under water laws to their full extent to deter and prosecute any illegal water use;
4. Prepare for the future with less water in a changing climate by undertaking impact assessments and developing adaptation policies;
5. Rebuild trust through the public release of all advice, modelling and decision-making processes including expenditure of public funds.

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Specific Issues:

- **Environmental monitoring**

The Royal Commission identified that the Commonwealth, state and territory governments should agree to comprehensive measurement of consumptive water use and water interception, including groundwater, across the whole Basin. This data can be used to inform compliance regimes, which are currently poorly resourced and ineffective, leaving delivery of Basin Plan objectives highly vulnerable. We agree with the Royal Commission recommendations 28 and 36 that a real-time, environmental monitoring program should be independent of the Murray-Darling Basin Authority and basin governments. Additionally, a licensing and metering regime for floodplain diversions is recommended and supported by the Wentworth Group.

- **Basin Plan legality**

The Royal Commission has identified instances where the legislative requirements within the Water Act have not been followed and as such have found the Basin Plan to be illegal. The Wentworth Group recognises this legal opinion and calls on the Federal Government to undertake legislative amendments to rectify this situation. After the progress that has been made in water reform over the last two decades now is certainly not the time to abandon the reform process.

- **Use of best available science**

The Wentworth Group agrees that the Basin Plan did not make use of best available science. We agree with the Commission's findings that the ESLT should be determined using a scientific approach; that there is uncertainty with the Ecological Elements Scoring and that the audit of the effectiveness of the Basin Plan be conducted by an independent expert audit committee

There are also the obvious omissions from the Basin Plan with climate change and the coastal science related to the Murray Mouth and Coorong being particularly important. The recommendations to amend the Plan, to increase the Sustainable Diversion Limits so that it is based on science, and to ensure that science remains at the heart of Murray-Darling Basin water reform are enthusiastically supported.

- **Incorporating climate science**

We welcome recommendations that highlight the need for incorporating robust climate change science and likely changes to river flows into the Basin Plan. Recommendation 3 identifies the urgent need for a review of climate change risk to the whole of the Basin, based on the best available scientific knowledge. Revising the ESLT to directly address the risks of climate change on water availability and river health is a step in the right direction, as is establishing and appropriately funding a

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Commonwealth Climate Change Research and Adaptation Authority, as identified in Recommendation 4.

- **Water buybacks**

Commonwealth buybacks were capped to 1,500 GL in 2015 through an amendment to the Water Act. We believe that recovery of water entitlements through buybacks offers the most cost-effective means of securing water entitlements and this method should, in most instances, be preference over other means. We agree with the Royal Commission findings that the cap on buybacks should be removed from the Water Act.

- **Water Resource Plan**

Water Resource Plans are the core statutory documents which implement the Basin Plan in each catchment. They detail how each state government will implement the complex 'fine print' of the Basin Plan in each river in the Basin. Getting these plans right is critical to improving the Basin's health. We agree with the Royal Commission recommendation that WRPs accreditation should await a scientific determination of an ESLT (recommendation 25). This will help to ensure Basin states are on track to deliver plans that meet the environmental outcomes required by the Water Act. We recommend that accreditation should be based on the criteria previously suggested by the Wentworth Group (<http://wentworthgroup.org/2018/11/wrp-accreditation-criteria/2018/>).

The revision of WRPs should be informed by increased provision of technical expertise and scientific knowledge, accompanied by appropriate resourcing (recommendations 21 & 29). Reviewing Water Resource Plans should be prioritised and they must be held to a high standard. We agree that the cap on auditing only two WRPs per year be removed (recommendation 35). Due recognition should be given to the water requirements of floodplains in WRPs (recommendation 29) which are currently compromised through an inappropriate triple bottom line approach of setting the ESLT.

- **Technological improvements**

We believe that advanced technology, such as improved irrigation systems, remote metering, telemetry and satellites can be used effectively to improve delivery of water as well as compliance and monitoring. In addition, we agree with the Royal Commission recommendation 36 regarding transparency of monitoring, including real-time monitoring and publication of consumptive use, related to river and ecosystem health.

- **Easing constraints**

Recommendation 7 regarding stronger measures which compulsorily lift constraints are supported by the Wentworth Group. Without expanding these limitations or providing necessary capacity for water flows to wet floodplains in the Southern basin, these floodplains will remain dry. For example, relaxing constraints is the difference between saving 40% and 75% of the floodplains in South Australia with the limited environmental water that is available. The New South Wales and Victorian governments

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are not delivering the agreed constraints relaxation needed to keep the River Murray system healthy. The Basin Plan will fail without adequate constraints relaxation.

- **Protection of environment water**

Environmental water is not well protected and is vulnerable to illegal extraction. Besides illegal water extraction there are also many different ways in which environmental water can be extracted legally with adverse consequences for the river system. For example, environmental water in one state may not be protected when it flows across a state border. We agree with the Royal Commission recommendations which identify that all environmental water ('planned' and 'held' under entitlement) needs to be protected within and between valleys, including over state borders.

Additionally, the ESLT should be determined with a scientific approach. This will require a scientific re-determination of environmental water needs and thus the re-setting of an environmental water recovery volume to be managed by the CEWH. We agree with the Royal Commission recommendations 13 and 26, which identify that the 70 GL reduction in the Northern Basin review should be immediately repealed and that the functions of the CEWH should not be changed

- **Transparency**

The recommendations relating to public release of modelling, decision making processes and expenditure of public funds are strongly supported as are the recommendations relating to procedures which ensure future transparency. These should be adopted as a matter of urgency.