



Australian Government

**Department of Agriculture
and Water Resources**

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Response to Professor Grafton's editorial 'Water Reform and Planning in the Murray-Darling Basin, Australia'

Dear Professor Dinar

I write regarding Professor Quentin Grafton's recently published editorial *Water Reform and Planning in the Murray-Darling Basin, Australia*.

The Australian Government Department of Agriculture and Water Resources is responsible for implementing the Australian Government's water policy reform agenda. This includes administering programmes to return water to the environment by upgrading irrigation infrastructure in the Murray-Darling Basin.

While we welcome new information that assists efforts to move towards a healthy and sustainable Basin, the key claims in Professor Grafton's editorial go well beyond the findings of the research presented, with little provided in the way of primary data or quantitative analysis.

Contrary to the claims in Professor Grafton's editorial, the Basin Plan is on track and delivering results for irrigators, communities and river ecosystems. In fact, while Basin Plan sustainable diversion limits (SDLs) don't take effect until mid-2019, already around 2000 gegalitres (GL - one GL equals a million cubic metres) of water entitlement has been recovered. This equates to an almost 15 per cent reduction to pre-existing diversions for consumptive use. This environmental water is delivering, on an ongoing basis, significant benefits such as creating or enhancing major fish and bird breeding events and improving vegetation condition in numerous wetlands and floodplains across the Basin.

Contrary to Professor Grafton's claim that there is little to show for the government's investment in better irrigation infrastructure, so far over 700 GL of environmental water entitlement has been sourced from irrigation efficiency projects where water savings are shared with farmers. Across the Murray-Darling Basin, more than 10,000 individual irrigators are benefitting from improvements to water delivery systems, with over 900 km of irrigation network delivery channels being modernised. Over 2,000 individual projects are now underway or completed which have helped farmers to modernise their infrastructure and improve their on-farm water use efficiency.

Claims in the editorial that water extractions remain unchanged are based on simplistic assumptions around annual water usage and irrigation application rates. It is misleading to measure the reduction in irrigation diversions due to the Basin Plan simply by looking at the recent pattern in annual take. In fact, water usage and application vary significantly from year to year due to seasonal changes in water storage levels, rainfall, soil moisture, temperature and the mix of crops grown.

Moreover, with climate change, the allocation mechanism built in to all States' water resource policies will enable diversions for consumptive and environmental uses to be adjusted to changing water availability. Irrigation efficiency improvements and changing production mixes are enabling farmers to produce at least as much food and fibre, but with less water.

A number of checks and balances exist to monitor progress in the delivery of Basin Plan outcomes.

In 2017, the Murray-Darling Basin Authority is undertaking a comprehensive evaluation of Basin Plan outcomes to date. This evaluation will consider social, economic and environmental outcomes relative to the objectives of the Basin Plan. Subsequent evaluations will take place in 2020 and every five years thereafter.

Furthermore, in 2018, the Productivity Commission will prepare a report on the effectiveness of the implementation of the Basin Plan.

In addition, a range of monitoring and reporting arrangements apply under the Basin Plan. These include monitoring and evaluation of Basin Plan environmental and socio-economic outcomes, and reporting on SDL compliance once Basin Plan SDLs take effect from 1 July 2019.

These reports will inform evidence-based adaptations and modifications to the delivery of the Plan by decision-makers.

Securing a sustainable and productive future for the Murray-Darling Basin is a major undertaking. Early results are already apparent. This lends confidence to the achievement of the longer term outcomes envisaged by the Plan.

Yours sincerely,



Paul Morris
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