

**Submission
No 49**

**SUPPORT FOR DROUGHT AFFECTED COMMUNITIES IN NEW SOUTH
WALES**

Name: Ms Cate Faehrmann

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Mr Justin Clancy MP
Chair
Committee on Investment, Industry and Regional Development
Parliament House
Sydney NSW 2000

Dear Mr Clancy

I appreciate the opportunity to make a submission to the Committee on Investment, Industry and Regional Development's Inquiry into support for drought affected communities in NSW, as the Greens spokesperson for the Environment, Healthy Rivers and for Western NSW.

In relation to (d) in the Inquiry's Terms of Reference '**transition and recovery from drought when drought conditions begin to improve**', I submit the following:

Importance of Environmental Water

It is vitally important that first flush flows are protected to replenish water holes, fish refuge, wetlands and the Darling river system and its tributaries in the event of the first big rains. This is essential in order for rivers and wetlands to be able to properly recharge after such an intense and prolonged dry period.

The Inland Rivers Network describes the importance of environmental water:

"Water releases trigger a surge in the number of insects and microorganisms within a wetland. Frogs emerge to feed and become food for waterbirds, fish, turtles and other reptiles. Plants reproduce and set seed, providing food, shelter and nesting materials for animals.

Wetland plants also filter the water, capturing sediment and returning it to the floodplain floor ready to feed the next generation of wetland plants.

Native fish respond to the conditions and begin to breed. Fish are an essential part of a healthy river. Supporting native fish supports the recreational fishing and tourism industries.”

Environmental flows are essential to the health of our wetlands, which the world is losing three times faster than forests. Wetlands have a total economic value greater than any other major habitat. They provide us with water, protect us from floods and droughts, provide food and livelihoods to millions of people, support rich biodiversity, and store more carbon than any other ecosystem.

Floodplain Harvesting

The NSW Government’s floodplain harvesting policy must properly account for the impact of floodplain harvesting on environmental water flows in anticipation of an improvement in drought conditions. The levees and dams built to capture and store floodwaters have prevented downstream flows that would have recharged groundwater and fill billabongs, lagoons and wetlands, contributing to the extreme stress that areas of international significance like the Macquarie Marshes and Gwydir Wetlands are under from which they may never fully recover.

Currently the Government plans on increasing baseline diversions and sustainable diversion limits by the estimated volume of floodplain harvesting to be licenced without changing the level of water recovery for the environment. This is unacceptable as these changes will be outside the current environmentally sustainable levels of take and have not been assessed under the Basin Plan.

This will further degrade the condition of water dependent ecosystems. The volume of water granted under new floodplain harvesting licences must be shared across the existing sustainable diversion limits calculated in each catchment. This is the only sustainable management option that will not result in a net reduction of protection of planned environmental water and meet the objectives of the Commonwealth *Water Act 2007* and the basin plan.

In relation to (e) in the Inquiry’s Terms of Reference ‘**preparedness for future drought events**’ I submit the following:

Water Allocation and Climate Change

The NSW Government must acknowledge the impact of climate change on future droughts. The Government was warned about the lack of water security in regional NSW by its own department in a 2013 draft paper, *Assuring Future Urban Water Security*, commissioned by the Department of Primary Industries.¹ Modelling contained in the report, conducted by NSW Public Works, considered the possible impact of climate change on dam levels and water supply at eleven regional councils. It found the amount of water that could reliably be made available in

¹ <https://inlandriversnetwork.org/campaigns/wetlands/>

those areas would fall by between 9 and 30 per cent by 2030. It also noted the need to prepare for 1 in 100 and 1 in 1000 year droughts with a clear concern that rural NSW could face drought conditions worse than the Millenium Drought.

The fact that the Government shelved the paper, called off further modelling and studies and failed to implement the recommendations meant that it failed to anticipate, and hence plan for, the severe water shortages NSW is currently experiencing.

Unless the government accepts that climate change will lead to more frequent and more prolonged dry periods then it will never be able to adequately plan for long-term water security in this state. This means accepting the fact that there is ultimately less water available in the Murray-Darling basin and that overallocation of water to big agribusiness at the detriment of environmental water will ultimately lead to the demise of the basin and the communities and farmers that rely on it.

In 2017, nearly all of the dams in Western NSW were full. The total water storage was 76.7% for NSW at the start of 2017 but now sits at 28.5%. Chaffey Dam sat at 99.2% in the beginning of 2017 but now sits at 17.1% as of 11 November, losing 82% of its capacity over two and a half years. Wyangala dam was at 95.8% 2017 but now sits at 17.2%. Burrinjuck was at 95.5% but now sits at 33.2% And most horrifically Keepit dam, which was 89.4% full in the beginning of 2017 but sits now at just .5%

The Committee must acknowledge the impact that the overallocation of water licences for irrigation has played in endangering the water security of regional communities.

If the Government had heeded the advice in the *Assuring Future Urban Water Security* report it would have realised that water allocations and allowing the practises of extractive industries along the Darling River to continue unchecked were unsustainable. The suitability of water intensive crops in rural NSW needs to be assessed in anticipation of future and even more intense drought conditions caused by a heating climate. For example, the Murray-Darling basin has seen a huge expansion of irrigated crops since the 1970's, including cotton, citrus and almonds, at the expense of many family farms and river communities, including First Nations communities.

The Committee should investigate and report on the Murray-Darling Basin's capacity to support water intensive irrigation crops as longer, drier and hotter conditions become the new norm due to climate change. Acknowledging that less water is going to be available within the basin due to the impacts of climate change and that droughts will be hotter, drier must also mean acknowledging that the unregulated proliferation of water intensive irrigated crops is a luxury this state can no longer afford.

Impacts of Mining

The committee should also investigate and report on the impact of mining operations which require massive volumes of water to operate. Mine operators are purchasing water on the open market to continue to operate throughout the drought, reducing access to water for regional communities and driving up water prices.

For example, Newcrest's Cadia gold mine requires 160 million litres of water per day to operate, with roughly 40 million litres accessed via river pumping, rainfall and groundwater bores.

In May of this year the Cadia mine purchased water at prices near \$1000 per megalitre, triple the prices of temporary water in that district in 2016.²

In relation to (h) in the inquiry's terms of reference '**capacity and coordination of town water supplies and further recycling opportunities**' I submit the following:

Water Recycling

The committee should investigate the capacity for alternative water supplies such as water recycling for farmers, extractive industries and regional communities.

Shoalhaven Water's Reclaimed water Management Scheme (REMS) is an example of the potential for water recycling to dramatically increase water efficiency in agriculture.³ REMS Stage 1A, costing \$34m, provides recycled water to fourteen dairy farms, a golf course and several sporting grounds irrigate with reclaimed water from the scheme on well over 500 hectares of land. Over 20,000 megalitres of recycled water has been reused through the REMS, 70% of the reclaimed water produced. Farms apply an average of three megalitres of reclaimed water per hectare, aiming for 75% of irrigation using reclaimed water.

The application of water recycling for agricultural use has the potential to drastically reduce the impact of water extraction for agriculture on the Murray-Darling basin.

The Rouse Hill Water recycled water scheme is an excellent example of the potential for recycled water in urban environments. The recycled water scheme delivers up to 2 billion litres per year of highly treated reclaimed water into 32,000 suburban properties to flush toilets, water gardens, wash cars and for other outdoor uses.⁴

The application of water recycling for non-potable town water has the potential to greatly increase town water efficiency in regional NSW.

² <https://www.afr.com/companies/mining/water-torture-for-miners-as-drought-persists-20190528-p51rzm>

³ <https://shoalwater.nsw.gov.au/About-Us/Major-Projects/REMS>

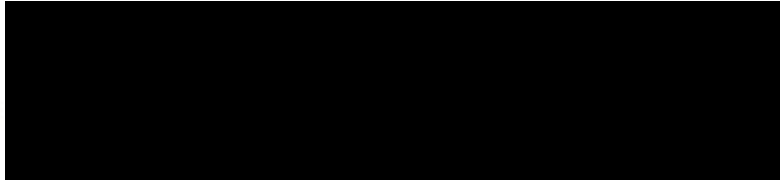
⁴ <https://www.sydneywater.com.au/SW/education/Wastewater-recycling/Water-recycling/rouse-hill-water-recycling-plant/index.htm>

Recycled water provides further environmental benefits as the treated water can be released as environmental flows to recharge rivers and wetlands.

We must see this drought as an opportunity to learn from our mistakes and acknowledge the devastating impact that climate change will have on regional NSW. Current water practices are unsustainable and if the NSW Government does not implement serious water reform and climate adaptation strategies many regional communities face the prospect of becoming unviable within the century.

I thank the Committee for the opportunity to make a submission to this important Inquiry.

Yours sincerely,

A large black rectangular redaction box covering the signature area.

Cate Faehrmann MLC

Greens Spokesperson for the Environment, Healthy Rivers and Western NSW