Submission to Inquiry into Menindee fish deaths

Thank you for the opportunity to make a submission into the inquiry into the Menindee fish deaths.

I own Tolarno Station, on the Lower Darling/Baaka, south of the Menindee Lakes.

Introduction

Millions of fish died at Menindee Lakes in January 2019. Millions more died at there in March 2023.

The immediate cause of the 2019 fish kill was blue-green algae. The immediate cause of the 2023 fish kill was blackwater, and possibly pollution from agricultural activity.

Blue-green algae and blackwater are natural phenomena, but fish deaths of this size are not natural. Blue-green algae and blackwater are exacerbated by extraction from rivers.

Previous reviews into fish deaths have focused on the immediate causes, touching too lightly on what I believe is the ultimate cause, which is over-extraction of water from the Barwon-Baaka and its tributaries.

I urge the Chief Scientist to consider the way the Barwon-Baaka river system as a whole is managed.

Government legislation and plans

Commonwealth and state legislation and plans state clearly that the rivers will be protected and their ecosystems maintained. These include undertakings to;

- manage water in the Murray-Darling basin in the National Interest,[1]
- protect, restore and enhance rivers, floodplains, ecosystems, habitats, animals, plants and water quality,[2]
- share water, firstly to rivers and people, and only then, to irrigation,[3]
- limit water extractions to less than the level of irrigation development that existed at 1 July 1994.

To help achieve this the NSW and Commonwealth governments own and manage water to protect and restore rivers and wetlands in the Basin.

River and water management

Commonwealth and state governments are not managing our rivers consistently with their own legislation and plans. The needs of irrigation are placed ahead of the health of rivers and downstream communities.

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[1] Australian Government. (2007). *Section 3, Water Act 2007,* https://www.legislation.gov.au/Details/C2021C00539
[2] NSW Government. (2000). *Division 1, Water Management Act 2000 No 92.* https://legislation.nsw.gov.au/view/html/inforce/current/act-2000-092#ch.2-pt.1-div.1
[3] NSW Government. (2000). *Division 1, Water Management Act 2000 No 92.* https://legislation.nsw.gov.au/view/html/inforce/current/act-2000-092#ch.2-pt.1-div.1

Both fish kills can be attributed to the management of the system as a whole specifically water extractions continuing to grow in the Northern Basin.

I have drawn the examples below from NSW.

Example: increased extractions in NSW

Increased extractions for irrigation in Queensland and NSW have increased the severity of blackwater events in the Barwon-Darling/Baaka. Extractions in the northern basin have been allowed to grow and have not been restricted to either the Murray-Darling Basin Cap or the Sustainable Diversion Limits.

For example, recently the NSW Government issued 410 gigalitres of new floodplain harvesting licenses in four northern valleys (NSW Border Rivers 52 gigalitres, Gwydir regulated 105 gigalitres, Gwydir unregulated 13 gigalitres, Macquarie Castlereagh 49 gigalitres and Barwon-Darling unregulated 51 gigalitres). The NSW Department of Planning and Environment has stated it intends to issue additional floodplain harvesting licences of 85 gigalitres in the Upper Namoi and 55 gigalitres in the Lower Namoi.

These licences cause extractions to exceed the Murray-Darling Basin Cap. As the Cap is a legislative requirement in NSW, these licences mean that NSW is not adhering to its own legislation.[4]

The Commonwealth has increased the Sustainable Diversion Limits in these valleys. Bret Walker SC has advised the NSW Select Committee on Floodplain Harvesting that the process used to increase the Sustainable Diversion Limits is unlawful.[5, 6]

Example: ongoing plans by the NSW Government to increase water storage

In 2018 WaterNSW released a *20 Year Infrastructure Options Study Rural Valleys Summary Report.*[7] Table 1 includes proposals, take from the report, for new and enlarged water storage and management infrastructure in the NSW part of the Northern Basin. Some of this is for town water supplies, but mostly it is to provide security of supply for the irrigation and mining industries.

[4] Slattery & Johnson. (2021). *Licensing floodplain harvesting in Northern NSW: analysis and implications.* https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-submission-details.aspx?pk=76066
[5] Walker and Hartford-Davis. (2021). *Joint memorandum of advice.* https://www.parliament.nsw.gov.au/lcdocs/submissions/76500/Southern%20Riverina%20Irrigators.pdf
[6] Select Committee on Floodplain Harvesting. (2021). *Report on proceedings before Select Committee on Floodplain Harvesting.* https://www.parliament.nsw.gov.au/lcdocs/transcripts/2685/Transcript%20-%20Select%20Committee%20-%20Inquiry%20into%20Floodplain%20Harvesting%20-%2024%20September%202021%20-%20Virtual%20-%20CORRECTED.pdf
[7] WaterNSW. (2018). 20 Year Infrastructure Options Study Rural Valleys Summary Report

Table 1. Selection of new and enlarged works to capture and store water in the tributaries of the Barwon-Darling River in Northern NSW.

River	New dams	Raised dams	New weirs	Raised weirs
Border Rivers	Mole River Dam Severn River Dam Mingoola Dam Boomi and Mungindi off-stream storages	Glenlyon Dam Pindari Dam		Mungindi
Gwydir River	Horton River Dam Lower Gravesend Dam Upper Gravesend Dam Bingara Dam Biniguy underground dam New off-stream storage		Biniguy re-regulator	Tyreel Regulator
Namoi River	Blue Hole Dam Two underground weirs north of Boggabri		Blue Hole weir Re-regulating weir north of Boggabri	Mollee weir
Peel River	Dungowan Dam Chaffey Dam second augmentation Tamworth off-river storage			
Macquarie-Cudgegong Rivers	Bell River Dam Ulmarrah Dam on Macquarie	Increase Burrendong Dam full supply level (operational change) Raise Burrendong dam	Re-regulating weir Macquarie	
Fish River system		Increase Duckmaloi River storage		

From the incomplete storage assessments in the report, these works amount to more than 4,900 gigalitres of increased storage.

While most of the works on this ridiculous wish-list will never be built, the fact they exist in the options study demonstrates the single-minded focus of WaterNSW to increase water storage and use.

Every so often some of these projects are dusted off by governments, causing great distress and hardship for communities on which the burden falls to fight them. The Mole River and Dungowan dams have been shelved, largely through community objections and sensible NSW Parliamentarians, but these projects never go away, despite governments' claims of managing the basin sustainably.

The large new re-regulating weir on the Macquarie is still planned to go ahead, as are efforts to change the management of the flood mitigation storage in Burrendong Dam to increase its storage capacity.

A project not included in the options study but planned by WaterNSW to be carried out in 2024 is the raising of Gunidgera Weir on the Namoi River. The capacity of the weir will be increased by more than a third, enabling easier distribution of water to irrigation. While the weir is being enlarged there will be no flow in the Lower Namoi River. As well as plans to stop flows during construction a larger weir will allow more water to be diverted for irrigation, away from the main river channel that supplies water to the Barwon-Baaka. This increases the likelihood of no flows from the Namoi to the Barwon.

Example: Insufficient releases were made to dilute blackwater

Prioritising irrigation over everything else has left the environmental water holders being asked to underwrite water used to improve water quality.

The releases made from Menindee to dilute the blackwater was 30 gigalitres of the Commonwealth's environmental. Releases to dilute blackwater ceased when the Commonwealth Environmental Water Holder's portfolio was exhausted, seemingly to preserve water in the lakes for irrigation.

The amount of environmental water recovery estimated under the Basin Plan was to achieve an Environmentally Sustainable Level of Take, not to improve water quality. If the Commonwealth Environmental Water Holder is now asked to underwrite water quality, the water recovery targets will need to be increased.

The principles of the NSW Water Management Act prioritising water for rivers and their ecosystems, then people, and irrigation last. However, the management of the blackwater after the fish kills clearly demonstrates that the NSW Government has prioritised irrigation first, and not given any priority to the river, environment or people.

Water Resource and Water Sharing Plans

The NSW Government has withdrawn Water Resource Plans that had been submitted to Murray-Darling Basin Authority for review because they are inadequate and should never have been submitted. Many of the problems with the Water Resource Plans are contained within the state Water Sharing Plans. Within this group of substandard plans, the Water Sharing Plan for the Lower Namoi is remarkable for its inadequacy.

Example: no requirement to deliver end of system flows

In its operational plan for the Namoi River in 2024, in relation to the Gunidgera Weir enlargement, WaterNSW states that '*end of system flows will be delivered as per the WSP rules.*'

The Lower Namoi Water Sharing Plan, Clause 14 subclause (2) states that;

> *In the months of June July and August, a minimum daily flow with is equivalent to 75% of the natural 95th percentile daily flow for each month shall be maintained in the Namoi River at Walgett.*

The 95th percentile is the lowest five percent of daily flows. Therefore, the end of system flow rule is to deliver a minimum of three-quarters of the lowest five percent of flows for three months of the year. There is no requirement in the Water Sharing Plan to deliver flows in the other nine months.

Clause 14 subclause (3) states that:

> *Subclause (2) shall not apply when the sum of the water stored in Keepit Dam and Split Rock Dam is less than 120,000 megalitres.*

This means that end of system flows are less likely to be provided in dry times because when the dams fall below about 15 percent capacity the rule does not apply.

Conclusion

What this demonstrates is that despite Commonwealth and state legislation, plans, promises and undertakings to protect rivers, state governments and water departments push ahead with works to take more water out of rivers.

The recent withdrawal by NSW of the Water Resource Plans demonstrates the failure of the NSW Government to reconcile the push for water increased water extractions with its own legislation, but more significantly with the requirements of the Murray-Darling Basin Plans and the Commonwealth *Water Act 2007*.

The current rate of water extraction in the Northern Murray-Darling Basin is destroying the rivers. A hot, dry el Nino is forecast. Under the existing water management regime in the Northern Basin there is no guarantee that in dry times the Barwon-Baaka will get any water at all. Without major change to water management, ensuring that the Barwon-Baaka

receives base flows before upstream extraction is allowed, fish kills will continue until there are no fish left.

Recommendations

1. re-instate numeric extraction limits in legislation and return irrigation extractions to within legal valley limits,
2. instate genuine end of system flows in the Barwon-Baaka river and its tributaries,
3. re-instate or introduce measures to preserve base flows in the Barwon-Baaka river and its tributaries, and
4. remedy water quality with operational water, not environmental water.

Thank you,

Yours etc

Robert McBride

Tolarno Station