Submission No 42

INQUIRY INTO RATIONALE FOR, AND IMPACTS OF, NEW DAMS AND OTHER WATER INFRASTRUCTURE IN NSW

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James Walker submission to **Inquiry into the rationale for, and impacts of, new dams and other water infrastructure in NSW**

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I grew up on a farm on a river in East Gippsland, Victoria, and saw examples of bad waterway management. The early colonial farmers from the late 1800s there, began clearing the river banks, which was all very well for some time. Then big floods came along and tore the river banks away. Succeeding floods widened the river bed, in places to ten times or more of its original size, and deposited sand over farmland. Engineers straightened the river so the flood water would run off the farms faster. This made things worse. The river sped up, increasing flood erosion, and started to make new courses for itself across farmland with every big flood. Today, the engineering has improved and the river appears stable, for the time being. For many other Victorian rivers the story was the same, despite various times of settlement over 50 years. No-one learned anything from previous experience of others. Learning the hard (and expensive) way is the colonial norm. The same colonial thinking occurs across the world.

Rationale for, and impacts of, new dams and other water infrastructure in NSW

Terms of Reference

(a) the need for the projects, including the historical allocation of water and consideration of other options for ensuring water security in inland regions,
The people putting these projects forward know that the land and waterways affected are not theirs, that the land and waterways belong to indigenous people from whom it was stolen by violent means. The people putting these projects forward also intend to proceed with the projects no matter what the general public thinks, and no matter what environmental, economic, and social costs result.

There is no need for these projects. No immediate need has been demonstrated. There is no rush, except the one contrived in order to ram these unacceptable proposals past the general public and through the parliament as quickly as possible in order to minimise scrutiny.

"… We expect shovels in the ground by October on these nation building projects," Mrs Pavey said. (Minister for Water, Property and Housing, Media Release 31 March 2020).

'The EIS will be finalised for public display in 2021.' Wyangala Dam Wall Raising (Undated web) https://www.waternsw.com.au/projects/new-dams-for-nsw/wyangala-dam

The following figures are taken from *Critical State Significant Infrastructure (CSSI) Regional Priority Dams. Construction Industry Briefing.* WaterNSW 12 May 2020

Wyangala Dam wall raising	**$650m Estimated cost**	**650GL Additional storage**
Mole River Dam	**$355m Estimated cost**	**100GL storage capacity**
Dungowan Dam & pipeline	**$480m Estimated cost**	**22.5GL Storage capacity**

Note these cost figures are only 'estimates' and it is common for government projects to cost a lot more than anticipated, especially if no contracts have yet been signed, but of course construction contracts may have already been signed.
As to storage capacity, there is no guarantee that capacity will be reached, or how often it will be reached.

The projects seem to be maximising environmental damage to rivers and wetlands,and very likely jeopardising the irrigation industry as well as other industries downstream. Far better to spend the money on research and actions to repair the massive damage to rivers and wetlands already caused by previous thoughtlessness and bad management.

(b) the economic rationale and business case of each of the projects, including funding, projected revenue, and the allocation and pricing of water from the projects,

The projects are intended, it seems, to benefit irrigators, at everyone else's expense. The public will pay for the projects. Towns and cities will have reduced access to water. Downstream water users and States will presumably suffer reduced water supplies.
The indigenous landowners should be compensated in the ways they see fit, including financial compensation, if the projects proceed against their wishes. The compensation should be provided and payed for by the government.
Indigenous land owners should have free access to waterways and water for personal consumption. It is their water.
There is wide apparent variation in cost per GL of water for each project
Impact on pastural water users downstream of the irrigation area – guaranteed flow?
Negative environmental impacts are commonly regarded as 'externalities' in projects like these, but these costs should be assessed as accurately as possible and go on the balance sheet. Alternatively, these costs could be avoided, which is the better option.
Losses to fisheries should be a calculated cost.

(c) the environmental, cultural, social and economic impacts of the projects, including their impact on any national or state water agreements, or international environmental obligations,

Impact on fisheries – water temperatures? Will water temperatures along streams be managed within their natural seasonal fluctuations be achieved, and how? Rising water temperatures in spring are the trigger for native fish breeding.
Irrigation flows are usually detrimental to native fish species because they are counter-seasonal, i.e. high flows in the dry season and lower flows, or no flows, when it rains.
Scouring of stream banks by irrigation flows where streamside vegetation has been killed by inundation in the proposed 30km re-regulator weir pool on the Macquarie will have adverse impacts on the food supply for fish e.g. insects and insect larvae.
Will constructed Fish Ladders allow native fish to pass the proposed weir and other artificial structures in streams. They often fail to work – get clogged up or malfunction.
Carp control? Weir pools are favoured habitat for Carp

Ramsar sites, under the Convention signed by the Australian government, are supposed to be protected from impacts that adversely impact migratory species, but the projects proposed will have adverse impacts. Both State and Federal governments have largely ignored their obligations under the Ramsar Convention, just as the governments also ignore their own laws on protection of Australian wildlife in general.

Floodplain native vegetation? More loss of water to the natural flood plains will mean the death of the indigenous vegetation (that hasn't already been killed by overgrazing, and feral animals)

Indigenous people have, and still do, use rivers and wetlands as water sources and the associated flora and fauna for hunting and gathering of food, and materials for tools and housing. Their rights to these uses are denied when irrigators take too much water, or pollute the water with saline and chemical runoff.

(d) the impacts of climate change on inland waterways, including future projections, and the role of dams and other mass water storage projects in ensuring security of water supply for social, economic and environmental outcomes

Will additional water security be achieved for irrigators be achieved? Obviously not. As soon as more water becomes available, irrigators will increase water use, so they will still be in a predicament in dry times. Wyangala Dam capacity has already been increased four-fold since its original construction, but still not enough to satisfy irrigators or secure the irrigation water supply.

Colonial Australians have not been here long enough to understand the fluctuations of the natural environments. Nor have colonial governments come to grips with the likely impacts of rising global temperatures, and consequent disruption of weather patterns. From now on changing climate impacts will probably be bigger and faster, and will wreak more havoc on both production and markets. Building more dams cannot be a solution to less rain. They will just be expensive stranded assets.

Pumping water from rivers as needed is a more flexible and potentially more targeted solution as pumps can readily be moved. However, it will make no difference what changes are made so long as industry and governments keep on rorting and abusing their obligations; and there is no sign of that happening.

Most people do not understand that apparently stable river systems can change very suddenly and drastically under extreme events e.g. a one in 10,000-year flood event, or a 5-year extreme drought. Aboriginal people have adapted to such changes easily with their sophisticated low-tech systems. If there was drought they moved to where there was water. Industrial large-scale hi-tech systems are not so robust. In drought they go broke and have to leave (or would have to leave if government subsidies and handouts weren't there.)

(e) water infrastructure technologies that may promote enhanced environmental outcomes,

Beware the word 'enhanced'. This word is bureaucratese that may mean the opposite of what it seems. Does it mean "prioritise environmental outcomes" or "build more dams"? Or "make sure indigenous people get nothing."? Or "Let's pretend to protect a bit of the environment"?

The biggest problems are land clearing, overgrazing, weeds, hard-hooved and exotic feral animals, inappropriate water control dams and levees, and planting of unsustainable crops like cotton. All augmented by first-in-best dressed attitudes, and general lawlessness and corruption in government.

Floodplains are fertilised by floods. Reducing floods with dams reduces floodplain fertility, so artificial fertilisers are used, which is costly. Artificial fertilises can be toxic in waterways and increase salinity, so infrastructure is built to minimise these problems. Irrigation can raise water tables and bring salt water to the surface, thus destroying the land for agriculture, as well as infrastructure. More vast sums of public money are sunk into hi-tech solutions. And on it goes. Ever increasing unsustainability. Loss water and loss of nutrients to natural systems like wetlands reduces their fertility too, so they produce less food for wildlife. On the other hand, excess nutrients and chemical pesticides used on irrigated land can also adversely impact natural systems

Common sense is what is needed. And expert land management, for which indigenous knowledge is a prime source, and for which agricultural producers care little, for after all, what has modern agriculture got to do with the natural environment?

Restoration of land does not meet with much favour in colonial governments. For the most part the outcomes are not highly visible to colonial citizens, unlike dams. Come election time it's "There ya go mates, we've put a massive lump of concrete in the middle of the river for ya. Don't say we don't love ya."

The racist attitudes of governments - not their fault, they are bathed in cultural bias and racism from birth - towards indigenous people are an obstacle in this respect

(f) any other related matter.

Land and waterway repair and revegetation with native species needs to be achieved, and the natural systems stabilised, before any further industrial works are considered. Indigenous people could be involved in this.

There needs to be a legislated guaranteed flow for the Macquarie river system. No more than 30% of running water flows extracted. When river is at 10% average flow then no water extraction.

There needs to be strict water monitoring and management, with water allocations removed from those who are not compliant.

The focus in Australia seems to be increasingly focussed on growing highest-value crops for the export market. In other words, dollars are the main motivation rather than sustainability or best environmental outcomes.

Our 18th century political and economic systems are out of date. Big business, including multinational and foreign-owned, have undue influence because they can buy it. Big business gets more government subsidies than anyone else, but claim to be 'free enterprise'.