Comments on proposal to raise Warragamba Dam level

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I am opposed to the proposal to raise the level of Warragamba Dam by 17 metres.

This opposition is based on a simple cost / benefit analysis. The costs of the project, including significant negative impacts on biodiversity, significantly outweigh the limited benefits. There is no logical reason to progress with the project.

Limited benefits

Adding 1000 gigalitres of storage for a flood mitigation zone would have minimal benefit in flood relief for downstream locations. To support this statement, I consider past flood events.

- On 10 February 2020 there was widespread flooding in the Hawkesbury region[1]. On the same date, the water level in Warragamba Dam was at 64%[2]. The flood was caused by significant rainfall in the Grose River catchment. This flood occurred despite no spillage from Warragamba Dam and the raising of the dam by any height would not have provided any flood mitigation at all.
- In March 2021 there was also widespread flooding in the Hawkesbury region[3]. As quoted by then premier Gladys Berejiklian, more than three quarters of the dam's capacity (or more than 1,500 gigalitres) would have been required in mitigation to avoid spillage of the dam[4]. This amount is larger than the 1,000 gigalitres of flood mitigation proposed in the current proposal. Even if the dam wall had been 17 metres higher in March 2021 there would have been spillage and flooding would have occurred.
- Historic flood events from 1961, after the Warragamba Dam was built, until 1992 show that the average reduction in flood height from the existing 2,000 gigalitre dam was only 0.54 metres of flood reduction across 10 flooding events[5]. This real-world data suggests that a further 1,000 gigalitres of temporary flood storage would provide minimal flood benefits.

Raising the dam wall would not have stopped the last two flood events. For the raising of the dam wall to have an impact on flooding requires a "goldilocks zone" of targeted conditions. The rain must fall in the right place (not in Grose River), and the amount must be just the right amount (not too much as happened in March 2021). The only conclusion is that benefits to flooding in downstream areas will be minimal to non-existent.

Significant costs

Putting aside the significant financial cost for a project that delivers little to no benefits, the environmental cost, especially to biodiversity, is too high.

The EIS for this project concludes that the project poses significant impacts to the breeding habitat for the Regent Honeyeater that "cannot be avoided or minimised". There are as few as 350 individual Regent Honeyeaters left in the wild and they rely on the very habitat that would be flooded. There are significant efforts in process to aid the recovery of the Regent Honeyeater[6] and this proposed project would be inconsistent with this National Recovery Plan.

The proposal calls for offsets to balance this unavoidable impact to the Regent Honeyeater. It is naïve, however, to assume any offset would have any positive impact. The Regent Honeyeater has very specific needs and will not simply go to another location.

We must respect and support our native flora and fauna and doing so means avoiding harm to areas of biodiversity importance. This proposed project would be counter that and so I oppose it in the strongest means possible.

References:

1. https://www.hawkesburygazette.com.au/story/6622342/richmond-windsor-bridges-submerged-for-first-time-in-28-years/
2. https://www.waternsw.com.au/supply/Greater-Sydney/greater-sydneys-dam-levels/weekly-verified-storage-reports/archived-verified-storage-reports
3. https://en.wikipedia.org/wiki/2021_Eastern_Australia_floods
4. https://www.abc.net.au/news/2021-03-22/nsw-weather-ministers-warragamba-dam-stoush-amid-flooding/100020672
5. https://www.yourhawkesbury-yoursay.com.au/42094/widgets/226807/documents/102207
6. https://www.awe.gov.au/environment/biodiversity/threatened/recovery-plans/national-recovery-plan-regent-honeyeater-anthochaera-phrygia-2016