

Thomas Lewthwaite

111 Inches Road, Kempsey, NSW, 2440

HR_Boy_91@hotmail.com

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Attention: The Honourable Paul Scully MP, Minister for Planning & Environment and Public Spaces.

C/- Anthony Ko, Project Contact Planner, DPE

Dear Minister,

Re: Submission of Objection by Thomas Lewthwaite to the Proposed Oven Mountain Pumped Hydro Storage Proposal: Application Number SSI-12422997, EPBC ID Number 2020/8850, Assessment Type; Critical State Significant Infrastructure. Exhibited as: (EXH-62250958)

As a concerned resident of the Macleay valley I would like to express some of my concerns towards this proposed scheme for consideration, further investigation and addressing before any irrevocable changes are made to our water and country:

1. The Project aims to disturb a large area of remote, very steep country in culturally and environmentally significant areas abutting National Park, Gondwana world heritage area, State Forests and the Macleay River. The fenced off construction site will remove habitat and exclude wildlife from using past corridors for crossing between habitats. With a current calling for a National Koala Reserve at Coffs Harbour to hopefully stymie their decline into extinction by the predicted 2027, it seems counterproductive to be throwing large sums of money at bringing that to fruition while one hundred kilometres away there will be destruction and major disturbance to an already, naturally established colony and corridors still recovering from their decimation from the hellish fires of 2019. In an area so far removed from human development and traffic that can only improve their chances of recovery it seems madness to turn around and introduce this to create something so huge and agreeably unnecessary.

2. There has been little in the way of encouragement to the community for engagement or unbiased information regarding the project. Anyone who has wanted to find out more about this project that has relatively slipped under the radar have had to go searching for avenues rather than their readily being appeals to include or make the broader community aware of such a potentially dangerous alteration to our valley. What information has come forth that's not designed around selling the idea to those who can profit is this EIS, but unless people are guided to actively searching for it they would not have known this very short window had

opened and I believe that reflects how much interest they have in taking into account our feelings about something that can affect our lives so much.

3. The DA and EIS were lodged at the end of March 2023, and while it was advised more works/information was requested, the EIS, a huge document of 9000 pages was presented for Public Exhibition for review & comment from the 19th September until the 16th October, a 28 day period. During this same period was a distractive, nationwide referendum that held most of the community's attentions and efforts. Additionally, I found that for many of the days in this period I had trouble getting the EIS and appendix links to load on the portal page, and then during the closing stages of this period, not only was the Aboriginal heritage appendix pulled for some reason, but four days before the end of submissions window, all of the links to the EIS and associated appendices disappeared entirely from the portal page. This was awfully inconvenient and hardly fair to those of us trying to cram read as much of this vast document as we could in such a short span of time while constructing rushed rebuttals.

4. There is mention of a small amount of construction traffic approaching via the Carrai Road. How much will this be, will it need upgrades, widening and heavy maintenance to carry the additional load. There are delicate karst systems and caves close by and beneath this road in places and regular heavy machinery or vibrations from road rollers during constant maintenance could put these at risk of collapses or accelerated deterioration.

5. The Proposal's EIS defers addressing of many important issues to the 'detail design stage'; many of which should at least be resolved at this stage to ensure all matters are addressed for overall feasibility and holistic cost to benefit analysis in the Assessment process for Determination. (E.g. Construction Traffic Management Plan, Aboriginal Cultural Heritage, Management Plan for erosion control, costs, decommissioning, medical, policing etc.)

6. Stibnite (antimony) and arsenopyrite (arsenic) are known to be present in the geology of the proposed area as well as other known sources at the same elevation surrounding the area. If present even in small amounts, disturbed rock and spoil from the wall, site or road construction will weather and infiltrate the run-off water and River. The tunnelled rock and reservoir wall works and hydrology can never be fully restored on decommissioning and any potential for contamination will be perpetual. Exposure could further contaminate the Macleay River, the second oldest river in Australia and one of the oldest in the world, increasing adverse impacts on all downstream water users, including Kempsey Shire's town villages river water supplies. If these health damaging elements are present; this should be a 'Show-Stopper' and an immediate decline of DA Approval. I find it disturbing and less than inadequate that only nine bore samples have been taken in the proposed sites of disturbance and called good enough, especially since some of these few have confirmed the presence of these dangerous metalloids. It seems so blaise of something so irreversible to something so important as our drinking water and water supply for crops and livestock when a similar example of the poisoning that can occur lies so close, already leeching extreme levels into the catchment area at the Baker's Hill mine due to some human's disturbance for a profit. Will there be real-time monitoring for the life of the project of the water quality leaving the site and into the Macleay, and if unacceptable levels are reached, what then? How is the poisoning reversed and what happens to the project once so

many millions or billions are pumped into it? When does the need to recover costs outlaid take precedence over the public's health? Even if the quantities are sufficiently watered down for human consumption by the time it reaches the main communities, there are still many campers that use the Bicentennial National Trail, George's Junction, or Blackbird flat etc that rely on that water to drink. And perhaps they'll not be exposed to these elements long enough for adverse reactions to occur, but can the same be guaranteed for the crops and livestock that are nourished by the river in those near vicinities?

7. The EIS concurs there needs to be further research and analysis of impacts on both surface and groundwater. This has resulted in the erosion control, stormwater run-off, geochemistry and geology mitigation measures being carried forward to the detail design stage, but will very likely have impacts on Carrai and other water tables and water quality run-off, both on and off-site. The EIS and experts agree that the soils are highly erosive and with the slope have a high potential to discharge muddy run-off into the Macleay which would seriously impact the Macleay River and its inhabitants e.g. fish and platypus. Also from the Geo- components in the EIS, there are faults and fissures leading to instability in the upper and lower reservoir wall areas. There will be major site disturbance with massive cut and fill batters and reservoir walls, as well as tunnelling through the granite and likely needs for blasting with explosives, further increasing the potential of enlarging or creating fissures subject to water penetration and major slips on the steep slopes which occur naturally in the area. These could possibly compromise the dam walls and result in immediate and catastrophic flooding into the valley if they fail.

8. The Economics assessment (Appendix Z) is heavily one sided towards benefits to the region but does not give details of the Project costs that could be passed on to the taxpayers (such as major road upgrades to cater for construction), giving a biased economic spin rather than a holistic economic assessment of pros and cons. The cost of The Project is valued at \$1.8billion and has already been granted more than \$12million by State & Federal Government (taxpayer funds, with some conditions) for feasibility, assessments and DA preparation. The example of Snowy 2 Pumped Hydro (EIS prepared by the same EMM) and other pumped hydro projects indicates this is a very conservative figure and will very likely blow out over budget to be covered by whom and assure the project is not abandoned then due to unviability and leave only scars on an important valley.

9. The prime backer/owner is 'Alinta,' another foreign (Hong Kong/Chinese) Company that will end up with power over more of Australia's utilities, just to add to the list of those they already hold reign over.

10. Talking to academics has been met with so much surprise that this proposal has gained enough traction to have even made it so far as this stage when so much better options are out there and being developed. The Project claims to be able to produce 600 - 900MW over 12 hours when the top reservoir is full and released to the bottom through the turbines. Power losses are expected to be 20 to 25% through hydraulic friction, mechanical and transmission losses. This means that there will need to be a price differential of 20-25% to reach a

'break-even point' of cost/profit. Batteries, say at the Armidale substation would be more efficient and can be located close to green energy supplies anywhere with minimal environmental degradation, less hydraulic, mechanical and transmission losses; and can be recycled and upgraded as technology improves. They have a shorter life-span of 20-30 years, but with the rate of battery technology advances, this is likely a benefit. Or if we must persist with hydro why not use less sensitive and less isolated sites with infrastructure already in place such as in 'Brown-field' (already disturbed) sites, e.g. the existing mar on the landscape in the Hunter Valley coal mine which is closer to the transmission lines and distribution sub-stations for greater efficiency.

11. Beyond the diversion of 94% of the water input of Fingerboard Crossing Creek away from the Macleay during construction, the water taken from the Macleay River will be an ongoing concern after the initial filling of the lower reservoir because of its top-ups. The flow of the river has become increasingly unreliable and will only worsen with climate change. The EIS states uptake will only be at 'high flows' but with more and more prolonged dry periods predicted this could affect the available water and therefore the energy generation; in which case the station will what, sit idle for months on end? Outdated climate change snapshots from 2014 and 2015 have been drawn upon to support the purported functioning of the Hydro scheme, but with temperature increases and therefore evaporation rates being higher now than then projected, and as we enter another extreme El Nino period that is only predicted to perpetually worsen with each successive cycle to come, as will the flooding in La Nina periods, this will be a prime example of the conditions that will stagnate the operation of the turbines.

12. On climate change, while the purpose of the project is to store 'Green Energy,' there will be large amounts of diesel, concrete and potentially explosives used in the extensive roading, siteworks, tunnelling, construction and bridges. All high contributors to Greenhouse emissions and exacerbated by the isolated site's distance from major transport routes and service towns. The EIS (sec 10) claims some 64,523 tons of CO₂ / year emissions in the 4–5- year construction and some 15,922 tons of CO₂ / year in operation.

13. Having personally walked the entirety of the 5330 kilometre long Bicentennial National Trail, I can attest to the fact that the section through the Kunderang Gorge to Georges Junction is among the most favoured and stunning sections of the whole trail, mainly owing to the fact it is so far removed from human development and interference. That remoteness is what leaves it fondly resounding in trekkers memories. A great wall and the associated lines and pipes etc as well as a road, site office and camp will detract highly from one of the last, wild, unspoiled stretches of the trail. The visibility from Mary's View will similarly be impacted. It is one of the greatest lookouts in the area over the remote gorge stretched below that draws many weekend visitors by 4WD or motorbike whose sole purpose for travelling so far is that view. It is deeply meaningful to most and more so to some, with such events as marriage proposals etc having been made there. Becoming another view, especially one as great as this in an area whose appeal is the escape from everyday impacts of humanity, spoiled by dams, and transmission towers etc will be a great shame.

14. The EIS covers 'Decommissioning' by deferring the issue to a 'Decommissioning plan' to be developed at detail design stage. This is inadequate to base Development Approval on without ensuring the area, environment and Community is not left with such a potentially dangerous, 'stranded asset,' in 70-100 years at its end of life as stated, or very possibly before when its continued operation becomes economically unviable due to advancements in other, more efficient Green power and storage. It is only proposed to remove the 'hardware,' and is verbally advised the proposal is to leave the reservoir walls, tunnels and earthworks in perpetuity.

15. As well as the influx of traffic threatening the wildlife of the area, it will increase threats posed to local traffic on the winding roads as well as inconveniences of additional roadworks or oversized vehicles carting equipment in.

16. There will be many forms of waste and rubbish generated on and off Site, including but not limited to: sewerage, general rubbish, old oil from machinery, tyres, used/broken machines and their parts and consumables, wind and water run-off with dust/sediment and potentially pollutants etc.

17. Events such as bushfires, explosions, accidents, general health and issues for the workers in this isolated area are inevitable at some stage. There are minimal existing services for appropriate and rapid response in such an isolated site, with such a large scale and potential dangers. And who will be responsible for the protection of the community and workers. "It is proposed that the Project consult with NSW Health to confirm capacity of existing service provision and implement measures such as provision of on-site medical facilities to prevent competition for the GP services most proximal to the site." With 600 construction and admin workers working 24/7, 365 days a year, on a high-risk construction site; with earthworks, tunnelling etc; on a steep and isolated area, heightens the risks and raises the question if the site should have its own, well equipped medical facilities, not just first aid, to cater for the worker's day to day general issues and emergencies.

18. Allied to the above is 'Policing.' This is addressed in EIS that, "the Project will liaise with NSW Police and NSW SES to ensure they are aware of potential resource requirements and negotiate provisional arrangements." Considering the nearest Police station is 'one-person' part time at Bellbrook, an hour's drive away, 'liaising' as above resolves nothing in the moments of need. The Project, should be responsible for policing criminal or anti-social behaviour amongst the '600' workers and have factored into the Proposal a budget to do so prior to approval.

Thank you for making available the information for our scrutinising and the opportunity to provide this Submission. I look forward to seeing a scrupulously weighed decision that favours the community, economy, environment and water upon which we rely.

Thomas Lewthwaite