

My name is Ray Mjadwesch, I am a consulting ecologist based in Bathurst. This is a submission on the proposed Orange City Council Macquarie Pipeline Proposal. It considers the content of the GHD / Biosis / Cardno Environmental Assessment for the project, and finds it materially and critically omissive, misleading and deficient, both in a social sense, and an environmental one.

In no particular order:

1. While this pipeline plan seeks to ensure the future water supply of Orange (until 2060), it impacts directly on downstream users – most significantly and immediately the residents of Wellington. The rights to a secure water supply for down-stream residents are being trampled on by Orange City Council, with this proposal – what does this plan do to ensure that Wellington has a secure water supply until 2060? Nothing, in fact the opposite.

The modelling GHD have presented for the period 2000-2010 shows Orange water supply would not have fallen below 50% capacity during this period, had the pipeline been in place, and Orange residents would not have been restricted beyond Level 2 Water Restrictions, at worst. It does not discuss what would have happened to Wellington, whose water supply (Burrendong Dam) has been known to fall to as low as only 1.5% during drought. Orange in pursuing this proposal is being greedy and reckless, with regard to the rights for water security, of their downstream neighbour.

While GHD conclude that “potential impacts on downstream users are **likely** to be negligible” [my emphasis], this does not provide certainty. Once the pipeline is built, and all the lawns in Orange are nice and green, it will be too late for Wellington and other downstream users to do anything about it, in the event that the predictions by GHD turn out to be incorrect, which the uncertain term “likely” leaves as a possibility.

2. It should be mandatory that city water supplies are sourced from upstream from any population – once the water has passed, it is patently unfair on the next potential user, to take another grab at it.
3. Installation of in-stream structures, and all off-system water storage, is identified as a KEY THREATENING PROCESS in NSW under the *Fisheries Management Act 1994*. This KTP has not been mentioned by GHD or their sub-consultancy Biosis, however their aquatic experts (Cardno Ecology Lab) does mention it. To whit:

*The operation of the pipeline will have **no effects** on the three Key Threatening Processes identified...* [my emphasis]

Cardno are prepared to go even beyond GHD’s “likely to be negligible” statement, with “no effect”. Of course extracting up to 12ML / day will have an effect – Cardno’s cavalier attitude to impact assessment should be condemned. The pipeline will put at direct risk not just threatened species, but all species occupying the aquatic environment, which the EA has effectively ignored, rendering the EA materially and factually deficient and inadequate. This proposal will be a direct and major contributor to this process in the Macquarie River middle-catchment region.

4. If this proposal is required to ensure that Orange can continue to grow and develop, this is not a sustainable approach. Cities need to grow in accordance with the resources that are available to them – continually reaching out and taking more and more from the environment, just to promulgate the concept that we need never-ending growth, can no longer be justified.

5. Significance is generally defined in a statistical sense as 5%. The proposal would seek to extract up to 12ML / day at and above river flows of 38ML / day. This represents, during periods of extraction at which the river is flowing at and around the “trigger” point, fully **31.6%** of the river’s capacity. The GHD EA Volume 1 states (pp xi):

*On this basis, it is concluded that the Macquarie River provides a viable water source that could contribute to the water security of Orange **without significantly impacting** on flows in the river. [my emphasis]*

This statement is clearly not true. Rates of extraction of 31.6% of a flow are significant, and for GHD to suggest otherwise throws the rest of their supposedly “independent” and “expert” analysis into doubt. My experience is in consulting of this nature, and it is GHD’s role to take the part of their employer – to make soothing noises and tell everyone that “everything will be all right – we are experts”.

This “no significant impact” statement, in a case where the impact clearly is significant (one-third of flow being extracted during periods of extraction around the trigger flow rate), unequivocally demonstrates the positive bias with which GHD are approaching this project.

6. Interestingly while the final route has not yet been determined, GHD also claim “no significant impact” with regard to potential impacts of the final pipeline route. This is because it doesn’t matter to GHD what they find or where the pipeline goes, they will declare “no significant impact regardless”.
7. GHD refer to “potential habitat for threatened fauna species would be permanently removed” to construct the project. This is untrue. *Actual* habitat – *utilised* habitat – for threatened fauna species will be removed under the proposal. GHD are here deliberately down-playing impacts and misleading the reader, as this is a standard tactic when attempting to facilitate a development proposal which will have impacts on threatened species. GHD also write similar things for the mining sector clients they work with.
8. GHD identify a single threatened species in their introduction, the Superb Parrot, as “significantly impacted” by the proposal. Quite incredibly, this species is actually absent from the Biosis terrestrial fauna survey species list which is appended to the project, which did actually locate other threatened species, which GHD neglect to discuss.

There are literally dozens of threatened species which occur locally which will be similarly impacted by the very same impacts GHD have predicted for the non-existent (locally) Superb Parrot (given the evidence presented).

The fact that GHD have identified only a single threatened species as at risk locally shows that they have very little experience with threatened species in the Central Tablelands / Central West Slopes region, and in fact that they are unqualified to have conducted this assessment.

This submission is not going to go into details of the deficiencies of the GHD / Biosis / Cardno EA with regard to threatened species impact assessment – suffice to say that it does not pass any test for rigour or competence, and completely fails to address requirements for threatened species impact assessment under both state and commonwealth guidelines for same.

- [REDACTED]
- [REDACTED]
- [REDACTED]
10. Biobanking and offsetting is net loss. Interestingly it is the worst developments – mining proposals, large residential developments, this proposal – which seek to promote their environmental credentials by suggesting they will “offset” their impacts, while they actually bulldoze the communities they are purporting to be protecting.

Many proposals even go so far as to actually describe the destruction as *net benefit* on account of the offsets which are put in place (just like this one does), while the offset lands were already protected (obviously offsets for Box-Gum Woodland for example are comprised of Box-Gum Woodland). It follows that claiming that a proposal will result in net benefit, when there is actually net loss, is misleading and untruthful.

11. Mullion Range State Conservation Area is a conservation area. There is already only c. 8.3% of the state given to conservation, and Orange City Council want to take their pipeline through one of the best conservation reserves in their region – shame OCC. Identify a route which protects existing high conservation value reserves please GHD, before you tell us how this proposal will have “no significant impact”.
12. The inequality in the project approvals process, between the proponent and the affected community, is stark.

In this case we have several large consultancies, including GHD, Biosis, Geolyse and others, each being paid tens of thousands of dollars, over a period of months or even years, to put together 4 volumes of files, comprising 22 parts, and totalling 1,806 pages. Members of the public and other concerned parties are given a few weeks to process all this, in their own time, at their own expense, often with little experience in reading, much less understanding, these sort of documents. Members of the public often have little or no understanding of the legislation which is supposed to underlay a competent and rigorous environmental impact assessment process, while the consultants load their reports with references to legislation and jargon.

13. In my case, my interest and expertise is in ecology, and threatened species management. The section of this EA which is relevant is found in Volume 3, Part II, and comprises 379 pages. I have neither the time nor the inclination to give this a detailed assessment, and it is not my responsibility to provide free advice to

the consultants who prepared the terrestrial ecology report, on the details of the deficiencies in their methodologies, nor in the failings in their findings.

Nonetheless an overview of their work is appropriate, to inform the consent authorities on why the proposal should be rejected, on grounds of incomplete and inadequate fauna and flora survey work, which renders the impact assessment invalid.

In the first instance finding only 4 threatened species over a period of 2 weeks of field work shows a marked lack in the capacity for the researchers to conduct competent survey, or to target the threatened species which do actually occur in the region, despite the poor results of the survey effort in this case. One certain way to return a finding of “no significant impact” with regard to threatened species is to not find them in the first place, and this is a common approach taken by consultancies working in the mining and development sector.

In the second instance including only 10 reptiles in a species list for 2 weeks surveying 37kms of survey transect in this region is so poor as to seem incompetent, particularly considering that survey was conducted during summer, when reptiles are out and rather obvious – even most of the common species are missing! A single day wandering around in the region will return up to or over 20 or more species, if someone competent and experienced in the capture, handling and identification of reptiles is involved. Note they list a team full of so-called “zoologists”, however they list no herpetologists amongst their number. If the researchers had bothered to apply standard methodologies in reptile survey, such as pitfall trapping, the results can be even more comprehensive.

While the consultants describe their “target reptile species”, a list of only 10 reptiles gives the lie to the survey effort applied in this case – turning a few rocks or logs does not qualify as “adequate”. Indeed 9 of the 10 observed reptile species are surface active, indicating that with all the rock- and log-turning the surveyors did (they claim **3,350** rocks were turned), they only found a single species. This is frankly not credible, given the diversity and abundance of reptile species in the region, and given the apparent abundance of rocks!

If you consider their 10 hr survey period for reptiles, and their 3,350 rocks turned, this means that the surveyors turned roughly 6 rocks a minute, or a rock every 10 seconds, along a transect length of only 339m (see page 32 of Appendix F). The implication is that there were **9.9 rocks / metre** worthy of turning. This is clearly made-up nonsense on the part of the survey team.

In failing to apply rigorous survey methodologies towards threatened reptiles which occur in the region (for example – the same does apply to other classes of fauna, incidentally), the EA fundamentally fails to provide for standards in threatened species survey and impact assessment, which are supposed to provide certainty to regulatory ./ approvals offices in considering the proposal and the documentation supporting the proposal. This critical failure renders the EA completely inadequate in terms of threatened species impact assessment, and on this count the proposal deserves to be summarily rejected.

With regard to flora survey, 179 species is also very poor (from an unknown number of quadrats – this does not seem to appear in any of their “effort” tables, or elsewhere in their report, as far as I can see). I have returned 136 species from just two 20x20m systematic survey quadrats and associated remnants and roadside reserves of a couple of kilometres of roadside reserve near Bathurst; or 220 species from just 9

quadrats along about 50km of Burrendong Way, close to their survey area. I would suggest that out-of-town researchers may not be adept at detecting differences between species, in a region in which they are unfamiliar with the vegetation.

Needless to say, a consultancy based at Alexandria, who consult extensively to the mining sector, even though they obviously know nothing about the ecology or flora / fauna species in the Orange and surrounding region, know all the tricks to get a proposal through, and we see the same in this so-called “expert” report, as we see in their mining EIS’s and monitoring reports.

A huge volume – impenetrable to the lay person, completely daunting and unapproachable for anyone with little experience in deciphering the jargon and methodologies in flora / fauna survey work, and very impressive and comprehensive looking. You do need to know the regions species to critique this sort of work, however doing so certainly shows this report to be completely inadequate, with regard to threatened species survey.

14. Finally, lets not deceive ourselves – this proposal is actually about water for the Cadia Gold Mine expansion, Cadia East, and the continued and secure operation of this mega-mine.

The water shortages that Orange experience are a direct consequence of their water sharing arrangement with Cadia / Newcrest. Indeed just a few short years ago it was Cadia themselves attempting to get a pipeline to intercept flows from Bathurst into the Macquarie River. They have to all outside appearances appeared to have abandoned this plan, but surprise surprise, here we are a few short years later, and

Orange City Council and Cadia must think the public are stupid, if they think that anyone believes that this is an “Orange water security” project – it is a Cadia water security project. Let us at least acknowledge this fact here, instead of pretending that this is a serious attempt by Orange City Council to provide a sustainable and long term water supply solution for the residents of Orange.

Given this situation, and the love-affair between government and mining in NSW, it seems certain that regardless of any deficiencies in assessment, and regardless of the wishes of the affected community, or impacts on the environment, or on threatened species, this proposal will get approved. All of the input from this community “consultation” will be handed to the proponent, who will hand it on to their “experts” (with another pile of cash). They in turn will form a “response to submissions” – in effect nothing more than more soothing noises, and still concluding “no significant impact”, no matter what concerns have been raised. Perhaps we’ll see a few “conditions” to make everyone think that someone cares.

The development assessment, approval and regulatory processes are farce in NSW. Even a pile of utter rubbish such as has been submitted in support of this completely inappropriate proposal will be accepted by the regulators as “independent” (despite having been paid for by the proponent) and “expert” (despite being completely ommissive, misleading, deficient and inadequate).

Thank you for your consideration of this submission

Ray Mjadwesch