

Reply to:

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Submission: Wambo Coal Mine Modification 17

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Lock The Gate objects to the proposed 17th modification of the Wambo project, and we urge the PAC to refuse approval for the project on the following grounds.

Too many unanswered questions on water impacts

The proponent's Environmental Impact Statement and Response To Submissions provide insufficient information about the risks of the project to creeks and aquifers in the area.

Several government agencies have raised concerns about water impacts and requested that further study be done – including baseline ground and surface water studies, and information about the quality of water that will be dumped into creeks from the surface water dam – before any approval is given to this project. No such further study has been done, and yet the project has inexplicably been referred to the PAC for final approval.

The Independent Expert Scientific Committee published its scathing review of the project in July this year. The IESC found:

- The project assessment “*contains limited information about the quality of both surface water and groundwater at the proposed project site and contains no geochemical assessment. Assessment of the occurrence of and potential impacts to groundwater dependent ecosystems and to surface water flow regimes due to fracturing of the streambed is also limited. **Further assessment and interpretation are needed***”. [our emphasis]
- “*full appraisal of the groundwater model was not possible with the data and info provided.*”

- Impacts on creeks, aquifers, groundwater users, stream biota and riparian vegetation, and groundwater dependent ecosystems are “*likely*”, and that although the magnitude of these impacts is “*likely to be small relative to the existing mining operations in the area, it is not clear from the proponent’s EA and current management plans how the impacts will be effectively mitigated and/or managed.*”
- “*Surface water and groundwater quality trigger values....have been calculated erroneously from impacted sites, instead of reference sites, so they are not sufficiently conservative to detect potential impacts.*”
- The following data is required **before determination of this project**:
 - baseline water quality data;
 - calculation of appropriate trigger values from reference sites;
 - development of appropriate trigger-action-response plans;
 - increased frequency of water quality monitoring;
 - review of the groundwater model;
 - monitoring of groundwater dependent ecosystems; and
 - publication of all management plans.

The NSW Department of Primary Industries review of the project in October of this year found:

- “*the proponent has not adequately addressed matters previously raised in relation to water resources and there is insufficient detailed baseline data, information, and a means to establish ongoing performance measures as required under the Aquifer Interference Policy*”
- “**Prior to approval being granted**” the proponent should:
 - characterise the aquifer systems and investigate hydrological connections between aquifers and water dependent assets including mapped EECs;
 - demonstrate the degree of fracturing impacts on North Wambo and Wambo creeks “using an evidence based approach”;
 - provide datasets and assessment of water levels, water quality, volumes and flow rates
 - establish ongoing performance measures;
 - demonstrate that successful remediation can be achieved that would sustain low and moderate flows in North Wambo creek;
 - demonstrate the extent of goaf fracture and vertical limits to aquifer depressurisation.
 - demonstrate how the re-equilibrated water level will be held lower without changes in discharge dynamics.

Separately, DPI's Crown Lands and Water Division reported in November this year:

- The project assessment contains insufficient baseline data for :
 - water levels,
 - water quality,
 - water flow,
 - vegetation health.
- Recommends the following:
 - potentially reducing the mining area in order to “*limit or prevent a significant or unacceptable impact.*”
 - ensure at least 2 years of baseline data is collected before going ahead with this project.

None of this has been done.

The EPA, in its review to the project:

- raised concerns with the 6ML/year which Peabody proposed to discharge from the sediment dam, but which they haven't bothered to qualify. The EPA requested that the proponent identify what pollutants are in this water and what their impact on the environment will be. This has not been done.

All of these damning agency reviews were published after both the EIS *and* the RTS. No new information has been made available since these concerns were raised.

Clearly the PAC has not been furnished with the data it needs to make an informed decision on the risks this project poses to water resources, and cannot in good conscience grant approval to this project until this information is made available. If any conclusions at all can be drawn from the information in front of the Commission, it is that the risks of this project on water resources are real, but have been given little attention by the proponent.

From the little data available it is evident that the project will have significant impacts on North Wambo Creek, a significant tributary of the Wollembi Brook and Hunter River. It is likely that the project's subsidence impacts on water resources will be greater than modelled by the proponent, as this is invariably the case. This mine has already had severe and unanticipated impacts on creeks in the area, and no further damage ought to be permitted.

In addition to that, the proponent has a terrible track record of complying with approval conditions, and even court orders to repair damage from it's project. Only a couple of weeks ago Wambo mine

was convicted of water pollution and of breaching its Environment Protection Licence following the failure in January last year of its sediment dam, which the court also ruled had been unsuitably constructed. Polluted water escaped the dam and ran into local waterways and on into the Hunter River. Of relevance is the fact that it took Wambo a whole week to report the incident.

With all this in mind, it would be irresponsible to approve the project based on the scant information available, and trust that all problems will be sorted out post-approval by management plans and further studies. Problems need to be sorted out before approval, or no approval given.

The Planning Department, as usual, doesn't care about any of this. It is apparently quite ready to disregard all of the serious concerns and objections from other government agencies, and has recommended that the project be approved despite all of the risks and unanswered questions outlined above.

That can all be sorted out, according to the Department, after the mining company has banked their project approval: behind closed doors and with no public scrutiny, through management plans and further studies. What a cop-out.

What is the point of environmental assessments, of inter-agency consultations, of public consultations, what is the point of this very process we are submitting to, if the PAC is going to just hand over an approval for this project knowing full well that there are unsubstantiated risks and unanswered questions?

It stinks, and just because it has become standard practise from the Planning Department does not make it stink any less.

The PAC must refuse to approve this project unless and until the serious outstanding concerns about water impacts have been studied and addressed.

Potential impacts on biodiversity and Wollemi National Park

The project will undermine within 120m of the Wollemi National Park, and potentially have unforeseen impacts on rock features and cliff faces within the park, and the biodiversity that depend on these. As the proponent has not provided sufficient information to properly assess the likely subsidence impacts of the mine, the Office of Environment and Heritage has meekly suggested that biodiversity "offsets" should be purchased should it turn out that Mod 17 has greater impacts than

predicted. This isn't acceptable. Subsidence impacts need to be properly modelled, and the public need assurance that our National Park will be protected from mining impacts.

The impacts of the project on groundwater dependent ecosystems and stream biota has not been adequately addressed, as pointed out by the Independent Expert Scientific Committee in their review of this project.

The project is not a “modification” and is not necessary

As outlined above, there is scant information available to properly assess the risks of this project, and one reason for that is the proponent's attempt to have the project approved as a minor “modification” under the otherwise repealed Part 3A of the EP&A Act.

This project is not a minor modification, it is a major expansion that would extend the mine's life by seven years, and extend the boundary of the project by well over two kilometres, taking it beyond the existing mining lease. It needs to be assessed as a new project with full scientific assessment and full public consultation and review.

Additionally, we need to question why approval is even being sought for this project at this time.

The proponent already has approval to develop the South Wambo Underground extension of this same mine. This approval has not been implemented, and yet here we are assessing yet another extension that we are told is so urgent it needs to be rushed through under the old Part 3A.

Modification 17 is not even necessary, let alone urgent. The proponent should be required to complete (or at least start) their existing approvals before Planning and the PAC consider further extending the life of this mine.

Considering the doubts most experts now have over the long term viability of the global thermal coal market – in a world where renewable energy is fast becoming cheaper than coal, and climate change is becoming impossible to continue ignoring – it is debatable whether this project will ever be viable or needed.

Certainly it would be irresponsible to approve it now, when it isn't needed, and when there are so many unanswered questions about the risks of the project to water resources.

No assessment of cumulative impacts

The Wambo mine sits in close proximity to the Warkworth and Hunter Valley Operations mines, and immediately adjacent to the separate project for a United Wambo superpit project, a joint venture between this project and the neighbouring United mine, owned by Glencore.. The cumulative impacts – particularly on water resources – of Modification 17 with all these other projects has not been assessed, and it needs to be.

In 2015 DPI Water commissioned its Mid Hunter Groundwater Study which gave a broad indication of the extent of draw down in the Hunter as a result of mining operations. The area of mine pits in the study area was found to be 148 square km. A generalised buffer of 4km around all the mine pit areas was taken as the area of potential drawdown to 2m or greater – giving a total area experiencing this effect of 977 square km. The area of alluvial water sources overlying the >2 m drawdown impact zone was calculated at 123 square km. Clearly, this is a significant challenge and a full assessment of the cumulative effect of past and existing mining must be undertaken before any further development consents are issued in this part of the Hunter.

The Environmental Assessment for the United Wambo project revealed that “Cumulative impacts from approved mining reduce the net baseflow to Wollombi Brook by 1450 ML/year to 1000 ML/year..” It also found that, “there would be a gradual reduction of flow from 3500 ML/year to 2800 ML/year in the Hunter River over the life of the [United Wambo] Project due to cumulative impacts.”

These are serious long-term impacts, and it's alarming that the government seems unworried about them. It may well be that Wambo mod 17 will contribute very little to these problems, but we don't actually know, because nobody has bothered to find out. What we do know, from the 2015 study, is that the cumulative impacts of already-approved mining on aquifer drawdown and baseflow to the Hunter River are serious and worrying.

No further projects should be approved which will add to this problem, particular a project like this, which we know has not been properly studied to determine it's impacts on water.