

Berrima Resident

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This is a personal submission of objection for Berrima Rail Project (7171) – a State Significant Development for Mining

Introduction

Due to the vast quantity of information of the Environmental Impact Statement (EIS), the focus of the submission is on Biodiversity. Any omission to comment on other information in the EIS should not be taken as palatable – it is likely if more time permitted, more concerns would be raised.

It is difficult to understand what will happen if the Berrima Rail Project (7171) is rejected and Hume Coal Project (7172) approved – or vice versa. How will the Hume Coal Project operate without the rail link? Why will the Berrima Rail Project be undertaken if the Hume Coal Project is rejected?

Biodiversity

Based on public information and publicly accessible land, it is obvious that there are numerous omissions within the EIS with regards to the detection of threatened species most likely to be directly adversely affected by this proposal. These threatened species include Black Gum and Paddys River Box. The EIS also fails to provide enough details of loss of hollow bearing trees and impacts Squirrel Glider. There are also cumulative impacts associated with major road works adjoining this proposal that needs to be considered. Overall, the DP&E is urged to request more details on the impacts to biodiversity in determining this proposal.

Black Gum

The EIS claims that surveys targeted Black Gum throughout the study area, however none were observed. However, photograph 6.1 of the EIS (Looking south from Medway Road towards the maintenance siding location in the background, east of the Hume Highway) captures several trees in the mid-ground that are suspected to be Black Gum. These are visible from Medway Road. Additional Black Gums are suspected to be growing along Black Springs Creek; these are visible from the south-bound freeway off ramp.

The proposed rail line is appears to transverse very close to the trees in photograph 6.1.

If trees in photograph 6.1 are Black Gum and the ecologists have failed to correctly identify these – where else may they exist at the proposed site? This was one of the SEARs that required further consideration. Could the proposal adversely affect Black Gums that were not detected? Furthermore, what other threatened species have they failed to detect? The DP&E is urged to request further information – including the adequacy of field staff to identify this species.

Paddys River Box

The EIS claims that if the preferred option is selected, there will be impact to one Paddys River Box tree (see EIS Fig. 12.8). Records of Paddys River Box are publicly accessible on BioNet. Where the proposed rail line crosses Berrima Road, there are approx. 100 Paddys River Box records on BioNet (Attachment 1).

The preferred & alternative options and the construction buffers are within the same space and directly adversely affect around 50 of the recorded Paddys River Box in Attachment 1.

According to the EIS, only *Sixteen individual Paddys River Box were recorded in the study area, with an additional 24 individuals recorded to the south west*. Furthermore, according to Figure 12.4 inset 2 there are only 3 individuals detected west of Berrima Road and 7 individuals detected growing along Stoney Creek. How did they fail to detect the approx. 100 additional trees growing along Berrima Road?

They claim that the design has been modified such that any direct impacts to the species will be avoided. The DP&E is urged to compare Attachment 1 with Fig. 12.4 (insert 2) and determine if their claim is accurate. How will this affect the BioBanking calculations – see EIS Appendix J table 3.6 and table 6.2. They have only calculated credits for one Paddys River Box – yet should be calculating for potentially up to 50 Paddys River Box.

As with the Black Gum, the ecologists have failed to correctly identify Paddys River Box that is most likely to be impacted. Where else may this species exist on the site? Furthermore, what other threatened species have they failed to detect?

Hollow Bearing Trees

There is evidence that many of the trees within the preferred & alternative options and within the construction buffers (see their Fig. 12.4) are hollow bearing trees (HBT). The public accessible Wingecarribee Shire Council (2017) Berrima Road Deviation Preliminary Environmental Investigation identifies HBT in this area. It claims *Many of the large trees (both E. macarthurii and E. radiata)*

contained exposed longitudinal hollows that would be suitable for microbats; and several hollows suitable for small mammals, avifauna and vulnerable microbats. The EIS identifies *approximately 2 ha of potential habitat that contains suitable hollow bearing trees for the Squirrel Glider, a species credit species.* However it is not clear if this includes the HBT in Fig. 12.4 that will be affected. Will this vegetation along Berrima Road containing HBT be included in the BioBanking calculations? The DP&E is urged to request further information – this may also assist with below comments on Squirrel Glider and cumulative impacts.

Squirrel Glider

Based on two studies, there is evidence to suggest that home ranges of this species are small (average 1.4 to 2.8 ha) and that small core parts of the home range were used intensively; and an average distance between den sites used by individuals on successive days in a different study was 218 m. This suggests that they are unlikely to travel beyond a few hundred metres to access foraging habitat from their multiple den trees. In this respect, this species is extremely sensitive to local extinction.

The information in the EIS does not identify the number of HBT to be affected or retained – yet it does identify that 2ha of habitat is proposed to be modified. Does this include the HBT identified above? If not, how will this affect the BioBanking calculations – see EIS Appendix J table 3.6 and table 6.2. The DP&E needs to request further information for BioBanking calculations; and to identify if this species is likely to become locally extinct as a result of the proposal.

Furthermore, a recent study by Professor David Lindenmayer and others, report on the anatomy of a failed offset (see volume 210 of Biological Conservation). They monitored 324 of 587 nest boxes in six sample periods (totalling 2485 individual checks) and found seven records of use of nest boxes by the squirrel glider (0–2.1% of accessible nest boxes used per survey period); and rates of nest box use by the squirrel glider were markedly lower than rates of use of hollow-bearing trees observed in other investigations.

They made the following suggestions for improving future offset programs (1) avoiding impacts on hollow-bearing trees; (2) offset effectiveness as a measure of compliance; and (3) using realistic offset ratios.

It is recommended that the DP&E review the study by Lindenmayer and others and consider their suggestions.

Cumulative impacts

It is noted that the EIS has assessed cumulative impacts associated with the proposed Hume Coal Project, the New Berrima Clay/Shale Quarry, the Green Valley Sand Quarry and the Sutton Forest Quarry. However, the DP&E is urged to request that the proponent also consider the cumulative impacts of the proposal with consideration to the impacts of the Wingecarribee Shire Council Berrima Road Deviation projects' impacts. These impacts would include loss of hollow bearing trees (Squirrel Glider habitat) and clearing native vegetation (including Paddys River Box).

Summary

The comments on threatened species mentioned here are based on publicly available information and public accessible land. The DP&E should consider what other threatened species exist on the private land that is inaccessible to the public – and may be affected by the proposal.

The failure to detect threatened species and identify potential impacts is not only a major omission – it influences the BioBanking credits. The less threatened species that are affected – the less credits required to be retired. If the DP&E do not address this issue and request that the proponent undertake further survey and provide additional information – then there will be an underestimated calculation for biodiversity credits. Despite the BioBanking system not being a mechanism to avoid impact – if the correct identification of impact to threatened species is truly accounted for, then this may influence measures to avoid impact – either by advocacy or through cost savings.

Please provide a response via email.

Kind regards.

Attachment 1 – BioNet records of Paddys River Box where rail crosses Berrima Road

