



Office of
Environment
& Heritage

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SSD 5850

Mr Oliver Holm
Executive Director, Resource Assessments and Compliance
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Holm

RE: Mount Owen Continued Operations Project (SSD 5850)

I refer to your letter dated 18 February 2016 in which you made reference to the Review Report for the Mount Owen Continued Operations Project that has been prepared by the Planning Assessment Commission (PAC). As requested, this letter addresses Recommendation 2 in the Review Report, in relation to any likely impacts of the proposed expansion of North Pit on vegetation corridors, and the PAC's request for clarity regarding effectiveness of these corridors for fauna movement. The Office of Environment and Heritage (OEH) understands that this information is required for the determining authority for this project, in this case the PAC.

Likely impact of the expansion of North Pit in relation to proposed vegetation corridors

The north-south wooded corridor on the eastern flank of the Mount Owen project area links Ravensworth State Forest with forest and woodland to the north, and to more fragmented wooded remnants and revegetation to the south (to Glennies Creek) and to the south west (towards the Narama West Open Pit and the Hunter River). The corridor includes areas of revegetation and regeneration of differing ages that is largely linked to earlier consents for Mount Owen coal mine.

The proposal includes plans to bolster vegetated corridors around the project area through a combination of active and passive revegetation at the Cross Creek offset, the Stringybark Habitat Corridor, the Betty's Creek Habitat Management Area, and the inclusion of wooded corridors in the rehabilitation of post-mined areas within and west of North Pit.

The expansion of North Pit by about 381 hectares to the south of its current extent would result in the clearing of about 217 hectares of mapped native woody vegetation comprising of five vegetation communities (see Table 1).

The remaining 164 hectares of the North Pit expansion footprint comprises derived native grasslands of the local woody vegetation communities in Table 1, and about one hectare of water bodies (mostly farm dams) (Umwelt (Australia) Pty Ltd (2014)). The loss of vegetation in the North Pit development footprint would reduce the width of the wooded corridor from about 1.2 kilometres to 600 metres around

the southern part of the Betty's Creek Diversion, and would remove the main area of remnant Dry Sclerophyll Forest and Woodland on the western side of Main Creek in the area south of North Pit.

Table 1. Summary of woody vegetation in the North Pit expansion area (based on Umwelt (2014))

| Woody vegetation community | Approximate area (ha) |
|---|-----------------------|
| Central Hunter Ironbark – Spotted Gum – Grey Box Forest EEC | 131.9 |
| Central Hunter Bulloak Forest Regeneration | 52 |
| Planted Ironbark – Spotted Gum – Grey Box Forest | 27.4 |
| Central Hunter Swamp Oak Forest | 1 |
| <i>Kunzea ericoides</i> Closed Shrubland | 4.7 |
| TOTAL | 217 |

The native woodland in and around the Mount Owen project area contains habitat that supports a number of threatened fauna species including the squirrel glider, koala, spotted-tailed quoll, and the green and golden bell frog. As identified in the Review Report, the part of the Hunter Valley where the project occurs does not include core koala habitat due to the limited extent and abundance of key food trees. Suitable connectivity habitat for the green and golden bell frog includes wet areas such as river banks and wetlands, drainage lines, periodically damp areas and grassy open areas (DECC, 2008). The ability of squirrel gliders to cross gaps between wooded patches and isolated trees depends upon the height from which the glide starts, with glides of about 20 metres possible from a starting height around 13 metres, and about 43 metres from a height of about 25 metres (Goldingay and Taylor, 2009). Spotted-tailed quolls have been recorded from a number of different habitats in the local area, including in cleared agricultural areas. However, they do appear to be using drainage lines as the main movement corridors in more open areas, particularly where there are also key habitat elements, such as log piles that may be used as den sites (Umwelt, 2013a).

The reduction in width of the corridor and the loss in habitat features found in those areas is likely to impact on local threatened fauna that may use them. However, the extent of impact in relation to movement and habitat of individual species is difficult to quantify.

In order to more completely consider the impact of clearing on the integrity of the north-south corridor to the east of North Pit, OEH suggests that clarification is sought on the following points:

- the suitability of the proposed corridor/patches for selected fauna species
- vegetation structure and composition of remnant, regenerating and recreated woody vegetation within the corridor
- the location and abundance of habitat features within the corridor (piles of logs, hollow-bearing trees, riparian corridors) and opportunities to source them from the development areas
- how clearing and revegetation can be staged to maximise the width of the corridor at all times (e.g. early commencement of revegetation in narrowest parts of the corridor, and delayed clearing in parts of the development footprint)
- confirmation on whether the upper reaches of the Betty's Creek diversion that are in the development footprint will need to be reinstated, and if so how much clearing in the corridor may be required?

OEH supports the PAC's suggestion of having a targeted strategy with more prescriptive performance indicators and milestones in any consent issued. This approach would better enable progress of revegetation and rehabilitation to be measured in relation to agreed outcomes. It would be useful to review such targets and milestone against the data and analysis in the report by Umwelt (2013).

If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154 or by email at robert.gibson@environment.nsw.gov.au.

Yours sincerely

Monica . 8/3/16

MONICA COLLINS
Director, North Branch
Regional Operations

References:

DECC (2008) *Best practice guidelines: Green and golden bell frog habitat*. November 2008. NSW Department of Environment and Climate Change Sydney
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