



Office of
Environment
& Heritage

Your reference: DA-200-5-2003 MOD 2
and 07_0127 MOD 4
Our reference: DOC14/108508-01
Contact: Terry Mazzer 6883 5302

Carl Dumbleton
Senior Planner, Mining Projects
NSW Planning and Environment
GPO Box 39
SYDNEY NSW 2001

30th June 2014

Dear Carl,

**Re: Coalpac Expansion Modifications – Response to Submissions
(DA-200-5-2003 MOD 2 and 07_0127 MOD 4)**

I refer to your email dated 19th June 2014 inviting comment from the Office of Environment and Heritage (OEH) on the Response to Submissions (RTS) for the above proposal.

OEH has previously provided the Department of Planning and Infrastructure (now DP&E) with a submission on the Environmental Assessment for the above modifications, dated 28th March 2014.

Since then, OEH has had further correspondence with the Proponent, particularly regarding the Biodiversity Offset Proposal. Should DP&E propose to recommend the project for approval, OEH is now satisfied with the Biodiversity Offset Proposal.

Attachment 1 provides a short summary of the matters OEH considers should be addressed by DP&E in making their recommendation.

Should you require further information please contact Terry Mazzer, Conservation Planning Officer on (02) 6883 5302.

Yours sincerely,

PETER CHRISTIE
Regional Manager, North West
Regional Operations Group

Attachment 1: OEH Review of Biodiversity Impacts

PO Box 2111 Dubbo NSW 2830
Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5312 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

Coalpac Expansion Modifications

OEH Review of Biodiversity Impacts

Acronyms

DP&E	- Department of Planning and Environment
EA	- Environmental Assessment (March 2014)
OEH	- Office of Environment and Heritage
RTS	- Response to Submissions

1. Reservation Considerations

OEH informed Coalpac that the proposed offset sites were not suitable for incorporation into the National Parks and Reserves System. Consequently Coalpac, in a letter dated 20th June 2014, has stated that the offsets will be,

...set aside for conservation in perpetuity using an appropriate mechanism, such as a Voluntary Conservation Agreement, BioBanking or a Planning Agreement in consultation with DP&E.

OEH advises that BioBanking is the preferred mechanism for offset security.

OEH Response

- 1.1. DP&E should continue to consult with the Proponent and OEH to determine a suitable mechanism of in-perpetuity conservation.

2. Pagodas, Escarpments and Associated Features

The protection of geodiversity features relies on two aspects; buffers and protection from subsidence.

Buffers

Invincible Colliery: The RTS states that the open cut does not approach within 200 m of any escarpment, however OEHs mapping of geodiversity features shows that these extend to within 110 m of the northern open cut pit (see figure 1).

Cullen Valley Colliery: The RTS states that the open cut does encroach within 200 m of the escarpment in parts. Figure 2 shows that these extend to within 100 m of the open cut pit in at least three locations including within approximately 20 m in the southwest.

OEH is concerned that the distance between geodiversity features and proposed open cut mining areas is, in some instances, not as large as indicated in the RTS and remains concerned about the potential impacts of blasting within such close proximity to geodiversity features.

Protection from Subsidence

Invincible Colliery: The RTS states that highwall mining does not “venture under the Escarpments to the east of the Invincible Modifications”. While this statement appears to be true it neglects to mention that this is not the case for the escarpments to the north of the mine as shown in figure 1.

Cullen Valley Colliery: figure 2 shows that highwall mining will reach up to 200 m beneath the geodiversity features.

The RTS considers the Escarpment at the Cullen Valley Mine as of lesser value and less sensitive because it has an average distance between escarpment and open cut of 177 m. OEH considers this average distance to be meaningless when it can be seen that the actual distance at several points is below 100 m (figure 2).

OEH notes that in the RTS,

Coalpac have also committed to undertake detailed modelling and a comprehensive review process to maintain a highwall mining design that will not result in any significant surface subsidence or damage to overlying or adjacent Escarpments.

OEH remains concerned that subsidence impacts caused by highwall mining could irretrievably damage these features.

OEH Response

- 2.1. OEH recommends that these matters be considered by DP&E before making their recommendation.

3. Broad-headed Snake

The EA stated that the impact area avoided pagoda and rocky escarpment areas and, *summer and winter habitat for the Broad-headed Snake (located to the east of Invincible Colliery).*

Further, the EA stated that they, *utilise rock crevices and exfoliating sheets of weathered sandstone during the cooler months and tree hollows during summer within 200 m of their winter habitat (DEC (NSW), 2005b).*

OEH notes that such movements by the Broad-headed Snake have been measured at up to 780 m, with a mean of 318 m (Webb and Shine 1997). This was, at least partly, the reasoning behind the PAC recommending, *a minimum setback distance of 300 m be maintained from the open-cut highwall to the pagodas and the escarpments* (NSW Planning and Assessment Commission 2012, Recommendation 47). This would protect approximately 70-75% of the habitat requirements prescribed in the Threatened Species Profile Database for the Broad-headed Snake and other threatened and non-threatened fauna of the pagoda landform.

In the submission OEH acknowledged the proposed modifications achieved this 300 m setback in most cases. However, there were some small areas in the northern part of the Invincible modification where the setback was as small as approximately 100 m and much of the open-cut area proposed for the Cullen Valley modification was within 100 m or less of sandstone escarpments (see figures 1 and 2).

It must also be remembered that the 300 m buffer was recommended by the PAC “to provide adequate protection for threatened species and other fauna that use the pagoda landform” (NSW Planning and Assessment Commission 2012, Recommendation 47), not just the Broad-headed Snake.

In the report produced by Dr Arthur White he discusses visiting the area where a Broad-headed Snake was recorded. He concluded that the site was devoid of sandstone, was not habitat for the Broad-headed Snake and that the GPS record was probably faulty. Broad-headed Snakes are considered a Category 2 sensitive species under OEHs Sensitive Species Data Policy. For species in this category, geographic coordinates of sightings are normally ‘denatured’ when accessed by the public, by as much as ten kilometres, in order to generalise the locality. Licenced clients also receive denatured data that is slightly more accurate. Therefore it is likely that Dr White had not visited the exact location of the record in Wildlife Atlas, particularly given that the site description provided by the assessor did not match the description in Wildlife Atlas. OEH staff visited the actual record site with the PAC.

Response in RTS

Coalpac responded by mapping a “Proposed Buffer Area” in figure 9 of the RTS. They also considered that the total area of habitat was a, *more appropriate metric for considering buffer zones than any specific linear distance*. They then used this reasoning to calculate that their method gave a 40% greater buffer area than the 300 m buffer recommended by OEH and the PAC.

OEH has a number of concerns with this approach:

1. OEH had specifically mentioned “some small areas in the northern part of the Invincible modification where the setback was as small as approximately 100 m” (emphasis added). These areas can be seen in figure 2. This reference to northern part was left out of the RTS. Consequently the distance between the open cut proposal and the geodiversity features remains small and has not been specifically addressed.
2. With respect to the Cullen Valley mine area, the RTS states that “Those locations at Cullen Valley Mine where open cut mining is proposed within 300 m of the Escarpments are not considered to provide suitable habitat for the BHS (White, 2013).” However the map supplied in White (2013) shows that approximately half of the site identified as ‘area 8’ in that document is within 300m of the open cut area.
3. Please note the OEH buffer was measured from the edge of the geodiverse feature, not from the edge of the proposed and existing open-cut pits. Therefore, the two methods are not comparable. Therefore contention that the buffer on the Invincible mine presented in the RTS is 40% larger than that recommended by OEH (and the PAC) is incorrect.

OEH Response

- 3.1. OEH recommends that DPE consider the adequacy of the setbacks for the proposal.
- 3.2. OEH recommends that justification be provided for the proposed high wall mining under geodiverse features in the areas to the north of Invincible Mine within the 300 m buffer area (see Figure 1).

4. Significance of the Vegetation on Permian Sediments

The RTS that “all of the impacted Permian vegetation can be offset by the biodiversity offsets proposed”. This is not correct as the major offset “Gulf Mountain” has no Permian geology. It is correct that the vegetation types at the broad scale of biometric vegetation types are sufficiently offset.

OEH Response

- 4.1. DP&E note that much of the vegetation to be removed is on Permian sediments and are highly cleared and poorly reserved in the region.

5. Flora Survey

OEH’s previous concerns regarding the adequacy of flora surveys have not been addressed.

OEH Response

- 5.1. OEH suggests that DP&E considers this in making its recommendation in relation to this proposal.

6. Indirect Impacts and Edge Effects

In general, there is no change regarding discussion of indirect impacts and edge effects than that presented in the EA. The effect of blasting and vibration are discussed with regard to escarpments, but there is no information on the effects on biodiversity in this section.

The RTS does refer to “The inclusion of a buffer of at least 15m beyond the proposed open cut highwall crest to the Modification Disturbance Boundary in the mine plan designs.” This may address some of OEHs concerns regarding indirect impacts but OEH is unsure what this refers to, as no reference to this 15 m buffer can be found in other documentation regarding the project.

OEH Response

- 6.1. That the effects of blasting and vibration on biodiversity and their habitats in close proximity to the area of mining operations are addressed.
- 6.2. That the inclusion of the 15 m buffer beyond the highwall crest is clarified.

7. Cumulative Impact

OEH requested that the Proponent address the cumulative impact of existing mining areas and other known proposals in the area along with this proposal. Aspects which may be affected are fragmentation, loss of habitat in the local area, effect on Ben Bullen State Forest and the loss of potential for reservation in the area.

Beyond stating that there is limited information publicly available on the Pine Dale Stage 2 Extension Project and the Neubeck Coal Project, there has been no attempt

to address the cumulative impacts on biodiversity of this and other mining applications in the local area.

OEH Response

7.1. Cumulative impact has not been addressed.

Invincible Mine

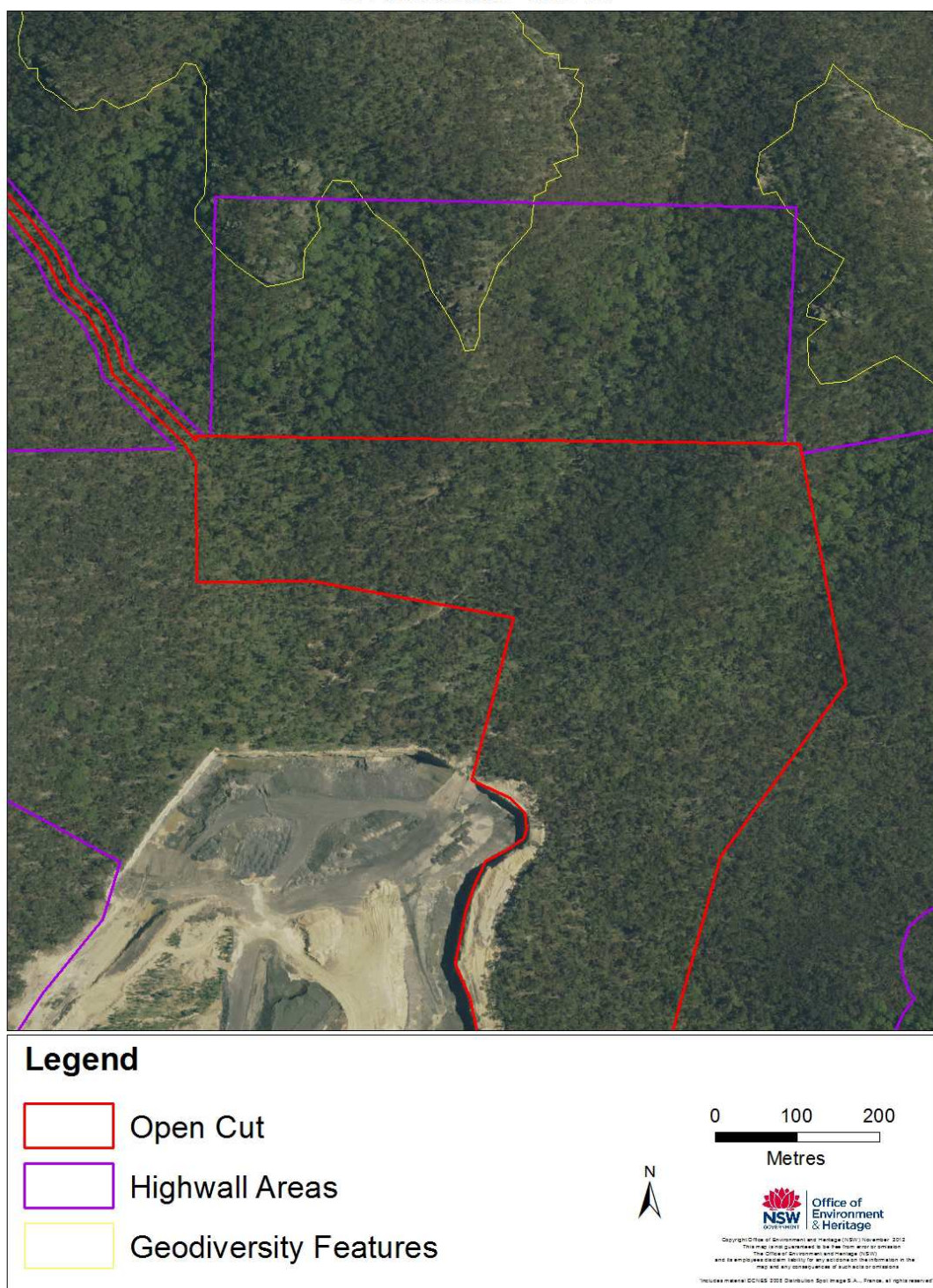


Figure 1: Northern part of Invincible Mine showing proximity of mapped geodiversity features and proposed open cut and highwall areas.

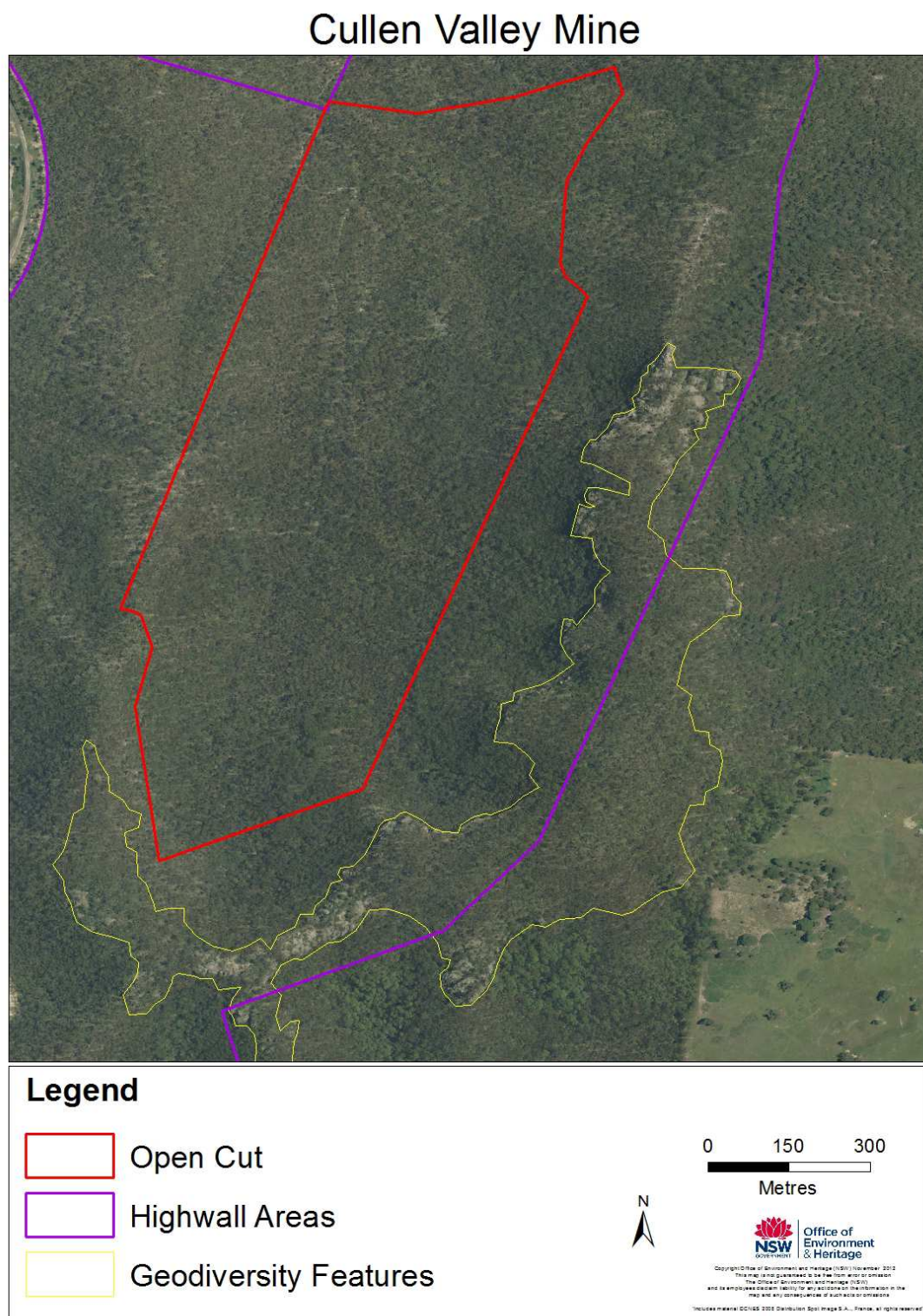


Figure 2: Cullen Valley Mine showing proximity of mapped geodiversity features and proposed open cut and highwall areas.

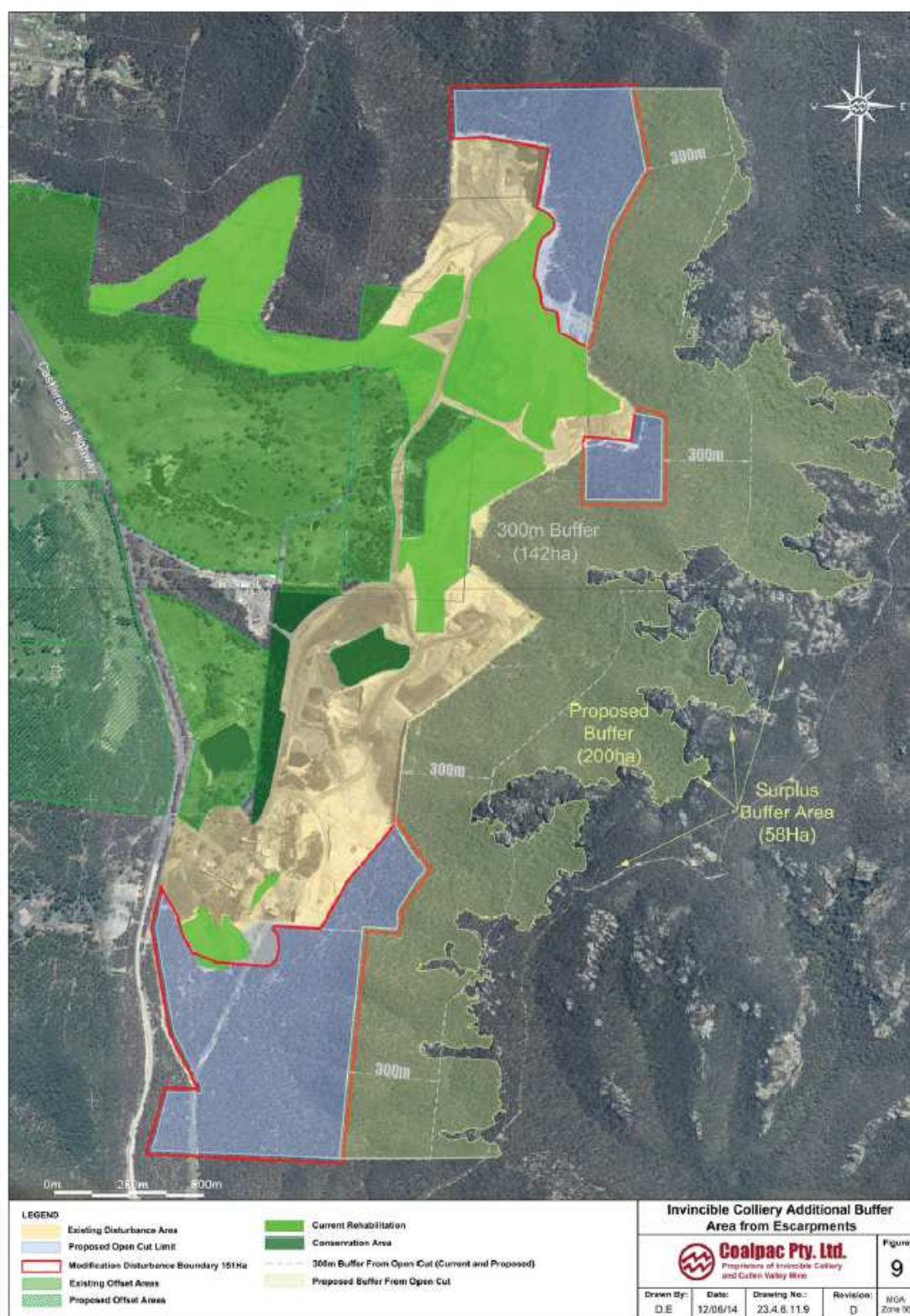


Figure 3: Copy of Figure 9 from the RTS.