

13 June 2018

Garry Bailey  
General Manager of mining development  
Bloomfield Collieries Pty Ltd  
sent via email to GBailey@bloomcoll.com.au

Suite 6, Level 1, 146 Hunter Street  
Newcastle NSW 2300  
PO Box 506  
Newcastle, NSW, 2300

T +61 (0)2 4907 4800  
F +61 (0)2 4926 1312  
E [info@emmconsulting.com.au](mailto:info@emmconsulting.com.au)  
[www.emmconsulting.com.au](http://www.emmconsulting.com.au)

Re: Supplementary ecological information for IPAC

---

Dear Garry,

## 1 Introduction

This letter has been prepared on behalf of Bloomfield Collieries Pty Ltd (Bloomfield) to provide supplementary ecological information for the Rix's Creek Continuation of Mining Project (RCCP).

The NSW Department of Planning (DoP) have completed the Secretary's Environmental Assessment Report for the State Significant Development Assessment (SSD 6300, May 2018). The report requested clarification on two matters relating to biodiversity:

- 1) Confirmation that the original impact assessments for the Squirrel Glider (*Petaurus norfolcensis*) are still relevant and accurate, given that the footprint of the project has changed since the original assessment (Section 6.5.3, pg 53, DOP 2018); and
- 2) Bloomfield proposed to clear in two stages, with corresponding staged offsets. Whilst a credit quantum has been provided for each of the stages, the associated area of disturbance for each stage has not been provided (Section 6.5.4, pg 55-56, DoP 2018).

## 2 Responses

This section provides further information relating to the Squirrel Glider and staged offsets for the project in response to clarifications received. This information will be provided to the DoP and the Independent Planning Commission to inform their assessments.

### 2.1 Squirrel Glider

#### 2.1.1 Original assessment

The Squirrel Glider was a target species during the Ecological Assessment (Bell 2015), with survey techniques including arboreal trapping, spotlighting, and stag watching. The species was listed vulnerable under the *Threatened Species Conservation Act 1995*, which is now superseded by the *Biodiversity Conservation Act 2016* (BC Act).

A single male Squirrel Glider was observed during spotlighting surveys, outside of the proposed expansion area and within an approved mining area (Bell 2015). The presence of the species in that area was partly attributed to the abundance of mature habitat trees with hollows.

An assessment of significance (seven-part test) was completed for the species, which considered that 17.6 hectares (ha) of potential (treed) Squirrel Glider habitat existed within the total disturbance footprint of 211.4 ha.

For the purposes of the impact assessment habitat quality was divided into three portions, eastern, central and western. The habitat quality of the western and central patches of Squirrel Glider habitat were rated as low due to the lack of diversity of tree species and the absence of understory vegetation. The eastern vegetation was considered of higher habitat value due to increased species diversity and the presence of mid-story vegetation. This habitat was still not considered optimal for Squirrel Glider, given the very low density of mature trees with hollows.

The assessment concluded that no significant impact was anticipated 'impacts are not considered to significantly affect the local population to the degree that its long term viability is reduced' (Bell 2015).

## 2.1.2 Consistency with revised assessment area

### i Extent

The revised disturbance area for the Rix's Creek Continuation of Mining Project is 213 ha (compared to original 211.4 ha). The revised impact to woodland areas is 18.7 ha compared to the original woodland area of 17.6 ha. This represents a further 6.3 % of loss of potential habitat for the Squirrel Glider. The removal of an additional 1.1 hectares or 6.3 % of potential habitat is considered a negligible increase, given the amount of similar habitat surrounding the project area. The small increase of habitat loss will not alter the conclusions of the original impact assessment.

### ii Similarity of habitat types

The revised disturbance footprint is broadly similar to the original, with the most notable change being the exclusion of the eastern habitat area. This area was described as having the highest habitat value compared to the western and central habitat patches (Bell 2016).

The additional 1.1 ha of woodland added to the western and central patches, is considered to be homogenous with the adjoining habitats; therefore the original discussion regarding habitat quality in these areas still stands. As stated above, these areas were considered low quality given the low diversity of canopy species, lack of understory species and lack of mature trees with hollows.

### iii Summary

The revised disturbance area will result in a minor increase in the loss of potential habitat for the Squirrel Glider. This is considered negligible and will not change the outcome of the original impact assessment. The habitat quality for the Squirrel Glider is broadly similar between the original and revised impact footprint.

## 2.2 Staged Offsets

The Rix's Creek Continuation Project will be undertaken in stages, with the initial stage of works (Stage 1) to be undertaken immediately west and north-west of the existing pit. Subsequent works (Stage 2) will proceed to the north of the existing pit.

The associated area of total disturbance for Stage 1 is 126.6 ha and total disturbance area for Stage 2 is 86.4 ha.

Bloomfield seeks a staged credit retirement plan, in line with the staging of impacts, as outlined in the Mining Operations Plan (MOP). Figure 1 provides the location of the two stages with a summary of the credits required in each stage, based on FBA credit calculations, provided in Table 1.

**Table 1** FBA credits required for each stage

<b>Vegetation zone details</b>	<b>Credits required in Stage 1</b>	<b>Credits required in Stage 2</b>
HU812 Forest Red Gum grassy open forest on floodplains of the lower Hunter	13	0
HU906 Bull Oak grassy woodland of the central Hunter Valley	0	4
HU819 Narrow-leaved Ironbark - Native Olive shrubby open forest of the central and upper Hunter	3,929	1,834
HU962 Grey Box grassy open forest of the Central and Lower Hunter Valley	3	25
<b>Total</b>	<b>3,945</b>	<b>1,863</b>

322000

323000

324000

325000

326000

6402000

6401000

6400000

6399000

\\lemmsvr1\EMM\Jobs\2018\H180202 - Rix's IPAC ecology\GIS\02 Maps\E001 VegetationOverview 20180607\_01.mxd 10/06/2018

FIGURE 3a

FIGURE 3b













FIGURE 3c

NEW ENGLAND HIGHWAY

RIXS CREEK

RIXS CREEK LANE

KEY

-  Rix's Creek Continuation Project (including additional area)
-  Main road
-  Local road
-  Railway
- Plant community type
-  Zone 1: PCT 1598 (Forest Red Gum grassy open forest)
-  Zone 2: PCT 1692 (Bull Oak grassy woodland)
-  Zone 4: PCT 1605 (Narrow-leaved Ironbark-Native Olive shrubby open forest)
-  Zone 5: PCT 1748 (Grey Box grassy open forest)
-  Zone 7: Derived Native Grassland
-  Dam
- Staged offset areas
-  Stage 1
-  Stage 2

Vegetation zones and staged offset areas

Rix's Creek Continuation Project  
Response to NSW Department of Planning



Source: EMM (2018); Rix's Creek (2017); DFSI (2017)



### 3 Closing

We trust this information provides the clarifications required regarding the impact assessment for the Squirrel Glider and the staging of offsets, requested by the NSW DoP.

Yours sincerely



Eugene Dodd.ini  
Senior Ecologist  
[edodd@emmconsulting.com.au](mailto:edodd@emmconsulting.com.au)

### 4 References

Bell, S.A.J. (2015) Ecology Report for the Continuation of Rix's Creek Mine, Singleton LGA. Unpublished Report v4.4 to Rix's Creek Pty Limited. October 2015. Eastcoast Flora Survey.

Rix's Creek Continuation of Mining Project (SSD 6300) (May 2018) Secretary's Environmental Assessment Report. NSW Government, Department of Planning and Environment.