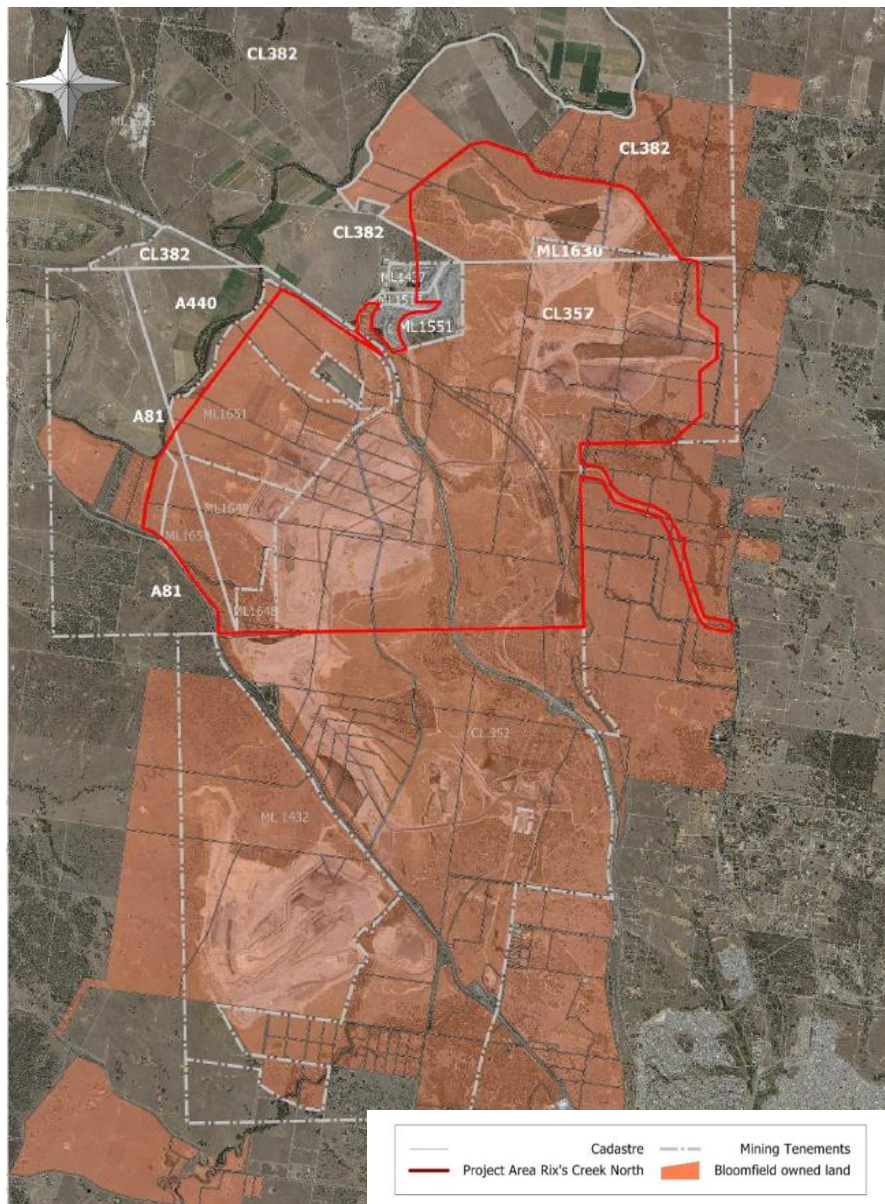


**Rix's Creek & Rix's Creek North Coal Mines  
Exploration and Overburden Emplacement Modification  
(DA 49/94 Mod 9 & MP 08\_0102 Mod 7)**

**Environmental Assessment Report**  
**Section 75W of the *Environmental Planning and Assessment Act 1979***

## 1. BACKGROUND

Bloomfield Collieries Pty Limited (Bloomfield) owns and operates Rix's Creek Coal Mine, an open cut coal mine located 5 kilometres northwest of Singleton in the Hunter Valley. Bloomfield also owns and operates the Rix's Creek North Coal Mine, located immediately north of Rix's Creek Coal Mine (see **Figure 1**). Both Rix's Creek and Rix's Creek North are located within the Singleton local government area.



**Figure 1:** Location of the Rix's Creek and Rix's Creek North Coal Mines

Rix's Creek currently operates under DA 49/94, which was approved by the then Minister for Urban Affairs and Planning under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in 1995. Rix's Creek North was approved under Part 3A of the EP&A Act on 26 November 2010 (MP 08\_0102), but was then known as the Integra Open Cut.

DA 49/94, as modified, allows Bloomfield to move up to 16.1 million bank cubic metres (BCM) of material (coal and overburden) per year until June 2019. At current strip ratios, this leads to the production of 2.8 million tonnes per annum (Mtpa) of run of mine (ROM) coal. Under MP 08\_0102, Bloomfield is permitted to extract up to 1.5 Mtpa of ROM coal from the northern mining area, and 4.5 Mtpa from the western mining area, until the end of December 2035.

Both Rix's Creek and Rix's Creek North have their own Coal Handling and Preparation Plants (CHPPs) and rail loading facilities.

Since its acquisition of Rix's Creek North in 2015, Bloomfield has implemented operational efficiencies between the two sites to form a single integrated complex. In February 2016, DA 49/94 and MP 08\_0102 were modified to allow the transportation of ROM coal between each site's CHPP, for processing and dispatch.

## 2. PROPOSED MODIFICATION

On 30 June 2017, Bloomfield lodged modification applications for Rix's Creek (Mod 9) and Rix's Creek North (Mod 7) under section 75W of the EP&A Act. Bloomfield is seeking to:

- undertake exploration drilling in areas of Rix's Creek North; and
- emplace overburden and dried tailings from Rix's Creek CHPP in overburden dumps at Rix's Creek North.

### 2.1 Exploration Drilling

Bloomfield is proposing to undertake exploration drilling in an area of Rix's Creek North that is not approved for disturbance under MP 08\_0102. This area was outside of the originally-proposed disturbance footprint and identified as 'Area not to be Disturbed' in many figures of the project's original Environmental Impact Statement (EIS) (see **Figure 2**).

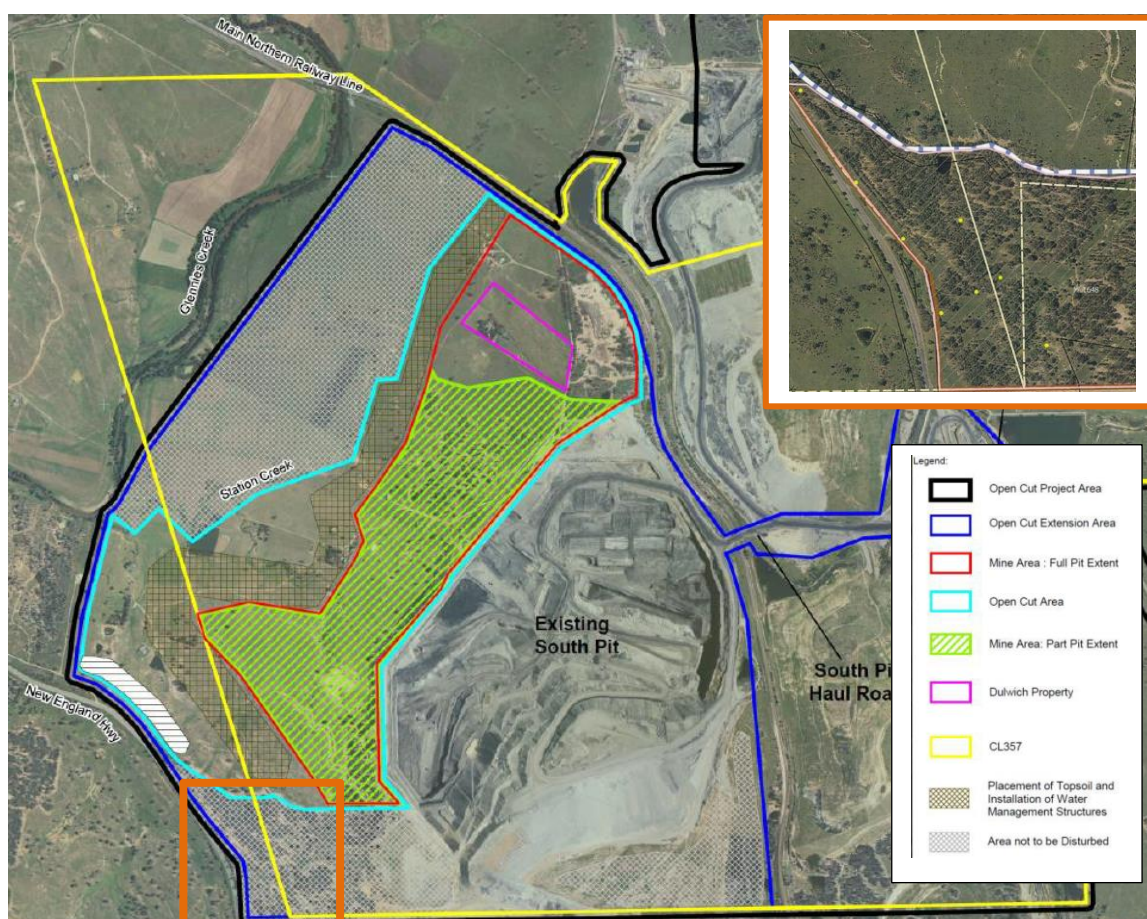


Figure 2 – Proposed exploration drilling location



The proposed drilling would include seven open and one cored bore holes. The purpose of the drilling is to confirm the geotechnical stability and available resources in the area and to determine whether this area could be suitable for future mining. Following completion of drilling, the boreholes would be sealed and rehabilitated to a safe and stable condition consistent with the current land use.

The Department recognises that the area proposed for exploration drilling is covered by a mining lease which permits prospecting activities. However, the project approval does not allow disturbance in the proposed exploration area. Consequently, there is no appropriate approval for these activities to take place under the mining lease.

## 2.2 Overburden and Tailings Emplacement

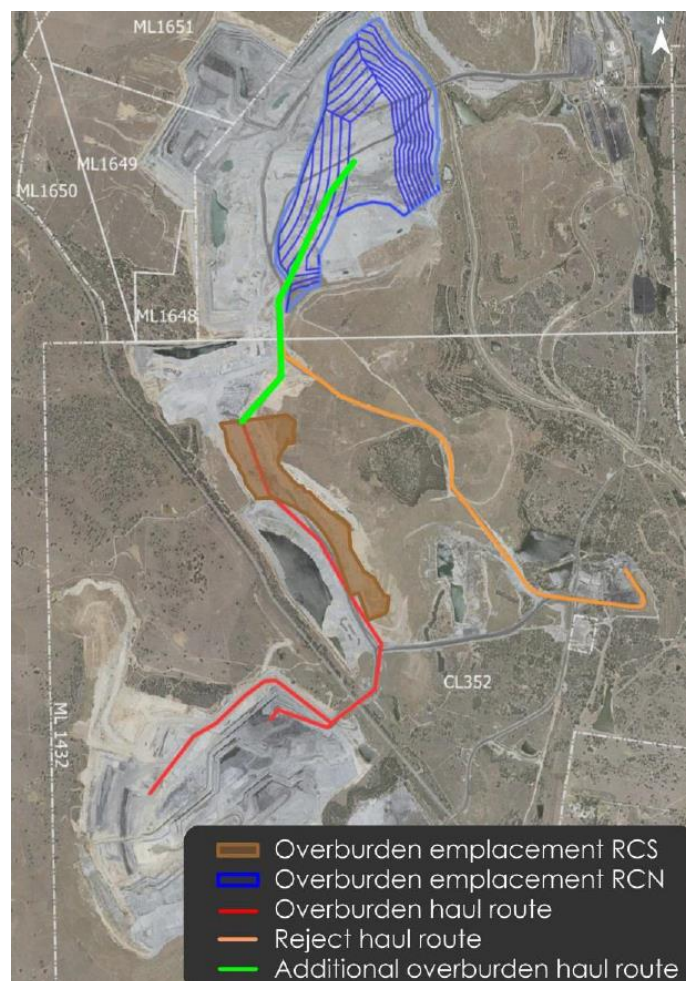
Bloomfield is also proposing to emplace up to 5 million BCM per annum of overburden and 0.5 million BCM of dried coal tailings from Rix's Creek at Rix's Creek North.

The existing operations at Rix's Creek North were approved based on overburden movement of 26 million BCM per annum. Under the current Mining Operations Plan, this site is only approved to move 10 million BCM per annum of overburden. The proposed modification would increase the maximum annual overburden movement by 5.5 million BCM, to a total of 15.5 million BCM.

The emplacement of an additional 5.5 million BCM of overburden and tailings material at Rix's Creek North, would not exceed the maximum limit of material movement allowed under MP 08\_0102. As such, the proposed modification does not seek to change the maximum extraction rates or material movement limits at either site.

Overburden and tailings material would be transported from Rix's Creek to the Rix's Creek North emplacement area by dump trucks using existing internal haul roads (see **Figure 3**). The additional material emplaced at Rix's Creek North would accelerate the completion of the final rehabilitated landform.

A detailed description of the modification is provided in Bloomfield's Environmental Assessment (EA, see **Appendix A**).



**Figure 3:** Proposed routes for overburden transportation

### 3. STATUTORY CONTEXT

#### 3.1 Section 75W

The applications propose to modify the Rix's Creek consent DA 49/94 and Rix's Creek North project approval MP 08\_0102. Under clause 8J(8)(c) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), DA 49/94 can only be modified under section 75W of the EP&A Act. The effect of section 75W for modification of such consents and also modification of project approvals granted under the former Part 3A of the EP&A Act (such as MP 08\_0102) is continued by transitional provisions found in clause 12 of Schedule 6A of the EP&A Act.

The Department is satisfied that the proposals are appropriately characterised as section 75W modifications to the existing consent and project approval.

The Department is satisfied that the proposed modifications are within the scope of section 75W, and may be determined accordingly.

#### 3.2 Approval Authority

The Minister for Planning is the approval authority for the proposed modifications. However, under the Minister's delegation of 16 February 2015, the Director Resource Assessments may determine the modification applications, as no public objections were received, Singleton Shire Council (Council) did not object to either proposal, and no political donations have been reported by Bloomfield.

### 4. CONSULTATION

Due to the minor nature of the proposed modifications, the Department is not required to undertake any public exhibition. However, the modification applications and the accompanying EA were made available on the Department's website. No public submissions were received.

The Department invited four government agencies to comment on the EA, including the **Environment Protection Authority (EPA)**, **Office of Environment and Heritage (OEH)**, **Heritage Council of NSW (Heritage NSW)** and the Department's **Division of Resources and Geoscience (DRG)**. A copy of these submissions is provided in **Appendix B**.

The Department is satisfied that the notification process met the requirements of the EP&A Act and the EP&A Regulation.

Bloomfield provided a Response to Submissions (RTS) on 2 August 2017, addressing the submissions received from the four agencies. The RTS was made publicly available on the Department's website. The RTS is included in **Appendix C**.

#### 4.1 Agency submissions

The **EPA** requested additional information regarding the location of exploration drilling in relation to the Environment Protection Licence (EPL) boundary, and the disposal of drilling muds, groundwater and core material.

In its RTS, Bloomfield advised that drilling would occur wholly within the EPL boundary and that drilling mud would be retained onsite using sump tanks in accordance with the EPL. Bloomfield also advised that the sump tanks allow for groundwater make to be re-used in accordance with the EPL and core materials from boreholes would be retained on site for assessment. Following review of the RTS, the EPA raised no further questions on this matter.

**OEH** acknowledged that no known or new Aboriginal archaeological sites were identified in the disturbance area for each proposed borehole and that the overall Aboriginal archaeological sensitivity for the proposed exploration area was low. OEH considered the EA's proposed procedure for handling unidentified Aboriginal objects during construction to be appropriate.

OEH noted that the proposed borehole drilling would require clearance of <0.5 hectares (ha) of the endangered ecological community (EEC) *Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions*. OEH also noted that the ecological surveys undertaken in June 2017 could not have identified the presence of the threatened orchid *Diuris tricolor*, as it is only identifiable when it flowers in September and October. Consequently, OEH recommended that the proposed disturbance areas be surveyed for *Diuris tricolor* during its flowering season, prior to any works being undertaken.

OEH also recommended that where any trees greater than 2 metres (m) in height are cleared for exploration works, the same species must be replanted in the same area at a ratio of 2:1.

Lastly, OEH recommended that any permanent impacts on threatened biodiversity are offset in accordance with the *NSW Biodiversity Offset Policy for Major Projects*. The Department has considered these matters further in **Section 5.1**.

**DRG** considered that sustainable rehabilitation outcomes could be achieved as a result of the proposed modification and that any identified risks or opportunities could be effectively regulated through conditions of the mining lease issued under the *Mining Act 1992*.

**Heritage NSW** considered it unlikely that the proposed modification would identify or impact on any new items of historic heritage and considered that no new mitigation measures were warranted. Consequently, Heritage NSW considered the EA to have appropriately assessed the heritage impacts of the proposed modifications and did not recommend any conditions of consent/approval.

## 5. ASSESSMENT

The Department has assessed the merits of the proposed modifications in accordance with the objects and other requirements of the EP&A Act. In its assessment, the Department has considered the:

- EIS for the original development and project applications;
- conditions of consent/approval for the developments as originally approved and as since modified;
- the modification applications, EA and RTS; and
- relevant environmental planning instruments, policies and guidelines.

### 5.1 Exploration Activities

The Department considers that the key impacts of the proposed exploration activities relate to biodiversity and are discussed below.

#### Biodiversity

An Ecological Assessment was conducted by Eastcoast Flora Survey and Forest Fauna Surveys Pty Ltd. The habitat within each proposed borehole location is a mix of derived native grassland and regrowth woodland. This vegetation community broadly falls into the category of *Central Hunter Grey-Box Ironbark Woodland*, which is listed as an EEC under the *Threatened Species Conservation Act 1995* (TSC Act).

The proposed boreholes would result in the disturbance of approximately 0.4 ha of this EEC. Additionally, this vegetation community potentially supports populations of the threatened orchid *Diuris tricolor* and contains habitat for several threatened species, including the Squirrel Glider.

As part of the Ecological Assessment, a site inspection of each borehole location was undertaken in June 2017. This site inspection concluded that no habitat essential for locally known or likely threatened fauna species occurs within 20 m of each of the proposed borehole locations.

As discussed in Section 4.2, OEH raised concern that the site inspection of each drill hole site was conducted in June and that the *Diuris tricolor* is only identifiable when it flowers in September and October. Consequently, OEH recommended that the proposed disturbance areas are surveyed for this orchid during the appropriate flowering period, prior to any works being undertaken. OEH recommended that, if any *Diuris tricolor* were identified during these surveys, they must be avoided or, if harmed, appropriately offset. The Department agrees with OEH's position and considers it imperative that the *Diuris tricolor* is appropriately avoided or offset (if required).

OEH also recommended that:

- areas disturbed by the proposed boreholes be rehabilitated within 12 months of the completion of drilling; and
- in areas where any trees taller than 2 m are cleared, the same species of tree must be replanted in the disturbed area at a ratio of at least 2:1.

In its RTS, Bloomfield advised that an ecologist had been engaged to undertake a *Diuris tricolor* survey during the peak flowering time in early October. Bloomfield committed to using the results of this survey to avoid disturbance to any of these plants. The proposed borehole locations would be in areas that predominantly consist of grassland which have been subject to previous clearing. The Department considers that with appropriate targeted surveys, impacts to *Diuris tricolor* can be avoided. A condition of approval has been recommended for Bloomfield to undertake a targeted survey in consultation with OEH prior to the

commencement of any exploration activities. If this survey identifies that impacts to *Diuris tricolor* plants are unavoidable, Bloomfield would be required to offset the impacts in accordance with the *NSW Biodiversity Offset Policy for Major Projects*.

Bloomfield also agreed to rehabilitate the disturbed areas within 12 months of completing the exploration program, and replant any cleared trees greater than 2 m in height, at a ratio of 2:1. The Department has recommended conditions of approval to reflect this agreement. MP 08\_0102 already requires Bloomfield to prepare and implement a Rehabilitation Management Plan for the site. The Department notes that the necessary rehabilitation associated with exploration activities would be primarily managed under the relevant mining lease.

Overall, the Department considers that the biodiversity impacts associated with the proposed boreholes are minor and can be appropriately managed under existing and recommended conditions of consent.

## 5.2 Overburden Emplacement

The Department has assessed the impacts of the proposed emplacement activities and summarised the findings of this assessment in **Table 1** below.

**Table 1:** Assessment of key issues

<b>Issue</b>	<b>Impact and Consideration</b>	<b>Recommendation</b>
<i>Air quality</i>	<ul style="list-style-type: none"> <li>The EA provided an estimate of how the proposed modification would affect the total dust emissions at each site, and as a combined operation.</li> <li>Dust emitting activities that would be generated by the proposed modification principally include hauling overburden and reject material from Rix's Creek, and emplacing this material at Rix's Creek North.</li> <li>However, as haulage and emplacement activities are already a part of both operations, additional dust would only be generated on a section of haul road between Rix's Creek and Rix's Creek North (see <b>Figure 3</b>).</li> <li>The EA concluded that the proposed modification would result in an increase in total dust emissions at Rix's Creek by approximately 1 - 1.3%. However, it was predicted that total dust emissions at Rix's Creek North would decrease by 1.6 – 3.4%.</li> <li>Overall, it was predicted that the modification would result in a 0.8 – 1.1% decrease in total dust emissions for the two operations.</li> <li>To manage air quality at the sites, the existing approval and consent require implementation of a range of dust suppression measures and air quality monitoring.</li> <li>The Department is satisfied that any changes to dust emissions as a result of the proposed modification would be negligible and could be appropriately managed under the existing conditions of consent/approval.</li> </ul>	No additional conditions or amendments necessary.
<i>Noise</i>	<ul style="list-style-type: none"> <li>Even with the additional 5.5 million BCM of material from Rix's Creek, Rix's Creek North would still be operating below the maximum overburden movement amount that was predicted when the existing noise criteria were set.</li> <li>As such, it is unlikely that the proposed modifications would result in any additional noise impacts at sensitive receivers over those currently approved.</li> <li>Bloomfield would utilise existing rear dump trucks from Rix's Creek North to transport the overburden between the sites. Therefore, no additional equipment would be required.</li> <li>No changes are proposed to the maximum annual limit of material movement at Rix's Creek.</li> <li>The EPA considered that the proposed modifications would not result in significant increases to existing noise impacts.</li> <li>The Department considers that noise impacts associated with the proposed modifications would be minor and would not result in exceedance of existing approved noise criteria at sensitive receivers.</li> </ul>	No additional conditions or amendments necessary.
<i>Rehabilitation</i>	<ul style="list-style-type: none"> <li>The proposed modification to overburden dumping rates and locations would allow Rix's Creek North to achieve its final landform earlier than anticipated.</li> <li>Additionally, the reduction of overburden emplaced at Rix's Creek could result in a decreased final landform height and/or slope.</li> </ul>	No additional conditions or amendments necessary.

<b>Issue</b>	<b>Impact and Consideration</b>	<b>Recommendation</b>
	<ul style="list-style-type: none"> <li>Bloomfield has committed to incorporating any opportunity for a decreased final landform height and/or landform slope into the final landform design for Rix's Creek.</li> <li>DRG noted that sustainable rehabilitation outcomes could be achieved as a result of the proposed modification.</li> </ul>	
<i>Other impacts</i>	<ul style="list-style-type: none"> <li>As the proposed haul routes use existing haul roads, the Department considers there to be no significant change to impacts related to surface water, groundwater, visual amenity, biodiversity, waste management, heritage, traffic or transport.</li> </ul>	No additional conditions or amendments necessary.

## 6. CONCLUSION

Bloomfield is seeking to modify consent DA 49/94 to allow the transport of overburden and reject material to the emplacement area at Rix's Creek North. Bloomfield is also seeking to modify project approval MP 08\_0102 to allow Rix's Creek North to receive and emplace this additional material. The proposal would not change the scale or environmental impact of approved activities at Rix's Creek or Rix's Creek North.

The Department is satisfied that the proposed modifications would lead to:

- no material change to currently approved operations at Rix's Creek or Rix's Creek North;
- no material change to environmental impacts;
- a positive rehabilitation outcome by allowing Rix's Creek North to accelerate the completion of the final landform; and
- improved operating efficiencies and synergies between the sites.

Additionally, Bloomfield is seeking to modify MP 08\_0102 to allow for exploration drilling to be undertaken in an area that is not currently approved for disturbance. The Department notes that these activities would have minor impacts on biodiversity values and the associated disturbance impacts would be appropriately offset. This modification would provide appropriate approval for these prospecting operations to be carried out under the mining lease. These activities would be primarily regulated and managed under the mining lease, as is usual for exploration conducted within such leases.

The proposed modifications would produce a sensible and logical improvement to the efficient operation and regulation of both Rix's Creek and Rix's Creek North. The Department is satisfied that the proposed modifications are in the public interest, and should be approved.

## 7. NOTICE OF MODIFICATION

Notices of Modification (see **Appendix D**) and versions of the Rix's Creek Coal Mine consent (see **Appendix E**) and Rix's Creek North Project approval (see **Appendix F**) as proposed to be amended have been prepared.

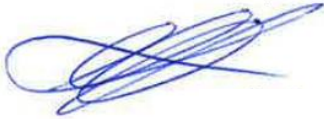
Bloomfield has agreed to the proposed modified conditions of consent.

## 8. RECOMMENDATION

It is recommended that the Director Resource Assessments, as delegate for the Minister for Planning:

- **consider** the findings and recommendations of this report;
- **determine** that the applications fall within the scope of section 75W of the EP&A Act;
- **approve** the modification applications DA 49/94 Mod 9 and MP 08\_0102 Mod 7, subject to conditions; and
- **sign** the attached notices of modification (**Appendix D**).

Recommended by:



1 September 2017

Genevieve Seed  
**Senior Planning Officer**  
**Resource Assessments**

Recommended by:



1 September 2017

Megan Dawson  
**A/Team Leader**  
**Resource Assessments**

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## 9. DECISION

Approved by:



1 September 2017

Howard Reed  
**Director**  
**Resource Assessments**  
as delegate of the Minister for Planning



## APPENDIX A: ENVIRONMENTAL ASSESSMENT

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[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8598](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8598)

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8600](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8600)

## APPENDIX B: SUBMISSIONS

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[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8598](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8598)

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8600](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8600)

## APPENDIX C: RESPONSE TO SUBMISSIONS

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[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8598](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8598)

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=8600](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8600)

## **APPENDIX D: NOTICES OF MODIFICATION**

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**APPENDIX E: RIX'S CREEK COAL MINE  
CONSENT DA 49/94 (AS PROPOSED TO BE MODIFIED)**

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**APPENDIX F: RIX'S CREEK NORTH PROJECT APPROVAL  
MP 08\_0102 (AS PROPOSED TO BE MODIFIED)**

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