



**RIX'S CREEK SOUTH MINE**

# **MODIFICATION 10**

## **Response to**

# **Independent Planning Commission**

for  
**Bloomfield Group**  
May 2019

# **RIX'S CREEK SOUTH MODIFICATION 10**

## **INDEPENDENT PLANNING COMMISSION RESPONSE**

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*For:*

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## **RIX'S CREEK SOUTH MODIFICATION 10 SUBMISSION TO THE IPC**

*for*

***The Bloomfield Group***

### **1 INTRODUCTION**

#### **1.1 BACKGROUND**

Bloomfield Collieries Pty Ltd (Bloomfield) has operated Rix's Creek South open cut mine (RCS), located approximately 5 km north of Singleton since 1990. The mine currently operates under development consent (DA 49/94) granted on 16 October 1995 which allows mining operations to be undertaken until 24 June 2019.

On 3 March 2014, Bloomfield submitted an Application to the Department of Planning and Environment (DPE) for a new development consent (application SSD 6300) to extend mining operations at RCS for 21 years. This application is currently being assessed.

As the determination of SSD 6300 is still pending, Bloomfield submitted a modification application and the supporting 'Rix's Creek South Mine - DA 49/94 Modification 10 Time Extension Contingency for the Determination of the Project Continuation' (SEE) on 26 February 2019, seeking a modification to Schedule 2 Condition 2 of DA 49/94 pursuant to Section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (MOD10). MOD10 would allow for the continuation of coal extraction generally in accordance with the currently approved mine plan for an additional period of nine months (i.e. to 24 March 2020).

The application was placed on public exhibition from 7 March 2019 to 21 March 2019. Bloomfield notes that under 4.55(1A) of the EPA Act, public exhibition of MOD10 was not required. DPE elected to exhibit the document to which 28 objections were received thus requiring delegation of the Department's determining authority to the Independent Planning Commission (IPC).

DPE provided an Assessment Report recommending approval of MOD10 to the IPC on 18 April 2019. The IPC advertised for submissions; and held a public meeting over the MOD10 application on 20 May 2019.

## 1.2 DOCUMENT PURPOSE

This Submission to the IPC is in response to a submission from the EDO to the IPC and key matters raised in the 'public meeting presentations' uploaded on the IPC website as at 24 May 2019.

The 'Meeting Schedule' included 12 registered speakers. Presenter 4 did not attend and two additional speakers addressed the public meeting (resulting in a total of 13 speakers). In addition to Bloomfield, four Presenters spoke in support of MOD10. Presenter details are summarised in **Table 1**.

An additional 13 written submissions were added to the IPC website on 28 May 2019 including five supportive submissions, however no new issues were identified and hence are not responded to in this report.

A further 516 "public submissions" were added on 29 May 2019 of which 485 were in support, 5 were comments and 26 were objections. The significant number of supporting submissions noted the positive economic and social issues associated with MOD10. Again, no new issues were identified which required a response in this report.

**Table 1**  
**RCS MOD10 IPC Public Meeting Speakers**

Ref	Speaker	Comment
1.	Geoff Moore	The Bloomfield Group, support
2.	Wendy Bowman	Local Resident, Object
3.	Tim Dagg	Local Resident, Support
4.	Kevin Taggart	Did not attend
5.	Joshua Dagg	Local Resident, Support
6.	Deidre Olofsson	Local Resident, Object
7.	Karl Tautari	Local Resident, Support
8.	Jan Davis	Hunter Environment Lobby Inc, Object
9.	Robert McLaughlin	Local Resident, Object
10.	Bev Smiles	Hunter Communities Network, Object
11.	Dr Bob Vickers	Doctors for the Environment, Object
12.	David Burgess	Lock the Gate, Object
13.	Mary McGill	Port Hunter Conveyors Group, Support
14.	Wendy Wales	Denman Aberdeen Muswellbrook Scone Healthy Environment Group, Object

## 2 EDO SUBMISSION AND RESPONSES

*This section provides a summary of issues the raised by the EDO and responds to each.*

### 2.1 LEGISLATIVE FRAMEWORK

#### 2.1.1 Issue

The submission suggests that the IPC cannot determine MOD10 as it does not consider all matters listed under Section 4.15(1) of the EP&A Act including Clause 12AB(3) in relation to air quality; and (4) in relation to cumulative noise; of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries 2007* (Mining SEPP).

#### 2.1.2 Response

Section 5.5 of the RTS states in response to this issue *"DA 49/94 was originally granted to facilitate annual movement of 15 Mbcm of material. Modification 6 (MOD6) increased this to 16.1 Mbcm. The original Air Quality Assessment for DA 49/94 (Holmes, 1994) and MOD6 (TAS 2014) were respectively completed on this basis.*

*The projected material to be moved for the term of the extension is approximately 8.73 Mbcm, therefore air quality impacts will remain below those assessed and as previously approved."*

DPE's Assessment Report states:

- *"The proposed modification would not result in any increase in operational air quality impacts as mining operations would continue to occur at or below existing approved rates, ie there would be no increase in dust-generating activities. ... As result, the previous assessments undertaken for the project remain relevant and there is no need to update previous air quality impact assessments."*
- *"The proposed modification would not result in any increase in operational noise impacts as mining operations would continue to occur at or below existing approved rates, in already approved mining areas. As result, the previous assessments undertaken for the project remain relevant and there is no need to update the noise impact assessment. ...*
- *However, the Department considers that this nine-month extension, relative to the approved 21-year mine life, is minor and the associated impacts would be minimal and acceptable."*

Nevertheless, Bloomfield has engaged independent air quality and noise specialists to confirm that adequate assessment has been undertaken to enable the IPC to determine MOD10 in accordance with Section 4.15(1) including (a)(i) *"any environmental planning instrument"* (including SEPP Mining) (see **Section 2.2** and **Section 2.3**).

## 2.2 ENVIRONMENTAL PLANNING INSTRUMENTS – AIR QUALITY

### 2.2.1 Issue

*“There is no reference to the provisions of the Mining SEPP in relation to air quality in the Dept Assessment Report. Clause 12AB(4) of the Mining SEPP sets a non-discretionary development standard for cumulative air quality levels. This standard is that the development does not result in a cumulative annual average level greater than 25 µg/m<sup>3</sup> of PM<sub>10</sub> or 8 µg/m<sup>3</sup> of PM<sub>2.5</sub> for private dwellings.”*

### 2.2.2 Response

Further to **Section 2.1.2**, Bloomfield has engaged an air quality specialist to confirm continued compliance with Clause 12AB(4) of the Mining SEPP (TAS, 2019). This response is provided in full in **Appendix A**.

TAS investigated the potential cumulative annual average PM<sub>10</sub> and PM<sub>2.5</sub> impacts associated with MOD10 utilising the contemporary Year 2020 scenario from the Rix's Creek Continuation Project air quality assessment. TAS (2019) advises that this conservative approach is likely to overestimate the likely annual average activity and dust related to MOD10 by 39%.

TAS 2019 concludes that the modelling predictions indicate that for all privately-owned receptor locations (not within an existing Zone of Affection) the predicted cumulative annual average PM<sub>2.5</sub> and PM<sub>10</sub> levels will remain below the Clause 12AB(4) of the Mining SEPP criteria of 8µg/m<sup>3</sup> and 25µg/m<sup>3</sup>.

## 2.3 ENVIRONMENTAL PLANNING INSTRUMENTS – NOISE

### 2.3.1 Issue

*“...Relevantly clause 12AB(3) of the Mining SEPP was amended by State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) Amendment (Air and Noise Impacts) 2018 to require consideration of cumulative noise levels of the development based on Table 2.2 of the Noise Policy for Industry 2017, rather than the acceptable amenity noise levels, as determined in accordance with Table 2.1 of the Industrial Noise Policy 2000. However, despite this amendment, no assessment has been undertaken under the Noise Policy for Industry 2017 in relation to the Modification.”*

### 2.3.2 Response

Further to **Section 2.1.2**, Bloomfield has engaged a noise specialist to confirm continued compliance with Clause 12AB(3) of the Mining SEPP (Global Acoustics, 2019). This response is provided in full in **Appendix B**.

The primary issue of concern appears to be that Clause 12AB(3) of the previous version of the Mining SEPP referenced the Industrial Noise Policy (INP) for assessment of cumulative noise, whilst the amended Mining SEPP (2018) references the Noise Policy for Industry (NPfI).

Recommended amenity noise levels listed in Table 2.2 of the NPfl are the same as acceptable amenity noise criteria listed in Table 2.1 of the INP. With regard to assessment of cumulative noise, there is no material difference between applying the INP as referenced in the original Mining SEPP (2007) and applying the NPfl as referenced in the amended Mining SEPP.

Therefore, an assessment of cumulative noise associated with MOD10 in accordance with the NPfl is not warranted, as there is no change to performance criteria relative to those used for previous modification applications assessed under the INP.

Further:

- The proposed intensity of mining (volume of material moved) during the nine month period associated with MOD10 will be less than approved under DA49/94. Therefore, fewer trucks will be required to operate due to reduced mining intensity;
- A contemporary mining fleet operates at Rix's Creek South with a high proportion of noise attenuated equipment, which leads to lower noise emissions than originally assessed for DA49/94;
- RCS is operated using more stringent noise criteria than prescribed in DA49/94 as stipulated in the DPE approved Noise Management Plan and Environment Protection License (EPL3391);
- RCS utilises a comprehensive contemporary noise management system based on both proactive and reactive management tools; and
- Rix's Creek North (RCN) adjoins RCS to the north and operates under PA08\_0102 which includes cumulative noise criteria consistent with both the INP and NPfl which Bloomfield is required to maintain compliance with.

## **2.4 SOCIAL IMPACTS**

### **2.4.1 Issue**

The submission states that the *"Modification is not supported by a Social Impact Statement in accordance with the Social Impact Assessment Guideline"*.

### **2.4.2 Response**

The Social Impact Assessment (SIA) Guideline are not a mandatory consideration. The 'Introduction' section states:

*"This guideline also applies to applications to modify an approved State significant resource project where: ...*

- *The social impacts associated with the proposed modification are new or different (in terms of scale and/or intensity) to those that were approved under the original consent."*

The social impacts associated with MOD10 are not new or different in relation to scale and/or intensity to those approved under the original consent. As such, a SIA is not required for MOD10.



Further, the refusal of MOD10 would have very material deleterious social impacts within and beyond the upper Hunter Region whereas the business as usual operation of the mine for a further 9 months at a lower intensity than that originally approved will have negligible deleterious social impacts.

## **2.5 ECONOMIC IMPACTS**

### **2.5.1 Issue**

The submission states “... *Modification has not been assessed under the ... (Economic Guideline) ...*”.

### **2.5.2 Response**

The Economic Guideline is not a mandatory consideration for the determining authority.

The economic benefits in relation to MOD10 are clear as presented in Bloomfield's presentation (Presenter 1) and as such an assessment under the Economic Guidelines is not required. The benefits over the 9-month period include:

- Net wages of \$15.7 million injected into the Hunter community;
- Ongoing capacity to support community initiatives;
- Expenditure of \$70M with Hunter Valley suppliers and contractors; and
- Royalty and other tax payments to the State and Federal government of \$37 million.

## **2.6 ENVIRONMENTAL IMPACT AND PUBLIC INTEREST – CLIMATE CHANGE**

### **2.6.1 Issue 1**

*“...the cumulative impact of the Modification's direct and indirect GHG emissions on global climate change is a relevant consideration to be taken into account by the IPC when assessing the Modification.”* (para 21).

*“...[the EPA Assessment Report] fails to consider that the Modification seeks a nine month extension and accordingly GHG emissions will continue over a new time period outside of what was originally considered and approved... Accordingly... the IPC should consider the indirect and direct GHG emissions of the Modification, relating to the nine month period, separately to what was considered in the original approval.”* (para 22-23).

### **2.6.2 Response 1**

In the Response to Submissions (RTS) (Hansen Bailey, 2019), Bloomfield notes that the assessed GHG emissions for the 9-month extension are estimated to be:

- Scope 1: 34,000 t CO<sub>2</sub>-e;
- Scope 2: 6,934 t CO<sub>2</sub>-e; and
- Scope 3: 2,943,597 t CO<sub>2</sub>-e.

The total Scope 1 and Scope 2 emissions (direct emissions) for the 9-month extension total approximately 40,934 t CO<sub>2</sub>-e.

The Paris Agreement was formed in 2015 and calls upon its signatories to institute further efforts to combat climate change. The Paris Agreement is not prescriptive about how the goal is to be achieved, but rather the State parties are required to formulate their own national commitments, referred to as Nationally Determined Contributions (NDCs). Australia's NDC aims to reduce GHG emissions by 26-28% below 2005 levels by 2030, which equates to approximately 402 – 413 Mt CO<sub>2</sub>-e. The emissions from MOD10 are approximately 0.009% of this national target.

The NSW Climate Change Policy Framework (OEH, 2016) states that the NSW Government's long-term objective is to achieve 'net zero' GHG emissions by 2050. The purpose of the framework is to define the role of the NSW Government in managing carbon emissions. The framework is not directed at private enterprises and does not provide any guidance on how development is to be undertaken.

The Scope 1 and Scope 2 emissions associated with MOD10 equate to approximately 0.03% of the NSW annual average emissions for 2013 – 2014 (130 Mt CO<sub>2</sub>-e) (OEH AdaptNSW website).

All of the product coal from the Project is proposed to be used overseas with the Paris Agreement only requiring countries to account for their national emissions, therefore the Scope 3 emissions (generated from the use of the coal) will be accounted for by the end user overseas and not by Australia.

It is widely considered that increased GHG emissions on a global scale are exacerbating a number of climatic phenomena. These environmental consequences are reported to be the result of GHG emissions on a global scale, and are not attributable to any particular activity. The forecast emissions attributable to MOD10 are negligible compared to GHG emissions on a global scale, and while the contribution of these emissions towards anthropological climate change is not being disputed, the environmental impacts of GHG emissions on a global scale should not be attributed to the Modification.

### 2.6.3 Issue 2

The submission quoted the Court's findings in relation to the reasons given by Gloucester Resources to why Rocky Hill should be approved, however does not explain how this relates to MOD10 (para 24-25).

- *"The first reason...the increase in GHG emissions...would not necessarily cause the carbon budget to be exceeded, because...reductions in GHG emissions by other sources...or increases in removals of GHGs by sinks...could balance the increase in GHG emissions associated with the Project."*

Rejected by Preston JC as *"speculative and hypothetical"*.

- *"The second reason...based on Dr. Fisher's argument that "the size of the global abatement task calls for making emissions reductions where they count most and generate the least economic and social harm."*

Rejected by Preston JC on the basis that the consent authority's task was to determine the development application before it, and the acceptability of any GHG emissions, and not to speculate on how to achieve meaningful emissions reductions as such emissions reductions *"are unrelated to the development that is the subject of the development application."*

- *"The third reason...was that the GHG emissions of the Project will occur regardless of whether the Project was approved or not, because of market substitution and carbon leakage..."*

Rejected by Preston JC that there was no evidence that either carbon leakage or market substitution would occur.

- *"The fourth reason...GRL contended that the Project will produce high quality coking coal...which is needed for...producing steel...critical to our society..."*

Rejected by Preston JC on the basis that *"The current and likely future demand for coking coal...can be met...by other coking coal mines, both existing and approved, in Australia."*

#### **2.6.4 Response 2**

MOD10 differs significantly from the proposed Rocky Hill Project in that it is for an existing mine which produces both coking and thermal coal, with long term customers with whom it holds ongoing contracts. All of the coal produced by the existing operations at Rix's Creek is exported to customers in Japan, Taiwan and South Korea.

Bloomfield's long-term steel-making customers have a number of blast furnaces in operation with design lives and demand profiles that support an ongoing requirement for metallurgical (coking) coal.

Bloomfield's thermal coal customers have indicated that whilst some of their older coal-fired power plants will close in the coming years, a number of new coal-fired power plants are due to come on-line. The development of these new technology Ultra Super Critical power plants along with the forecast increasing demand for electricity production in these countries will provide a continual demand for the thermal coal to be produced by Rix's Creek.

In the absence of coal from Rix's Creek, the demand would need to be filled by an alternate supplier.

Both Japan and South Korea are signatories to the Paris Agreement and have set NDC targets which aim to reduce GHG emissions.

Japan set its NDC target to reduce GHG emissions by 26% by 2030 compared to FY 2013 (25.4% reduction compared to FY 2005). The GHG emissions target is therefore set at approximately 1.047 Billion tonnes (Bt) of CO<sub>2</sub>-e.

The Republic of Korea Government set its NDC which aims to reduce GHG emissions by 37% compared to the projected levels under a business as usual (BAU) case (Republic of Korea, 2015). The Republic of Korea predicts that its GHG emissions will increase from 2020 to 2030 under a BAU case, due largely to expected increases in energy demand. Accordingly, the emissions targets under the Republic of Korea's NDC will also increase from 2020 to 2030, consistent with the trend under the BAU case.

Taiwan is not an existing signatory to the Paris Agreement; however it has proactively introduced its own voluntary GHG emission reduction goals. The voluntary goals include reducing its GHG emissions by 2% from its 2005 levels by 2020 and reducing its emissions by up to 50% less than 2005 levels by 2050 (i.e. from 277 Mt CO<sub>2</sub>-e in 2005 to 138 Mt CO<sub>2</sub>-e in 2050).

## **2.7 PUBLIC INTEREST**

### **2.7.1 Issue**

The Submission suggests that the IPC making a "*quick determination*" of MOD10 would be inappropriate in light of the "*Significant inadequacies in the proponent and Department's assessment of the Modification, as identified ... above*". It also refers to the "*History of non-compliance*" for the Rix's Creek Coal Mine and an Enforceable Undertaking.

### **2.7.2 Response**

This submission to the IPC clearly demonstrates that there are not "*significant inadequacies*" in Bloomfield's or DPE's assessment of MOD10 and as such it is in the public interest.

Bloomfield's response to its Enforceable Undertaking is discussed at **Section 3.5**.

## **3 OTHER OBJECTOR PRESENTATIONS**

*This section responds to the presentation submissions from other objecting submissions as discussed in **Section 1**. It does not duplicate information provided in **Section 2**.*

### **3.1 AIR QUALITY IMPACTS – PRESENTER 2 PROPERTY**

#### **3.1.1 Issue**

A detailed response to air quality is provided in **Section 2**.

Presenter 2 described impacts from Rix's Creek when a south-eastern wind occurs. The presenter also stated that "The combined impacts from all the mines surrounding my property have never been assessed or considered".

The presenter also stated that "Under its current approval this mine is supposed to be closing by June this year. If this happened, I would no longer have the mine dust, blast fumes, noise, diesel emissions coming at me from the south-east".

### 3.1.2 Response

Presenter 2 owns a significant landholding west of the New England Highway and is immediately adjacent to land owned by Ashton Coal, Coal and Allied and the Bloomfield Group.

Presenter 2 has previously sold landholdings to Bloomfield to facilitate the progression of Rix's Creek Mine and has rights to acquisition upon request from the South East Open Cut Project (PA 08\_0182) and Rix's Creek North (PA 08\_0102) due to predictions that either air quality or noise exceedances would occur at the landholding.

The approved impacts from these other developments will continue to occur in the absence of Rix's Creek South.

## 3.2 EFFECTS ON HEALTH IN THE HUNTER (2007)

### 3.2.1 Issue

Presenter 11 included a table entitled "*Effects on health in the Hunter 2007 ED respiratory presentations*" sourcing the document *Respiratory and cardiovascular disease and cancer among residents of the Hunter new England Area Health service, 2010* (NSW Department of Health, 2010). Presenter 11 utilised the data to suggest that coal mining was responsible for higher rates of hospital admission for all respiratory conditions.

### 3.2.2 Response

The NSW Health Report actually concludes the following:

*"These data may indicate an adverse health effect due to exposure to coal mining or coal-fired power generation activities in HNEAHS, or may be due to other factors (such as smoking, for example, which is higher in adults in Upper Hunter, although not statistically significantly higher).*

*Thus they do not establish that these adverse health effects are attributable to air pollution or to any other specific exposure.*

*Further investigation is required to determine the role of pollutant exposures. Once the level and distribution of exposure of pollutants from coal mining and power generation is established, any health effects resulting from these pollutant exposures can be assessed. Other recognised disease risk factors, such as smoking, poor diet, lack of exercise, occupational hazards and lack of effective use of self-management strategies should also be considered as possible contributors to the poorer health of residents of some areas of HNEAHS."*

### **3.3 EMPLOYEE IMPACTS**

#### **3.3.1 Issue**

Presenter 8 stated that *"The Applicant and Planning reiterate that the purpose of the Modification is to prevent disruption to the workforce, contractors, suppliers and customers ... there is no information provided about the number of workers and associated businesses likely to be directly impacted, give that mining operations are still occurring at Rix's Creek North until 2035"*.

Presenter 9 states that *"coal mining contributes 58 per cent of the economic output of the Singleton and Muswellbrook Shires ... vacant businesses and homes in both these towns to release that money earned in the mines here is spent elsewhere. Most people who work in the mines live and spend their money in either Maitland or Newcastle."*

Presenter 11 also stated that 9,000 workers drive into the region daily and stated the *"DIDO workers create negative social and economic stress on the region"*. He stated that *"82% of mining industry job advertisements on seek.com were contractor companies"* and *"anecdotal"* references to permanent staff being made redundant and population actively leaving town.

#### **3.3.2 Response**

Bloomfield purchased Rix's Creek North in 2015 and operations commenced in 2016. The operations in RCN are closely integrated with RCS, with a number of resources being shared across the sites. Currently the RCN processing plant is contracted to wash coal from Glencore's Integra Underground, with the coal from RCN being transported to the RCS CHPP for processing.

In the presentation given by Presenter 1, Bloomfield indicated that disruption would occur to 255 full time employees and 44 full time equivalent contractors at RCS.

The Annual Review (Bloomfield, 2018) identifies that over 70% of these employees live in the Singleton, Cessnock or Maitland shires.

### **3.4 REFERENCES TO SSD6300**

#### **3.4.1 Issue**

Various submissions state that the Modification is related to the SSD6300 submission particularly in relation to greenhouse gas emissions and contends that the broader public interest is to reject the Modification and SSD6300.

#### **3.4.2 Response**

SSD6300 is not relevant to MOD10. Greenhouse gas emissions from MOD10 are discussed in **Section 2.6**.

### 3.5 BIODIVERSITY IMPACTS

#### 3.5.1 Issue

Presenter 8 states "... *unassessed biodiversity impacts caused by the illegal mining of 96 ha outside the Rix's Creek Mining Lease ... disappointing that no clear information has been provided in the Modification application*".

#### 3.5.2 Response

The RTS stated "*The 'Consent Order' dated 11 July 2017 as issued by the Land and Environment Court resulted in a revised approved disturbance area under DA 49/94, as well as requiring Bloomfield retire relevant ecosystem credits. Bloomfield has been and will continue to work closely with OEH in relation to the retirement of ecosystem credits in accordance with relevant NSW legislation.*"

Although this issue is not related to MOD10, Bloomfield advises that status of the Consent Order is as follows:

- Bloomfield commenced the process of purchasing property considered suitable for land-based offsets at the same time that an application for an "assessment of reasonable equivalence" was lodged with the Office of Environment and Heritage (OEH).
- The statement of equivalence took 11 months to be resolved with OEH. A property has been purchased and an application has been made for this property to be a Stewardship site under Division 2 Part 5 of the *Biodiversity Conservation Act 2016*. A payment covering about three quarters of the required credits has been made to the Biodiversity Conservation Fund with the remaining credits pending the establishment of the Stewardship site.
- Bloomfield has always sought to follow development consent conditions carefully and in good faith since the Rix's Creek Mine commenced in 1990.

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for

**HANSEN BAILEY**



Dianne Munro  
Principal



James Bailey  
Director

## ***APPENDIX A***

### ***Air Quality Review***



29 May 2019

Dianne Munro  
Principal  
Hansen Bailey  
Via email: [DMunro@hansenbailey.com.au](mailto:DMunro@hansenbailey.com.au)

**RE: Rix's Creek Coal Mine Modification 10 – Response to EDO NSW Comments**

Dear Dianne,

The following outlines additional information and clarification to address the EDO NSW comments regarding air quality for the Rix's Creek Coal Mine Modification (MOD) 10. The comments are shown in grey italics and followed by the response.

*a. **Air quality:** The Department stated that there will be no increase in dust-generating activities, accordingly it was noted that previous assessment undertaken for the project remain relevant and there was no need to update previous air quality impact assessments. The Department notes that air quality related conditions of the consent were updated in Modification 8 in 2016.*

*There is no reference to the provisions of the Mining SEPP in relation to air quality in the Dept Assessment Report. Clause 12AB(4) of the Mining SEPP sets a non-discretionary development standard for cumulative air quality levels. This standard is that the development does not result in a cumulative annual average level greater than 25 µg/m<sup>3</sup> of PM<sub>10</sub> or 8 µg/m<sup>3</sup> of PM<sub>2.5</sub> for private dwellings. This standard was introduced by the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) Amendment (Air and Noise Impacts) 2018 which did not exist in 2016 when Modification 8 was determined under s 75W. The consolidated conditions for the Rix's Creek Coal Mine relating to air quality are not consistent with the PM<sub>10</sub> criteria and do not address PM<sub>2.5</sub> pollution at all. Further, cl 12AB(4) of the Mining SEPP relates to cumulative impacts, and necessarily requires consideration of changes in the receiving environment and not just what is proposed by the Modification. Clearly the receiving environment has changed significantly since the mine was first approved in 1995.*

The Rix's Creek Coal Mine MOD 10 seeks to modify DA 49/94 to allow for the continuation of mining for an additional nine months. MOD 10 does not involve any changes to the approved extraction footprint, production rate or mining methods. The mining rate during the period would continue at the current production rate of 1 million bench cubic metres (Mbcm) per month for the nine month extension period.

To investigate the potential cumulative annual average PM<sub>10</sub> or PM<sub>2.5</sub> impacts associated with the MOD 10, the modelling predictions presented in the *Air Quality and Greenhouse Gas Assessment Rix's Creek Continuation of Mining Project* (AQIA) (**Todoroski Air Sciences, 2015**) have been analysed. The AQIA modelling is the most representative assessment of the Rix's Creek Coal Mine operations relevant to MOD 10 and includes potential dust emissions from all nearby existing and approved mining operations and thus represents the current receiving environment. Further details regarding the air dispersion model setup can be found in the AQIA (**Todoroski Air Sciences, 2015**).

The modelling scenario in the AQIA (**Todoroski Air Sciences, 2015**) that most closely aligns with MOD 10 is the Year 2020 scenario. The amount of material handled in the Year 2020 scenario is summarised in **Table 1** and is compared with MOD 10.

MOD 10 involves handling of 9Mbcm of material over 9 months, whereas the 2020 scenario involves handling 16.7Mbcm of material over 12 months, thus the 2020 scenario overestimates the likely total annual activity and dust related to MOD 10 by 85%. Assuming the MOD 10 scenario were to occur over an equivalent 12 month period with the current production rate of 1Mbcm/month (i.e. 12Mbcm over 12 months), the 2020 scenario would overestimate the likely total annual activity and dust related to MOD 10 by 39%.

**Table 1: Comparison of material handled**

	<b>MOD 10 (Mbcm)</b>	<b>Year 2020 of AQIA (Mbcm)</b>	<b>Percent increase compared to MOD 10 (%)</b>
Overburden	-	14.9	-
Coal	-	1.8	-
Total	9	16.7	85
Total (pro-rata 12 month)	12	16.7	39

The incremental (mine only) and cumulative annual average PM<sub>2.5</sub> and PM<sub>10</sub> modelling predictions for the privately-owned receptors for the Year 2020 scenario are summarised in **Table 2**.

The values presented in bold indicate predicted values above the relevant criteria of 8µg/m<sup>3</sup> for PM<sub>2.5</sub> and 25µg/m<sup>3</sup> for PM<sub>10</sub>. The privately-owned receptor locations highlighted in orange are already identified in the acquisition zone for other mine operations.

The modelling predictions indicate that for all privately-owned receptor locations the predicted cumulative annual average PM<sub>2.5</sub> and PM<sub>10</sub> levels will remain below the relevant criteria of 8µg/m<sup>3</sup> and 25µg/m<sup>3</sup>, respectively, with the exception of Receptor 1 and Receptors 170 to 177. It is noted that Receptor 1 has previously had in place a compensation agreement with the Proponent and that discussions are well advanced in entering into a new agreement; and Receptors 170 to 177 are identified in the acquisition zone for other mine operations, due to these receptors being impacted by other mines.

Due to the significantly higher annual production rate in the modelled Year 2020 scenario (i.e. 185% of that for MOD 10 over a 9 month period or 139% pro-rata for a 12 month period), it can be seen that the potential impacts associated with the Rix's Creek Mine MOD 10 would be lower than presented in **Table 2**.

Please feel free to contact us directly to clarify any aspect of this letter.

Yours faithfully,

Todoroski Air Sciences



Aleks Todoroski



Philip Henschke

## References

Todoroski Air Sciences (2015)

"Air Quality and Greenhouse Gas Assessment Rix's Creek Continuation of Ming Project", prepared for Rix's Creek Mine by Todoroski Air Sciences, August 2015.



Table 2: Incremental and cumulative annual average modelling predictions for Year 2020

Receptor ID	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)
	Incremental Project Impact		Cumulative Total Impact	
	Ann. ave.	Ann. ave.	Ann. ave.	Ann. ave.
	-	-	8	25
1	2	16	8	34
2	0	1	6	19
3	0	1	6	18
4	0	1	6	18
5	0	1	6	18
6	0	1	6	17
7	0	1	6	18
8	0	1	6	18
9	0	0	6	17
10	0	0	6	17
11	0	0	6	17
12	0	0	6	17
13	0	0	6	17
14	0	0	6	17
15	1	4	6	21
16	1	4	6	21
17	1	4	7	22
18	0	4	6	21
19	1	4	6	21
20	0	3	6	20
21	0	3	6	20
22	0	3	6	20
23	0	2	6	20
24	0	1	6	19
25	0	3	6	18
26	0	3	6	19
27	0	2	6	19
28	0	2	6	19
29	0	2	6	18
30	0	2	6	18
31	0	3	6	19
32	0	3	6	20
33	0	3	6	20
34	0	3	6	19
35	0	3	6	19
36	0	2	6	19
37	0	3	6	19
38	0	2	6	19
39	0	2	6	19
40	0	3	6	18
41	0	3	6	19
42	0	4	6	19
43	0	3	6	18
44	1	4	6	19
45	0	3	6	18
46	0	3	6	18
47	1	4	6	20
48	1	4	6	20
49	1	4	6	19
50	0	3	6	19
51	0	2	6	17

Receptor ID	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)
	Incremental Project Impact		Cumulative Total Impact	
	Ann. ave.	Ann. ave.	Ann. ave.	Ann. ave.
	-	-	8	25
52	0	3	6	18
53	0	3	6	19
54	1	4	6	20
55	1	5	6	20
56	0	3	6	18
57	1	4	6	19
58	1	4	6	20
59	1	5	6	21
60	0	4	6	19
61	1	7	7	24
62	1	5	6	21
63	0	3	6	18
64	0	3	6	19
65	1	6	7	22
66	0	3	6	18
67	0	3	6	18
68	0	3	6	18
69	0	3	6	18
70	0	2	6	17
71	1	4	6	20
72	1	4	6	20
73	0	3	6	18
74	0	3	6	19
75	0	3	6	18
76	1	6	7	23
77	1	4	6	20
78	1	5	6	21
79	1	6	7	22
80	1	5	6	21
81	0	2	6	17
82	0	2	6	17
83	0	2	6	16
84	0	2	6	17
85	0	3	6	18
86	0	3	6	18
87	0	3	6	18
88	0	3	6	18
89	0	3	6	19
90	0	3	6	18
91	0	3	6	19
92	0	3	6	18
93	0	2	6	17
94	0	3	6	19
95	0	3	6	18
96	0	2	6	17
97	0	2	6	18
98	0	2	6	17
99	0	2	6	17
100	0	2	6	17
101	0	2	6	17
102	0	2	6	17
103	0	2	6	16



Receptor ID	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)	PM <sub>2.5</sub> (µg/m³)	PM <sub>10</sub> (µg/m³)
	Incremental Project Impact		Cumulative Total Impact	
	Ann. ave.	Ann. ave.	Ann. ave.	Ann. ave.
	-	-	8	25
104	0	3	6	18
105	0	2	6	17
106	0	2	6	17
107	0	2	6	17
108	0	2	6	17
109	0	2	6	17
110	0	2	6	17
111	0	2	6	17
112	0	1	6	16
113	0	2	6	16
114	0	1	6	16
115	0	2	6	17
116	0	2	6	16
117	0	2	6	17
118	0	2	6	17
119	0	2	6	17
120	0	2	6	17
121	0	2	6	17
122	0	2	6	17
123	0	0	6	17
124	0	0	6	17
125	0	0	6	17
126	0	1	6	16
127	0	1	6	16
128	0	1	6	16
129	0	1	6	16
130	0	1	6	16
131	0	1	6	16
132	0	1	6	16
133	0	1	6	15
134	0	0	6	17
135	0	0	6	17
136	0	3	6	19
137	0	3	6	19
138	1	4	6	20
139	0	3	6	19
140	1	5	6	21
141	0	1	6	17
142	0	1	6	17
143	0	1	6	17
144	0	1	6	17
145	0	1	6	17
146	0	1	6	17
147	0	1	6	17
148	0	1	6	18
149	0	2	6	19
150	0	1	6	19
151	0	1	6	19
152	0	3	6	19
153	0	3	6	18
154	0	3	6	18
155	0	3	6	19



Receptor ID	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	PM <sub>10</sub> (µg/m <sup>3</sup> )
	Incremental Project Impact		Cumulative Total Impact	
	Ann. ave.	Ann. ave.	Ann. ave.	Ann. ave.
	-	-	8	25
156	0	3	6	18
157	0	3	6	19
158	0	2	6	18
159	0	3	6	19
160	0	2	6	18
161	0	2	6	18
162	0	2	6	18
163	0	2	6	17
164	0	2	6	19
165	0	1	6	19
166	0	2	6	17
167	0	2	6	19
168	0	2	6	19
169	0	1	6	19
170	1	8	16	100
171	1	7	8	29
172	1	7	10	47
173	1	9	9	39
174	1	6	9	37
175	0	2	8	36
176	1	4	9	39
177	0	2	9	43

## ***APPENDIX B***

### ***Noise Review***



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To	Dianne Munro
Email	DMunro@hansenbailey.com.au
From	Jeremy Welbourne
Reference Number	18345_L02
Date	25/05/2019
Subject	Rix's Creek South DA49/94 MOD10
Total Pages	3

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Dear Dianne,

Bloomfield Collieries Pty Limited (Bloomfield) operates the Rix's Creek South (RCS) open cut coal mine, located approximately 5 kilometres north of Singleton, NSW. Bloomfield currently operates RCS under development consent DA49/94. In March 2014, Bloomfield lodged an application for a new development consent to extend mining operations at RCS until 2038 (SSD6300). Assessment of that application is still in progress. Bloomfield has made a submission to extend the life of the current Development Consent (DA49/94) for RCS by nine months (MOD10) whilst the SSD6300 determination is being finalised to enable continuity of operations.

The NSW Department of Planning and Environment (DP&E) has recommended approval of the MOD10 assessment report.

EDO NSW, on behalf of the Hunter Environment Lobby (HEL) has lodged a submission regarding MOD10 to the NSW Independent Planning Commission dated 16 May 2018. Section 8b of the EDO NSW submission pertains to noise, and states:

*The Department states that the Modification will not result in any increase in operational noise impacts and accordingly the Department noted that previous assessments undertaken for the project are relevant and do not need to be updated.*

*There is no reference to the provisions of the Mining SEPP in relation to noise impacts in the Dept Assessment Report. Relevantly clause 12AB(3) of the Mining SEPP was amended by State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) Amendment (Air and Noise Impacts) 2018 to require consideration of cumulative noise levels of the development based on Table 2.2 of the Noise Policy for Industry 2017, rather than the acceptable amenity noise levels, as determined in accordance*

*with Table 2.1 of the Industrial Noise Policy 2000. However, despite this amendment, no assessment has been undertaken under the Noise Policy for Industry 2017 in relation to the Modification.*

The primary issue appears to be that Clause 12AB(3) of the previous version of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) (2007) (Mining SEPP) referenced the Industrial Noise Policy (INP) for assessment of cumulative noise, whilst the amended Mining SEPP (2018) references the Noise Policy for Industry (NPfI).

Recommended amenity noise levels listed in Table 2.2 of the NPfI are the same as acceptable amenity noise criteria listed in Table 2.1 of the INP. With regard to assessment of cumulative noise, there is no material difference between applying the INP as referenced in the original Mining SEPP (2007) and applying the NPfI as referenced in the amended Mining SEPP (2018). Therefore, an assessment of cumulative noise associated with MOD10 in accordance with the NPfI is not warranted, as there is no change to performance criteria relative to those used for previous modification applications assessed under the INP.

The following points should also be noted:

- The proposed intensity of mining (volume of material moved) during the nine month period associated with MOD10 will be less than approved under DA49/94. Therefore, fewer trucks will be required to operate due to reduced mining intensity;
- Bloomfield operate a contemporary mining fleet with a high proportion of noise attenuated equipment, which leads to lower noise emission than originally assessed for DA49/94;
- Bloomfield operate RCS using more stringent noise criteria than prescribed in DA49/94. Noise criteria prescribed in DA49/94 are based on the outdated  $L_{A10}$  metric, and apply during neutral atmospheric conditions only, whilst noise criteria listed in the DP&E approved Noise Management Plan (NMP) and the NSW Environment Protection Authority (EPA) Environment Protection License (EPL3391) are based on the contemporary  $L_{Aeq}$  metric, and apply during noise-enhancing meteorological conditions;
- Bloomfield operates RCS using a comprehensive noise management system based on both proactive and reactive management tools which provides for effective management of noise emission; and
- Bloomfield also operates Rix's Creek North mine (RCN), which adjoins RCS to the north. RCN has a separate Project Approval (PA08\_0102), which includes cumulative noise criteria which are consistent with both the INP and NPfI. Bloomfield will be required to maintain compliance with cumulative noise criteria prescribed in PA08\_0102, which will effectively place a cap on cumulative noise emission from both RCS and RCN (and any other neighbouring mines that may contribute), which will maintain compliance with INP and NPfI noise amenity levels.

In conclusion, an updated reference to the NPfI in the amended Mining SEPP (2018) regarding cumulative noise amenity levels does not change assessment noise levels relative to the previous version of the Mining SEPP (2007). Previous noise assessment undertaken for RCS remain relevant and there is no need for further

noise impact assessment. There are also sufficient regulatory controls in place in the form of contemporary noise criteria to ensure ongoing compliance with noise amenity levels is maintained.

I trust this information is satisfactory for your requirements, however, please contact me if you have any queries.

Regards,

A handwritten signature in black ink, appearing to read 'J Welbourne', followed by a period.

Jeremy Welbourne  
Consultant