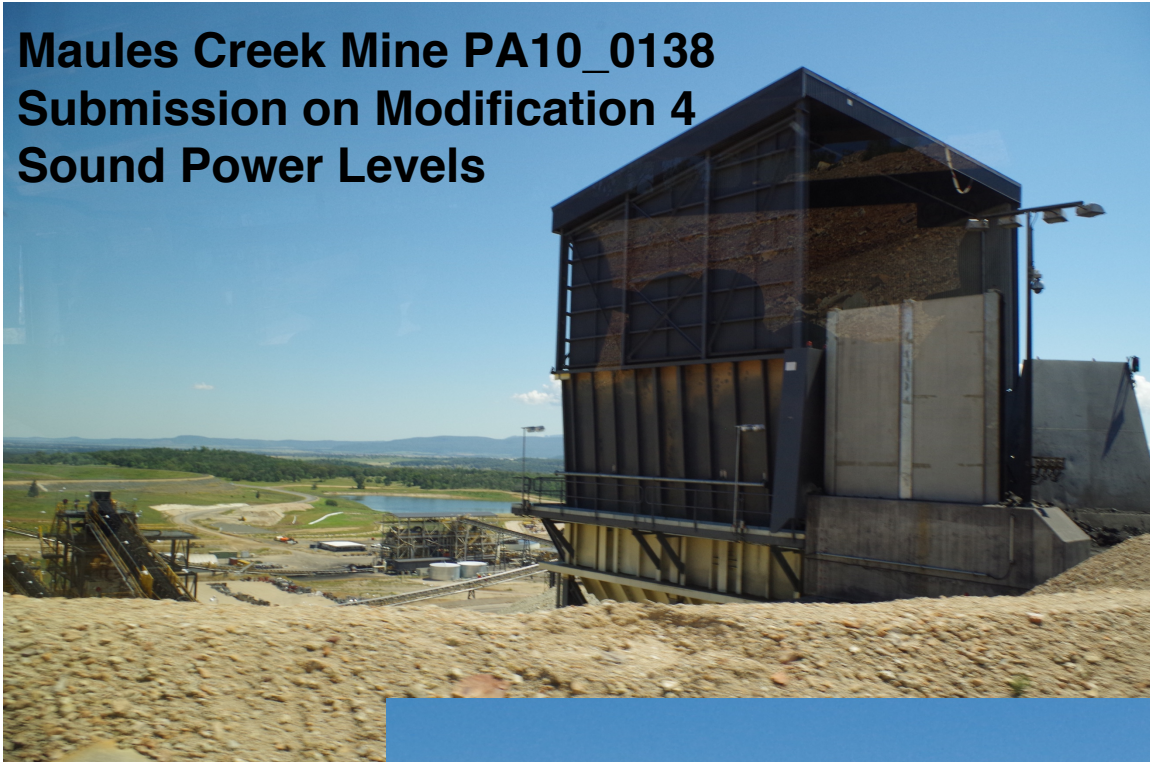


Maules Creek Mine PA10_0138 Submission on Modification 4 Sound Power Levels



Top: from its imposing position, Maules Creek mine shows offensive noise over the surrounding valleys

Centre: Maules Creek CHPP with exposed machinery

Bottom: 3-storey tip trucks

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1. Introduction

Whitehaven Coal has lodged an Environmental Assessment supporting its application to remove commitments to control the sound power levels ie noise emanated from the Maules Creek mine. It contains statements and omissions that call for clarification and correction, such as those statements pertaining to the compliance record of the mine and the noise impacts of noise in Maules Creek.

The experience of the Maules Creek community since the inception of the MCCM has been that 24/7 open cut operations, as well as the operation of the coal washery, coal crusher and train loader create excessive noise, resulting in sleep disturbance, physical discomfort such as chest pressure, and potentially serious health risks to people with heart pacemakers. Despite regular complaints to the NSW EPA, it proved impossible to successfully investigate the complaints.

For the benefit of readers who have not experienced 24-hour noise from open Coalmines in Greenfield rural areas, we preface this submission with a few short words describing the noises and sensations. The noises that we experience at distances up to 18 km from the Maules Creek mine obviously vary according to which of the fixed and mobile plant is operating, and what the wind and temperature inversion conditions are.

The bangs from rocks as large as 3 tonnes being dropped into unlined truck trays can be heard for kilometres, usually the first one is the loudest followed successively by the second and third which may be quieter because the receiving vessel is no longer empty. Toots from reversing vehicles also continue to be a problem, resulting in impulsive bursts of noise. Although these noises can be heard from a further distance, it is the low-frequency noise which is more of a problem once you are at 8 km distance from the mine and beyond. These noises sound like deep rumbling, sometimes like an aeroplane taking off, whirring noises that come and go in a cyclical fashion, and the notorious reference to “sounds like a car approaching” which is a common description.

Low frequency noise can be more intense indoors, than outdoors, depending on the structure of the house and the room position. In such cases, people suffer when they put their ear to the pillow and the noise and deep vibration is intensified.

It is important for the decision-makers to consider beyond the abstract matters that are presented on paper, and consider the effect of these disturbances on people’s lives. It may be hard to imagine how a noise can be heard at such distances. And yet this is the situation in green field rural areas.

The Planning Assessment Commission in its Determination Report demonstrated awareness of the risks of permitting the Maules Creek mine in an area known for its background levels being under 20 dB. The “assumed” background level of 30 dB imposed by planning authorities has not helped the situation. Condition 12(a) reflected these concerns. Now Whitehaven Coal seeks to remove a Condition that was designed to protect the vulnerable rural communities, which it has been unable – or unwilling – to comply with.

We reject this Modification in its entirety. It should not be approved under any terms.

Anna Christie

On behalf of **Leard Forest Research Node** leardforestresearchnode@gmail.com

2. Condition 12(a)- intention and function

2.1 What was the intention of Condition 12(a)?

Whitehaven Coal's application seeks removal of condition 12(1)(a) which provides:

"Attenuation of Plant

12. The Proponent shall:

- (a) ensure ... all equipment and noise control measures deliver sound power levels that are equal to or better than the sound power levels identified in the EA, and correspond to best practice or the application of the best available technology economically achievable"

The intention of this condition is to require Maules Creek mine to implement continuous improvement. The use of the term "best available technology economically achievable" is an explicit requirement that was not accidentally inserted, and aims to ensure that as the mine evolves, the company continues to improve its environmental performance.

2.2 Control of sound power levels

"...all equipment and noise control measures deliver sound power levels that are equal to or better than the sound power levels identified in the EA"

Whitehaven told the Dept of Planning it would comply with certain noise limits on site – these are the "sound power levels" or noise created by the fixed and mobile plant and equipment.

The MCCM Mandatory Noise Audit (MNA) concluded that Condition 12 (a) is being contravened and in fact has been continuously breached since the Maules Creek mine commenced operating. The MNA stated (at p. 39):

"The measurement data shows the following:

- 74 mobile plant items have been tested;
- eight fixed plant items were tested, including the coal preparation plant (CPP);
- In 2015 sound power levels from 32 items of plant exceeded of the EA adopted levels, and therefore were **non-compliant with Condition 12**. This includes 'A' or 'L' weighted exceedances;
- In 2016 retesting showed ... **There remain 12 items above the EA values by 1 dB or more***; and
- The plant items that remain above the EA levels are two dozers, two dump trucks, two water carts, the primary sizer, two conveyors, train load out transfer station, CPP product transfer station and the CPP. The two items most in excess of EA levels are the rail load out transfer station (by 10 dBA) and the CPP (8 dBA and 7 dBL for the south-east facade and 3 dBA and 7 dBL for the north-west facade). **These are non-compliances with the EA and project approval Schedule 3 Condition 12.**"
[Emphasis added]

In June 2016 MCCM received a Formal Caution over the non-compliance with the EA sound power levels of its train load out plant. Much to the dissatisfaction of concerned community members, that was the extent of compliance action taken by Dept of Planning so far.

2.3 Best Practice and Best Available Technology Economically Achievable

“correspond to best practice or the application of the best available technology economically achievable”

According to the Mandatory Noise Audit (section 3.8. p 40): “The site inspection confirmed that the Coal Processing Plant is not enclosed and is essentially open on all sides with a partial roof cover ...No physical noise control mitigation was therefore evident. We were advised that the building structure could not support an enclosure retrospectively.”

Since then some minor modifications have been made to screen the train load out facility which according to Peter Wilkinson, GM MCCM resulted in a 4 decibel reduction at source, but he would not answer questions from the Maules Creek CCC about how this might have translated into a reduction at the receiver. He told the CCC the company did not have the capability to do so¹.

The fact that the Coal Processing Plant was under-engineered and cannot be rectified obviously contradicts the of “best available technology economically available.” Whitehaven is a profitable company that earned over \$400M profit last financial year and prides itself on being one of the lowest-cost coal producers in Australia.

The Maules Creek Community Consultative Committee (CCC) has been informed earlier this year that the Coal Processing Plant is not the same design as the one which was originally modelled in the EA, which was merely an “indicative” design. This was disclosed to the CCC by way of explanation as to why the sound power levels are not the same as the EA.

This is a matter which is currently the subject of Parliamentary Questions, which is at what stage of the project did Whitehaven disclose to the Department of Planning that the Coal Processing Plant was so substantially different to the EA design that it had changed the sound power levels so significantly.

The adopted sound power levels in the EA had been challenged during the exhibition period of the Maules Creek mine, in a peer review by VIPAC Scientists and Engineers on behalf of the Maules Creek Community Council.

VIPAC stated:

¹ “AC – you have a 24 hour measuring at Wongalea? PWi – but that is unattended. In a 15-minute average. AC – we’re talking about the peaks – not the modelling. You could have a look at the data and compare it with what really happens at Wongalea. PWi – I’m saying you can’t see the impact – you won’t see that in a 15-minute average.” Maules Creek CCC Minutes, 14 Sept 2016, p.8

2. Table 7 of the NIA provides the modelled Noise Sources and Sound Power Levels, including reductions due to Noise Control Measures (presented in Section 4.3 of the NIA). The NIA states that the Sound Power Levels in Table 7 have been derived from Manufacturer's data and noise measurements from existing coal mines.

Of particular concern is the Primary and the Secondary Sizers (Crushers). Vipac believes that the sound power levels for these noise sources are grossly understated by up to 15 dB(A). An increase in source Sound Power Level of 15 dB(A) could significantly increase the noise exceedance at some residences already affected by the project, and create further noise exceedances at residences currently predicted to be unaffected by the project.

It should also be noted that these noise sources have not been mentioned in Section 4.3 of the NIA, and therefore do not include noise control measures. Even if noise control measures were adopted, Vipac expects that such a low Sound Power Level is unachievable.

Manufacturer's data or noise measurement data (including Mine location) of Primary and Secondary crushers with Sound Power Levels presented in Table 7 of the NIA is to be provided by Bridges Acoustics for review.

In any case, cladding and screens are not Best Practice. The Mandatory Noise Audit recommends (at p. 42) some more sophisticated, engineering based solutions to the noise problem, not just screens.

2.4 Whitehaven Coal's Response to Submissions to original project

At 4.3 of the Response to Submissions "Acoustics", Whitehaven (then referred to as "Aston") stated:

"A number of submissions were received in relation to the Project changing the quiet rural community to be a giant industrial zone. Further, OEH submits that they do not agree with the commitment to meet the predicted noise levels within Table 23 of the EA and disagree that feasible and reasonable noise mitigation and management measures have been applied to operations."

Whitehaven/Aston went on to state:" As described in Section 7.3.4 of the EA, Aston has demonstrated that ***feasible and reasonable noise control and mitigation measures have been incorporated into the noise modelling*** for the Project."[Emphasis added]

These "feasible and reasonable noise control and mitigation measures" presumably are what is referred to in condition 12 (a) as "economically achievable". Therefore it is clear that Whitehaven/Aston from the outset was of the view that condition 12 (a) was achievable, and it was on this basis that the Maules Creek mine was approved.

3. Key shortcomings of the Environmental Impact Statement

3.1 EA wrongly claims Maules Creek Mine has “strong compliance record”

“2nd August 2016 – Whitehaven Coal met with DPE and NSW EPA and discussed the MCCM’s “strong record of compliance with mine noise limits at private receivers (Section 2.3.3 of EA)”.

This is plainly incorrect and calls into question who are the DPE and NSW EPA officials who expressed this view, if in fact it is an accurate record of those discussions.

The compliance record has been strongly disputed since 2015 at least, due to:

- Validation of the model has never been formally conducted, if at all, beyond the putative 35dB line,
- Moreover, community members were told unofficially by a noise consultant they they had been specifically instructed NOT to model past Harparary Rd to the North;
- Community noise monitoring using a Class 1 instrument revealed sustained, widespread exceedances of the night-time noise limits (but has been disputed by the company and the NSW EPA due to lack of high frequency filters);
- Community members dispute monthly compliance monitoring due to the use of undisclosed filters applied by Global Acoustics (the Mandatory Noise Audit recommended disclosure of the noise filters as part of monthly compliance monitoring but these have yet to be disclosed and the Maules Creek Community Consultative Committee has been unsuccessful in obtaining any information about said filters to date);
- Even the NSW EPA recorded 100 exceedances at *Ellerslie* but the company disputed them on the grounds that they were not “attended monitoring” and could be caused by extraneous sources. Even though Whitehaven has sound recording facilities on the nearby *Wongalea* property that could have verified if the noise could have been mine related, they refuse to share this information;
- In April-June 2017 the EPA conducted unattended monitoring at *Marlow Downs*, and detected 10 exceedances but this was challenged as not being “sustained”

Furthermore, Maules Creek mine recently had its EPL 20221 Environmental Licence modified and has been raised to a LEVEL 3 RISK – the highest risk level available, and shared only by 2 other coal mines in NSW, out of 49. This tells us that MCCM is in fact the bottom 3 coal mines in NSW. (Clarence Colliery and Russell Vale, both of which have been prosecuted for serious pollution offences, are the others).

The Mandatory Noise Audit further challenged the MCCM noise model when it identified an additional 10 residences which are in the noise affectation zone.

The community strongly disputes that there is a “strong record of compliance”. This has been discussed in detail in the Winter 2016 Maules Creek Noise Study by the Leard Forest Research Node citizen science group, which revealed sustained exceedances at a number of residences which are considered by the MCCM noise model to be unaffected by offensive noise from the mine.

The affectation zone of the MCCM has been dramatically underestimated. The map shown below was prepared by the Leard Forest Research Node. The red line is where the 35

decibel line is – no one north of that line should have >35decibels 15 minute averaged at night, but community monitoring proved that many properties are affected by plus 35dBA averages.

Exactly due North of middle of mine area there is little topographical shielding. Properties in this northerly direction that are disturbed by the mine north of Harparary Rd and not included in their modelling.

Table 3.1 RESULTS OF 17 EXCEEDING NOISE LOGS IN MAULES CREEK

	Log no.	Date	Property	residence/not residence	LAeq15	5dB penalty	Reportable LAeq15	Comments
1	L2056	28 June	Wongalea	Yes	33.80	Y	38.80	Sustained exceedance. Wongalea limits uncertain.
2	L2057	28 June	Wongalea	Yes	33.77*	Y	38.77*	Sustained exceedance. Wongalea limits uncertain.
3	L2058	28 June	Blue Range	No	33.43	Y	38.43	Not at residence but corroborates L2056 & L2057.
4	L2078	3 July	Wongalea	Yes	31.15	Y	36.15	
5	L2095	5 July	Middle Creek	Yes	30.91	Y	35.91	
6	L2100	6 July	Roslyn	Yes	41.40	Y	46.40	"sustained"-consecutive exceedances L2100, L2101, L2103, L2104
7	L2101	6 July	Middle Creek	Yes	35.38	Y	40.38	"sustained"-consecutive exceedances L2100, L2101, L2103, L2104
8	L2103	6 July	Glenelg	Yes	36.94	Y	41.94	"sustained"-consecutive exceedances L2100, L2101, L2103, L2104
9	L2104	6 July	East Lynne	Yes	33.86	Y	38.86	"sustained"-consecutive exceedances L2100, L2101, L2103, L2104
10	L2105	6 July	Kumbogie	No	34.87	Y	39.87	Not at residence but corroborates L2100, L2101, L2103, L2104
11	L2110	7 July	Roslyn	Yes	36.65	Y	41.65	
12	L2137	13 July	Wongalea	Yes	32.96	Y	37.96	
13	L2138	14 July	Blue Range	Yes	34.62	Y	39.62	
14	L2142	14 July	Blue Range	Yes	31.25	Y	36.25	
16	L2187	4 Aug	Wando gate	No	31.79	Y	36.79	For corroborative purposes, not exceedance
17	L2188	5 Aug	Wando gate	No	31.31	Y	36.31	For corroborative purposes, not exceedance

Noise Monitoring Locations

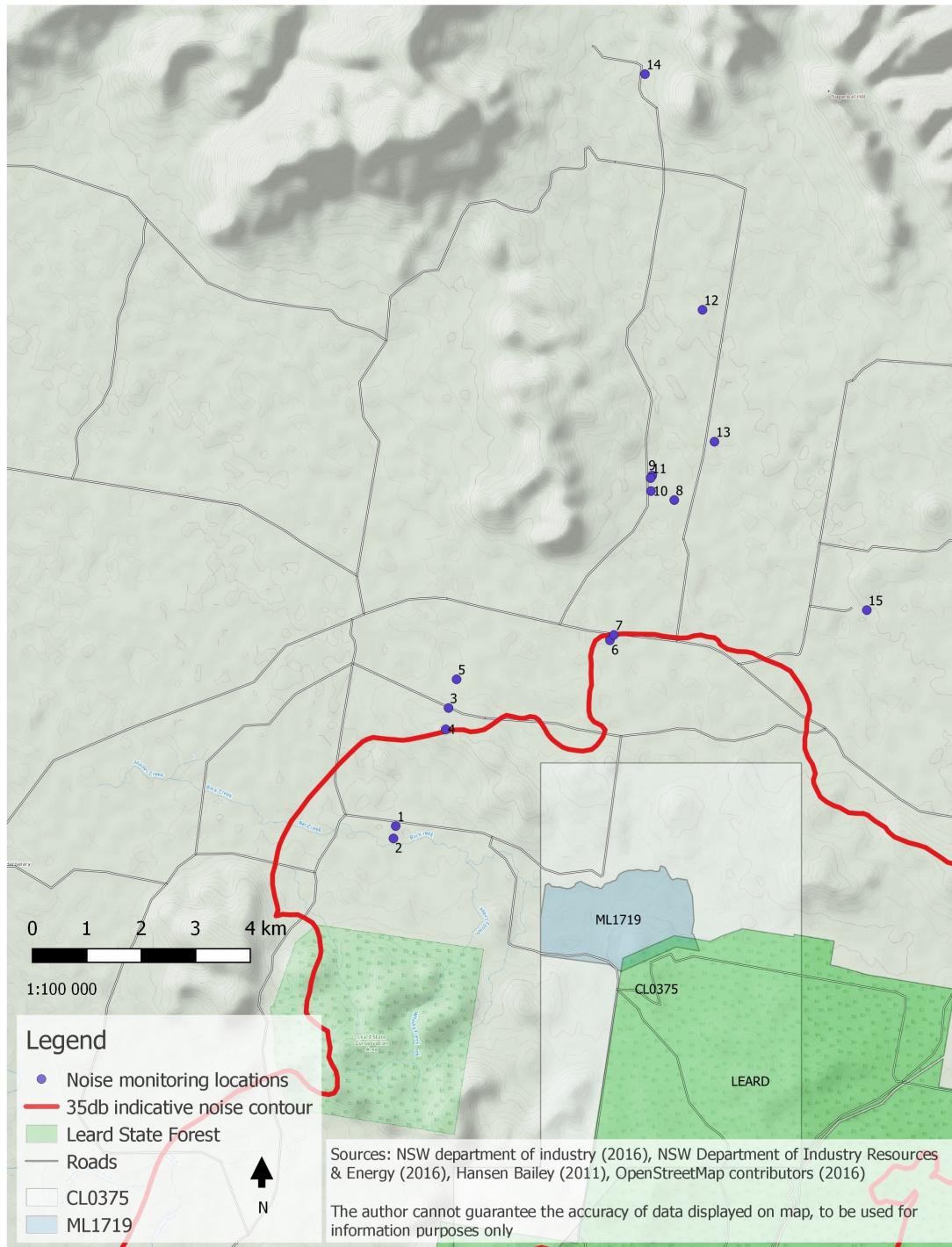


Figure 3.1 Red line is the disputed 35dB contour line, and the numbered dots correspond with properties mentioned in Table 3.1 above.

3.2 The EA is reliant on undisclosed “internal analysis”

Although the EA does not state who has provided MCCM with its “internal analysis” which forms the basis for their assurances to the community, it is fair to assume that Global Acoustics itself has provided the acoustic expertise behind the “internal analysis”.

They claim no harm will arise from getting rid of Condition 12(a). The secret analysis has apparently not been shared with the Dept of Planning (source: telephone discussion with Stephen O’Donoghue, Resource Assessment branch), and yet the decision-maker – who may be the Department or the PAC – is expected to make a decision with no facts or information to substantiate the claim or be subject to scrutiny. In other words, Whitehaven Coal is telling the decision maker: **“Trust me”**. It is a remarkable request.

Claims like “Modelling has indicated that the plant items measuring above the indicative SWLs have negligible impact at receivers” and “The results indicate that with the implementation of mitigation measures, the proposed activities would result in noise predictions at nearby private receivers generally consistent with the noise modelling conducted for the original Environmental Assessment” (p.8) are made without substantiation.

Global Acoustics has the contract to do all of MCCM monthly compliance monitoring.

MCCM willfully did not report its noise levels using the applicable 5dB modification factor, and told the auditor it “wasn’t aware” it had to comply with the NSW Industrial Noise Policy of the 5dB low frequency noise penalty **for 1.5 years** after it commenced its Maules Creek mine, and only commenced doing so in June 2015 after a NSW EPA investigation into noise pollution.

It is not reasonable to accept that MCCM “wasn’t aware” it had to comply with the NSW INP.

Global Acoustics conducts compliance monitoring for MCCM and is one of the top noise consultancies in NSW. Global Acoustics was throughout this period of incorrect reporting fully aware of the requirement to apply the INP modification factor for low frequency noise. This is misleading and deliberate misreporting. Global Acoustics has published a number of environmental reports and plans eg for Bulga Coal (2011), Ravensworth (2013) and Liddell Coal (April 2014), which all acknowledge the consultancy was fully aware of the 5dB modification factor.

Therefore, we don’t believe that Global Acoustics was unaware of the modifying factor as required by the INP. Furthermore, we don’t believe that MCCM wasn’t aware of its obligations to report according to its own conditions of consent and the Industrial Noise Policy. The addition of a modifying factor to LFN is clearly explained in the MCCM’s environmental assessment, prepared by Hansen Bailey (2011).

In part as a result of this history, confidence and trust in Global Acoustics within the community is non-existent.

Consequently, the credibility of reporting by Global Acoustics – whether “internal” or public – is now regarded as low.

Furthermore the conflict of interest between the Director of Armidale EPA Mr Adam Gilligan and his duties relevant to Whitehaven has been well-documented and continues to be a source of serious concern to the community due to his close family relationship with a senior officer of the Global Acoustics consultancy who advise MCCM and also do their compliance monitoring.

In any case the promise made in the EA (at p.8) is unconvincing: “The results indicate that with the implementation of mitigation measures, the proposed activities would result in noise predictions at nearby private receivers generally consistent with the noise modelling conducted for the original Environmental Assessment”.

There are many variables in that promise, founded in the secret data, promising in effect nothing.

“with the implementation of mitigation measures”- Whitehaven has made many promises about mitigation measures, which are either not delivered or not successful, eg silent horns, lined trays

“proposed activities” – these can change at any time

“generally consistent” – the community has learned that the term “generally consistent” has a devalued meaning, and is usually read down to mean “cannot be proven to be inconsistent”

4. EA is misleading

4.1 False and misleading information to the Dept of Planning

The history of MCCM commences, we believe, with the false and misleading modelling that was provided in the mine's EA by Bridges Acoustics in its 2011 Acoustic Assessment for Maules Creek mine. Now the MOD 4 EA we believe is false and misleading not only by its content, but also by its omissions and misinterpretation of the DEFRA low frequency noise guidelines.

Section 148B of the Environmental Planning & Assessment Act states that "A person must not provide information in connection with a planning matter that the person *knows, or ought reasonably to know, is false or misleading in a material particular.*" [Emphasis added]

The "material particular" which was supplied in the 2011 Major Project approval application in the present instance included:

- Adopted noise Sound Power Levels for fixed and mobile plant and machinery,
- Noise modelling of the worst case scenario and 35dB noise contour

Below is the full text of s 148B:

Environmental Planning and Assessment Act 1979 No 203

Current version for 25 August 2017 to date (accessed 30 September 2017 at 15:57)

[Part 8](#) Section 148B

148B Offence—false or misleading information

- (1) A person must not provide information in connection with a planning matter that the person knows, or ought reasonably to know, is false or misleading in a material particular.
- (2) The maximum penalty for an offence under section 125 arising under this section is a tier 3 maximum penalty.
- (3) For the purposes of this section, a person provides information in connection with a planning matter if:
 - (a) the person is an applicant for a consent, approval or certificate under this Act (or for the modification of any such consent, approval or certificate) and the information is provided by the applicant in or in connection with the application

Therefore, the MOD4 EA contains false and misleading information, including:

- **Stating that the mine has a strong compliance record**
- **Mistating the application of the DEFRA LFN scale**
- **Suggesting that application of the Industrial Noise Policy is optional**
- **Omitting to mention that it is in the process of applying for a further noise modification, ie the removal of the Class-G worst case scenario so that it will not have to comply with noise limits during these conditions**
- **Omitting to mention its expansion plans, which are due to commence in February 2018**

4.2 Application of the NSW Industrial Noise Policy is NOT optional

The statement is misleading. Reporting the noise levels without the low frequency noise factor is contrary not only to the conditions of consent but also the Maules Creek Environmental Protection Licence 20221. The low frequency noise modifying factor, or penalty, is a 5dB loading in instances where there is 15dB or more difference between C-weighted and A-weighted noise over 15 minutes.

Whitehaven states: “The INP system for establishing the low frequency modifying factor is not considered a scientifically valid method for determining low frequency noise” (p. 7 Environmental Assessment), but regardless of its detractors the INP is an obligation, not just a recommendation.

However, at p. 6 the EA states:

“The LAeq,15min1 noise performance shows a strong record of compliance (i.e. only a single 1 A-weighted decibel [dBA] exceedance of the 15 min criteria **[without the low frequency noise modifying factor adjustment]** due to mine-only noise contribution) between August 2014 to June 2017” [Emphasis added]

A less well-informed reader might infer from the above paragraph that reporting the 15 minute criteria without the low frequency noise modifying factor is an option. That is a misrepresentation of reality.

4.3 Maules Creek mine does not have “strong compliance record”

As alluded to above, MCCM does not by any stretch of the imagination have a “strong compliance record”. Important facts are omitted in the EA.

4.3.1 No mention of Mandatory Noise Audit

There is no mention of the Mandatory Noise Audit in the MOD4 EA. MCCM does not have a “strong record of compliance”, if it did, it would not have been imposed a Mandatory Noise Audit.

The background of the Mandatory Environmental Audit, (Report published 22 February 2017) is as follows.

In 2016, as a result of 100 exceedances recorded by the NSW EPA at the property of *Ellerslie* to the immediate north of MCCM-owned property, the regulator sought to impose regulatory sanctions against MCCM. Whitehaven Coal fought against this strenuously, arguing that the measurements were “unattended” and therefore, not reliable evidence that the noise levels were the result of the Maules Creek mine. The company sought, in the alternative, a Voluntary Noise Audit, which would have meant the findings would not, by law, have to be published.

The conviction that Whitehaven Coal was not managing its environmental impacts was so strong, however, that the company was compelled to purchase the *Ellerslie* property, without going through the processes of the *NSW Voluntary Land Acquisition and Mitigation Policy (15th December 2014)*¹. Furthermore, the NSW EPA saw fit to impose a Mandatory Environmental Audit.

The *Protection of the Environment Operations Act (1997) (NSW)* states the circumstances in which the NSW EPA may force a Mandatory Noise Audit to be conducted by the proponent, as follows:

Section 175 Circumstances in which mandatory environmental audit can be imposed

Conditions requiring the undertaking of a mandatory environmental audit may only be imposed if:

(a) the appropriate regulatory authority reasonably suspects: (i) that the holder of the licence has on one or more occasions contravened this Act, the regulations or the conditions of the licence, and (ii) that the contravention or contraventions have caused, are causing or are likely to cause, harm to the environment, or

(b) the appropriate regulatory authority reasonably suspects that an activity has been or is being carried out by the holder of the licence in an environmentally unsatisfactory manner (within the meaning of section 95).

In other words, these ingredients are needed before a MNA can be instigated:

1. the holder of the licence has ***on one or more occasions contravened the conditions of its licence***, AND
2. the contraventions ***have caused, are causing or are likely to cause, harm to the environment***

OR, ***reasonable suspicion*** that the mine is being run in an ***environmentally unsatisfactory manner***.

Clearly, the circumstances listed above must have existed which contradict the claims of MCCM.

4.3.2 EA does not mention EPL is in highest risk category

If MCCM had a “strong compliance” record, it would not have had its EPL recently elevated to the highest risk category – Level 3 – by the EPA.

4.4 References to DEFRA Low Frequency Noise Scale contradicted

The EA refers to the low frequency noise guidelines of the UK Department of Environment, Food and Rural Affairs, stating:

“Review of low frequency assessment methods has been undertaken recently by Downey and Parnell (2017), who relevantly concluded:

A thorough literature review of LFN management practices has been undertaken and it is concluded that a frequency-based component should be included in any LFN assessment approach. The criteria thresholds developed by DEFRA are based on contemporary science and could be considered as the frequency-based component of an alternative assessment approach.”

The “robust, yet practical methodology” is discussed in “*Assessing low frequency noise from industry – a practical approach*” by Gordon Downey and Jeffrey Parnell at the 12th ICBEN **Congress on Noise as a Public Health Problem:**

“A thorough literature review of LFN management practices has been undertaken and it is concluded that a frequency based component should be included in any LFN assessment approach. The criteria thresholds developed by DEFRA are *based on contemporary science and could be considered as the frequency based component of an alternative assessment approach.*” [Emphasis added]

This view has been strongly refuted by David Waddington, Lead Author of the DEFRA Low Frequency Noise policy (UK) who sent an email dated 3/10/2017 stating that the use of 1/3 octave criteria for LFN assessment, as the NSW EPA is seeking to do, is not what was intended by the DEFRA:

“Our LFN research cannot be used to justify environmental noise limits and to attempt to do so demonstrates a lack of understanding of the science and the scope of the project.”

“[the 1/3 octave criteria]....cannot be used to justify environmental noise limits.....”

5. Omissions and lack of disclosure in EA

5.1 Maules Creek mine is expanding and noise impacts will increase

This coming February 2018, a major expansion of the mine to the west is planned. When Whitehaven bulldozes the East-West Travelling Stock Route, the North West boundary of mining operations will encroach around 1 km closer to residences that art to the north-west and the West.

To omit this critical piece of information is extremely deceptive, because obviously the proximity to affected community members is a key part of the equation.

Here is a picture showing the TSR set for demolition and how this will expand the mine to the North West. The central strip of bushland is the TSR set for demolition. When that occurs, the overburden on the left and right will join up and form a massive new working footprint of the mine. None of this has been alluded to in the EA.



Figure 5.1 View of Maules Creek Mine, looking from West to East

The red marked area (below) represents the TSR to be bulldozed by Whitehaven Coal. This high Biodiversity value land will become working overburden area.

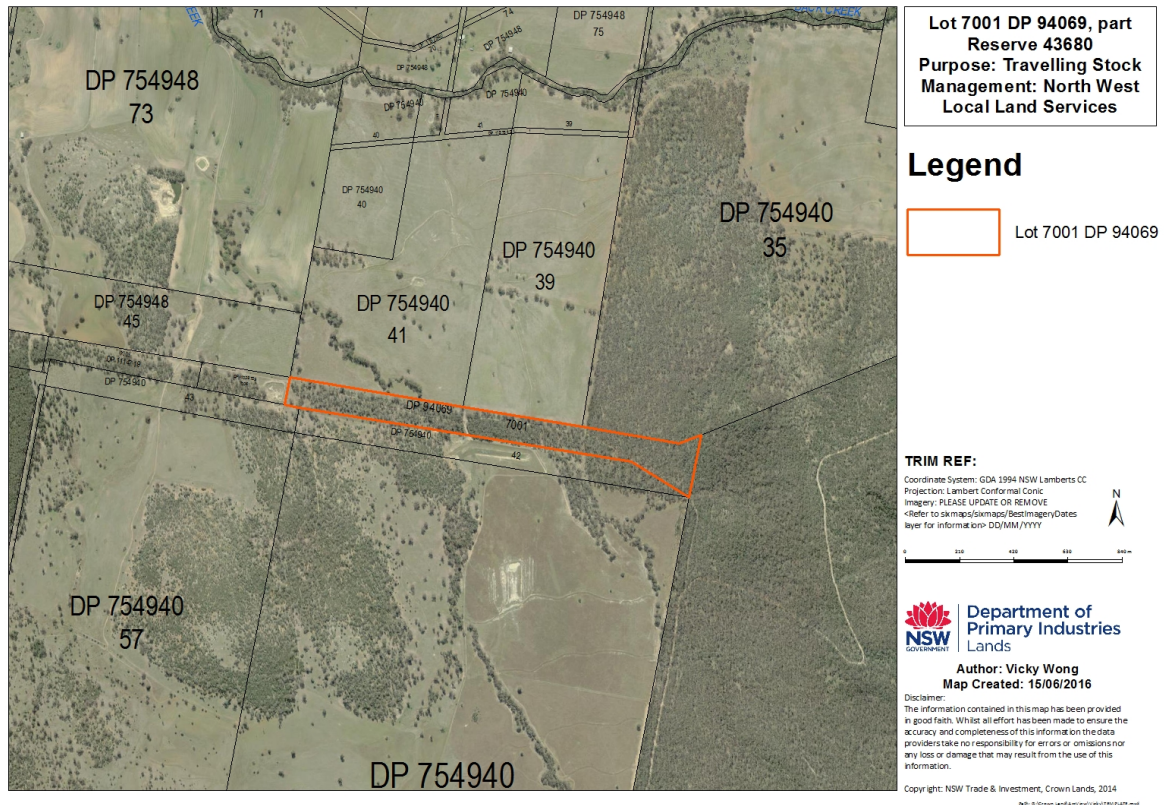


Figure 5.2 Travelling Stock Route to be destroyed in red marks extent of mine expansion, coming February 2018

Whitehaven also has plans to extend the mine towards the north, under its active exploration licence A346 which it includes in its reserves as reported to the stock market. Weakening the noise controls under these circumstances will have grave consequences for community health and well-being.

Here is a diagram that shows A346, which will bring the mine much closer to the northern Maules Creek:

RESOURCES & ENERGY

File: 09/8453

DIAGRAM OF AUTHORISATION No. 346

HOLDER: ASTON COAL 2 PTY LTD, ICRA MC PTY LTD & J-POWER AUSTRALIA PTY LTD

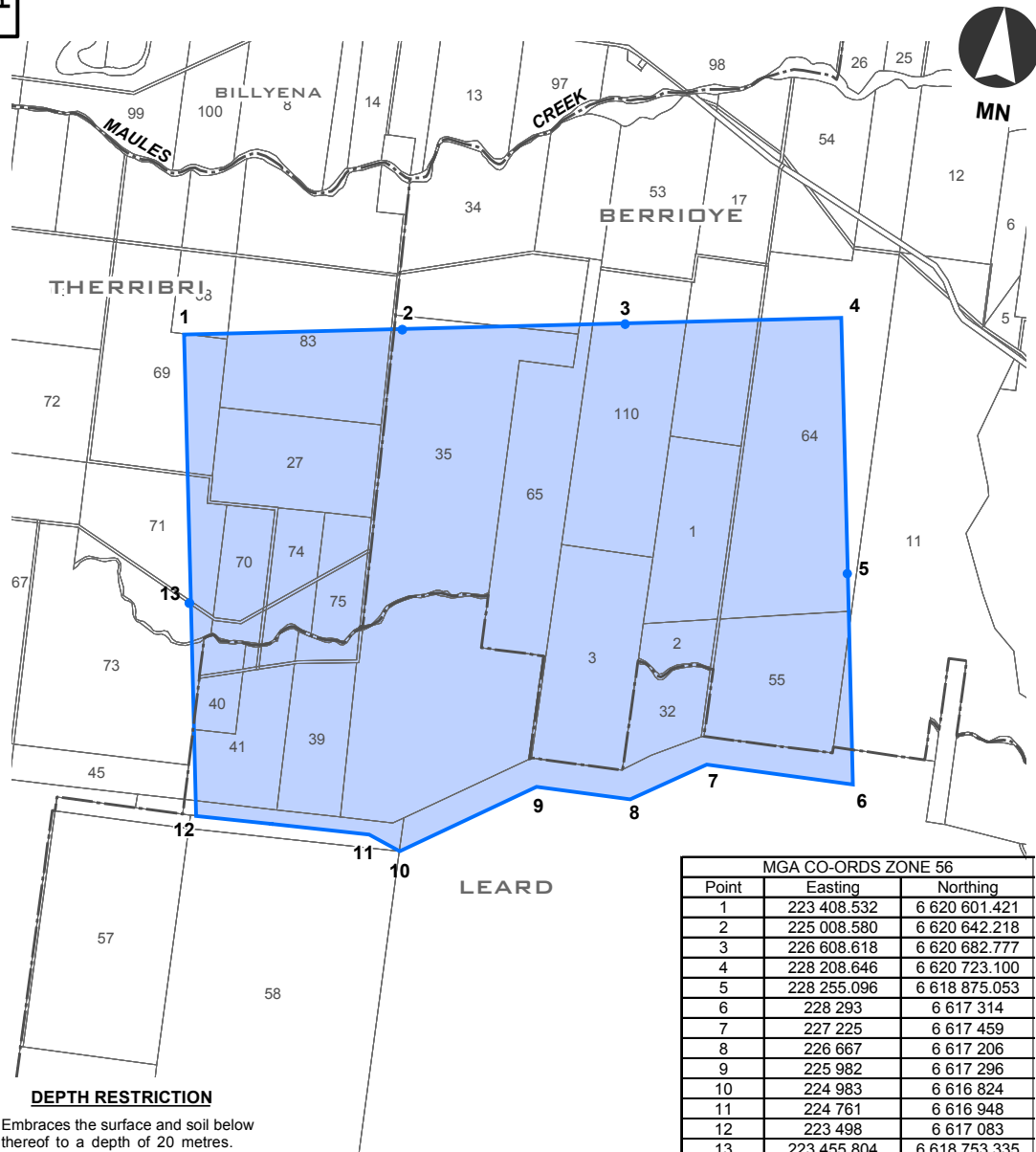
PARISH: BERRIOYE, LEARD & THERRIBRI

COUNTY: NANDEWAR

SCALE 1:40000

REF MAP:8936-4-N

SUBJECT TO SURVEY



UNIVERSAL TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: GDA94



Trade & Investment
Resources & Energy

0 0.5 1 2 3 Kms

AREA: abt. 1662 ha

Prepared by: G Walker

Date: 24-07-2012

Approved by: G Walker

Date: 24-07-2012

Maitland Regional Office

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Figure 5.3 Shows the position of A346 which extends almost to the 35dB contour line to the North (see Figure 3.1)

5.2 Worst Case Scenario: Plans to remove Class-G Inversion

There is an “unofficial” application by MCCM to the NSW EPA to amend its Environmental Protection Licence which would have a cumulative and very severe impact of noise in Maules Creek and also provide a serious negative precedent for other industrial noise sources in rural areas of Narrabri.

This is one big elephant in the room, which has not been mentioned in the EA, which is the fact that there are **plans afoot to remove the need to comply with noise criteria if there is a “G-Class inversion”**.

In other words, if they were to get rid of condition 12 (a) and subsequently successfully apply so that the G-class inversion would not apply, this would have a noise effect on receivers that had not been foreshadowed by the EA.

The EPA admitted at a meeting with Narrabri Shire residents on 17/7/17 that WHC had submitted a EPL modification relating to disregarding the noise criteria during a G-class inversion.

This is a massive concern, as the experts below explained that “appropriate ameliorative measures must be implemented to meet the noise goals”.

WHC explained at the EA stage that all modelled noise impacts were identified with certainty and under worst case scenarios .

G-Class inversions would have fallen into the “worst case scenarios”.

NSW DPE noise expert, Mr Jeff Parnell (who is referred to in the MOD4 EA) explains that “Typically, open cut mines are able to meet their noise objectives easily during non-enhancing meteorological conditions such as daytime... It is generally only under adverse meteorological conditions that mine noise levels approach their approved limits. These adverse meteorological conditions tend to only occur at night” ²

G-class inversions can increase the noise by 20db (anecdotally) and 15dB (his own “observations”):

Referring (at p.2) to his own publication (Parnell 2015):

“temperature inversions can cause the homogeneous hemispherical spreading of noise from a source to be altered so that noise normally radiated skyward (and hence of no impact to terrestrial located receivers) is refracted towards the ground. In perfectly calm conditions, such enhancement would occur evenly in all directions, however in most cases, a slight wind or drainage flow (less than 2 m/s at 10 m above ground level (AGL)) will preferentially enhance the propagation of noise in one direction, at the expense of another direction. The INP considers F-Class stability with a 2 m/s AGL wind as representing the limits of typical adverse meteorological conditions. Beyond this, conditions are considered extreme and therefore generally invalid for the purposes of compliance. ...Very strong G-Class inversions have been observed by the author to increase noise in the order of 15 dB.

² *Are cumulative noise criteria relevant for the assessment of mining noise?*. Available from: https://www.researchgate.net/publication/310462403_Are_cumulative_noise_criteria_relevant_for_the_assessment_of_mining_noise [accessed Oct 10 2017].

Anecdotally, enhancements of around 20 dB have been measured in NSW, particularly in the more arid areas.”

The G-class inversion represents what in the Maules Creek EA is the “worst case scenario” that must be considered by MCCM and provision made for noise reduction in such circumstances.

Community members have become aware of a draft Application being lodged by MCCM to change its Licence Conditions, though not from the company but the EPA.

The G-class inversion occurs in one tenth of inversions. Removing the need to comply with noise limits during a G-class inversion is sure to lead to a rise in disturbance of up to 15-20dB.

This should have been disclosed in the EA.

6. History of compliance re MCCM

6.1 History of delays in compliance

Internal departmental information is rarely available to the public due to perceived “confidentiality”, but instances of delays in compliance are common. In relation to noise:

(i) Deadline to provide actions plans to prevent repeat of 2015 breaches December 2015
This deadline was missed.

(ii) Deadline to show cause not to be breached for noise exceedances at *Ellerslie*, 29 January

Whitehaven Coal was given an opportunity by the EPA to show cause why it should not be breached after 100 exceedances at *Ellerslie* in 2015. They missed their original deadline and were provided an extension to 29 January 2016.

6.2 Partial summary re Maules Creek Coal Mine environmental & community performance:

- **Over 3 years EPA has received more than 450 complaints**
1 Jan 2016 to Sept 2017 336 complaints made to the EPA's Environment Line plus DPE officers have received 46 direct complaints. Over the same time period, the EPA has issued MCCM two Penalty Notices and one Official Caution for non-compliance with the EPL conditions, while the OPE has issued MCCM one Official Caution.
- July 2014: EPA required additional blast monitoring equipment be installed
- October 2014: EPA issued an Official Caution for dust generation
- From early 2014 until mid 2015: Mine did not apply the low frequency noise penalty (5dB) to noise compliance monitoring results as required by the EPL (MNA page 10)
- April/May/June 2014 & March 2015: Monthly noise compliance reports show exceedances of noise criteria
- Maules Creek mine fined \$1,500 for falsifying Minutes of Community Consultative Committee and claiming that Greening Australia, an organisation that did not regard itself as being a member of the Maules Creek CCC, provided “apologies” for non-attendance between May 2013 and August 2014
- EPA Installed remote camera on Murphy's Hill to provide additional real-time and recorded imagery to enable it to objectively assess the validity of complaints about dust emissions from the site
- **2016: EPA required a Mandatory Noise Audit (MNA).** Shows many non-compliances. Community had to enact GIPA to obtain a copy
- 2016: EPA/DPE commissioned an independent Best Practice Dust Management Benchmarking Study (completed by Katestone Environmental Pty Ltd);
- June 2016 Dept of Planning issued Formal Caution to Whitehaven over failure to meet sound power level limits of the train load out facility
- 2017: EPA issued \$1.5K fine for failing to provide information during the course of an investigation into a dust & blast fume event
- May 2017: EPA fined the Mine \$15,000 for dust
- Dec 2016 & July 2017: Secretary of DPE met with the Managing Director of Whitehaven Coal (WHC) regarding concerns at the company's relationship with the community
- Aug 2018: WHC required to implement additional controls to minimise dust from the loading and dumping of overburden and coal at the CPP and use chemical dust suppressant in conjunction with water carts to control dust from haul roads. controls would seem to be feasible such as water application at the ROM pad to reduce emissions from dumping trucks.

Control of dust emissions from rail wagons is not consistent with best practice. some benefits would be achieved for residents along the rail network. It has been demonstrated that dust emissions from coal wagons can be effectively controlled by the application of water in some instances, or chemical suppressant in others.

- 2015: Chair of the Mine's Community Consultative Committee John Turner resigned after reports of his conflict of interest due to a close working relationship with Whitehaven Coal Chair Mark Vaile.
- 2017: Boggabri Business & Community Progress Assoc on public record as saying WHC has lost its social licence to operate.

7. Problems triggering this Modification were predicted by Planning Assessment Commission, Submissions and peer review

We refer to the PAC Determination report on MCCM, which shows that the problems with noise exceedances were not unexpected. Yet the MCCM has been unable or unwilling to properly mitigate its noise impacts despite its obligations under conditions of consent. This is what the PAC Determination report stated:

“The Department has also acknowledged informally that the differential between the real background level and the acquisition criterion will have significant impacts on rural residences and that complaint patterns in mining precincts appear to bear this out.

The Commission remains concerned at the Department’s approach to noise impacts at rural residences.” (P.14)

“There are a number of issues arising from the assessment and approval of this project that require further investigation and/or review in the context of coal mining assessments...

7.1. Noise

.....

(iii) whether a breach of the approval for noise exceedances should require more than a single noise event above the noise limit criteria;

(iv) whether the absence of a definition of ‘sustained’, or even any guidance as to what it might mean, creates considerable uncertainty for both the Proponent and affected residents; .

(vi) whether the 2dB measurement error allowance in the INP is still required;
.” (P. 18)

Four years later the Mandatory Noise Audit confirmed the validity of those points, referring to the problems of situating the Maules Creek open cut mine in a greenfields rural area, and stating (p. 13): “Overwhelmingly the concerns related to the audibility of mine noise against an otherwise relatively low ambient noise environment and concluding that this was not in keeping with the site’s noise obligations (i.e. criteria).”

8. Noise criteria

8.1 Noise criteria to be in accordance with NSW INP

The noise criteria for MCCM are determined by condition 7 of the Conditions of Approval:

Noise Criteria

7. Except for the noise affected land in Table 1, the Proponent shall ensure that operational noise generated by the project does not exceed the criteria in Table 5.

Table 5: Noise criteria dB(A)

Note:

- *Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.*
- *Operational noise includes noise from the mining operations and the use of private roads and rail spurs. However, these noise criteria do not apply if the Proponent has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Proponent has advised the Department in writing of the terms of this agreement.*

Note again: “Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.”

This is explicit. So it is pertinent to question the motives of Whitehaven Coal in arguing that is compliant with its conditions, when it makes that claim conditional on NOT conforming with the NSW INP.

Note: The NSW INP is under review. This is timely, as the Policy is now nearly 20 years old and predates the introduction of open cut megamines in green fields rural areas. One of the key shortcomings of the Policy is the “assumed” background level of 30dB at night – even in areas where the natural background is <20dB, a problem foreshadowed by the PAC in its Determination Report.

However, the changes proposed in the draft Industrial Noise Guideline do not constitute an improvement, and have not been validated in field studies in Australian conditions, as they were borrowed from European studies and have been the subject of desktop modelling only.

In any case, this is irrelevant. The draft ING is irrelevant. The NSW INP is in force now and in the foreseeable future. I attach for your reference and of Narrabri Council and other stakeholders an information sheet on the problems of Mine Noise in Rural Areas which touches on the draft ING.

8.2 Annual Validation of MCCM Noise model not demonstrated

There has been a failure to comply with Condition 16f, Schedule 3 of the Project Approval 10_0138 which requires an “annual validation of the noise model for the project”. According to MCCM, attended and real-time monitoring data is used for validation of the model and to determine the effectiveness of that aspect of the site noise control management measures.

MCCM states that it has complied with this requirement but, if so, evidence of compliance is tightly held and not disclosed publicly.

Any annual validation that has been done has been artificially limited to the area determined to be within the worst case criteria, and not beyond despite repeated complaints suggesting that the noise model is wrong.

The MNA also shows that the noise model is wrong, because it identified many properties in the noise affectation zone that were not captured by Bridges 2011 noise model.

The sound power levels disclosed by MCCM have also never been independently validated. This is a fact. A careful reading of the MCCM Mandatory Noise Audit reveals that the Auditor EMM Consulting was reliant on information provided by Whitehaven Coal and not independently verified, and in fact was challenged by the Auditor.

9. Social Impact Assessment

There appears to have been no social impact assessment whatsoever conducted by the proponent to support MOD4. This is surprising, given the history of outrage and complaints concerning mine noise.

Whitehaven Coal had opportunities to inform the community, via the Maules Creek Community Consultative Committee or any other number of means since 16th August 2016 when “MCC subsequently met with the EPA northern regional officers on 16 August 2016 regarding the Modification.”

In other words, the company has had over a year of intention to make this change and at no time consulted the community.

There is a background of serious community impact of not only the noise, but the behaviour of the company particularly through its use of security guards positioned around Maules Creek for extensive periods of time purportedly undertaking “noise monitoring” with the naked ear. This intimidatory behaviour has been the subject of complaints to New South Wales Police when Verifact Security began pursuing and harassing members of the community around the area to find out where they were conducting noise monitoring. We understand that NSW Police cautioned Whitehaven about the behaviour, indicating that the actions of the community do not demonstrate any illegality and that the harassing behaviour should stop. Despite a temporary reprieve from the process of pursued and harassment by Verifact, the presence of security guards at peoples’ front gates under the spurious guise of noise monitoring when they have no training, no equipment, often with the window closed in the cold weather, continues. This is even in instances where they have real-time noise monitoring and sound recording just 200 m away.



The sleep disturbance aspects of mine noise have never been studied in a



detailed community-wide setting, and any such study would be problematic due to several factors:

- In the case of married couples, usually one partner is more affected than the other
- many affected residents have a family member who works for the mine, and are unwilling to speak about their problem
- people who have entered into a financial agreement with the mine are unable to speak out publicly due to gag clauses, although they privately express extreme frustration over this
- overall, many people do not want to expose their families to further intimidation from MCCM which could be in the form of the pseudo noise monitoring by security guards, or being targeted in some other way
- there is also the factor that people are led to believe they will get a better deal if they are possibly likely to be bought out, if they don't make trouble

It is a cruel fate that Whitehaven Coal has inflicted on this community. The absence of any social impact assessment or indeed any communication whatsoever about their plans to seek a modification speaks volumes.

The timing of this Modification application is also regrettable.

It has not gone unnoticed that it was lodged prior to the October long weekend, during school holidays when many people are away, and with only two weeks to respond to an extremely complex regulatory Modification.

For working people, often with families and other commitments, completing submissions against Modifications that will have serious impacts on their well-being and economic security, this process is flippant and disrespectful.

Whitehaven Coal has demonstrated its lack of openness and disrespect for the community.

10. Procedural matters

It is very surprising that this Modification got this far. With no supporting information, a flimsy EA which omits many crucial factors which also have relevance to the noise criteria, and the impact of noise over and above the criteria, it is hard to understand how the Department of Planning has entertained this Modification.

Mr O'Donoghue of the DPE Resource Assessment Branch describes MOD 4 as a "moderate" Level of consent modification.

In terms of complexity, availability and certainty of science, and in the context of MCCM's ongoing poor record of compliance, it is not moderate because in conjunction with other regulatory factors the impact of removing condition 12(a) would be severe.

We question the level of consistency that exists between the Resource Assessment and Compliance branches.

It is a shameful episode, to put scores of people through the inconvenience and fear of having to defend their peace and amenity, which has already been so badly harmed by the advent of the Maules Creek coalmine.

We do not believe that Modifications like this should be lodged without more foundation and certainly not without any supporting data and purely on the basis of "internal analysis".

