



**RYLSTONE REGION
COAL FREE
COMMUNITY**



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Hawkins Rumker PRIA Submission: Noise
Final

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Acknowledgement of Country

The RRCFC acknowledges that we live and work on Wiradjuri Country.

We acknowledge the Wiradjuri peoples as the traditional custodians of the land, and pay our respects to Elders past, present and future.



Executive Summary

2020 Strategic Statement and the PRIA process

The NSW Government's June 2020 Strategic Statement on Coal Exploration and Mining outlines the NSW Government's approach to transitioning to renewable energy and supporting the economy and aims to improve certainty about where mining should not occur. It identified 14 potential future coal exploration release areas (NSW Government, 2020). The Hawkins and Rumker potential release areas were identified in this Statement; the Ganguddy-Kelgoola area, which sits adjacent to Hawkins and Rumker, is also identified in this statement.

Following the release of the Strategic Statement, the NSW Government Advisory Body for Strategic Release has requested the Hawkins and Rumker areas be put through the Preliminary Regional Issues Assessment (PRIA) process (Department of Planning, Industry and Environment (DPIE), 2021a). Ganguddy-Kelgoola is expected to go through the PRIA process in the near future once further exploration is completed.

The PRIA process, also set out in the Strategic Release Framework (NSW Government, 2020), is an initial assessment of social, environmental and economic matters relating to areas that could be released for exploration. In theory, it involves engaging with interested and potentially impacted stakeholders to identify issues for consideration.

RRCFC's Noise Submission

This report is the Rylstone Region Coal Free Community's (RRCFC's) submission to the PRIA process on *Noise*. Separate submissions for a range of other issues are also being submitted by the RRCFC. The RRCFC recognises that coal exploration is a precursor to coal mining, and therefore it is predominantly the mining phase that is considered in this submission. The RRCFC strongly opposes the release of Hawkins and Rumker as coal exploration areas.

Impacts of mine related noise on our region

Noise impacts on local areas and residents are some of the most under reported and unaddressed aspects of the workings of the coal industry. The very quiet background noise levels in the Hawkins and Rumker areas have no other background noise to mask the mine noise operating 24 hours a day.

Reports of the projected effects of mining, cleaning and shipping coal routinely ignore the specifics of operating in rural areas where there is an absence of any previous major source of noise. They use acceptable levels inappropriate for the local environment. They do not reflect the reality of the area they will be impacting.

Residents will be impacted by highly significant increases in sound levels that will be extremely annoying, disruptive and will impact on the existing amenity of private properties. This will include for the resident of any of the towns through which the train line runs, with potentially scores of trains running day and night to transport coal. There is no increase in the level of noise that is acceptable to a rural community. There is no escaping its impact and potential to negatively affect people's health and well-being, both directly and indirectly and across an area far greater than the mine's footprint.

It is the RRCFC's strongly held view that the PRIA should find that the proposed exploration areas should not be opened for exploration under the Strategic Framework that it recommends against release of the proposed areas, and the Advisory Board should rule that coal exploration should not proceed in the Hawkins and Rumker areas.

Contents

1 Introduction	6
1.1 Preliminary Regional Issues Assessment (PRIA) Process	6
1.2 PRIA Preparation	6
1.3 Rylstone Region Coal Free Community	7
1.3.1 RRCFC	7
1.3.2 Purpose of this report	7
2 Noise and Vibration	9
2.1 Current Sound Levels	9
2.2 Introduced Sound Levels	9
3 Noise and Vibration Pollution	10
3.1 Inconsistency of mining in a tranquil rural environments	10
3.2 Low Frequency Rumble	10
4 Impacts	11
4.1 Health Problems associated with noise from mining operations	11
4.2 Addressing noise impacts	11
4.3 Effects on Wildlife	12
5 Conclusion	13
6 References	14

List of Figures

Figure 1 The proposed exploration areas (note only Hawkins and Rumker being considered in this PRIA)	8
Figure 2 Existing sources of sound in Hawkins and Rumker areas	9
Figure 3 The sensitive receivers of the Rylstone Region	12



1 | Introduction

1.1 Preliminary Regional Issues Assessment (PRIA) Process

The NSW Government's Advisory Body for Strategic Release has asked the NSW Department of Planning, Industry and Environment (DPIE) to prepare a Preliminary Regional Issues Assessment (PRIA) (DPIE, 2021) to consider the benefits, opportunities, risks and constraints of releasing two adjacent areas located near Rylstone in the Mid-Western Regional local government area.

These areas are shown in Figure 1 and include:

- Hawkins - an area of 14,900 ha located directly north of Rylstone, and
- Rumker - an area of 17,800 ha located directly north east of Rylstone.

An initial assessment of resource potential undertaken by the Division of Mining, Exploration and Geoscience within the Department of Regional NSW has identified coal resources within the Hawkins and Rumker areas that could be mined by underground mining methods (DPIE, 2021). It is noted that these areas could just as well be mined using aboveground methods.

In June 2020, the NSW Government released the Strategic Statement on Coal Exploration and Mining (NSW Government, 2020). The Strategic Statement "outlines the NSW Government's approach to transitioning to renewable energy and supporting the economy and aims to improve certainty about where mining should not occur." It identified 14 potential future coal exploration release areas (NSW Government, 2020).

Adjacent to Hawkins and Rumker is the area of Ganguddy – Kelgoola, which is slated to go through the PRIA process once further exploration is completed (NSW Government, 2020).

1.2 PRIA Preparation

The PRIA process is also set out in the Strategic Release Framework (NSW Government, 2020). It is an initial assessment of social, environmental and economic matters relating to areas that could be released for exploration. In theory, it involves engaging with interested and potentially impacted stakeholders to identify issues for consideration.

DPIE has engaged Resource Strategies to undertake 'preparation of a Preliminary Regional Issues Assessment document in relation to a defined area that could be released for coal exploration' for a sum of \$167,156 (NSW Government eTendering, 2021).

On its website Resource Strategies (2021) says it facilitates development approvals for major mining and associated infrastructure projects and prepares comprehensive and timely environmental assessment documentation with the assistance of recognised experts across all environmental fields.

The DPIE undertakes the PRIA and submits this to the Advisory Body for Strategic Release, which considers potential release areas, reviews reports and recommends assessment of the release of an area for resource exploration. The Advisory Body for Strategic Release makes recommendations to the Minister for Regional NSW and these are considered by Cabinet and, if approved, the Minister for Regional NSW releases an area for exploration and invites companies to apply for a prospecting title.

1.3 Rylstone Region Coal Free Community

1.3.1 RRCFC

The Rylstone Region Coal Free Community (RRCFC) is a group of self-funded, like-minded local residents, and supporters, of the Rylstone Region committed to stopping further exploration of coal and approval of mines in our region. Our aim is to protect the land, heritage, culture and community for now and future generations.

1.3.2 Purpose of this report

This report is the RRCFC's submission to the PRIA process on *Noise*. Separate submissions for a range of other issues are also being submitted by the RRCFC. The RRCFC recognises that coal exploration is a precursor to coal mining, and therefore it is predominantly the mining phase that is considered in this submission.

This submission considers the noise and vibration pollution that would be generated by exploitation of the coal resources understood to be present in the Hawkins and Rumker coal exploration release areas. The introduction of the heavy industrial noises and vibration into this aural landscape will have a massive negative impact on residents health and well-being.

Reports of the projected effects of mining, cleaning and shipping coal routinely ignore the specifics of operating in rural areas where there is an absence of any previous major source of noise. They use acceptable levels inappropriate for the local environment. They do not reflect the reality of the area they will be impacting.

It is the RRCFC's strongly held view that the PRIA should find that the proposed exploration areas should not be opened for exploration under the Strategic Framework that it recommends against release of the proposed areas, and the Advisory Board should rule that coal exploration should not proceed in the Hawkins and Rumker areas.

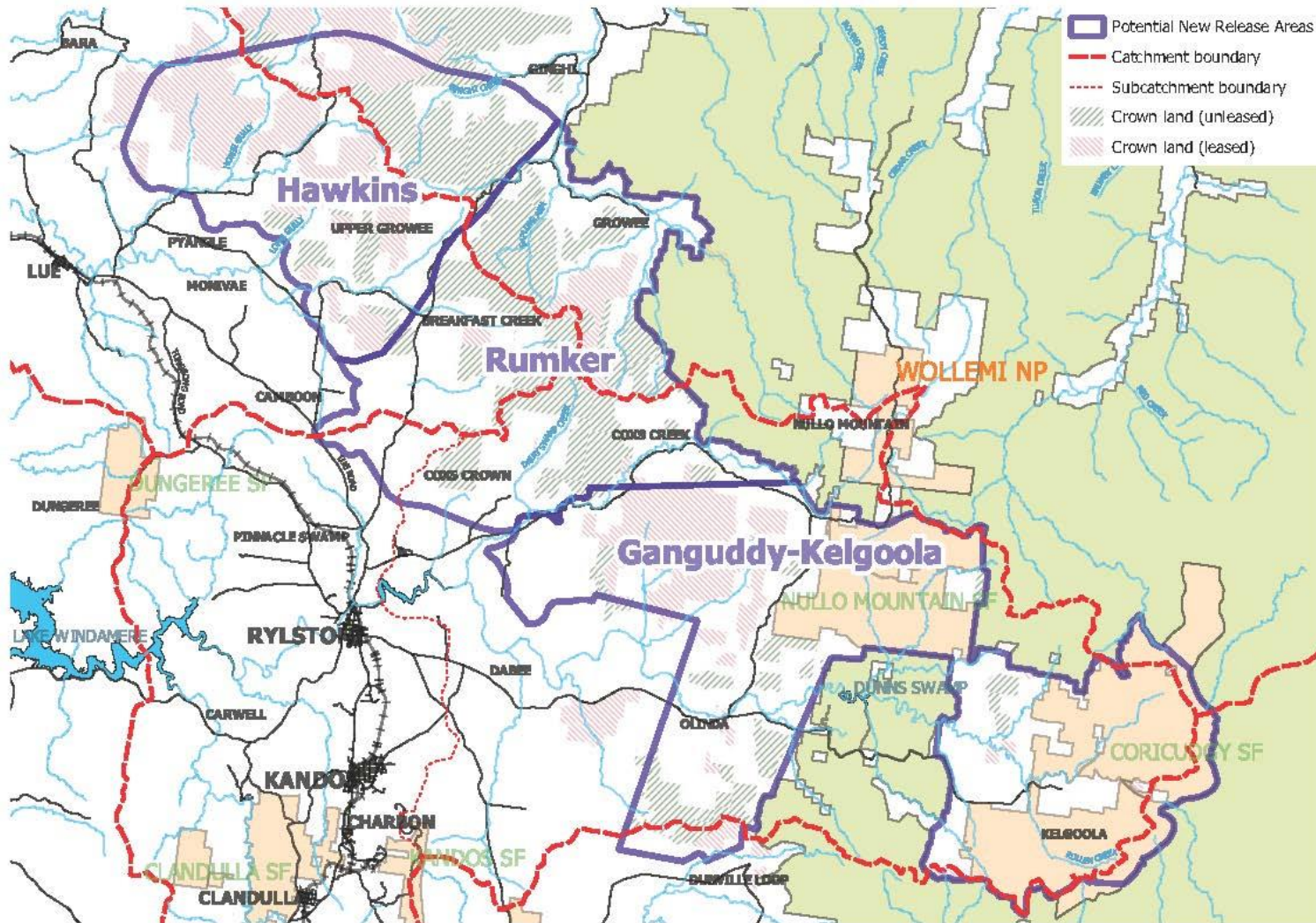


Figure 1 The proposed exploration areas (note only Hawkins and Rumker being considered in this PRIA)



2 | Noise and Vibration

2.1 Current Sound Levels

The Hawkins and Rumker areas are quiet, serene rural areas where sound can travel in the silence of night across tens of kilometers, echoing off exposed rocks to be heard from a great distance away from their source.

The dominant sounds of the Hawkins and Rumker areas are bird noises, mooing cows, and the occasional sound of a distant car or tractor carried by the wind. For the purposes of preparing this report, sound level recordings were taken. The daytime noise levels rarely exceed 30dB. At night, it is even quieter, the ambient noise floor being 20dB, at times even lower.

2.2 Introduced Sound Levels

The introduction of coal mining would introduce noise and vibration 24 hours a day including:

- Washeries can be the source of significant noise, particularly in the **lower end of the frequency spectrum** (Parnell, J., 2015);
- Heavy vehicle movement and exhausts;
- Tracked vehicles (eg bulldozers) that are even louder when reversing;
- Loud bangs from huge rocks being dumped into trucks;
- The train loader which could be dumping 20 tonnes of crushed coal into 80 or more steel wagons;
- The coal crusher which uses large steel balls dropped repeatedly on the coal to break it down into smaller chunks, and the coal washery which emits a disturbing noise often described as pulsing and whirring (Hunter Central Rivers Alliance & Leard Forest Research Node, 2017);
- Drilling and blasting; and
- Associated activities: rail and/or conveyor belt transport, the increased vehicle traffic of workers coming and going from the mine sites.



Figure 2 Existing sources of sound in Hawkins and Rumker areas

3 | Noise and Vibration Pollution

3.1 Inconsistency of mining in a tranquil rural environments

The introduction of the heavy industrial noises and vibration into this aural landscape will have a massive and negative impact on residents' health and well-being.

Reports of the projected effects of mining, cleaning and shipping coal routinely ignore the specifics of operating in rural areas where there is an absence of any previous major source of noise. They use acceptable levels inappropriate for the local environment. They do not reflect the reality of the area they will be impacting.

In rural areas, noise can travel vast distances, up to 20km from the noise source. Into this minimal level of sound, the impact of the intense industrial noise and associated activities of coal mining would be significant and destructive. As coal mine operations are large and span broad areas, there are multiple sources emitting high levels of noise spread over kilometres, making realistic mitigation levels hard to predict and implement. These noise levels are high in themselves (80-160dB) and even more intense when measured relative to the existing levels of a rural environment.

The NSW Environment Protection Authority Noise Policy for Industry (2017) notes that “mines... present a high risk of noise impact”. This is even after they raised their acceptable operating levels of mines to a noise limit of 40dB during the day and 35dB at night. **This can be over 20dB louder than the background noise level of the rural area in which they are imposed.** Not only are these routinely exceeded (NSW Environment Protection Authority, 2021) but their actual monitoring and measurement is kept deliberately opaque, with no transparency by mining companies as to the measurements of their real-time noise monitors.

Even if operations comply with the relevant regulatory requirements, impacts are still likely to be perceptible by the local residents.

In contrast to the largely natural sounds that currently dominate the local soundscape, “The noise levels in coal washeries, coal preparation plants, open cast and underground mining centres are very high when compared to accepted limits for occupational noise exposure. Even the residual noise level when there is minimal activity is 80 to 82 dB” (Sharma, O., Mohanan, V., Singh, M., 1998).

3.2 Low Frequency Rumble

The Hunter Central Rivers Alliance and Leard Forest Research Node reported that (2017, p4) “at the lower frequencies, people commonly report pain or pressure in the ears and head, sleep disturbance, pressure in the chest cavity, body vibration and nausea.” Though having major impacts on those unlucky enough to be living or attempting to sleep within their range, low frequency rumble is often hidden from public scrutiny (Murphy, J. 2016). Even the coal industry reports “The impacts of low frequency noise (LFN) are subjective and difficult to both predict and regulate with current noise modelling methodology” (ACARP 2021).

4 | Impacts

4.1 Health Problems associated with noise from mining operations

Health issues associated with noise from mining operations are commonplace. Noise from mining in remote rural areas has caused major health problems through sleep deprivation. This problem is significant and has not been recognised. The problems with poorly predicted noise pollution from the Wilpinjong Mine has been the major cause of social decline in the Wollar community. This community has lost over 90 percent of private property and nearly all community members mainly because of the noise impacts of mine operations.

Originally, only 18 properties in the area were identified through noise assessment and conditions of approval to be impacted by noise and were acquired for this purpose. Many more properties had higher than predicted noise levels. The majority of properties purchased since the mine commenced have been acquired to meet compliance with noise conditions. (Hunter Central Rivers Alliance & Leard Forest Research Node, 2017). This includes purchase of properties through a separate valley, Cumbo Valley. This was not identified as an issue by noise modelling prior to approvals being issued and subsequently caused great distress on those living in this valley (S. Baguley, pers. comm.).

Sleep disturbance is a severe and destructive impact from the incessant, invasive noise and vibration created by 24/7 coal mining operations. This will include for the residents of any of the towns through which the train line runs, with potentially scores of trains running day and night to pull coal out (RRCFC, 2021).

Additionally, it is acceptable for punctual noise and vibration throughout the night to minimise impact on sleep. Acceptable for everyone but those it actually affects.

The consequences of sleep disturbance can be awakenings and alterations of sleep stage, difficulty falling asleep, changes in respiration, cardiovascular effects and increased body movements. These changes can affect mood and performance during the following day. Cumulatively, these create public health issues, forcing locals to leave the area.

These are policies and regulations that are not realistic to allow heavy extractive activities and rural communities to co-exist.

4.2 Addressing noise impacts

The *Voluntary Land Acquisition and Mitigation Policy* mining companies submit, describe mitigation for residual noise and air quality impacts from State significant mining, petroleum and extractive industry developments through the application of voluntary mitigation and acquisition rights.

The most common attempt is acquisition of properties where significant impact cannot be denied. When 'moderate' (>5 dBA) or 'marginal' (>= 3 but <=5 dBA) impacts are assessed, the offers can be to double glaze, insulate or provide ventilation systems so windows do not have to be opened! Independent of the questionable objectivity of the assessment, **people do not live in rural areas to be barricaded in their own homes in order to withstand the impact of coal mines**. The fact that such measures are necessary shows the destructive impact coal mining activities have on local areas.

These are only ever 'predicted impacts' and they are largely inaccurate. Once a mine is operational it is common that more home acquisitions are necessary than those predicted. In a rural area such as Hawkins and Rumker, the spread and impact of mining cannot be accurately modelled or predicted.

4.3 Effects on Wildlife

Just like their human counterparts, wildlife habitats are destroyed by the noise and vibration impacts of coal mining. After the Black Summer bushfires of 2019/20, much of Hawkins and Rumker have become sanctuaries for local fauna. With the introduction of the excessive noise and vibration introduced by coal mining activities, they will have nowhere left to go.



Figure 3 The sensitive receivers of the Rylstone Region

5 | Conclusion

Noise impacts on local areas and residents are some of the most under reported and unaddressed aspects of the workings of the coal industry. The very quiet background noise levels in the Hawkins and Rumker areas have no other background noise to mask the mine noise operating 24 hours a day.

Residents will be impacted by highly significant increases in sound levels that will be extremely annoying, disruptive and will impact on the existing amenity of private properties. This will include for the residents of any of the towns through which the train line runs.

There is no increase in the level of noise that is acceptable to a rural community. There is no escaping its impact and potential to negatively affect people's health and well-being, both directly and indirectly and across an area far greater than the mine's footprint.

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