

## Discussion with Independent Planning Commission regarding Mount Pleasant Optimisation (SSD-10418) – 16 June 2022

### Preface:

Council's role in this SSD application is to provide local information and to raise issues that we consider need consideration as part of the assessment by the determining authority. As it is not Council's role to determine the application, we have not considered the full merits of the project. It should be noted that Council does not object to the application.

The below table outlines

- Project Alone impact issues that have not been addressed during the planning assessment; and
- Cumulative impact issues that cannot be resolved by the Proponent of a single mine but remain outstanding for the Determining Authority to address.

Council issues identified in MTP Planning Documents	DPIE Response	Council Comment to IPCN
<b>General</b>		
<p>The compounding impacts of multiple mining operations stretch environmental, social, human and economic capital.</p> <p>Impact assessments for individual mine projects flag that it is difficult to consider cumulative impacts due to factors beyond the control of the proponent. A better approach would involve investment in regional datasets, scientific modelling, scenarios and preferred futures, research into impact interactions, trends, effects pathways and areas of maximum mitigation impact, better regional planning, the establishment of thresholds and limits, joint monitoring, the collection of information on planned developments and more consistent data standards and methodologies. The</p>	Not addressed.	<b>Cumulative</b> - see "Council Issue" column.

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Upper Hunter Cumulative Impact Study and Action Strategy 1997 needs to be updated.		
<b>Traffic and Transport</b>		
Northern Link Road realignment consistent with Mine Affected Roads Strategy.	MACH is proposing to realign part of the Northern Link Road to improve the safety of its intersection with Castlerock Road. Two options have been evaluated in the EIS, with Option 1 being MACH's preferred option. The revised alignment would be designed and constructed in consultation with, and to the satisfaction of, Muswellbrook Shire Council.	<b>Project Alone</b> <ul style="list-style-type: none"> <li>• Cond A27 – mining is limited to a distance of not less than 200m to any public road boundary.</li> <li>• Cond B95b) – amend Cond (b), 'undertake a road safety audit for the full length of Castlerock Road and the intersection of Dorset Road and Kayuga Road.</li> <li>• Add condition – all public roads subject to closure be included in consent. To be legally closed and purchased prior to mining.</li> </ul>
<b>Housing</b>		
<ul style="list-style-type: none"> <li>• Shortage of affordable housing, which is exacerbated by mining companies acquisition programs.</li> <li>• Council's concern in relation to housing are that it is difficult for each mine project to make a cumulative assessment on the impact housing demand. A delay in the supply of new housing following mine approvals encourages a drive in, drive out works force pattern. And an influx of high-income households seeking rental properties leads to a tight rental market where local people who don't work at the mines are at</li> </ul>	<p>Not addressed. Recommended conditions to require MACH to:</p> <ul style="list-style-type: none"> <li>• Enter into a VPA.</li> <li>• Maintain a CCC.</li> <li>• Establish and implement a complaints handling protocols.</li> <li>• Access to Project related information.</li> </ul>	<b>Project Alone</b> <ul style="list-style-type: none"> <li>• The Proponent should be required to ensure that at least 80% of people employed at the mine site for operational needs, either directly by MACH Energy or indirectly by contractors, need to reside within 80kms of the mine. Evidence that this is being achieved needs to be provided annually in the Annual Review.</li> </ul> <b>Cumulative</b> <ul style="list-style-type: none"> <li>• Cumulative impacts not addressed. Remains an issue for the Planning Authority to address.</li> </ul>

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risk of not being able to compete for available rental properties.		<ul style="list-style-type: none"> <li>The Upper Hunter regularly experiences shortages in affordable accommodation and housing close to mines, particularly in phases of infrastructure construction, and mine and power station shut down periods where intense maintenance efforts require a short-term increase in workforce. The issue of housing availability and affordability is also linked to the expansion of mine operations and development throughout the Shire.</li> <li>Council's concern in relation to housing are that it is difficult for each mine project to make a cumulative assessment on the impact housing demand. A delay in the supply of new housing following mine approvals encourages a drive in, drive out works force pattern. And an influx of high-income households seeking rental properties leads to a tight rental market where local people who don't work at the mines are at risk of not being able to compete for available rental properties.</li> </ul>
<b>Social</b>		
Communities in the Hunter have experienced rapid transitions associated with expansion of the coal mining industry. In the next few decades, they face the prospect of the coal mine industry contracting. An abrupt and/or unplanned transition would have resounding social and economic impacts on the	Not addressed.	<b>Cumulative</b> - see "Council Issue" column.

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Region and the State. The State Government needs to take a lead in planning for this transition.		
<b>Visual</b>		
<p>Views to the integrated waste rock emplacement landform from the Northern, Southern and Eastern sector will increase. Specifically, the increase in vertical elevation would result in increased numbers of view locations and private properties within the view sector that are able to see the emplacement.</p> <p>The emplacement landform will block views to significant natural landscape features (e.g. ridges and vegetation to the west). The Hunter River and high points in the landscape have historic, scenic, social, cultural and scientific values.</p> <p>This change/impact has been identified in various appendices to the EIS but dismissed as a short to medium term impact until people forget what the view once was like before the emplacement was constructed.</p>	<p>Not addressed.</p> <p>DPE accepts that visual impacts would be generally like the approved mine, and that whilst the eastern emplacement would result in significant visual impacts on a number of receivers, these impacts would reduce over time with the rehabilitation of landforms, in particular the integrated waste rock emplacement.</p> <p>Recommended conditions requiring MACH to:</p> <ul style="list-style-type: none"> <li>• Rehabilitate the integrated waste rock emplacement as soon as practicable.</li> <li>• Update and maintain the mine's Visual Impact Management Plan to minimise visual impacts, including strategies for off-site screen plantings (amongst other things).</li> </ul>	<p><b>Cumulative</b></p> <ul style="list-style-type: none"> <li>• Cumulative impacts not addressed. Remains an issue for the Planning Authority to address.</li> <li>• Views to integrated waste rock emplacement landforms of Mount Pleasant mine, Bengalla mine and Mount Arthur mine surround the township of Muswellbrook. The emplacement landforms block views to significant natural landscape features (e.g. ridges and vegetation to the west). The Hunter River and high points in the landscape have historic, scenic, social, cultural, and scientific values.</li> </ul>
<b>Final Voids</b>		
<ul style="list-style-type: none"> <li>• Council raised issues with the size and depth of the final void, that not backfilling the void meant higher emplacements, and the steep slopes down to the floor of the void made it unsafe.</li> <li>• The impact of the emplacement area on the landscape is significant due to the size of the proposed single void. The proposed void will be</li> </ul>	<ul style="list-style-type: none"> <li>• Not addressed.</li> <li>• Void parameters: Approx. 3km long, 600-700m wide and 90m deep. Western highwall pushed down to 18°.</li> <li>• As with other final voids in the region (and the approved mine), the void lake would gradually increase in salinity over time. The groundwater</li> </ul>	<p><b>Cumulative</b></p> <ul style="list-style-type: none"> <li>• Cumulative impacts not addressed. Remains an issue for the Planning Authority to address.</li> <li>• Mines typically argue infilling a void is not a reasonable or feasible option.</li> </ul>

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<p>approx. 3km long, 600-700m wide and 90m deep.</p> <ul style="list-style-type: none"> <li>The slopes to the void, despite the improved landform shapes, are still very steep, in some places as much as 37 %. This creates a landform that will be difficult to maintain/traverse.</li> <li>Over time the water in the Void will become highly saline.</li> </ul>	<p>assessment originally estimated that salinity would rise to 70,000 <math>\mu\text{S}/\text{cm}</math> after about 1,000 years, although this estimate was reduced to 25,000 <math>\mu\text{S}/\text{cm}</math> in MACH's revised assessment.</p> <ul style="list-style-type: none"> <li>DPE accepts that complete backfilling of the void is not a viable option, and may result in adverse environmental consequences (including seepage of contaminants off-site). The Department also acknowledges that MACH has implemented measures to reduce the long term impacts of the void.</li> <li>DPE has recommended conditions requiring MACH to minimise the size and catchment of the final void as far as practicable, to minimise any ongoing environmental impacts associated with the void and final landform, to comply with a number of best practice rehabilitation objectives, to prepare a detailed rehabilitation strategy and rehabilitation plan, and to implement comprehensive surface water and groundwater monitoring programs.</li> </ul>	<ul style="list-style-type: none"> <li>Voids are not a naturally occurring element in the landscape, so planning to retain a void is planning to create an irreversible and permanent negative change to the environment.</li> <li>In most cases mine voids would not be suitable for aquaculture or recreation.</li> </ul>
<b>Air Quality</b>		
<p>While the EIS for the Project suggests that the worst affected properties can be acquired and the dust levels affecting the main township will be within acceptable health limits, the 2010 NSW Health report shows that Muswellbrook residents reported higher levels of cardiovascular and respiratory diseases, emergencies, and deaths than the State average.</p>	<p>Not addressed.</p>	<p><b>Project Alone</b></p> <p>Council requests that the Proponent contribute funding toward:</p> <ul style="list-style-type: none"> <li>Updates to the 2010 NSW Health report;</li> </ul>

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<p>Furthermore, the Upper Hunter's postcode 2333 is the worst air quality in the state (as evidenced by the 2018 ACF report 'The dirty truth; Australia's most polluted postcodes' based on data from the National Pollutant Industry).</p> <p>Coal mining linked air pollution, exceedances, and spikes in PM10 and PM2.5 and the cumulative impacts on air quality by coal mining are of critical concern to the health and wellbeing of the Upper Hunter community.</p> <p>Air pollution is cumulative, the source is not entirely relevant if the level of pollution being experienced poses a threat to human health, although all sources contributing to pollution should be managed to bring the risk to human lower.</p> <p>The 24-hour averaging period for air pollution monitoring may be obscuring issues of elevated dust levels at night, particularly when a surface temperature inversion is present.</p>		<ul style="list-style-type: none"> <li>• An independent comprehensive contemporary cumulative air quality assessment of the Upper Hunter; and</li> <li>• The installation of an EPA monitored ceilometer in Muswellbrook</li> </ul> <p><b>Cumulative</b></p> <ul style="list-style-type: none"> <li>• Cumulative impacts not addressed. Remains an issue for the Planning Authority to address.</li> <li>• The 2010 NSW Health report shows that Muswellbrook residents reported higher levels of cardiovascular and respiratory diseases, emergencies, and deaths than the State average. Furthermore, the Upper Hunter's postcode 2333 is the worst air quality in the state (as evidenced by the 2018 ACF report 'The dirty truth; Australia's most polluted postcodes' based on data from the National Pollutant Industry).</li> <li>• Coal mining linked air pollution, exceedances, and spikes in PM10 and PM2.5 and the cumulative impacts on air quality by coal mining are of critical concern to the health and wellbeing of the Upper Hunter community.</li> <li>• A summary of PM10 and PM2.5 levels monitored at Muswellbrook and how these compare to the Ambient Air Quality National Environment Protection Measures (NEPM) are shown in Table 1 below (adapted from Tables 5-2 and 5-5 in the Air Quality Impact Assessment for the Project).</li> </ul>

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		<ul style="list-style-type: none"> <li>These results indicate that the town of Muswellbrook is already experiencing in all years, PM2.5 levels which exceeds the current NEPM standards of 8µg/m3 annual average and 25 µg/m3 hour average. The results also show multiple exceedances of PM10 levels.</li> </ul>
<b>Heritage</b>		
<p>Kayuga Cemetery is identified as a place of State significance and is located 1,492m from the Project open cut. The Environmental Impact Statement (EIS) for the Project suggests that responsibility for the Cemetery's conservation rests with the relevant owner, Council, however Council is not proposing to blast in the vicinity of the Cemetery and MACH should bear responsibility for ensuring that blasting activities do not increase damage to the Cemetery's remaining headstones.</p> <p>In Council's Letter, MACH states that the Cemetery is 'located too far away from the Project to be adversely impacted by Project blasting activities', however if this is not correct, given the age of the headstones and their fragility, there is potential for serious and permanent damage (noting that there are no blasting criteria for structural and cosmetic damage to historic heritage sites and the 10mm criterion has been adopted in the assessment, see letter to MACH from RWDI Australia dated 20/05/21).</p>	<p>DPE considers that impacts on the Cemetery (a heritage item) are unlikely given the separation distance (some 1.5km) and given appropriate mitigation and monitoring measures.</p>	<p><b>Project Alone</b></p> <p>Council requests that the Proponent be required to:</p> <ul style="list-style-type: none"> <li>Engage a specialist in monuments/headstone conservation to undertake a condition assessment of the headstones in the Cemetery.</li> <li>Undertake urgent remedial work identified by the expert prior to mining operations commencing; and</li> <li>Include in the Blast Management Plan, a strategy to monitor, mitigate and manage the effects of blasting on the Cemetery, including details of baseline (i.e. pre-blasting) and ongoing risk-based dilapidation or damage surveys and repair programs.</li> </ul>

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<b>Seismic Activity</b>		
Seismic activity in the Upper Hunter has increased over the past 15 years as mining operations have increased.	Not addressed.	<p><b>Project Alone</b></p> <p>Council requests an adaptive management strategy for seismic activity, so that if a trend showing an increase in seismic events occurs as the project progresses, support can be provided to Council and the community to repair and strengthen public and private assets.</p> <p><b>Cumulative</b></p> <ul style="list-style-type: none"> <li>Cumulative impacts not addressed. Remains an issue for the Planning Authority to address.</li> <li>Seismic activity in the Upper Hunter has increased over the past 15 years as mining operations have increased (see Figure 1).</li> <li>It has been well established that mining is a cause of earthquake (<a href="#">How Humans Are Causing Deadly Earthquakes (nationalgeographic.com)</a>) and may be a significant risk.</li> <li>Consideration should be given to adaptive management strategies for seismic activity to support Council and the community to repair and strengthen public and private assets.</li> </ul>
<b>Water</b>		
Each of the mines has a permanent impact on water availability in the local catchment they are in, and the Hunter River more generally. The loss is permanent, and if the water sharing regime needs to change in the broader catchment for societal, ecological, or climate	Not addressed.	<b>Cumulative</b> - see "Council Issue" column.

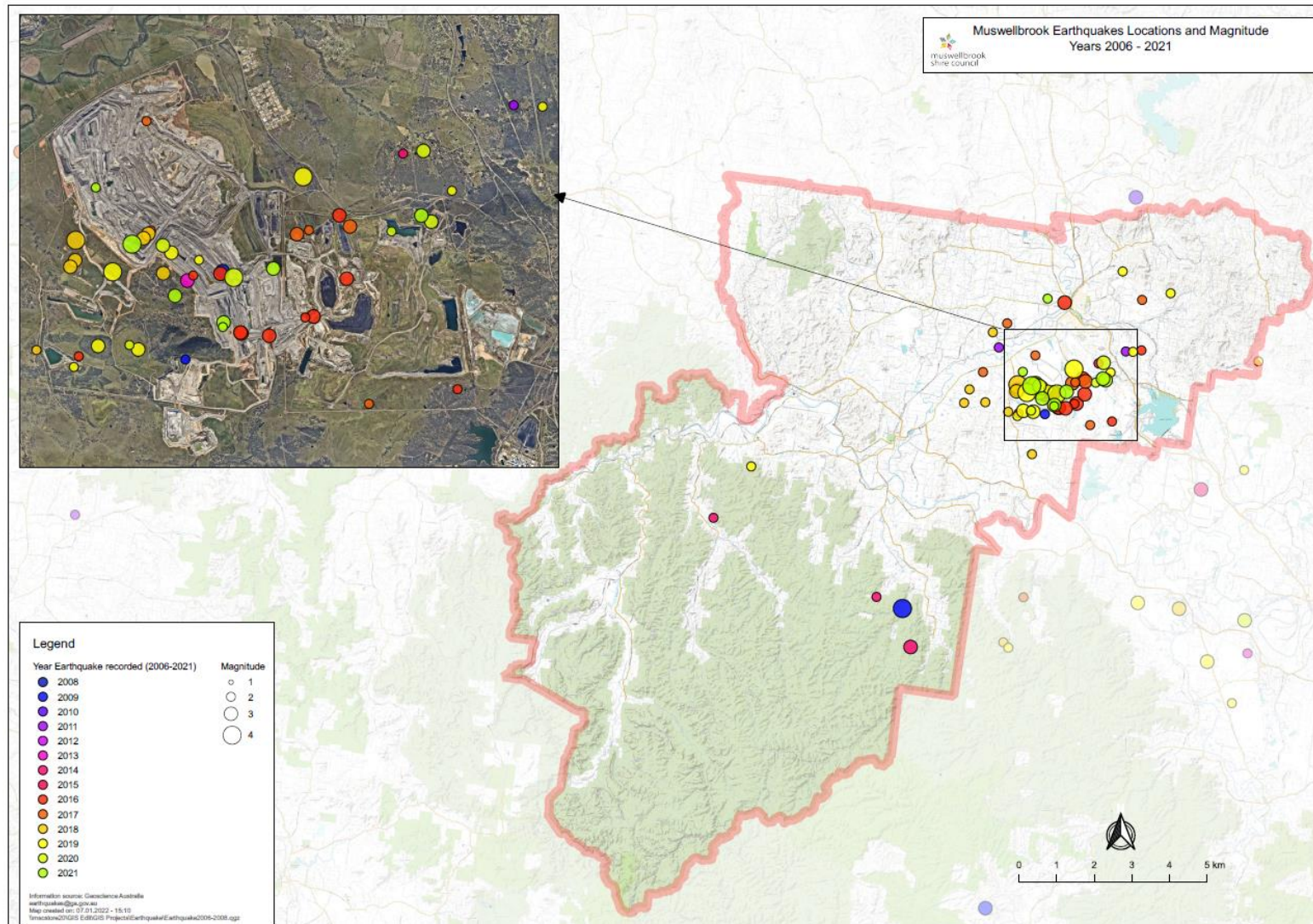


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change reasons, or to satisfy the requirements for emerging industries, the water loss due to mines will place limitations on the ability to change the water sharing regime.		
<b>Disposal of waste off-the-road tyres</b>		
<p>A new issue resulting from new awareness due to the Maules Creek Mine MOD and Bengalla MOD 5. Disposal of waste tyres has recently been highlighted in the determination of the Maules Creek Mine (January 2022)</p> <p>The Maules Creek Mine DPIE Assessment Report (January 2022) states that “The management of waste OTR tyres is an industry wide issue because of the lack of viable alternatives for recycling, difficulties in handling and transport, and the lack of landfill capacity.”</p> <p>Disposal of tyres in-pit was not approved under DA 92/07, MACH varied EPL 20850 in August 2018 to permit the activity but there was no known public consultation regarding the matter.</p> <p>Section 3.14 of the Environmental Impact Statement for MTP Optimisation states that “MACH would continue to dispose of.... heavy mobile equipment tyres in the open cut pits” and it is assumed that contemporary conditions will be applied to SSD 10418.</p>	-	<p><b>Cumulative</b></p> <ul style="list-style-type: none"> <li>• In response to the Bengalla MOD 5 application, Council have resolved the following recommendation “disposal of off the road (OTR) tyres in-pit initially, and off-site disposal when technologically feasible and environmentally responsible.” The same recommendation is made for this project MOD.</li> <li>• Council staff also recommend that MACH be required to donate \$50,000 to the Tyre Product Stewardship Scheme (the Scheme), to drive solutions for the sustainable management, recycling, and productive use of end-of life tyres.</li> <li>• Council also recommends “MACH identify purchasing opportunities from signatories of the Scheme”.</li> </ul>

Council issues identified in MTP Planning Documents	DPIE Response	Council Comment to IPCN
Other		
SSD 10418	-	<p>The recommended conditions refer to the Environmental Assessment for DA 92/97. This is not recommended for the following reasons:</p> <ul style="list-style-type: none"> <li>• DA 92/97 will be surrendered within 12 months of commencement under SSD 10418</li> <li>• Documentation referenced under the Environmental Assessment is not easily accessible e.g 1997 EIS</li> <li>• Auditors will need to review numerous documents, which could essentially be consolidated into one document</li> </ul> <p>MACH should be required to develop a list of outstanding commitments from DA 92/97 documentation and append to consent. Then the consent reference the commitments and MPO EIS only.</p>

**Table 1 – Summary of ambient PM10 and PM2.5 levels from the Upper Hunter Air Quality Monitoring Network at Muswellbrook 2012 to 2019.**

Dust metric	NEPM standard (µg/m³)	NEPM 2025 Goal (µg/m³)	2012	2013	2014	2015	2016	2017	2018	2019
PM10 Annual Average	25		21.8	22.6	21.4	19.1	19.2	21.7	27.2	34.4
PM10 Maximum 24 hour average	50		51.0	55.6	53.0	72.6	43.9	56.5	185.9	231.3
PM 2.5 Annual average	8	7	10.1	9.4	9.7	8.7	8.4	9.4	9.4	12.2
PM2.5 Maximum 24 hour average	25	20	26.4	36.6	27.4	31.2	29.4	31.1	26.5	77.4
Red indicates exceedance of NEPM standards										



**Figure 1: Muswellbrook Earthquakes Locations and Magnitude**