muswellbrook shire council

Enquiries
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Our reference
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22 March 2021

Tegan Cole
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Department of Planning, Industry & Environment

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Dear Ms Cole,

Mt Pleasant Optimisation Project – SSD 10418 – Muswellbrook Shire Council Comment

I refer to the Environmental Impact Statement, prepared by Resource Strategies P/L for Mach Energy P/L ("the Proponent"), for the Mt Pleasant Optimisation Project – SSD 10418. Council appreciates the opportunity for comment.

The Project involves:

- Extending the life of open cut mining operations to 2048;
- Extracting an additional 247 million tonnes of run-of-mine (ROM) coal over the life of the Project, through the mining of deeper coal seams and optimisation of the North, Central and South Pits;
- Extracting and processing up to 21 million tonnes per annum (Mtpa) of ROM coal (approx. double the current approval);
- Transporting up to 17 Mtpa of ROM coal by rail;
- Dispatching up to 10 laden trains per day, with an average of 6.5 laden trains per day;
- Constructing new ancillary infrastructure, including water management facilities;
- Relocating, upgrading and augmenting existing ancillary infrastructure;
- Increasing the operational workforce to 830, with an average workforce of 600 (approx. double the current approval);
- Realigning the future Northern Link Road; and
- Changes to the approved final landform.

Council's submission has two parts. The first Part contains comments directed to the planning authority that will assess and determine this application, and to DPIE, to consider cumulative impacts. The second part provides comments specific to this project.

Part 1 - Cumulative Impact Assessment

1.0 The compounding impacts of multiple intensive mining operations concentrated around a residential area stretch environmental, social, human and economic capital. Multiple mining operations may demonstrate additive effects (e.g. mine impact + mine impact) and compounding effects (e.g. mine impact x mine impact). The conventional

mine-by-mine approach to assessment, management and mitigation does not provide confidence for the local communities impacted where there are multiple active mines.

2.0 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 cumulative assessment typically consists of an aggregation of the contribution of the project to the impacts of existing activities and whether the increased impacts meet regulatory standards. Such analysis is almost exclusively conducted on sink impacts such as noise, air quality and traffic. Assessments rarely assess the effect of planned and foreseeable future projects (e.g. the West Muswellbrook mine proposal) and do not employ explicit methodologies to model plausible future scenarios, understand the pathways of interaction of cumulative effects, or determine or describe thresholds and limits.

3.0 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 *Upper Hunter Cumulative Impact Study and Action Strategy 1997*[1] needs to be updated.

4.0 Council's view is that the 24-hour averaging period for air pollution monitoring has the unintended consequence of obscuring issues of elevated dust levels at night, particularly when a surface temperature inversion is present, and that a 12-hour average would be better. The 2010 NSW Health report identified that Muswellbrook and Upper Hunter LGAs had higher levels of cardiovascular and respiratory hospitalisations, as well as asthma hospitalisations (adults and children), when compared with the rest of NSW.

5.0 Council requests that the State Government updates the 2010 NSW Health report, commissions a study into the effects to human health of exposure to night-time dust levels in the Upper Hunter and provides funds for the EPA to install a ceilometer in Muswellbrook. These three requests are essential to improving the understanding of the consequences to human health, particularly respiratory and cardiovascular health, of exposure to night-time dust levels generated by mining.

6.0 Each of the mines has a permanent impact on water availability in the local catchment they are located in. Each mine operation dismisses this by saying they hold sufficient water licences to cover this "loss of water". But the loss is permanent, and if the water sharing regime needs to change in the broader catchment for societal, ecological, or climate 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.

7.0 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 as a result of declining global resource

[1] New South Wales. Department of Urban Affairs and Planning. 1997, *Upper Hunter : Summary - Upper Hunter cumulative impact study and action strategy* Department of Urban Affairs and Planning [Sydney]

demand. While communities have benefited from the expansion of the coal industry through the creation of jobs and the investment in economies, an abrupt and/or unplanned transition would have resounding social and economic impacts on the Region and the State. The State Government needs to take a lead in planning for this transition.

Part 2 – The Mt Pleasant Project impacts

8.0 The Mount Pleasant Operation Development Consent DA 92/97 was granted on 22 December 1999 and has been modified several times since. It is disappointing that the EIS for the current application did not provide an easy comparison with current approvals. It has been necessary to go back to old EIS documents to properly assess the proposal – a task that would be difficult for most people living in the local and wider community.

Council's response to specific impacts of this proposal follows the order that issues are addressed in the EIS document:

VPA

9.0 If the project is approved, a VPA is required to include a requirement for Community Enhancement contributions and payments to local road maintenance costs to assist with mitigating cumulative impacts of the mine. This condition should be similar to the conditions applying to other mines operating in the Shire. The Proponent has approached Council with an initial offer in line with the terms of the existing VPA (see below), however further negotiations are required before a VPA can be finalised:

Item	**Development Contribution Proposed**
Mt Pleasant Community Contribution	$590,500 per annum (indexed annually according to CPI). A community representative committee will be established, including Applicant representatives, to make recommendations to Council regarding these community contributions.
Council Road Maintenance and Infrastructure Costs	Contribution to the costs associated with the maintenance of roads, and provision of infrastructure, calculated as an annual payment based on tonnage of product coal produced, and indexed annually (according to CPI).
Council Road Network Planning	A contribution to aid the regular review of the Mine Affected Roads Network Strategy with the aim of maintaining connectivity for the community as mining development requires changes to the local road network.
Muswellbrook Mine Affected Road Network Plan	Mt Pleasant contribute to the revision of the May 2020 Muswellbrook Mine Affected Road Network Plan as required.

Item	Development Contribution Proposed
Environmental Officer	The Proponent to make contributions to an Environmental Officer, up to a maximum of $25,000 per annum (indexed annually according to CPI).
Apprenticeships	The Proponent is to engage 4 apprentices per year for the life of the mine sourced from residents within the Muswellbrook Shire, and where possible to actively recruit Aboriginal youth to one or more of these positions.
Trainees	The Proponent to use its best endeavours to trainees to form 10% of the operational works force (engaged by the Proponent or their contractors) per year for the life of the mine, sourced from residents within the Muswellbrook Shire, and where possible to actively recruit Aboriginal youth to some of these positions.

TRANSPORT AND ACCESS

10.0 The Muswellbrook Mine Affected Road Network Plan originally developed in 2015, was recently reviewed by Council to identify changes in relation to roads potentially impacted by current mining activity, including the development of the Mt Pleasant mine. Extensive consultation was undertaken with the mining companies. It also reviewed the objectives of the project in the context of a long-term road network plan for Muswellbrook LGA and surrounding area. The review has somewhat shifted the focus of the plan from impact and mitigation to one that considers the long-term needs of the community, with the following key objectives:

- Maintain the road network to retain value, quality and capacity.
- Provide a safer road environment.
- Optimise the efficiency and reliability of moving people and goods.
- Meet the needs of the present and future land use development.
- Ensure a functional 'legacy' road network that is resilient to potential change and supporting of the long-term local and regional transport needs.
- Provide network redundancy for incidents and emergency situations.

11.0 Improving safety, network resilience and connectivity is at the forefront of the plan's development.

12.0 The 'Muswellbrook Mine Affected Road Network Plan Review' dated 7 April 2020 is Muswellbrook Shire Council's adopted policy position on the closure and opening of mine affected roads. Any changes to the road network are to be guided by the Plan.

13.0 Development Consent DA 92/97 approved changes to the road network, including closure of Castlerock Road and Wybong Road, construction of the Mount Pleasant Northern Link Road and Mount Pleasant Western Link Road if required (Condition 38).

14.0 This condition remains applicable to the current application and is supported by Council's guiding document for changes to the road network 'The Mine Affected Road Network Plan' (review 2020) and is needed to ensure a functional road network for the community and wider upper hunter region, supporting the current and long-term local and regional transport needs. Council's view, supported by the MARNP, is that the construction of a new link from Wybong Road to Castlerock Road will form a part of the western corridor and provide an efficient link between Golden Highway, Denman Road and New England Highway. Responsibility for the upgrading of this road should be linked to new and expanding mines in the north and west of the Shire including Mt Pleasant Mine and contributions or works should be proportional to the demand created by any new development in this area.

15.0 Council acknowledges that the change in mine operations removed the need to close Wybong Road, however, there are road network benefits in retaining the Mount Pleasant Western Link road, or similar route, given the standard of Castlerock Road west of the Mine project.

16.0 The existing road alignment and constructed standard of Castlerock Road and Dorset Road are generally of a 'country road' standard with narrower lane widths, unformed shoulders, poor pavement, gravel pavement, and drainage structures that will not support heavy loads or higher traffic volumes. Construction standards for the Mount Pleasant Western Link road for the full frontage of Mt Pleasant Mine will be discussed further as part of the s.138 Roads Act application.

17.0 While the reconstruction of part of Dorset Road, and the new connection to Castlerock Road (Mount Pleasant Northern Link Road) is important to maintain connectivity for the local residents, it comes with a risk that more through traffic will be encouraged to use Castlerock Road to move between the Scone/Aberdeen area and Wybong/Golden Highway. Of concern would be Bengalla and Mangoola mine employees. The MARNP adopts the closure of Castle rock road, most likely at the point where the constructed surface changes from a sealed to a gravel surface, to through traffic and the construction of the a new link (Mount pleasant West Link Road) between Bengalla Link Road to the Mount Pleasant Northern Link Road.

18.0 Council requests that prior to construction of the Mount pleasant West Link Road and the closure of Castlerock road:

- A safety audit be completed for the length of Castlerock Rd to contemplate issues arising from increased traffic volumes;
- Recommendations on strategies to limit use of Castlerock Rd by through traffic; and
- Mt Pleasant continue to require mine related traffic to use Bengalla Link Rd and Wybong Rd for access; and

19.0 The mine is currently accessed via Wybong Road. Council's preference is for this access to remain to be the principle access for use during any future construction and operation of the mine.

VISUAL IMPACTS

20.0 The integrated waste rock emplacement landform would be vertically higher than the approved landform by approximately 40 m (approximately 360 m AHD).

21.0 Council supports the more natural landform in both vertical and horizontal profile, that Mt Pleasant is proposing, although some slopes exceed 30% and so will be difficult to traverse/maintain.

22.0 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 Project.

23.0 The emplacement landform will block views to significant natural landscape features (e.g. Mt Arthur) and the topography of ridges and vegetation to the west.

24.0 The Hunter River and high points in the landscape have historic, scenic, social, cultural and scientific values. They have been part of the "country" lived by Aboriginal people who occupied the land, were highly valued by early settlers as resources and for way finding and continue to be valued by current communities as contributions to sense of place.

25.0 The integrated waste rock emplacement landform associated with the Project will create a new visual setting by limiting views to the high points in the landscape from many locations in and near Muswellbrook. 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. A reduction in the size of the void would have allowed the emplacement to be much lower and the impacts on the landscape much less.

26.0 The Proponent states that managing the site to have less visual impact would make the project financially unviable and result in a longer period of visual impact.

27.0 Given the proposed significant and permanent visual impact proposed, Council considers that the EIS had not made proper consideration of the project under the Objects of the EP&A Act 1979 and has placed the Proponent's economic considerations higher than the social and economic considerations of the community.

VOIDS

28.0 The Mount Pleasant Operation Development Consent DA 92/97 was granted on 22 December 1999 and has been modified several times since. It is disappointing that the EIS for the current application did not provide an easy comparison of the approved final landforms and voids resulting from the original approval, MOD 3 and the current proposal. The different plans Council has located are shown below:

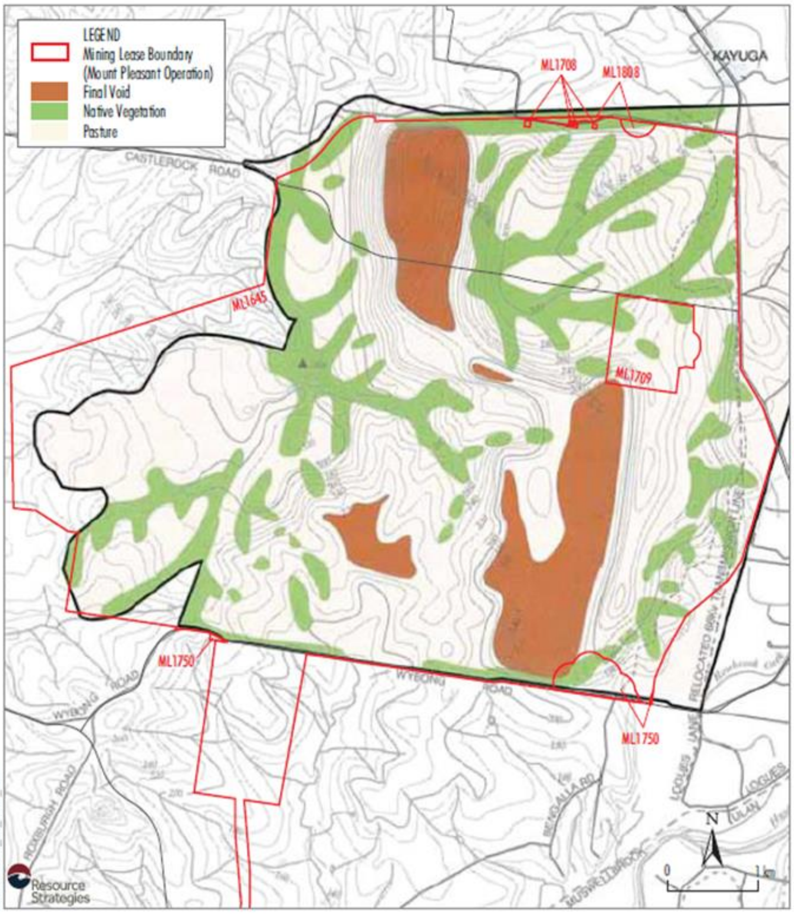
LEGEND
Mining Lease Boundary (Mount Pleasant Operation)
Final Void
Native Vegetation
Pasture
KAYUGA
ML1708
ML1808
CASTLEROCK ROAD
ML1645
ML1709
ML1750
WYBONG ROAD
ML1750
Resource Strategies

Fig. 1 - DA 92/97

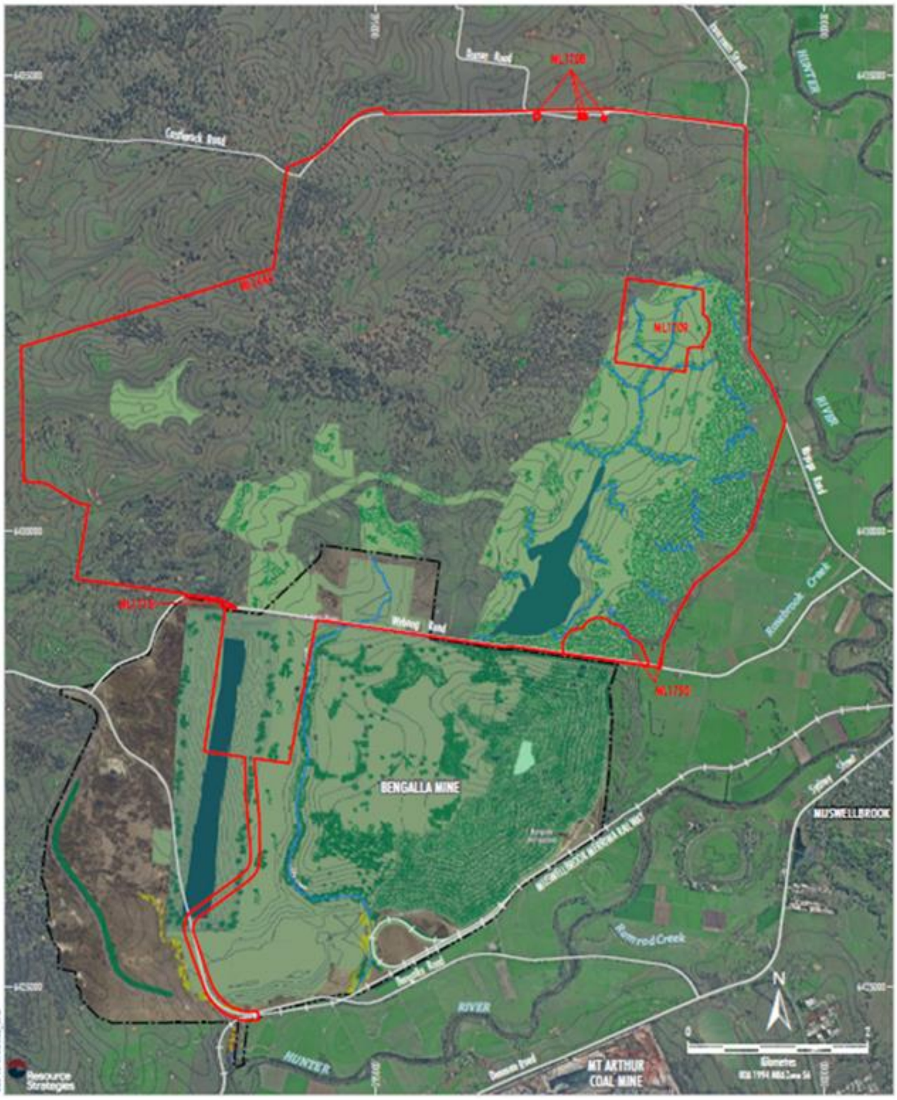
BENGALLA MINE
MUSWELLBROOK
MT ARTHUR
COAL MINE
HUNTER
RIVER
N

Fig. 2 - MOD 3

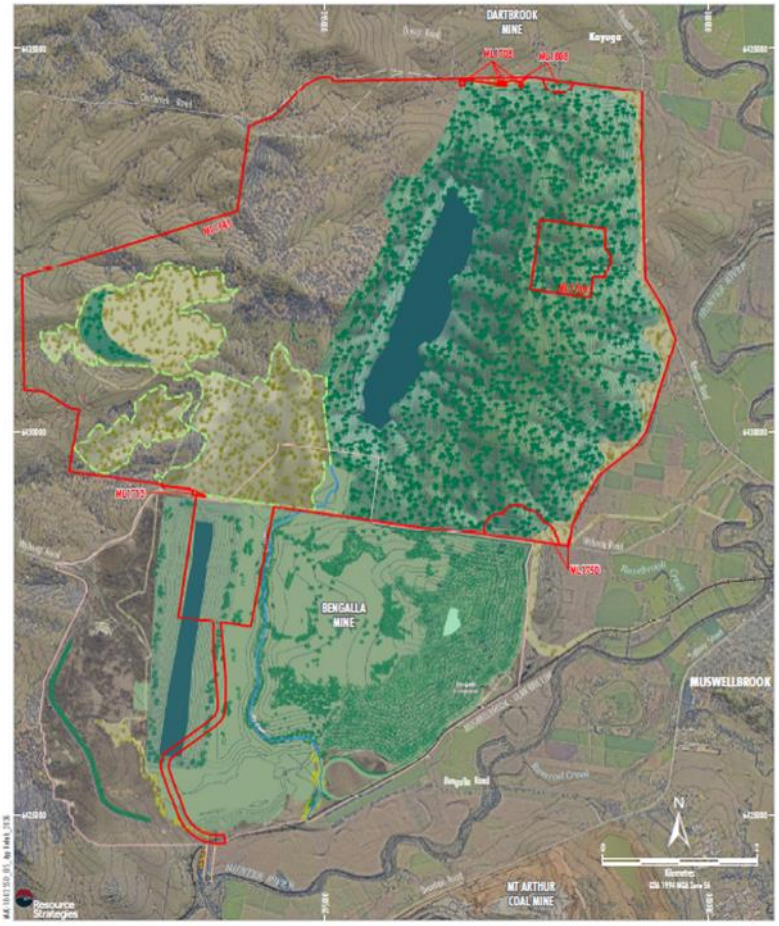

Fig 3. - Current Proposal

29.0 Despite changing from three voids to one, the impact on the landscape is significant due to the size of the proposed single void.

30.0 The proposed void will be approx. 3km long, 600-700m wide and 90m deep. This appears to be slightly shorter than the 3 voids from the 1999 approval combined, but considerably deeper. It appears to be the same length as the 3 voids approved by MOD 3 and it is not possible to compare the depth.

31.0 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.

32.0 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. At the same time significant visual impacts, including disruption to natural landscapes will result from the proposed emplacement.

33.0 Council requests that the Proponent amends the proposal:

- to further reduce the extent and depth of the void;
- to reduce the steepness of void slopes both above and below any final water line. For example, the final void slopes should maintain the same angle of the

rehabilitated void wall to the pit floor or where it meets the slope from the void slope from the opposite side'; and
- reduce the height of the emplacements.

34.0 Council also requests that future surface water management divert clean surface water from undisturbed western parts of the site away from the final void.

HERITAGE

35.0 The demolition of the additional places of local significance would remove the homesteads from the Mount Pleasant cultural landscape, and the cumulative effect would be to convert the modified rural landscape, north of the existing Bengalla Mine, into a purely mining landscape. The Heritage Impact Assessment supports demolition of the many structures on the basis that the buildings are derelict. Many of these buildings have been in the ownership of Coal and Allied and subsequently MACH Energy since the 1990's, and the neglect of these buildings has advanced the state of dereliction considerably in that time.

36.0 As identified in the EIS:

- Kayuga Cemetery is the oldest cemetery in the Upper Hunter, first set aside by Archdeacon Scott in 1828 with the first known burial in 1831.
- The cemetery remained in use up until at least 1956 and during that time, has seen three periods of use: the convict period (1831-1842), Scottish settlers and labourers, and conditional purchase settlers and labourers (post-1861).

The VAHS report (2014:673) also concludes:

The Kayuga Cemetery is highly significant. It is the oldest in the Upper Hunter and the only one where serving convicts have their graves marked with impressive headstones. This cemetery has the potential to provide us with a much better understanding of convicts and their value to the community. There is also value in studying the burial patterns of the settlers and the role a small country cemetery played in the community.

37.0 Accordingly, Kayuga Cemetery is identified as a place of State significance.

38.0 The EIS suggests that responsibility for the Cemetery's conservation rests with the relevant owner, Muswellbrook Shire Council. However, Council is not proposing to set off eight blasts per week, on average, close to the Cemetery. The Proponent does bear responsibility for ensuring that blasting activities do not increase damage to the remaining headstones in the Cemetery.

39.0 Given the age of the headstones they are 'fragile' and at more risk of toppling and damage than, say, a nearby dwelling.

40.0 Council requests that the Proponent be required to:

- Engage a specialist in monuments/headstone conservation to undertake a condition assessment of the headstones in the Cemetery;
- Undertake urgent remedial work identified by the expert prior to mining operations commencing; and

- A part of the Blast Management Plan for the Mine, include 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.

INCREASE IN SEISMIC ACTIVITY

41.0 Seismic activity in the Shire has increased over the past 15 years as mining operations have increased. The majority of seismic activity in the past three years has had an event epicentre within the Mt Arthur mining lease area.

42.0 The EIS does not explore this issue, however given that the Mt Pleasant proposal will see mining at greater depths and moving more quantities of coal and interburden material, there is concern that seismic activity may further increase in the Shire.

43.0 Seismic activity has generally been in the order of 3 to 4 Richter's, sufficient to cause alarm to people, cracking to private assets and damage to community infrastructure such as pipes and large water storage facilities.

44.0 Any approval of this project should include a requirement for an adaptive management strategy for seismic activity, so that if a trend showing and increase in seismic event epicentres occurs within the Mt Pleasant mining lease area as the project progresses, support can be provided to Council and the community to repair and strengthen public and private assets.

AIR QUALITY

45.0 Mount Pleasant mine is in close proximity to the Muswellbrook township and has been the subject of numerous air quality complaints as the eastern emplacement has been constructed. While the EIS suggests that the worst affected properties can be acquired and the dust levels affecting the main township will be within acceptable health limits, the health limits permitted by the State and Federal governments may actually be exposing residents to unacceptable levels of PM 2.5 sized particles.

46.0 The 2010 NSW Health report shows that Muswellbrook residents reported higher levels of cardio-vascular and respiratory diseases, emergencies and deaths than the State average.

47.0 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.

48.0 Council requests that the Proponent contribute funding toward:

- Updates to the 2010 NSW Health report; and
- The installation of an EPA monitored ceilometer in Muswellbrook.

49.0 Council also requests that use of high dump sites be limited after sunset to reduce the potential impacts of dust, noise and light pollution over the Muswellbrook township.

NOISE

50.0 Noise impacts on near residences from water pumping from the Hunter River do not appear to have been assessed as part of MOD 4 and the Proponent should assess those impacts now, particularly as the increased annual ROM proposed to be extracted may increase the need to pump water from the River.

SOCIAL IMPACTS

51.0 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.

52.0 Current approvals for the Mt Pleasant mine have required a substantial number of dwellings to be acquired due to blasting, noise and air quality impacts. Many of these dwellings have been demolished removed a range of houses, but particularly affordable housing from the market.

53.0 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.

54.0 To support the local economy and to reduce the social impacts of fatigue often associated with a drive in-drive out workforce, the Proponent should take steps to employ locally based people or encourage new employees to relocate to the Upper Hunter.

55.0 Information provided with the EIS indicates:

- Close to 70% of the workforce lives in one of the three Upper Hunter council areas; and
- At June 2020, there were approximately 40 properties in Muswellbrook, 8 properties in Upper Hunter and 38 properties in Singleton available for rent.

56.0 The Proponent should explore active means of signalling the market on the need for more housing in the Upper Hunter in advance of workforce expansion e.g. by buying existing housing stock to rent to mine employees.

57.0 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 AER.

58.0 Given the integrated waste rock emplacement landform sits between the Rossgole transmission towers and parts of the town of Muswellbrook, the Proponent should investigate whether the emplacement would impact on transmissions.

REHABILITATION AND MINE CLOSURE

59.0 The local community is highly dependent on mines for employment opportunities. The impact of closure on local and even regional socio-economics will therefore be significant and should be a key consideration in closure planning processes and documents. At the close of mining operations every effort should be made to maintain the quantum of employment opportunities, in turn avoiding economic and social disruption to the local community through loss of job opportunities. Post-mining land use opportunities for rehabilitated mine land could include:

- Recreational uses
- Renewable energy generation activities
- Tourism and Theme parks
- Wildlife habitat and conservation
- Intensive Agriculture / Aquaculture
- Industrial Development

60.0 Transition to post-mining activities should commence before mining ceases. This may require adjustments to Mining Lease conditions.

61.0 A working party with participants from Muswellbrook Shire Council, DPIE, Premiers and Cabinet, Maxwell Ventures (Management) P/L, Muswellbrook Chamber of Commerce, traditional owners and local land council members and the Hunter JO Economic Transitions Committee should be established five years before the end of mining to commence planning for the transition to a post-mining suite of uses for the site.

62.0 There needs to be a high level of indigenous engagement with rehabilitation, final landforms and land uses, how the land will be cultivated. For example, is there a need for consideration of bush tucker.

Council appreciates the opportunity to comment and would be pleased to provide additional information if requested.
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Regards

Fiona Plesman
GENERAL MANAGER