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Chairman Mount Pleasant Modification 3  
Independent Planning Commission  
L3, 201 Elizabeth Street  
Sydney NSW 2000



July 2018

## **MOUNT PLEASANT COAL MINE EXTENSION OF MINE LIFE (DA 92/97 MOD 3) – D512/18**

Thank you for the opportunity to present to the public meeting on the Mount Pleasant Coal Mine Extension Modification 3 in Muswellbrook on 4 July. This submission lodges the information presented to you and your fellow Commissioners at the public meeting.

### **Hunter Thoroughbred Breeders Association**

The Hunter Thoroughbred Breeders Association (HTBA) represents over 200 industry participants including thoroughbred breeders and suppliers of equine support services.

### **The Thoroughbred Breeding Industry**

The Hunter Valley's Thoroughbred Breeding Industry is Australia's premier multi-billion dollar breeding industry, representing over half of all thoroughbreds produced in Australia.

It is Australia's largest producer, supplier and exporter of premium thoroughbreds and acknowledged as one of only three international centres of thoroughbred breeding excellence in the world alongside Kentucky in the USA and Newmarket in the UK. It is an important employer of hundreds of thousands of Australians (directly and indirectly) throughout our value chain regionally, in NSW and across the nation.

It is the largest agricultural industry and employer in the Hunter region – support some 6,000 jobs in the Hunter and contributing over half a billion dollars of value added to the region every year.<sup>1</sup> The industry is vertically integrated, interdependent and concentrated in a critical mass in the Upper Hunter Valley. It contributes over \$5billion to the national GDP and \$2.6 billion to NSW economy every year.

The industry is recognised by the NSW Government as being of state and national significance and one of two critical clusters in the Hunter Valley (equine and wine). NSW Government policies, including the Upper Hunter Strategic Land Use Plan and the Hunter Regional Plan 2036 both recognise the importance of the industry and prioritise the protection of the Equine Critical Industry Cluster to allow for expansion of the industry<sup>2</sup>.

The impacts of this proposed mine (direct and indirect, static and dynamic) will affect the nearby towns of Muswellbrook and Aberdeen, the local landscape and topography, adding to the cumulative impacts of mining in this area, including its environment, character and reputation.

The global thoroughbred breeding industry is extremely competitive and investment is highly mobile. Reputation and brand are paramount to attracting investment and retaining clients. This is reflected in every aspect of a world scale stud's appearance and operation – from the approaches, surrounds, locality and throughout every acre of the stud's operation.

The production of elite equine athletes requires a unique operating environment combining scenic landscape, plentiful clean water, rich soils and a varied undulating terrain to produce and develop young equine athletes into the champions of the future.

Many studs and broodmare farms, including Godolphin's Kelvinside stud farm, are located in the Upper Hunter Valley, including the Segenhoe Valley, where all of the above characteristics are present. Any threat to this environment (perceived or real) will threaten the fundamental basis of the business model upon which this industry is based.

<sup>1</sup> See also IER 2014 Report *Size and Scope of the NSW Racing Industry*, commissioned by the NSW Government

<sup>2</sup> See for example, *Hunter Regional Plan 2036*, p 70 Regional Priorities



### Mount Pleasant Modification

The HTBA's legal adviser, Beatty Legal, has submitted on the HTBA's behalf that the Commission must apply two tests to this Modification application:

1. is the application before the Commission one that is legally competent, that is it actually a modification which s75W might allow to proceed to a merit assessment, or is it a new DA in disguise? and
2. even if the application is considered legally competent, is the material adduced by MACH in support of this Modification reliable, current, complete and accurate?

Beatty Legal contend that this application fails *both* tests.

In their presentation to the Commission, Beatty legal established that:

1. **This modification application is in truth an application for a new, greenfield open cut coal mine** disguised as a modification to an approval issued a generation ago, to avoid and escape the proper scrutiny of a real assessment. What remains today is an approval kept in legal formaldehyde for a generation while our laws and our social views evolved.
2. **The Commission have been offered no meaningful assessment of the impacts of this new mine** because MACH ask you to simply accept the studies and reports procured by Coal and Allied over 20 years ago.
  - a. The mine which approval of this application will permit will bear little resemblance to the approval issued in 1999.
  - b. A consent authority has no power to allow a "modification" which will produce something so different.
3. **The public interest and the objects of the planning laws are best served by requiring this proponent to lodge a full, new DA**, without trying to rely on the last rays of light at the sunset of Part 3A.
  - a. A new DA would properly oblige the proponent (and the DPE) to assess the socio-economic benefits of a new mine against contemporary laws and contemporary views.
4. Even if the Commission were to decide that this application is somehow legally competent, **any reasonable analysis of the material on which MACH relies would lead the Commission to conclude that that material is unreliable.**
  - a. The Commission must have a **very high degree of confidence** in that material if it is to undertake a properly calibrated balancing exercise where it is undeniable that this new mine will cause long term harm to the local and regional environment and the sustainable non-mining businesses it supports.
5. **Any reasonable examination of the adverse impacts which this new mine** will visit on water resources, human health, heritage, and the sustainable rural economy in this region **must, it is submitted, lead the Commission to reject this application.**

A copy of the advice provided by Beatty Legal is appended in full.

In our submission to the Department last year, we raised serious concerns regarding MACH Energy's Modification 3 proposal including:

1. **Unacceptable air quality impacts;**
2. **Deficient and incomplete analysis of noise and blasting impacts;**
3. **Water management assessment that misrepresented groundwater and surface water impacts** and contradicted the 1997 EIS;
4. **A manifestly deficient mine plan;**



5. **Aboriginal and non-Aboriginal heritage impacts that have not been properly assessed and could be irreversible;**
6. **Visual impact analysis that is incomplete and deficient;** and
7. The complete **absence of any assessment of the impact of this proposed new mine on surrounding agricultural industries** and lands, including the Hunter's equine critical industry cluster.

None of these issues have been appropriately assessed, avoided or mitigated either by the Proponent or the Department in its assessment report. All of our concerns remain, and are reinforced by the reviews of experts in the fields of air quality, water, noise and blasting, mine operations, heritage, and visual amenity.

Furthermore, as presented to the Commission at the meeting, the analysis undertaken by Marsden Jacob Associates reveals that no cost benefit analysis has been undertaken for the original proposal or this proposed modification. Even if a cost benefit analysis had been undertaken for the original proposal, it could not be relied on as this proposed modification is significantly and materially different to that considered by the Commission of Inquiry in 1999.

A summary of experts' findings was presented to the Commission at the meeting on 4 July (reproduced at Attachment 1). **A copy of each of their full reports is also appended.**

It is noteworthy that the consent conditions recommended by the Commission of Inquiry in May 1999 were comprehensive and stringent recognizing that the *"legitimate rights of residents must be protected."*<sup>3</sup> The Commission of Inquiry also noted that *"the opportunity to exploit loopholes in consent conditions, interpretation of results and to avoid obligations for compliance and acquisition of adversely affected properties must be negated."* *"There should be no ambiguity or opportunity to dismiss exceedances by application or confusion of "interpretation" or "statistical manipulation"."*<sup>4</sup>

### Conclusion

The HTBA respectfully submits that this modification proposal is substantially and materially different to the proposal that was granted Development Consent in 1999. The proposed modification does not meet important legal tests or merit assessments. In significant respects its merits cannot be analysed due to the manifest inadequacy of the material. It does not reflect contemporary environmental and community standards. It does not reflect, and is contrary to, contemporary Government policy with respect to the protection of the Hunter's state and nationally significant equine critical cluster. It will materially and adversely impact the Hunter's equine industry cluster and could trigger its demise. The HTBA respectfully submits, on the basis of evidence provided, the Commission rejects this proposal.

Yours sincerely



Dr Cameron Collins  
President

<sup>3</sup> Proposed Mount Pleasant Open Cut Coal Mine, Report to the Honourable Dr Andrew Refshauge, Commission of Inquiry May 1999, p 62

<sup>4</sup> Ibid, p 62



## SUMMARY OF EXPERT ASSESSMENTS

The HTBA commissioned a number of experts to assess and analyse both the Secretary's Environmental Assessment Report and the Proponent's Environmental Assessment. Their reports are appended in full.

### Economics:

1. Marsden Jacob Associates, one of Australia's largest independent economic and financial advisory firms, undertook an expert review of the economic analysis of this proposed Modification.
2. Their assessment is that:
  - a. **No economic cost benefit analysis has been undertaken for the proposed modification** – which contravenes the requirements of the *Guidelines for the economic assessment of mining and coal seam gas proposals* as prescribed under section 78A of the EP&A Act
  - b. No cost benefit analysis was undertaken for the original approval – however even if a cost benefit analysis was undertaken in 1997 it could not be relied upon because the **base case** – without project case – has substantially changed
  - c. Based on MACH Energy and Bengalla Mining Company's (BMC's) press release, it would appear that BMC's private commercial concerns about the proposed modification application have been dealt with, on terms that are not available to the IPC or the public
  - d. However, while these financial differences have been resolved, this does not mean that the economic (cost benefit) consequences of the development have been carefully, properly and transparently considered, avoided or mitigated.
3. We further note the Department's conclusion that without an extension of the current date of expiry of approval, the Mount Pleasant Coal mine is unlikely to be commercially viable. It follows that the Department's finding also means that this proposal reflects a mine which is uneconomic.
4. The economic justification of the construction, and removal of the rail loop prior to 2022 are not explained, nor is there any explanation before the IPC of how coal is removed from the site after removal of the loop.
5. The economic analysis is flawed given the findings of Mr White (below) around either an underestimation of plant and equipment, or an inability to meet output, or lack of assessment of impacts which flow from those findings.
6. The HTBA submits the Commission cannot rely on either the Proponent's or the Department's conclusion that the proposed modification would provide significant socio-economic benefits to the local region and the wider community of State as it does not have before it a detailed and thorough economic (cost benefit) analysis to inform consent considerations.

### Mine and Mining Plans:

Mr Michael White, a mining engineer with over 25 year's experience in Australia and overseas, has identified a number of key issues with this modification which highlight key deficiencies of the Proponent's Environmental Assessment, and the Department's assessment. These findings reinforce the significant, material and negative changes this proposal poses when compared to the original 1999 mine and rehabilitation plan. These issues in turn, have material flow on effects to other analyses including economic benefits, water, dust, and noise. They include:

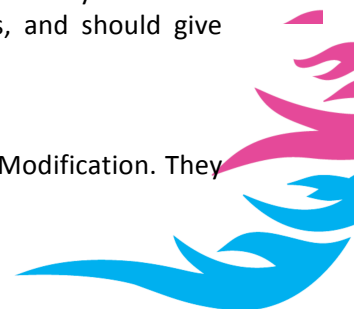
1. An underestimation in amount of mining equipment required to meet the mine production schedule. Therefore:
  - a. The noise and dust modelling inputs for mining equipment numbers are understated.
  - b. The current noise and dust modelling is inaccurate, and the impacts understated.



- c. The additional equipment required will produce more noise and more dust and is not included in the current noise and air quality monitoring.
- 2. The Independent Planning Commission cannot rely upon the current noise and dust modelling results. As a result, a decision cannot be made on the MACH Modification 3 application by the Independent Planning Commission based on the current understated noise and dust modelling results.
- 3. Changing the operating strategy for the deposition of the coal fines rejects will result in poorer environmental and visual amenity outcomes and is inconsistent with the current approval
- 4. Significant and negative changes to the Fine Rejects Emplacement Operational Management Strategy is proposed by this modification.
- 5. There have been no technical reasons provided in the MACH Energy Modification 3 EA as to why the currently approved Operating Strategy cannot be executed. The reasons for this proposed change in operating strategy seem to be solely financial.
  - a. This should not be viewed as valid justification to approve the adoption of the significantly different and significantly poorer environmental approach to managing the Fines Emplacement Area contained in MACH MOD 3 Environmental Assessment.
- 6. The 1997 operating strategy would require more equipment and ongoing management effort than the MACH Energy Modification 3 proposed operating strategy.
- 7. It is clear that the 1997 fine tailings emplacement strategy containing multiple cells and offering earlier rehabilitation was specifically detailed and considered in the 1999 Approval process. This therefore does not allow discretionary, significant and poorer environmental outcome changes to be made by MACH Energy.
- 8. For the Fines Emplacement Area there is no justification offered to support approval of a significantly different and significantly poorer environmental approach to the operating strategy.
- 9. The fact that these changes are significant means that this application cannot be regarded or treated as a 'modification'.
- 10. There are several other aspects to this proposed modification that are both unique and troubling. They relate to the infrastructure lifespan of a rail spur, loop and train load out which, according to the draft conditions of consent must be decommissioned by May 2022, (involving a capital investment of estimated at some \$50m for only four years) and the six year mine extension life.
  - a. It is not credible that the mine life is intended by MACH Energy to be only for this short period.
  - b. To properly be able to assess the impacts of the Mt Pleasant Mine an assessment period for a mine life of 21 years should be required.
- 11. The Commission is currently faced with a challenge to properly understand and assess this proposal. This challenge is similar to trying to decipher a large mosaic by only being able to see six tiles.
- 12. On the basis of this evidence, the HTBA submits that the Commission cannot rely on MACH Energy's Environmental Assessment or the Department's recommendations, and should give them no weight.

### **Air Quality**

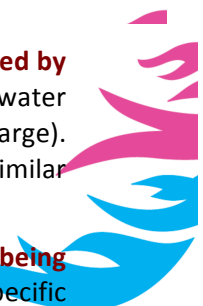
- 7. Stephenson Environmental reviewed the air quality impacts of the proposed Modification. They concluded:
  - a. the proposed project would result in **exceedances of PM10**;



- b. the plots of data presented by MACH Energy in their EA show **regular PM10 exceedances for most of the year;**
  - c. the **MACH EA also acknowledges local air quality at times exceeds the maximum 24 hour average PM 2.5 concentration and annual criterion;**
  - d. both MACH and the Department conceded that air quality exceedances occur in this area **irrespective of the proposed Modification** – to put this plainly the background levels, including other projects **already exceed the criteria for all potentially affected receptors**
  - e. despite this, **neither MACH nor the Department heed or take any responsibility for the cumulative impact of this mine on the Upper Hunter’s air quality;**
  - f. **MACH acknowledges compliance criteria will be exceeded;** blame other mines and wood fires; take no responsibility; and intend to use “reactive dust mitigation strategies” to manage this situation. This is clearly unacceptable and cannot be conditioned.
8. The assessments provided by MACH do not deal with the impacts adequately. They also are further understated for the reasons set out by Mr White (above “Mine and Mining Plans”)
9. The HTBA respectfully submits that with this project the Upper Hunter will cross its air quality tipping point.
10. The Commission cannot rely upon the Department’s recommendations to update air quality criteria in the conditions of consent and grant further acquisition rights as these actions do not and will not address the underlying, and cumulative, negative air quality impacts of this Project to this region. The analysis of the air quality impacts of this proposed modification clearly shows that it will result in exceedances and the Hunter’s air quality will diminish further.

### Water

11. OD Hydrology reviewed the water impacts of this proposed modification. They found:
- a. **Significant gaps, omissions and oversights** in what the Department has considered – including no discussion or assessment of the potential groundwater impacts; no discussion or request for cumulative surface water and groundwater in local water courses and aquifers; no meaningful critique or independent verification of the risk of unauthorised discharge from the Fines Emplacement Area (FEA) (despite the EPA’s concerns and recommendation that “all discharges from the FEA be contained on site”); and no meaningful verification of proposed water supply reliability and risk shortfall.
  - b. **a lack of robust understanding of the real risks of unauthorized discharge to Sandy Creek and other water courses** – both in terms of off site impacts and operational disruptions. Based on available water balance information, the project runs a high risk of experiencing periods of lost operation over the proposed 6-year extension due to water supply shortfalls.
  - c. **material changes to Mt Pleasant Operations surface water system** – key components of the water systems now have fundamentally different functions (and therefore design and assessment requirements) to those under the approved plan. For example:
    - i. **Environmental Dam 2 no longer performs the function of an environmental dam** – it is now simply a sediment dam. It is no longer a component of the Mine Water Management System but rather the Clean Water Diversion System.
    - ii. The **original function of the environmental dam would now need to be provided by the fines emplacement embankment** (ie to intercept, capture and store mine water within the mine water management system – to ensure no external discharge). Accordingly, the fines wall/embankment would need to be designed to a similar standard and dam type as the original environmental dams.
    - iii. In the 1997 Mount Pleasant EIS, **Environmental Dam were described as being “impermeable”** to prevent off-site discharge as well as featuring specific



components of **dam design** to ensure minimization, interception and collection of any seepage for pumping to the mine water dam.

- iv. In the Mount Pleasant modification proposal however the **FE walls are still to be constructed using coarse rejects – ie not “impermeable”** with subsequent likely discharge to Sandy Creek (high probability of 50% of external discharge over the project life).
- d. **Material changes to effects on groundwater**
- i. There has been no comprehensive updated groundwater assessment since the 1997 EIS.
  - ii. All issues previously raised remain relevant and valid, and changes now proposed (and their impacts on groundwater) are materially different to those proposed in the 1997 EIS including:
    1. Mining from 4 pits over a 21 year period to a single pit as proposed in Mod 3
    2. Timing of extraction from proposed Mod 3 is different to the 1997 approved pit progression
    3. Use of truck and shovel rather than dragline.
  - iii. Accordingly the changes proposed to the mine plan will change the predicted impacts to groundwater resources (a point also raised by Bengalla).
- e. The HTBA further notes that MACH has not complied with any of the accepted criteria for assessing acceptable levels of impact on groundwater systems as required by the Aquifer Interference Policy; nor does this project comply with the National Australian Groundwater Modelling guidelines.
- f. We submit that in appropriately assessing the water impacts, these must be firstly understood, explained and dealt with. To simply require a Water Management Plan at some later time does not, we respectfully submit, meet the required tests required for approval.
- g. The HTBA further notes that these concerns are in addition to the recent work undertaken by Herron et al regarding the cumulative regional impacts of mining on the Hunter’s water systems, the precarious situation due to potentially large changes in flow regime and changes to water availability in the Hunter Regulated River with implications for water security and supply reliability.
- h. Given the above, the HTBA submits that the Commission ought recognise
- the significant and material differences between the proposed Modification and the original approval,
  - take into consideration the deleterious effects of this project on the Hunter’s water security and supply reliability,
  - place little weight on the Department’s recommendation that MACH merely revise its Water Management Plan if the modification is approved, as by then it will be too late.

### **Noise and Blasting**

12. Noise and vibration from blasting assessment was undertaken by Arup Pty Ltd.
13. Arup has found that the Wilkinson Murray report prepared for MACH is essentially **a desk top assessment and does not provide confidence with respect to operational noise and vibration from blasting**; nor does it provide confidence that all aspects of the project have been assessed in accordance with best practice assessments and methodologies.
14. Specifically, and concerningly:



- a. **background noise measurements to establish noise limits are incomplete** and not based on up-to-date data;
  - b. there is **no proposed methodology to establish and transparently assess the appropriate noise limits** associated with this proposed development;
  - c. **low frequency noise assessments have not been completed.** It is unacceptable to defer assessment of low frequency noise (which is common to mining activities) to be considered post possible approval. Best practice suggests that the MACH EA should have assessed this impact and its level of intrusiveness. The fact that this has not occurred is of concern;
  - d. noise emitted from the proposed development has been assessed with **modified noise data** (low noise equipment).
    - i. We note that “low noise equipment” is a term used by MACH however there is no corroborating documentation or evidence that the equipment to be used by MACH operates in “low noise” mode and there is no evidence substantiating the claim that this equipment will reduce noise levels;
  - e. **noise modeling has been undertaken with outdated, defunct software** which has been superseded many times and is no longer considered best practice;
  - f. noise modeling has been calibrated to represent existing operations;
  - g. **blasting criteria has been established for damage to structures not humans** therefore there is no assessment of the impacts on humans or livestock – this is a key concern considering the proximity of this mine to the townships of Aberdeen and Muswellbrook.
15. The assessments also fail to take into account the additional impacts raised by Mr White (above – “Mine and Mining Plans”).
16. We submit that the Commission carefully consider the cumulative noise and blasting impacts of this proposal and place no weight on the Department’s findings.

### Heritage

17. GML was engaged to review MACH’s and the DPE’s Heritage Impact Assessment of MOD 3.
18. On **non-Aboriginal heritage**, Ms Sharon Veale concluded that:
- a. Apparently in ignorance of a fundamental precept of the *Burra Charter*, there has been no assessment in 1997 or now of the historic cultural landscape or heritage curtilages around the items identified.
19. **On Aboriginal heritage**, Dr Tim Owen concluded that:
- a. there has been no consideration of intangible or social values or cultural heritage landscapes in satisfaction of the Burra Charter, merely an acknowledgement of harm to large numbers of identified objects
  - b. there has been no assessment of cumulative impacts to Aboriginal heritage
  - c. there has been no assessment of how the proposed final landform will affect Aboriginal heritage values across this land especially as the site will be then have no objects and no remaining sites or places of significance
  - d. MACH and the DPE appear to have proceeded on the basis that this part of the Hunter Valley “contains no Aboriginal cultural landscape or any intangible values.”

### Visual Impact Assessment

20. A visual impact assessment was carried out by Mr Michael Wright, registered landscape architect with broad and extensive experience in these assessments.
21. In his report Mr Wright concludes that:





- a. **Open cut coal mining has the largest impact of any land use** in a rural setting. The scale and footprint of these mines are very difficult to conceal from the public view.
- b. There is **no recognition in the EA of the importance of the Hunter River Valley landscape** to the towns of Muswellbrook and Aberdeen, and the surrounding locality in terms of scenic quality, visual amenity and identity of the region.
- c. The **EA does not consider the proximity of the Modification to the towns of Muswellbrook and Aberdeen or the surrounding high value agricultural industries**, including the Thoroughbred studs.
- d. This **lack of buffer between the mine and the town and/or studs** should have been considered in the report visual impact assessment.
- e. **sensitive receivers** within the towns and the agricultural areas which include the Equine and Viticulture industries, as well as locals and tourists require a level of consideration and analysis of potential impacts, which has **not been evaluated in the assessment**.
- f. **By contrast, Thoroughbred breeding studs have the highest standards of landscape visual quality and presentation, which relates directly to their reputation and image.** Specifically Mr Wright states:
 

*“Open cut coal mining in close proximity to Thoroughbred breeding areas is evidently one of the most incompatible neighbouring land uses for these studs. The presence of such an intrusive and damaging land use adjacent to, and in the vicinity of a Thoroughbred breeding stud is contrary to recognised best practices that have been established over the last two centuries.”*
- g. **This is also the case for the towns of the Hunter Valley region, which have increasingly relied on the tourist industry.**
- h. an understanding has not been developed of the full range of receivers located within the area nor their sensitivity to this intrusive land use, particularly the range of impacts on the towns, road corridors and Thoroughbred studs.
  - i. There are areas for which no assessment has been made – areas which are clearly sensitive receptors, and which will be significantly impacted. These impacts will also be for longer periods than contemplated by the original approval, and which would also not have been contemplated by those who will now be affected. These include elevated areas of Muswellbrook and Aberdeen (and in particular Graeme Street and the residential area around the water reservoir), and the road corridors (for example Kayuga and Wybong Roads).
  - ii. As recognised by previous PACs the studs require the highest level of landscape visual quality and presentation as well as clean physical and visual environment.
- i. The **direct, indirect and dynamic visual impacts** that the Modification would have on these receivers **have not been considered** in the MACH Energy report.
  - i. As a consequence there has been no other mitigation measures proposed in the EA other than to contour the final landform and undertake rehabilitation on the batters of the waste emplacement.
  - ii. Given the degree of visual exposure of the towns, roads and rural properties and their close proximity to this mine, this level of mitigation is insufficient to satisfactorily mitigate the visual impacts of the mine.
- j. The **visual impact assessment carried out by MACH Energy in 2017 is incomplete and seriously deficient** in information required for an acceptable visual impact assessment:
  - i. the proposed mine final landform lacks detail
  - ii. the staging and rehabilitation lacks detail



- iii. the new location for waste rock emplacement is more exposed;
  - iv. justification for the mine modification is unclear extension of the South Pit Eastern Out of Pit Emplacement will “better align with the underlying topography” however there is no evidence provided to explain or demonstrate what this means in terms of the physical and visual setting
  - v. the visual assessment relies on a 20 year old assessment
  - vi. the extensive visual catchment is not acknowledged or assessed
  - vii. viewpoints are not representative of the affected area
  - viii. the EA fails to assess the indirect and dynamic visual impacts of the proposed open cut mine – this is particularly significant given the proximity of the mine to the urban areas of Muswellbrook and Aberdeen, the New England Highway as well as local roads and rural properties.
  - ix. Indirect visual impacts manifest in a number of different forms including dust from blasting, excavation, overburden emplacement and vehicles on haul roads, gas plumes from blasting, smoke, lighting operations at night and a range of mining vehicles on public roads (Figure 11).
22. Given the location of this proposed open cut mine, its proximity to main towns and tourist routes and the Hunter’s thoroughbred breeding industry, along with the significant deficiencies in MACH’s visual impact analysis, we respectfully disagree with the Department’s conclusions and submit the Commission should place no reliance on it.

