

18 January 2013

Mr Paul Freeman
Senior Planner
NSW Department of Planning & Infrastructure
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SYDNEY NSW 2001

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Dear Mr Freeman

ENVIRONMENTAL IMPACT STATEMENT – STRATFORD EXTENSION PROJECT

I refer to the Environmental Impact Statement exhibited on the NSW Planning & Infrastructure web site in relation to the Stratford Extension Project.

The proposal includes extending the current mine to include additional open pit working areas, as well as extending the period of hours of operation to 24 hours a day, seven days a week. These changes are associated with an increased production of ROM coal up to approximately 2.6 million tonnes per annum (Mtpa).

The following discussion is provided in relation to the potential impacts on human health and the discussion provided in the EIS for the Stratford Extension Project.

Noise

The EIS informs that the project is to operate 24 hours a day, seven days a week, subject to compliance with noise limit criteria.

Many properties are classified in the noise management zone and are predicted to incur noise impacts. The EIS does not clearly demonstrate that the community that will be residing within the noise management zone have been consulted and offered methods to mitigate noise impacts.

Whilst criteria exist for noise limits, there are no set criteria for sleep disturbance. There is potential for sleep disturbance of the nearby residents with respect to this project proposal. It would therefore be appropriate for the proponent to demonstrate that there has been proper community consultation with respect to the impacts of noise and the potential of noise to cause sleep disturbance. The EIS should further discuss the methods to mitigate

noise impacts as they relate to sleep disturbance and clearly demonstrate that this has been communicated with the community.

Lighting

It is noted that the EIS discusses issues of lighting with the proponents taking measures to minimise lighting impacts on nearby residents. This is appropriate given that the EIS proposes 24 hours per day, seven days a week operation. It is noted however that the EIS claims that night lighting impacts of the mining operation will be similar to those of a rural homestead. It seems somewhat unrealistic to compare a mining operation, industrial in nature, to a rural homestead. It is essential that the proponents ensure there is in place, a method for managing complaints and addressing lighting impacts should they be encountered.

Air Quality

The comments in this section are contingent upon the Environment Protection Authority's confirmation that the methods used comply with their *Approved Methods*.

Overall, the mine is predicted to increase short- and long-term exposure to ambient particulate matter air pollution for people living nearby. This can be expected to have some health impact, because no threshold has been identified below which exposure to particulate air pollution is not associated with health effects. If the proposal is approved, it should be conditional upon the use of best practice measures to keep particulate matter emissions as low as reasonably practicable.

More specifically, the air quality modelling suggests that the project alone could add up to 30 to 40 $\mu\text{g}/\text{m}^3$ to the maximum 24 hour PM_{10} for some private residences. This is a significant increase. The Monte Carlo analysis of maximum 24 hour PM_{10} levels suggest that the likelihood of 24 hour PM_{10} levels exceeding the EPA Assessment Criterion of 50 $\mu\text{g}/\text{m}^3$ will increase 10 fold in the village of Craven from 0.5 days to 5.4 days per year (Table 9.2). The proponent should consider what additional measures could be taken to ensure no resident is exposed to particulate pollution in excess of the Assessment Criteria.

There are no predicted exceedances of the annual average PM_{10} goal of 30 $\mu\text{g}/\text{m}^3$ criteria at private residences. The cumulative annual average PM_{10} impact at most residences lies between 10 to 15 $\mu\text{g}/\text{m}^3$ with one at 28 $\mu\text{g}/\text{m}^3$.

A Director General's requirement is that the proponent assesses the potential impact of diesel emissions. Diesel engines may be a source of $\text{PM}_{2.5}$. However, from the tables 8.1 – 8.3, it does not appear that diesel engines have been included as an emissions source. This should be clarified.

The Environmental Impact Statement assumes that PM_{10} level goals will remain static throughout the duration of the 10 year project. Even if regulatory goals do not demand a decrease in PM_{10} levels, societal expectations of cleaner air will increase. A priority of the National Plan for Clean Air is to develop an exposure reduction framework, which aims to reduce the population's exposure to particulate air pollution, even when it is below current standards. Urban air in Sydney will continue to improve in quality while the air quality in the Stratford area will likely worsen and in many areas exceed the PM_{10} levels in Sydney. The California ARB Standard annual average goal for PM_{10} is 20 $\mu\text{g}/\text{m}^3$. Any modelling

beyond a 10 year timeline could consider that the annual average PM₁₀ goal may have been reduced to 20 µg/m³ over that time period.

The control efficiency for controlling dust from wheels in road haulage is one of the major sources of PM₁₀ emissions at open cut coal mines. It is noted that the project assumes a control efficiency of 90% for controlling dust emissions on haul roads in section 8.3. The evidence for this estimate relies on theoretical calculations of control efficiency and not on current NSW mining practice. The report '*NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and / or Minimise Emissions of Particulate Matter from Coal Mining*' prepared by Katestone Environmental Pty Ltd for Office of Environment and Heritage, June 2011 found that most mines only achieved a control factor of 50 to 75% for haul road dust suppression (Table 102, page 204). It is therefore suggested that the model be rerun with assumptions of 65%, 70%, 75% and 80% control efficiency.

Thus, the Stratford Extension Project air quality modelling may underestimate the impact on the community based on the assumed control of PM₁₀ levels at source. Additionally, even if the modelling is accurate it predicts an increase in PM₁₀ levels that could further impact upon health and assumes that current air quality goals will be acceptable 10 years into the future of the project.

It is therefore recommended that the concerns raised above be explored with an independent air quality modelling consultancy and the model be rerun if these concerns are considered valid by the independent consultant.

Stakeholder engagement

It would be appropriate to have an assessment of community satisfaction with the stakeholder engagement program. The proponents would be well-advised to have an independent assessment of community consultation with respect to noise impacts.

Rain water tanks

The EIS discusses a study in the area in relation to water quality from rainwater tanks but a copy of that study is not attached as an appendix.

The EIS appears to dismiss issues associated with water quality from rainwater tanks and whilst it is acknowledged that mining operations are unlikely to contribute metal contamination to tanked rainwater, it does not adequately address the issue of physical attributes of water that may be impacted by mining construction and operations.

A management system for receiving complaints and rectifying issues identified should be considered. The peak reference document in Australia providing information on rainwater tanks is the enHealth, *Guidance on use of rainwater tanks*. This document can be accessed on the web at:

[http://www.health.gov.au/internet/main/publishing.nsf/Content/DD676FA1241CDD0DCA25787000076BCD/\\$File/enhealth-raintank.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/DD676FA1241CDD0DCA25787000076BCD/$File/enhealth-raintank.pdf)

It would be appropriate to utilise the above document to apply recommended standards to rainwater tank systems within the vicinity of the mine in a proactive manner.

Should you require any additional information in relation to the above, please telephone Ms Stephanie Stratigos, Environmental Health Officer on 6515 1855.

Yours sincerely

A handwritten signature in purple ink, appearing to read 'David Durrheim', with a large, sweeping flourish extending to the right.

Professor David Durrheim
Service Director - Health Protection
Hunter New England Population Health