

13 September 2016

Jessie Evans
Team Leader, Planning Services – Resource Assessment & Compliance
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

By email: jessie.evans@planning.nsw.gov.au

Dear Jessie

Re: Wallarah 2 Coal Project – Amended Development Application (SSD 4974)

Thank you for the opportunity to review the environmental impact assessment for the amended project. The Central Coast Public Health Unit (PHU) has consulted with the NSW Ministry of Health, Environmental Health Branch, in preparing this response.

We wish to provide comment on the amendment in the context of the whole project. Our previous comments on the project from 26 June 2013 remain relevant and are referred to below.

Air Quality

The following comments relate to 'Walarah 2 Coal Project Air Quality and Greenhouse Gas Assessment – Addendum' (AQGGA-A), published 4 July 2016. The comments provided in this letter are contingent upon the Environment Protection Authority's (EPA) confirmation that the modelling approach is appropriate. If this was found not to be the case, our findings would need to be reconsidered.

The PHU notes that modelling predicts that incremental dust deposition and TSP, PM₁₀ and PM_{2.5} concentrations at the closest residential receivers are below impact assessment criteria. As health impacts can occur below guideline values, and there is no safe level of exposure to particulate matter (PM), it is important to consider all reasonable and feasible measures to reduce air quality impacts.

Assessing air quality impacts requires high quality and complete data. It is noted that the monitoring data presented to establish existing air quality used high volume air samplers to measure PM₁₀. It is stated on p17, AQGGA-A, that data from these samplers were 68% and 77-79% complete. Dust deposition data were also incomplete – 'for most years, less than a full year of data was available' (p20, AQGGA-A). Data from other sources, such as from the EPAs routine ambient quality monitoring network in the areas may help supplement these data and ensure that conclusions drawn are valid. The Wyong site has data commencing in October 2012 to present, with over 95% completeness. These data provide considerable insight into local air quality, and the relationship between PM₁₀ and PM_{2.5}.

Particulate pollution contour plots presented in sections 7.1 and 7.2 demonstrate increased ground level concentrations affecting nearby properties. Table 7.1 (p32) that some sites are estimated to experience increases in particulate pollution levels, including P8, P9 and P11, and a greater number of sites experience smaller increases in particulate pollution.

This proposal will increase the frequency of higher air pollution days - figure 7.7, p41, shows the estimated number of days exceeding background 24hr PM₁₀ concentrations for two sites. The graph shows that these premises are expected to see 15 to 20 additional days with a PM₁₀ above the more moderate level of 20ug/m³. For susceptible individuals, there is a risk of more frequent health events. While serious events are less common, less severe health outcomes are more likely (as outlined in Appendix M of the original EIS – ‘pyramid of health impacts’ and our previous submission of 26 June 2013). The risks for individuals will be influenced by any underlying health conditions.

Clarification is sought in relation to the risk of potential air quality impacts from the proposed overland conveyor (length over 3km) and new train load out facility. There does not appear to be any impact of these new infrastructures in any of the contour maps. Confirmation is sought that these potential sources of emissions were included in the model, and if so, an explanation of why they don't appear to cause any increase in particulate pollution.

It is noted that there are existing communities within a kilometre of the new surface facility. Bluehaven is only 300 metres east of the conveyor new transfer point (near the intersection of the railway line and motorway link road). There are over 25,000 people in the Bluehaven, Lakehaven, and Gorokan area. The proposed Warnervale Town Centre will see a further 50,000 people living about 4km to the south east of the surface facility. This new development may attract a higher proportion of susceptible people, such as children.

In summary, particulate pollution will be elevated beyond the boundaries of the proposal, which increases the risk of adverse health effects for people exposed to increased levels of particulate pollution. If this project is approved, there should be ongoing and high quality monitoring of PM₁₀ and PM_{2.5}, and an effective response to air quality criteria exceedance and significant incremental increases in air pollution. Best-practice particulate control measures should be implemented and maintained to minimise air quality impacts on surrounding communities, particularly protecting the most affected receptors.

The PHU requests confirmation from the NSW EPA that the Air Quality Management Plan is appropriate, and the opportunity to review the plan before final approval.

Water and Sewerage Services

We note the amended application includes realignment of the sewer connection to the Tooheys Rd site. We assume that all the surface facilities at both Tooheys Rd and Buttonderry Rd will be connected to Council's mains water supply and sewerage systems.

The proponent is advised to ensure that all potable water supplies, including for use during construction (previously implied as likely to be sourced from water carts) meet the relevant criteria of the Australian Drinking Water Guidelines. The proponent must consider its obligations under the drinking water provisions of the Public Health Act 2010 (NSW) and the NSW Health Private Water Supply Guidelines in the management of potable water supplies that are not sourced from mains water.

Consultation with the PHU is required should any wastewater reuse options involve potable uses, including connection to employee amenities.

The EIS discusses anticipated increases in flooding as a result of the project. There are public health risks associated with flooding of onsite waste management systems, for example, septic tanks on properties impacted by the project. The proponent should develop and implement effective protocols to identify and mitigate risks from flooding.

Drinking Water Supplies

The proposal includes mining underground beneath Jilliby Jilliby Creek, and it is noted the subsidence impact zone includes Wyong River in part. Our concern about impacts from the project on the Central Coast's drinking water supply remains (see 2013 submission). Should the project proceed, approval conditions should be applied to ensure that the requirements of relevant agencies are met, and the risk to the drinking water supply adequately mitigated.

We understand that some residences in the area are using groundwater as a drinking water supply. It is important to consider what may be the impact on these supplies ie having a clear process for identifying whether a bore is affected by the project. Methods to mitigate these potential impacts are essential.

Noise assessment

Research reports an association between community noise and health outcomes in adults and children, including annoyance, sleep disturbance, cardiovascular disease, performance and learning, mental health and stress (Health Effects of Environmental Noise, EnHealth). Current measures of noise exposure may not necessarily capture the nature of the exposure that leads to adverse health effects.

We defer to the NSW Environment Protection Authority (EPA) for validation of the Project Specific Noise Criteria (PSNC) modelling and the methods used to determine ambient noise levels, and request confirmation that these are acceptable. We are aware that the EPA has advised that further information to enable assessment of the amended project and we support this advice. The following comments are based on the information available.

Ambient noise assessment and modelling

As ambient noise monitoring was conducted under limited meteorological conditions, further monitoring under different conditions may be required. Advice from the EPA would be appropriate regarding whether a longer monitoring period is required to provide confidence that the ambient noise levels are truly representative under the variety of expected local weather conditions.

The noise amenity classifications for all noise assessment locations require justification to the satisfaction of the EPA. For example, the urban classification of sites P13, P14 and P15 is not consistent with the land use zoning and the ambient noise levels at these locations are arguably not indicative of an urban environment. A revised assessment will be required if the classifications alter.

Further detail is required in The Noise and Vibration Impact Assessment Addendum (p6) regarding assumptions used and mitigation strategies included in the modelling. For example Noise and Vibration Impact Assessment Addendum (p5) is unclear on whether cladding is provided to the rail load out bin facility, and whether the conveyors are enclosed on all sides and the roof. If the modelling includes these strategies, then a

clear statement regarding the commitment or not, to provide these should be made. If not included, consideration should be given to modelling their benefit, as cladding and fully enclosing the conveyors would likely be appropriate mitigation measures.

The noise modelling appears to include two locomotives at idle. Please clarify whether modelling includes the possibility of four locomotives being operated if this may occur.

Noise impacts

The Amended DA notes that some properties (P14, P15 and P16) will experience increased noise levels and a moderate degree of affectation (Noise and Vibration Impact Assessment Addendum pp19 and 29). It is important that mitigation measures, at source or house, be implemented to ensure noise impacts are limited. Any remedial acoustic works to properties in the noise management zone should be to the satisfaction of the affected land occupier and the EPA.

We assume that site M16 referred to in Tables 4, 5 and 6 of the Noise and Vibration Impact Assessment Addendum is actually site M15. Since the PSNC for location P17 are based on ambient noise levels measured at site M15, we seek confirmation that location M15 is indicative of the ambient noise levels in southern Wyee. Alternatively, additional ambient noise monitoring should be required at a representative location, and assessment conclusions adapted as necessary.

Noise levels at P17 are expected to exceed the PSNC by up to 2 dB(A). While agreeing that the modeled noise increase is small, it is not insignificant because a number of residences are potentially affected. Should the project proceed we suggest that additional mitigation measures be undertaken so that the project meets the PSNC for residences in Wyee.

Construction noise

Since the predicted construction noise levels have potential to impact a number of residences, the proponent should commit to a construction schedule that creates the least possible disruption to the community. From Table 27 of the Noise and Vibration Impact Assessment Addendum the NML exceedances seem to be expected with more than 10dB(A) during standard hours, and up to 20 dB(A) and frequently around 10 dB(A) outside standard hours. Consideration should be given to regulatory controls to minimise these exposures, such as limiting work outside of standard hours, or other appropriate mitigation measures.

Rail noise

Since the rail load out facility configuration and rail spur noise barrier will be defined in the detailed project design phase, we question whether sufficient certainty exists around the configuration of infrastructure generally, to permit accurate impact assessment.

The 2013 EIS noted that rail noise, while not expected to result in increases above existing levels, will result in a minor increase in the 24 hour noise level along on the Main Northern Rail line. Although the increase is small, it will likely affect households and businesses along the rail line for the Central Coast and the Hunter. The cumulative impact from the increased rail movements should be considered in relation to the Central Coast and Newcastle population, from a noise (human health) and traffic perspective.

The management of train horn noise is a strategy adopted in the noise modelling but no detail is provided. Considering the potential for sleep disturbance, the contribution of train horns to the project's noise levels should be demonstrated in the assessment.

Noise management strategies

The amendment EIS (p52) does not appear to acknowledge and commit to all the strategies included in the noise modelling the recommended engineering controls or the EIS recommendations. Clear commitment is required to ensure that these strategies at a minimum, are incorporated into the project design and operation, should it proceed.

The amendment EIS (p52) undertakes to 'where necessary, operate only two of the four locomotives whilst the train is on the rail spur'. We require clarification on how the proponent will identify this necessity. The proponent has undertaken to 'explore the potential for additional noise controls from operational management approaches'. Operational noise controls should be identified and applied so that the impact on the community is minimised.

In summary, the project's noise emissions have potential to affect a number of community members and so we believe the increased noise levels are not insignificant. We believe that more effective noise mitigation measures be implemented to avoid the described noise impacts to the Wyee and Blue Haven areas. These measures should be applied at the project, rather than to private properties. We defer to the EPA, but suggest that should the project proceed, as a minimum, the measures recommended in sections 7 and 11 of the Noise and Vibration Impact Assessment Addendum should be adopted and supported with appropriate approval and licensing conditions imposed.

Monitoring and Enforcement

The NSW EPA has previously proposed approval conditions. Should the project proceed, management of the impacts on the environment and the local community will depend on effective implementation and monitoring of the many control measures, and enforcement of the approval conditions. Specifically, we seek confirmation that should the project proceed, the Noise Management Plan, including Construction Noise and Vibration Management Plan and Monitoring Program, and Air Quality Management Plans will be satisfactory to the EPA.

We support the need for continuous real time monitoring of air quality and noise impacts, and the implementation of management strategies that are consistent with best practice, clearly quantifiable, measurable, auditable and enforceable. Methods for determining compliance must be to the satisfaction of the appropriate regulator.

Further, the proponent will need to ensure that appropriate air quality and noise mitigation criteria are met for the life of the project, given the expansion of residential and employment lands planned for surrounding areas.

Resident Feedback

The community must have a contact point for complaints if noise or air quality issues occur and the proponent must guarantee a prompt and genuine response to all complaints. The previously proposed 'complaints management protocol' should be developed and implemented in consultation with the community.

If further information is required, please contact me on telephone 4320 9730.

Yours sincerely



Dr Peter Lewis
Director Public Health