

Attachment 3

Response to Environment Protection Authority Letter dated 18 December 2019

Development Application No: SSD-7308 Description of Development: St Marys Freight Hub Property Description: Lot 2 Forrester Road, Lots 3 Lee Holm Road and Lot 196 Christie Street, St Marys			
Item:	Subject:	EPA Comment:	Response:
1	Noise and Vibration	<p>1. The mitigation recommended in the RtS noise report includes 17 at-property treatments (an increase from five in the EIS). Other mitigation measures include soft landing technology to reduce maximum noise levels from container handling and a 2.4 metre barrier along therevised truck route. However, the report has not provided an analysis of the process used to determine what mitigation measures are feasible and reasonable (including sufficient justification for the height of the truck route barrier); nor further detail on why operational management measures cannot be further considered, or other source and path type management and mitigation measures. The EPA is concerned that 17 at-property treatments does not appear to be a good environmental outcome for industrial premises of this type based on the information provided. The applicant should be required to outline the process used to determine feasible and reasonable mitigation consistent with <i>the Noise Policy for Industry</i> (EPA, 2017) Section 3.4 and Fact Sheet C.</p>	<p>An updated Noise & Vibration Impact Assessment (NVIA) is enclosed. The updated NVIA provides an evaluation of each mitigation measure and whether they are feasible and reasonable.</p> <p>A 2.4 metre high noise barrier and at-property treatments is proposed to mitigate noise impacts from the heavy vehicle entry road for the residential properties to the south in Kalang Avenue, Camira Street and Carinya Avenue.</p> <p>A combination of a noise barrier and at-property treatments is considered the best approach for attenuating noise impacts on the residential receivers to the south. The 2.4m high noise barrier reduces noise impacts than result in marginal noise impacts with the projected residual exceedances on the residential properties to the south of 3-4 decibels. Exceedances up to 4dB can reasonably and effectively be mitigated through at-property treatments. The establishment of a noise barrier 5-6m in height and over 200 metres in length on the southern boundary of the site adjacent to the St Marys Trains Station has not been considered to be a reasonable outcome due to its proximity to a State Heritage Item and visual impact to sensitive receivers (residential properties and school) to the south and visual impact from the train station. In addition, a large barrier structure of this height is also expected to attract antisocial behaviour in the form graffiti on the southern side of the expansive structure, which would also encourage people in the Sydney Trains land and a significant safety risk.</p> <p>The other concern is the structural constraints to support a barrier over 200 metres in length that is 5-6 metres in height. With a large surface area, the structural support required to sustain a free-standing wall structure in high-wind conditions has been identified as a concern and potential safety risk.</p>
		<p>2. The EPA is still concerned that the single assessed operational scenario may not represent the potential operational configurations of the premises. The applicant did not provide any justification for the assessed scenario in its response to EPA's comments in Section 3.1 of Appendix 1 of the RtS report. The revised site layouts show the areas where empty, full and refrigerated containers will be sorted. This implies that different operations could occur closer or further away from receivers in NCA 2 than the dispersed scenario which was used in the RtS</p>	<p>While a single operational scenario has been assessed, it is representative of the likely worst case. The assessed scenario assumes the most significant noise sources are located so as to produce the highest noise levels at receivers within NCA 2.</p>
		<p>3. The RtS noise report has not provided predicted noise levels at each of the affected receivers and so residual impacts at individual potentially affected receivers have not been assessed and presented in the report.</p>	<p>The updated NVIA (enclosed) includes predicted noise levels at each affect receiver.</p>
		<p>4. The revised layout plans indicate that there could be well over 50 containers with noise producing refrigerated plant located at the closest container storage area to the receivers, which have not been considered in the assessment.</p>	<p>The updated NVIA (enclosed) includes assessment of 50 refrigerated containers, which will be powered by an onsite power source when stacked onsite. AECOM has also modelled and assessed the potential noise impacts from the refrigerated containers and determined an area where there will be no significant noise impact on the closest residential receivers to the south (refer to Appendix E in updated NVIA). The storage area for the refrigerated containers will be located within the area determined to have no noise impact. Accordingly, the refrigerated containers will not have a significant impact on the nearest sensitive receivers.</p>
		<p>5. The RtS noise report has included a correction for impulsiveness, which is not a characteristic assessed in NPfI Fact Sheet C. As previously requested, the applicant should provide an assessment of modifying factors using NPfI Fact Sheet C which includes an assessment of tonal, low frequency and intermittent noise.</p>	<p>The impulsive correction was applied only to door slams and container clangs, which were not the dominant sources for the LAeq assessment, therefore there will be no change in the results. An assessment of the resultant noise levels at receivers for tonality and low frequency noise indicated that no corrections were required to be applied in accordance with the <i>Noise Policy for Industry</i>.</p>

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		<p>6. The EPA is also concerned that the RtS report is inconsistent on when the at-property treatment will be implemented at the receivers. Table 6 of the RtS Report states it would be pre-operation, while Section 3.1 of Appendix 1 of the RtS Report states that at-property treatments would be assessed within 12 months of operation. However, if at-property treatments are defined during the first year of operations, the proposed staged layout means that the site would not be fully operational until stage 3 and therefore it is not clear on what basis they would be determined. The EPA would expect that any path or receiver mitigation is implemented, where practical, prior to the main construction activities occurring to provide a benefit during construction as well as operations.</p>	<p>Pacific National intends to commence consultation with the properties identified as having potential for requiring noise attenuation facilities following development consent and before construction. As the at-property treatments relate to operational noise emissions, agreement of treatment requirements and timing is to be resolved prior to operation where practical. Notwithstanding, the pro-active resolution of treatment requirements will be progressed with the objective to obtain agreements with property owners where possible.</p>
		<p>7. The EPA recommends considering the investigation of a noise barrier located to the south of the rail corridor along Camira Street in consultation with the applicant and the rail infrastructure manager. This would have the potential to mitigate the industrial noise and rail-related noise from the premises in addition to reducing noise levels from rail operations on the existing corridor at receivers in NCA 2. This could represent a feasible and reasonable noise mitigation solution that would provide noise mitigation to a broader cross section of the affected community and would have the consequential benefits of reducing existing and project-modified rail noise from within the rail corridor.</p>	<p>As assessed in the updated Noise and Vibration Impact Assessment, proposing a noise barrier located to the south of the rail corridor along Camira Street is not feasible due to issues with land ownership and ongoing maintenance. There are also potential issues regarding visual, overshadowing and heritage impacts, as well as the barrier would be a poor urban design outcome and attract antisocial behaviour.</p>
		<p>8. The applicant has not sufficiently demonstrated that all reasonable and feasible mitigation measures have been considered prior to specifying treatment at residential properties. Treatments at residential properties are the least desirable form of noise control. The EPA does not consider that the EIS and RtS reports contain a sufficient discussion or demonstration that all available feasible and reasonable mitigation measures have been assessed in the source and in the path. For the EPA to adequately assess the proposal, the report should provide the following as required by the NPfI:</p> <ul style="list-style-type: none"> • Point to point and contour map noise level predictions for all potentially affected receivers for each assessed scenario. • Details of the key noise sources contributing to predicted exceedances i.e. contribution noise ranking. • Analysis of mitigation options, using a format similar to NPfI Table 3.1. • Recommendations for feasible and reasonable mitigation measures. • Predicted noise levels with all reasonable and feasible mitigation measures implemented. • Assessment of residual impacts (if any) according to NPfI Section 4 (after the implementation of all reasonable and feasible mitigation measures). • Justification and demonstration of best achievable noise levels at receivers. 	<p>An updated Noise & Vibration Impact Assessment (NVIA) is enclosed. The updated NVIA addresses the EPA comments where relevant and appropriate.</p> <p>Additional detail on regarding mitigation measures, including what has been considered and dismissed, has been provided in the updated Noise and Vibration Impact Assessment.</p>
2	Air Quality	<p>1. Predicted ground level concentrations for PM2.5, PM10 and NO2 are provided at the site boundary and not the nearest sensitive receptors. The impact assessment criteria for PM2.5, PM10, and NO2 contained in the <i>Approved Methods for Modelling and Assessment of Air Pollutants in NSW</i> (EPA, 2017) are to be applied at the nearest existing or likely future off-site sensitive receptor. To provide clear and transparent information for decision making purposes, the applicant must advise on the nearest existing sensitive receptors and present the predicted ground level concentrations for PM2.5, PM10 and NO2 at these sensitivereceptors.</p>	<p>Assessing pollutant concentration at or beyond the site boundary is considered conservative when assessing a facility such as the St Marys Freight Hub. All sources are essentially ground based and pollutant concentrations are predicted to be highest either within the site or very near to the site boundary if offsite. Pollutant concentration could be provided at nearby sensitive receptors; however, these concentrations would be lower than those assessed in the AQIA. The contour plots provided in the AQIA showed that no additional exceedances for any pollutant were predicted at potential receptors.</p> <p>In addition to the detail above, Pacific National will commit to using Euro IV compliant container handling equipment which will significantly reduce PM_{2.5} and NOx emissions from this source and further reduce offsite pollutant concentrations to levels much lower than reported in the most recent report.</p> <p>Refer to letter dated 20 December 2019 prepared by AECOM.</p>

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		<p>2. The revised AQIA predicts significant annual average PM_{2.5} ground level concentration increments. The revised AQIA predicts exceedances of the annual average impact assessment criteria for PM_{2.5} on a cumulative basis. The project increment is 1.2 ug/m³, which is considered significant. Non-road container handling equipment accounts for ~80% of assessed PM_{2.5} emissions, as such non-road diesel equipment such as container handling equipment represents the most significant assessed PM_{2.5} source.</p>	<p>PM_{2.5} concentrations were elevated due primarily to the off-road diesel vehicles (i.e. container handling equipment). Pacific National has committed to Euro IV compliant container handling equipment. Adoption of Euro IV would see a reduction in the PM emission factors for the container handling equipment from 0.2 g/kWh (Euro III) to 0.025 g/kWh (Euro IV). This constitutes an almost 10 times reduction in PM_{2.5} emissions which would mean that the project increment would be considerably lower than the modelled value of 1.2 ug/m³ significant (annual average concentration estimated at 0.36 ug/m³ based on a weighted average calculation).</p> <p>Refer to letter dated 20 December 2019 prepared by AECOM.</p>
		<p>3. A robust consideration of the implementation of electrification of container handling equipment or container handling equipment that achieves Tier 4 particulate matter emission standards has not been provided. Project contributions to annual average PM_{2.5} could be reduced through the implementation of electrification of container handling equipment or equipment that achieves Tier 4 emission performances. The applicant must robustly demonstrate that the project is adopting all reasonable and feasible best practice mitigation measures to reduce PM_{2.5} emissions and reduce PM_{2.5} project contributions.</p>	<p>Pacific National will commit to the use of Euro IV compliant container handling equipment for the St Marys Freight Hub. From a practical standpoint, adoption of Euro IV is considered to provide best practice mitigation to reduce PM_{2.5} emissions.</p>
3	Technical Advice	ATTACHMENT A EPA's Technical Advice – Air Quality (TA-Air): Review of Response to Submissions Adequacy in addressing previous issues identified	Refer to letter dated 20 December 2019 prepared by AECOM for response to EPA's technical advice.