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Contact: Robbert Mels, (02) 6229 7002

Mr Andrew Beattie  
Senior Planner  
Infrastructure Projects  
NSW Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

21 December 2012

Dear Mr Beattie,

**RE: MP 10\_0240 – Princess Highway Upgrade- Foxground and Berry Bypass –  
Exhibition of Environmental Assessment**

I refer to the above Major Project Application and accompanying Environmental Assessment ("EA") received by the Environment Protection Authority ("EPA") on 12 November 2012. I apologise for the delay in responding.

The EPA has conducted a detailed review of the EA, including the relevant specialist reports and provides comments and recommendations for the Department of Planning and Infrastructure's (DP&I) consideration in Attachment 1. In summary, these comments and recommendations relate to the following issues:

- Noise impacts
- Air impacts
- Surface and groundwater impacts
- Waste management

Should DP&I issue an approval for the project the proponent will also require an Environment Protection Licence under to the *Protection of the Environment Operations Act 1997* before construction commences.

In making these comments, the EPA recognises that there will be significant benefits to the local community and motorists in NSW from upgrading this section of the Princes Highway. It is the role of the Department of Planning and Infrastructure to weigh these benefits with predicted adverse impacts, some of which are discussed overleaf, in making its decision about approval of the project.

Should you have any questions, or wish to discuss this matter further, please contact Robbert Mels at the EPA's Queanbeyan office on 02 6229 7002.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'J. Thompson', with a long horizontal stroke extending to the right.

**JULIAN THOMPSON**  
**Unit Head – South East Region**  
**Environment Protection Authority**

**Attachment A**  
**Environment Protection Authority (“EPA”) recommendations and comments**  
**Environmental Assessment Princess Highway Upgrade - Foxground and Berry Bypass -**  
**(MP 10\_0240)**

**Noise Impact Assessment**

EPA has reviewed the ‘Foxground and Berry Bypass – Technical Paper: Noise and Vibration’ (TP) prepared by AECOM dated November 2012. The TP forms part of the Environmental Assessment (EA) for the project.

In summary, the TP is generally satisfactory, with only a few areas requiring further information.

With regard to **operational** noise, EPA notes that to address noise impacts from the proposed new section of the Princes Highway, a low noise pavement has been proposed, as well as two noise barriers and a number of architectural treatments. With the implementation of these measures, the new section of road is predicted to meet the noise goals in the *NSW Road Noise Policy*.

With regard to the **construction** phase of the project, EPA notes that the WP predicts, at times, significant impacts (up to 49 dB over the noise management level) to the surrounding community due to airborne noise from construction works. Significant exceedances of the identified noise goals in particular are predicted, even with noise mitigation measures in place, and the project is expected to require significant ‘out of hours’ work. There is also the potential for blasting to be required.

EPA considers that prior approval and clear justification should be required for any construction works on the project outside the standard hours in the Interim Construction Noise Guideline, including the proposal to extend standard construction hours in the area between the northern Berry interchange and Toolijooa Road put forward in Section 1.2.2 of the TP. Any blasting should be assessed in detail against ANZECC guidelines.

With regard to recommended licence conditions for construction noise associated with the project, EPA considers that the construction noise management levels (NMLs) adopted in the TP are appropriate, and that any exceedances of the NMLs indicates the potential for construction noise impacts which should be addressed in the construction noise and vibration management plan for the project. The TP proposes a suite of noise and vibration mitigation and management measures to address the expected impacts. It should be clearly acknowledged, however, that the implementation of the Construction Noise and Vibration Management Plan referred to in Section 5.1 of the WP will not, in many cases, be able to reduce the impacts from the works to a level that even approaches the relevant construction noise and vibration goals.

EPA considers that the paramount construction noise management measures will be:

- Effective communication with, and management responses to the concerns of, the affected community;
- The need for clear justification, clear community support and prior approval to carry out any construction works outside the recommended standard hours defined in Section 2.2 of the Interim Construction Noise Guideline (ICNG), including the adoption of the proposed extended construction hours referred to above;
- The early erection of temporary and, where possible, operational noise barriers and/or other mitigation measures proposed in the TP;
- The need to minimise any construction traffic movements outside standard hours, and particularly at night time (10pm to 7am), to reduce the potential for sleep disturbance as much as possible; and

- If blasting is required, the need to carry out an assessment of the potential noise and vibration impacts from blasting, and a strategy to minimise and manage those impacts.

### **Air Impact Assessment**

The EPA has conducted a review of the 'Technical paper: Air quality, Volume 2 –Appendix N - Foxground and Berry bypass-', dated November 2012 prepared by PAEHolmes a division of Queensland Environment Pty Ltd on behalf of AECOM Australia Pty Ltd contained within the EA for the project and provides the following recommendations.

The EA indicates that all PM10 and dust deposition predicted by the proposed development will comply with EPA criteria. To manage potential air emissions from the proposal, the EPA also recommends as part of any approval of the Project Application that a detailed air quality monitoring plan be prepared by a suitably qualified and experienced person(s) for the proposal in consultation with the EPA. It is important to note that the EPA will be guided by such a document in determining and placing any air emissions monitoring requirements as conditions of any Environment Protection Licence that may be applied for the proposal.

### **Surface and Groundwater Assessment**

The EPA has conducted a review of the 'Technical paper: Surface water, groundwater and flooding, Volume 2 –Appendix H -Foxground and Berry bypass-', dated November 2012 prepared for the Roads and Maritime Services by AECOM Australia Pty Ltd contained within the EA for the project and provides the following recommendations.

The EPA notes that the proposal is to be undertaken in a manner so as not to discharge pollutants to either surface waters and/or groundwater. To ensure that this is achieved it is recommended that the following conditions be added to any approval of the Project Application:

- i) Except as may be expressly provided by an Environment Protection Licence, the proponent must comply with section 120 of the *Protection of the Environment Operations Act 1997*. It is important to note that based on the EPA's assessment of the proposal, should an Environment Protection Licence be applied for, conditions will not be placed on such a licence which allow for the discharge of any pollutants from the premises to surface waters and/or groundwater.
- ii) A detailed surface water and groundwater monitoring plan be prepared by an appropriately qualified and experienced person(s) in consultation with the EPA. It is important to note that the EPA will be guided by such a document in determining and placing surface water and groundwater monitoring requirements as conditions of any Environment Protection Licence that may be applied for the proposal.

### **Waste Management**

The EPA recommends the following conditions be incorporated into any Project Approval:

- All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.
- Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.
- All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with Waste Classification Guidelines (Department of Environment, Climate Change and Water, 2009), or any superseding document.

### **Other comments**

Other EPA comments of a technical nature on the TP prepared by AECOM dated November 2012 are outlined below:

- EPA notes that the TP in Section 2.5 states that the attended noise measurements confirmed that at each location the road was the dominant noise source. This section refers to rating background levels, which are provided in Table 2-2. Section 2.6 goes on to say that the average noise levels in Table 2-3 are, in each case, controlled by road noise. Table 2-3 describes daytime LAeq15hour and night-time LAeq9hour traffic noise levels. It is unclear which descriptor (RBL or LAeq) is being used to describe the existing level of road traffic noise, and attended noise monitoring results are not provided in the report. This has an important bearing on the derivation of operational noise criteria (the relative increase criteria) for the project. The existing levels of traffic noise at each receiver/catchment area should be made clear in the report, and results of the operator-attended monitoring also be provided in the report. It should also be made clear if any of the receivers in Appendix I of the TP are controlled by the relative increase criterion.
- The footnotes to Table 3-3 should perhaps refer to Table 2-2 and Table 3-1 respectively.
- The noise management levels in Table 3-4 should also apply during the evening shoulder period.
- Section 3.2 describes other sensitive land uses, the cemetery described in Section 2.2.5 should also be considered as passive use open space.
- Table 4-1 refers to a number of construction activity scenarios with typical equipment used in each scenario. The first activity, site establishment and landscaping, describes a sound power level (SWL) of 105-110 dBA. This appears somewhat low when considered in the context of the SWLs of individual equipment items. This should be reviewed and amended, if necessary, for all scenarios. Table 4-1 also contains an asphalt paver in the earthworks scenario, which appears out of place. It is also noted that Table 4-1 includes both an impact piling rig and a bored piling rig, it is unclear which one will be used in which scenario, or whether the two will be used concurrently in some situations. In view of their relative SWLs, the use of a bored piling rig is strongly preferred wherever possible, and strong justification should be provided for the use of an impact piling rig with its associated high noise emissions.
- Tables 4-5 and 4-7 contain instances where noise levels above 75 dBA are predicted in some noise catchment areas, yet no receivers are considered 'highly noise affected' (e.g. Table 4-7 NCA5). This should be reviewed and amended or explained in the accompanying text.
- Sections 4.2.3 and 4.2.4 also mention the use of rock breaking, yet a rock breaker is not listed in Table 4-1; this should be reviewed and amended if necessary. EPA considers that pile driving should be included in the descriptive text at the bottom of page E-29 and E-32.
- EPA considers that particularly noisy works such as impact piling should not occur during the morning shoulder or extended hours without strong justification and prior approval.
- The tables in Section 4.2.5 relating to out of hours works contain the same predicted levels for different activities (earthworks and bridge works). This should be reviewed and amended if necessary.
- The statement in Section 4.2.5 relating to sleep disturbance (this should be renumbered to 4.2.6) that 'construction works would generally not be undertaken during night-time and hence the likelihood for sleep disturbance is low' appears at odds with the predicted noise levels and assessment in the preceding section (4.2.5 Out of hours works). This should be explained in the text.
- Table 4-19 lists a receiver (number 36) as being 0m from the works; this should be corrected if necessary.
- Section 4.8 of the TP states that the additional construction traffic would be partially offset by a 3% reduction in local traffic volume. This 3% reduction would correspond to an insignificant reduction in noise level, less than one decibel.
- Table 4-21 lists recommended safe working distances for vibration intensive plant; an impact piling rig and its associated safe working distance should be added to this table.
- Section 4.11.7 of the TP describes that predicted noise levels at BG7 are around 4 dB lower than measured due to local acceleration around curves not accounted for in the noise model. It

is unclear how this discrepancy was handled in the subsequent modelling, this should be explained in the text.

- EPA notes that in Section 4.11.12 of the TP, a cost-benefit analysis was undertaken on a proposed noise barrier to address maximum noise levels from the project and their associated potential for sleep disturbance. Although not required by the RMS ENMM, EPA considers it would be beneficial to include the results of this analysis in the TP.