



DOC19/930217

11/11/19

Ms May Patterson  
Team Leader – Resource Assessments  
Department of Planning, Industry and Environment  
GPO Box 39,  
Sydney NSW 2001

Dear Ms Patterson

**Powering Sydney's Future (SSI 8583)  
Advice on the Environmental Impact Statement**

I am writing in reply to your invitation to the Environment Protection Authority (EPA) to provide advice on the Environmental Impact Statement (EIS), including recommendations for Conditions of Approval for the above proposal.

The EPA has reviewed the EIS provided by the Department of Planning, Industry and Environment (DPIE). The EPA's review and comments on noise, air, water, contamination, and waste are provided in Attachment A. The EPA recommends that the observations and concerns outlined in its review are rectified by the proponent prior to consent being issued by the DPIE.

Should you require clarification of any of the comments please contact Bronagh McGeown on 9995 5002 or email [bronagh.mcgeown@epa.nsw.gov.au](mailto:bronagh.mcgeown@epa.nsw.gov.au)

Yours sincerely

A handwritten signature in blue ink that reads 'Sarah Thomson'.

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# ATTACHMENT A

## EPA COMMENTS ON POWERING SYDNEY'S FUTURE

### Noise

The EPA has reviewed the noise and vibration impacts outlined in the EIS Appendix E.1 – Construction Noise and Vibration Impact Assessment by AECOM (undated) and associated Annexures E.2-E.5.

The EPA understands that construction work will occur on numerous residential streets, potentially affecting many people over an extended period of time including work scheduled outside of the recommended standard hours of construction. The overall duration of work at any one location will depend on the construction activity taking place, but this will (generally) range from between two and eight weeks per scenario. The EPA is of the opinion that community consultation will be key to managing the impacts on sensitive receivers and identifying appropriate feasible and reasonable noise mitigation, including staging of work to minimise prolonged impacts, and ensuring there are appropriate periods of respite.

There are a significant number of sensitive receivers across the study area that are predicted to be highly noise affected (as defined in the *Interim Construction Noise Guideline* (ICNG)) and night time works will result in exceedances of the Noise Management Levels by greater than 20 dBA. Based on EPA review, noise impacts identified in the EIS may be underestimated.

The following matters in Appendix E.1 must be addressed:

1. There is insufficient measurement data in Tables A-6 and A-7 to derive rating background levels in accordance with the ICNG. Accurate rating background levels are required to establish predicted construction noise impacts to sensitive receivers.
2. Equipment such as backhoes and excavators are assumed to operate 33-50% of the time in a fifteen minute period. This is not considered representative of how equipment is likely to operate in practise, and further justification should be provided regarding this assumption, or the calculation amended.
3. Predicted construction noise levels have not included noise from heavy vehicles which are expected to be at work sites for spoil loading and disposal.
4. It is not clear if a 5dB(A) penalty has been applied to the predicted noise levels to account for annoying activities such as jackhammering, reversing alarms, power saws, as described in the ICNG.
5. The use of 'awakenings' as described in the NSW Road Noise Policy to determine the potential for sleep disturbance is not appropriate. The ICNG states that the analysis should cover the maximum noise level, and the extent and number of times that the maximum noise level exceeds the rating background level.
6. The EPA is aware of large infrastructure construction projects in the vicinity of the proposed work sites for this project. The cumulative impacts of this project combined with other construction projects in vicinity has not been addressed.

Furthermore, the EPA notes that:

1. The meteorological conditions during unattended noise monitoring (for all monitoring sites) are said to have been taken from the Bureau of Meteorology's Canterbury weather station (station ID 60901), yet different meteorological conditions appear on the graphs in Annexure A Noise Logging Results at different monitoring locations. In addition, the wind speeds shown in the logger graphs at times exceed 5m/s, yet the data is not shaded to indicate it has been excluded from the analysis, in accordance with the ICNG/Noise Policy for Industry (NPfl).

2. There appear to be typographical errors in Table A-4 Unattended noise measurement results in dB(A) – NCA 4. For example, the background noise level (LA90 dB(a)) recorded for Monday 20 May 2019 is '337'. This error is significant as it would (if not corrected) vastly throw out any average calculations for background noise levels in the noise catchment area.

The EPA recommends that the conditions of approval reflect the standard construction conditions that the EPA has developed for major infrastructure projects. These conditions ensure appropriate periods of community respite, maximise the daytime hours for construction works, limit works outside of standard construction hours, and permit such works only where sufficient justification is provided.

## **Recommendations for Conditions of Approval**

### **Hours of operation**

1. *Unless otherwise specified by any other condition of this consent, construction works is:*
  - a) *restricted to between the hours of 7:00am and 6:00pm Monday to Friday;*
  - b) *restricted to between the hours of 8:00am and 6:00pm Saturday; and*
  - c) *not to be undertaken on Sundays or Public Holidays.*
2. *Any high noise impact works and activities must only be undertaken:*
  - a) *between 8:00 am and 6:00 pm Monday to Friday;*
  - b) *between 8:00 am and 1:00 pm Saturday; and*
  - c) *in continuous blocks of no more than 3 hours, with at least a 1 hour respite between each block of work generating high noise impact, where the location of the works and activities is likely to impact the same noise sensitive receivers; except as expressly permitted by another condition of this consent.*

*For the purposes of this condition, 'continuous' includes any period during which there is less than a 1-hour respite between ceasing and recommencing any of the work that is the subject of this condition.*

### **Exemptions to standard construction hours for low noise impact works**

3. *The following works and activities may be carried out outside of standard construction hours if the works and activities do not cause, when measured at the boundary of the most affected noise sensitive receiver:*
  - a) *LAeq(15 minute) noise levels greater than 5dB above the day, evening and night rating background level (RBL) as applicable; and*
  - b) *LA1(1 minute) or LAm<sub>ax</sub> noise levels greater than 15dB above the night RBL for night works; and*
  - c) *continuous or impulsive vibration values greater than those for human exposure to vibration, set out for residences in Table 2.2 in "Environmental Noise Management - Assessing Vibration: a technical guideline" (DEC, 2006); and*
  - d) *intermittent vibration values greater than those for human exposure to vibration, set out for residences in Table 2.4 in "Environmental Noise Management - Assessing Vibration: a technical guideline" (DEC, 2006).*

*For the purposes of this condition, the RBLs are those contained in the environmental assessment for SSI 8583. . Alternatively, the proponent may use another RBL determined in accordance with the "NSW Noise Policy for Industry" (EPA, 2017).*

### **Exemptions to standard construction hours in exceptional circumstances**

4. a) *The proponent may undertake works outside of standard construction hours if any of the following applies:*
  - i. *emergency works is required to avoid the loss of lives or property, or to prevent material harm to the environment;*
  - ii. *the delivery of oversized plant or structures has been determined by the police or other authorised authorities to require special arrangements to transport along public roads.*

*For the purposes of this condition, 'material harm to the environment' has the same meaning as in section 147 of the Protection of the Environment Operations Act (POEO Act).*

### **Works outside of standard construction hours (out-of-hours works)**

5. *Works may be undertaken outside of standard construction hours (out-of-hours works) if one or more of the following applies:*
- a) carrying on those works and activities during standard construction hours would result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 "Risk Management"; or*
  - b) the relevant road network operator has advised the proponent in writing that carrying out the works and activities during standard construction hours would result in a high risk to road network operational performance; or*
  - c) the relevant utility service operator has advised the proponent in writing that carrying out the works and activities during standard construction hours would result in a high risk to the operation and integrity of the utility network; or*
  - d) the TfNSW Transport Management Centre (or other road authority) have refused to issue a road occupancy licence during standard construction hours.*

### **Works outside of standard construction hours - Regulatory Requirements**

6. *In undertaking any out-of-hours works, the proponent must comply with the following:*
- a) Prepare a construction noise impact assessment that is to include:*
    - i. a description of the proposed out-of-hours works;*
    - ii. predictions of LAeq (15 minute) noise levels at noise sensitive receivers from these works and activities, where noise levels are predicted to be greater than those permitted under condition "3" (above); and*
    - iii. a monitoring plan to validate the noise predictions, based on monitoring at the boundary of representative sensitive receivers during noise generating activities that are representative of the out-of-hours works;*
  - b) Only undertake activities between the hours of 6:00pm on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays and 7:00am the following day;*
  - c) Ensure that out-of-hours works do not result in noise levels exceeding those specified in condition "3" (above) at the same noise sensitive receivers on more than:*
    - i. 2 consecutive evenings or nights per week; and*
    - ii. 3 evenings or nights per week; and*
    - iii. 10 evenings or nights per month.*

### **Cumulative impacts of works outside of standard construction hours - Respite Night Coordination**

7. *In undertaking any out-of-hours works, the proponent must coordinate out-of-hours works, including those undertaken by third parties, with concurrent state significant infrastructure construction works undertaken in the vicinity of the works, to achieve respite periods in locations where noise sensitive receivers are likely to be impacted by the same concurrent construction works.*

*For the purposes of this condition, 'respite night' means an evening and night period when a noise sensitive receiver is affected by noise levels from works less than those specified in condition "3" (above).*

### **Works outside of standard construction hours – Notification**

8. *In undertaking any out-of-hours works, the proponent must notify potentially affected noise sensitive receivers of works outside of standard construction hours not less than 5 calendar days and not more than 14 calendar days before those works are to be undertaken.*
- a) The notification must be:*
    - i. Undertaken by letterbox drop or email; and*

*ii. Be detailed on the project website.*

*b) The notification required by this condition must:*

*i. Clearly outline the reason that the work is required to be undertaken outside of standard hours;*

*ii. Include a diagram that clearly identifies the location of the proposed works in relation to nearby cross streets and local landmarks;*

*iii. Include details of relevant time restrictions that apply to the proposed works;*

*iv. Clearly outline in plain English, the location, nature, scope and duration of the proposed works;*

*v. Detail the expected noise impact of the works on noise sensitive receivers;*

*vi. Clearly state how complaints may be made and additional information obtained; and*

*vii. Include the number of the proponent's telephone complaints line, which must also be the after hours contact phone number specific for the works undertaken outside of standard construction hours, and the project website address.*

## **Air Quality**

The EPA has reviewed the EIS for air quality impacts and recommends the below conditions of approval relating to dust from construction works.

### *Dust*

- 1. The proponent must implement all feasible and reasonable mitigation measures to ensure that construction work at the premises is carried out by such means as may be necessary to minimise dust emissions on the premises and implement all feasible and reasonable mitigation measures to minimise the release of dust from the premises.*
- 2. All trucks carrying dry bulk material that enter and leave the premises must have their loads covered at all times, except during unloading and loading. For the purposes of this condition, 'load' is defined as material contained within the body/trailer/bin of the truck, and on the gunnels of the truck.*

## **Water**

The EPA has reviewed the EIS in relation to water and has made observations in relation to groundwater, underboring and acid sulfate soils.

The EPA notes that temporary dewatering may be required during construction at locations where perched groundwater or the water table are intersected. Dewatering discharge options considered are stated to be dependent on water quality and include discharge to stormwater or to sewer. The EIS commits to groundwater quality discharge criteria in accordance with the ANZECC Water Quality Guidelines at a 95% protection level for marine ecosystems and for analytes not covered by the ANZECC Water Quality Guidelines, the amended National Health and Medical Research Council (NHMRC) Australian Drinking Water Guidelines (2015) would be adopted.

The EPA is aware that the monitoring of wells is proposed prior to the construction to calculate likely groundwater levels and potential dewatering volumes. Baseline groundwater quality monitoring would be undertaken to provide an initial assessment of water quality prior to the commencement of excavation in areas where it is expected that dewatering may be required. The EPA notes that there is no current basis to determine if these criteria can be achieved for stormwater discharges if that option is required and it is not clear if Sydney Water would accept the wastewater. There is therefore uncertainty around water pollution risk from dewatered groundwater, in particular, in potentially contaminated areas. A proposed condition of approval is included below to address any residual risks.

The EIS states that "during underboring, there is the risk of frac-out i.e. where drilling fluid leaks from the bore and may reach the surface in some instances. Suitable containment measures are typically sufficient in mitigating a release of drilling fluid, fuels, oils, chemicals or other construction materials

at the surface. The management of leaks and spills will be addressed in the Construction Soil and Water Management Plan (CSWMP).” The EPA noted that there may be potential impacts on waterways if underboring occurs beneath them. The EPA recommends that impact mitigation measures for the risk of frac-out should be considered in the CSWMP.

The EPA notes that potential acid sulfate soils are likely to be present within natural alluvium flanking the Cooks River and possibly within the alluvium along Alexandra Canal and in other areas in Precincts 3, 4 and 5.

## **Recommended conditions of approval**

### ***Pollution of waters***

1. *Unless an environment protection licence authorises otherwise, the Proponent must comply with section 120 of the POEO Act.*
2. *Alternatives to discharge to stormwater must first be considered for groundwater dewatering activities. Where groundwater is discharged to stormwater, wastewater pollutant discharge concentrations, unless otherwise agreed to by the EPA, must achieve criteria in accordance with the national Water Quality Guidelines at a 95% protection level for marine ecosystems and, for analytes not covered by the national Water Quality Guidelines, the amended National Health and Medical Research Council (NHMRC) Australian Drinking Water Guidelines (2015).*

### **Construction stage erosion and sediment control**

3. *The Proponent must minimise any soil erosion associated with the construction of the development in accordance with the relevant requirements in the Managing Urban Stormwater: Soils and Construction (Landcom, 2006) manual, or its latest version;*
4. *Erosion and sediment controls are to be selected, installed and maintained taking into consideration the guidance in "Managing Urban Stormwater – Soils and Construction, Volume 2D, Main road construction" (DECC 2008) and "Managing urban stormwater: soils and construction – Volume 1" (Landcom 2006).*
5. *The installation of the transmission cable is implemented consistent with the practices and principles of Managing Urban Stormwater: Soils and Construction Volume 2A - Installation of Services (DECC, 2008); and construction environmental management plans identify additional erosion and sediment control procedures for likely contamination that may be encountered along the transmission cable route.*

### **Acid sulfate soils**

6. *The Proponent must ensure that any construction activities in identified areas of acid sulfate soil risk are undertaken in accordance with Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, 1998).*

### **Contaminated Lands**

The EPA has reviewed the EIS and the reports listed in EIS Attachment 1 in relation to Contaminated Land Management (CLM).

The EPA is aware that the most probable areas where Transgrid could encounter contamination is when it builds trenches that will traverse former landfills in Sydney Park and Camdenville Park. Transgrid need to develop management plans in consultation with council and the EPA for areas where exhumation of landfill waste is required. The EPA requires that the proponent develop an unexpected finds protocol and follow Transgrid’s mitigation measures as proposed in section 16.5 of the EIS.

The EPA has assessed the EIS in relation to the SEARs requirement for identification, handling, transport and disposal of any asbestos containing material and other contamination encountered during the project, including where assessment and/or remediation is required. The EPA notes that proponent has not addressed this requirement in the EIS. The proponent has identified areas with potential asbestos contamination, but no asbestos management plan has been prepared as part of this EIS.

**Recommended draft conditions of consent relating to contamination:**

1. *The proponent to prepare an asbestos management plan as part of the EIS report since this is needed to satisfy SEARs.*
2. *The proponent to prepare an unexpected finds protocol. The protocol should include detailed procedure for identifying and dealing with unexpected contamination, asbestos and other unexpected finds. The proponent should ensure that the procedure includes details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved.*
3. *The proponent to adhere to management measures proposed in Section 16.5. of the EIS so as to mitigate potential impacts caused when asbestos, and contamination are encountered during works.*
4. *The consultants should undertake detailed site investigations especially on areas that will be traversing former landfills and develop a management plan to prevent migration or build-up of landfill gases. The following guidance, as relevant, should be considered when assessing contamination at the site:*
  - *NSW EPA Sampling Design Guidelines*  
[www.epa.nsw.gov.au/resources/clm/95059samppgdline.pdf](http://www.epa.nsw.gov.au/resources/clm/95059samppgdline.pdf)
  - *Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition) 2017*  
<https://www.epa.nsw.gov.au/publications/contaminatedland/17p0269-guidelines-for-the-nsw-site-auditor-scheme-third-edition>
  - *Guidelines for Consultants Reporting on Contaminated Sites, 2011*  
<https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/20110650consultantsreportqlines.pdf?la=en&hash=ADA6F5BEA134F3E87217764484F14618E40C98EA>
  - *The National Environment Protection (assessment of contamination) Measures 2013 as amended.*
5. *The proponent should engage an EPA accredited site auditor to prepare a section B site audit statement that confirms that the management plan is appropriate for the site and its proposed use. When a site auditor is engaged, the auditor will review the adequacy of the investigations, unexpected finds protocol, any remedial works or management plan required. The proponent must adhere to the management measures accepted by the Auditor.*
6. *If unexpected contamination is found, the applicant must prepare a remediation action plan. If remediation is required, the proponent should engage an EPA accredited site auditor to prepare a section B site audit statement that confirms that the land can be made suitable for the proposed use.*

7. *The processes outlined in State Environmental Planning Policy 55 - Remediation of Land (SEPP55) be followed in order to assess the suitability of the land and any remediation required in relation to the proposed use.*
8. *The proponent must ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination [note that this would render the proponent the 'person responsible' for the contamination under section 6(2) of Contaminated Land Management Act (CLM Act)].*
9. *The EPA should be notified under section 60 of the CLM Act for any contamination identified which meets the triggers in the Guidelines for the Duty to Report Contamination ([www.epa.nsw.gov.au/resources/clm/150164-report-land-contamination-guidelines.pdf](http://www.epa.nsw.gov.au/resources/clm/150164-report-land-contamination-guidelines.pdf))*
10. *EPA recommends use of "certified consultants". Please note that the EPA's Contaminated Land Consultant Certification Policy (<http://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/18520-contaminated-land-consultant-certification-policy.pdf?la=en>) supports the development and implementation of nationally consistent certification schemes in Australia, and encourages the use of certified consultants by the community and industry. Note that the EPA requires all reports submitted to the EPA to comply with the requirements of the Contaminated Land Management Act 1997 (CLM Act) to be prepared, or reviewed and approved, by a certified consultant.*

## **Waste**

The EPA has reviewed the EIS in relation to waste management and recommends the below conditions of approval relating to waste management from linear construction works.

### **Waste management**

1. *The proponent must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines Part 1: Classifying Waste, November 2014 prior to taking the waste off the premises.*

### **Waste Management Plans**

2. *Waste Management Plans must be prepared for all construction/excavation works undertaken on the premises that generate waste that will be disposed offsite (not including office paper or cardboard).  
The plan must be completed prior to waste being transported off the premises. The plans must include the following:  
(a) Estimations of the different waste types to be generated from the proposed works; and  
(b) Estimations of how much of each waste type will be generated from the proposed works; and  
(c) List of all places (full street address) where waste will be transported to; and  
(d) Written confirmation from each place of disposal that they can lawfully receive the types of waste proposed to be transported there;  
(e) Where the place of disposal changes after the plan has been made, an amendment to the plan can be made as an addendum that includes an update points a) to d) above.*
3. *The proponent must ensure waste management, waste transport and waste disposal is carried out in accordance with the waste management plans prepared for the premises.*



## **Waste Transport Documentation and Record Keeping**

- 4. Legible copies of all receipts and/or weighbridge dockets in relation to disposal of waste from the premises must be collected from transporters and/or contractors and kept by the licensee.*