DOC19/249700-3
SSD 9368

23/4/19

Ms Iona Cameron
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Ms Cameron

SSD 9368 – ALEX AVENUE PUBLIC SCHOOL – ENVIRONMENTAL IMPACT STATEMENT (EIS)

I am writing to you in reply to your invitation to the Environment Protection Authority (EPA) to make a submission concerning the above project EIS.

The EPA requests that this submission be read in conjunction with its letter dated 12 June 2018 in respect of the draft Secretary's environmental assessment requirements (SEARs) for the project.

The EPA emphasises that it does not review or endorse environmental management plans or the like for reasons of maintaining regulatory 'arm's length'. As such, the EPA has not reviewed any environmental management plan forming part of or referred to in the EIS.

The EPA notes that the development includes a communal hall in the north-eastern corner of the development site, and two outdoor sports courts south of the hall and adjacent to the eastern boundary of the development site.

Whilst, EIS Figure 11 indicates that the land adjoining the eastern boundary of the development site is proposed to be developed for the purposes of public open space, the 'Site Features Plan' accompanying EIS Appendix M (Preliminary Environmental Site Assessment) indicates residential allotments along the entire length of the southern boundary.

The EPA anticipates that erosion and sediment control measures, including a fenced off vegetation buffer strip along the southern boundary, would be implemented at the earliest stages of development to prevent pollution of the unnamed watercourse south of the development site.

The EPA has identified the following site specific concerns based on the project information available on the Department of Planning and Environment major projects web site:

(a) the need for a detailed assessment of potential site contamination, including information about groundwater;

(b) construction phase noise and vibration impacts (including recommended standard construction hours and intra-day respite periods for highly intrusive noise generating work) on noise sensitive receivers such as surrounding residences;

Phone 131 555
Phone +61 2 9995 5555
(from outside NSW)
Fax +61 2 9995 5999
TTY 133 677
ABN 43 692 285 758
PO Box 668
Parramatta
NSW 2124 Australia
Level 13
10 Valentine Av
Parramatta NSW
2150 Australia
info@epa.nsw.gov.au
www.epa.nsw.gov.au

(c) construction phase dust control and management;

(d) construction phase erosion and sediment control and management;

(e) operational noise impacts on noise sensitive receivers (especially surrounding residences on adjoining and adjacent holdings) arising from operational activities such as public address/school bell systems, community use of school facilities, waste collection services and mechanical services (especially air conditioning plant);

(f) the need to assess feasible and reasonable noise mitigation and management measures (including time restrictions on the use of the facilities proposed to be available for community use) to minimise operational noise impacts on surrounding residences;

(g) practical opportunities to implement water sensitive urban design principles, including stormwater re-use; and

(h) practical opportunities to minimise consumption of energy generated from non-renewable sources and to implement effective energy efficiency measures.

Should you require clarification of any of the above please contact John Goodwin on 9995 6838.

Yours sincerely

SARAH THOMSON
Unit Head, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A

Contact officer: JOHN GOODWIN

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

ALEX AVENUE PUBLIC SCHOOL

1. General

The EPA considers that the project comprises distinct phases of construction and operation and has set out its comments on that basis.

The EPA notes the proximity of surrounding residences which may be adversely affected by noise impacts during demolition, site preparation, construction and operation phases of the project.

2. Construction phase

The EPA anticipates that site establishment, demolition, bulk earthworks, construction and construction-related activities will be undertaken in an environmentally responsible manner with emphasis on –

- the site contamination remediation action plan accompanying the EIS,
- compliance with recommended standard construction hours,
- intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting),
- feasible and reasonable noise and vibration minimisation and mitigation,
- effective dust control and management,
- erosion and sediment control, and
- waste handling and management, particularly concrete waste and rinse water.

2.1 Site contamination

EIS Appendix M *Preliminary Site Investigation* indicates that the development site is part of a former larger agricultural holding which suggests the potential for contamination from the application of pesticides on that holding and surrounding agricultural holdings. Section 2.4.3 to EIS Appendix M confirms the presence of soil stockpiles on the development site as shown on the Site Features Plan.

EIS Appendix N *Detailed Site Investigation* (DSI) did not identify "... any unacceptable human health or ecological risk ..." and concludes that "... the surface soil within the site boundary is suitable for its intended us as a primary school, ...".

The DSI did not include any investigation of groundwater contamination, and an unexpected finds procedure.

Recommendations

1. The proponent be required to ensure that prior to commencing any work on the development site, an appropriate procedure is prepared and implemented:

   (a) to identify and deal with unexpected finds of site contamination (including asbestos containing materials); and

(b) to identify who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved.

2. The proponent be required consider the guidance material provided in the *National Environment Protection (Assessment of Site Contamination) Measure 2013* as amended as well as the following EPA documents when undertaking any further site assessment and validation -

- Technical Note: Investigation of Service Station Sites, 2014,
- NSW EPA Sampling Design Guidelines,
- Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017, and
- Guidelines for Consultants Reporting on Contaminated Sites, 2011.

3. The proponent be required to ensure that the processes outlined in *State Environmental Planning Policy 55 - Remediation of Land (SEPP55)* are followed in any further assessment of the suitability of the land and any remediation required in relation to the proposed use.

4. The proponent be required to ensure that 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.

5. The proponent be required to notify the EPA should any contamination of the development site be identified which meets the triggers in the *Guidelines for the Duty to Report Contamination*.

6. The proponent be required, should additional site investigations reveal further contamination of soil or groundwater, to consider engaging a site auditor (accredited under the Contaminated Land Management Act) to:

(a) review the adequacy of contamination assessment reports, any remediation action plan and unexpected finds procedure, and

(b) provide a Section A Site Audit Statement (SAS) and accompanying Site Audit Report (SAR) certifying the suitability of the development site for the proposed use.

2.2 Noise and vibration

The EPA anticipates that site preparation bulk earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on adjoining and surrounding residences.

2.2.1 general construction hours

The EPA emphasises that site preparation, bulk earthworks, construction and construction-related activities should be undertaken during the recommended standard construction hours.

The EPA further emphasises that the proponent is a 'public authority' within the meaning of the *Protection of the Environment Administration Act 1991*. Further, that the EPA has general responsibility under that Act for amongst other things:

(a) ensuring that the best practicable measures are taken for environment protection in accordance with the environment protection legislation and other legislation, and

(b) coordinating the activities of all public authorities in respect of those measures.

Table 1 to the EPA's Interim Construction Noise Guideline clearly identifies the best practicable measures in respect of the recommended standard hours of construction (in the absence of strong justification for alternative hours in the particular case). EIS section 4.11 under the heading 'Construction Work Hours' not only proposes extended week day and Saturday construction hours but provides no justification for those extended hours.

Recommendation

The proponent be required to ensure that as far as practicable all site preparation, bulk earthworks, construction and construction-related activities likely to be audible at any noise sensitive receivers such as surrounding residences are only undertaken during the standard construction hours, being -

(a) 7.00 am to 6.00 pm Monday to Friday,

(b) 8.00 am to 1.00 pm Saturday, and

(c) no work on Sundays or gazetted public holidays.

2.2.2 intra-day respite periods

The EPA anticipates that those site preparation, bulk earthworks, construction and construction-related activities generating noise with particularly annoying or intrusive characteristics (such as those identified as particularly annoying in section 4.5 of the Interim Construction Noise Guideline) would be subject to a regime of intra-day respite periods where –

(a) they are only undertaken after 8.00 am,

(b) they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and

(c) 'continuous' means any period during which there is less than an uninterrupted 60 minute respite between temporarily halting and recommencing any of the intrusive and annoying work referred to in Interim Construction Noise Guideline section 4.5.

The EPA emphasises that intra-day respite periods are not proposed to apply to those demolition, site preparation, bulk earthworks, construction and construction-related activities that do not generate noise with particularly annoying or intrusive characteristics.

Recommendation

The proponent be required to schedule intra-day 'respite periods' for construction activities identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers, including surrounding residents.

2.2.3 idling and queuing construction vehicles

The EPA is aware from previous major infrastructure projects that community concerns are likely to arise from noise impacts associated with the early arrival and idling of construction vehicles (including concrete agitator trucks) at the development site and in the residential precincts surrounding that site.

Recommendation

The proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in demolition, site preparation, bulk earthworks, construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours.

2.2.4 reversing and movement alarms

The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW, Barangaroo Delivery Authority/Lend Lease and Leighton Contractors have undertaken safety risk assessments of alternatives to the traditional 'beeper' alarms. Each determined that adoption of 'quacker' type movement/reversing alarms instead of traditional beepers on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents. Interim Construction Noise Guideline Appendix C provides additional background material on this issue.

Recommendation

The proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.

2.3 Dust control and management

The EPA considers dust control and management to be an important air quality issue during site preparation, bulk earthworks and subsequent construction.

Recommendation

The proponent be required to minimise dust emissions on the site, and prevent dust emissions from the site.

2.4 Sediment control

Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective sediment control on construction sites. The proponent should implement all such feasible and reasonable measures as may be necessary to prevent water pollution in the course of developing the site.

The EPA emphasises the importance of –

(a) not commencing site preparation, bulk earthworks, construction and construction-related activities until appropriate and effective sediment controls are in place, and

(b) daily inspection of sediment controls which is fundamental to ensuring timely maintenance and repair of those controls.

2.5 Waste control and management (general)

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

Avoidance including action to reduce the amount of waste generated by households, industry and all levels of government

Resource recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

Disposal including management of all disposal options in the most environmentally responsible manner.

All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.

The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project.

Recommendation

The proponent be required to ensure that:

(1) all waste generated during the project is assessed, classified and managed in accordance with the EPA "*Waste Classification Guidelines Part 1: Classifying Waste*", November 2014 and the 2016 Addendum thereto;

(2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and

(3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.

2.6 Waste control and management (concrete and concrete rinse water)

The EPA anticipates that during the course of the project concrete deliveries and pumping are likely to generate significant volumes of concrete waste and rinse water. The proponent should ensure that concrete waste and rinse water is not disposed of on the project site and instead that –

(a) waste concrete is either returned in the agitator trucks to the supplier or directed to a dedicated watertight skip protected from the entry of precipitation, and

(b) concrete rinse water is directed to a dedicated watertight skip protected from the entry of precipitation or a suitable water treatment plant.

Recommendation

The proponent be required to ensure that concrete waste and rinse water are not disposed of on the development site, and prevented from entering waters, including any natural or artificial watercourse.

3. Operational phase

The EPA considers that environmental impacts that arise once the development is operational should be able to be largely averted by responsible environmental management practices, particularly with regard to:

(a) feasible and reasonable noise mitigation measures;

(b) waste management in accordance with the waste management hierarchy;

(c) water sensitive urban design; and

(d) energy conservation and efficiency.

3.1 Noise and vibration impacts

The EPA anticipates the proposed development (especially out of hours use of school facilities by external parties) may have significant operational noise impacts on nearby sensitive receivers, especially adjoining residences to the south.

The EPA notes the proximity of the surrounding residences and is aware from long experience of the need for appropriate operational noise mitigation and management measures, particularly in regard to:

(a) the nature of and times during which school facilities are made available for community use;

(b) the design and operation of the school public address/bell system;

(c) the design and location of waste storage facilities;

(d) time restrictions on waste collection services;

(e) design, selection and operation of mechanical ventilation plant and equipment; and

(f) time restrictions on grounds maintenance using powered equipment (e.g. leaf blowers, brush cutters and lawn mowers).

Background noise measurement

The EPA emphasises that properly establishing background noise levels in accordance with guidance material (i.e. Fact Sheets A and B) of the New South Wales Noise Policy for Industry (NPI) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

The NPI specifies that at least a 'weeks' worth' of valid and relevant monitoring data is required to establish rating background noise levels. And that, noise levels adversely affected by extraneous noise, measured during rainfall or when wind velocities exceed 5 metres per second should be excluded when calculating those rating background levels.

The EPA notes that –

(a) the draft project SEARs were not issued for comment until June 2018 nearly 6 months after the reported background noise monitoring period;

(b) section 5.1 of EIS Appendix L indicates that unattended background noise monitoring was undertaken between Monday 27 November 2017 and Tuesday 5 December 2017;

(c) the daily monitoring graphs in EIS Appendix L indicate no rain was observed during the monitoring period;

(d) the daily monitoring graphs in EIS Appendix L indicate wind velocities in excess of 5 metres per second were observed during the day assessment period (i.e. 7.00am to 6.00pm) on several days, but no information has been provided as to whether that data was excluded in deriving the background noise level for that assessment period;

(e) Table 3 to EIS Appendix L does not include the background noise level for the night period (i.e. 10.00pm to 7.00am) despite proposed community use of school facilities from 6.30am weekdays;

(f) background noise measurements are likely to have been affected by noise from major road works (i.e. Schofields Road Stage 2 upgrade) undertaken between August 2014 and March 2018;

(g) day-time background noise measurements are likely to have been affected by noise from nearby housing construction and subdivisional works being undertaken throughout the period of unattended background noise monitoring;

(h) the EIS does not report how it has accounted for the extraneous noise referred to in paragraphs (f) and (g) above; and

(i) the EIS does not include the reporting requirements set out in NPI section B3.

Accordingly, the EPA considers that the background noise levels have been adversely affected by extraneous noise and wind derived for the day assessment period has not been determined in accordance with the NPI.

Recommendations

1. The proponent be required to undertake background noise monitoring, calculations and reporting in accordance with the guidance material in Fact Sheets A and B of the New South Wales Noise Policy for Industry.

2. The proponent be required to report the rating background noise level for the night period.

Out of hours' community use of school facilities

The EPA is aware of government policy to encourage out of hours community use of school facilities provided that use does not cause noise emissions that interfere unreasonably with the comfort or repose of persons not on the premises.

The EPA considers that, in relation to the school hall, noise from normal school activities in class hours would not be acoustically significant. However, the use of the hall for other events, particularly outside school hours, has the potential to adversely impact on residences.

The EPA considers the proposed community use of school facilities (especially the hall and outdoor sports courts) outside normal school hours needs to be carefully managed to ensure noise impacts on nearby residences are minimised.

Figure 27 in EIS section 7.8.1 outlines the proposed hours for community use of school facilities, including –

(a) 10.00 pm curfew on community use of the school hall, and

(b) community use of the hall and outdoor sports courts from 6.30 am to 9.00 am weekday mornings (which would coincide in part with normal school hours), and

(c) community use of the hall and outdoor sports courts from 3.00 pm to 6.00 pm (which would coincide in part with normal school hours).

The EPA notes that weekday morning use of outdoor sports courts in particular is likely to cause the emission of 'offensive noise'.

Recommendations

1. The proponent be required to ensure that the outdoor sports courts are not made available for community use:

    (i) during week day mornings,

    (ii) later than 6.00 pm on week nights,

(iii) other than between the hours of 8.00 am and 6.00 pm on Saturdays, and

(iv) during Sundays and public holidays.

2. The proponent be required to ensure that the school hall is not made available for community use:

(i) during week day mornings,

(ii) later than 10.00 pm on week nights,

(iii) other than between the hours of 8.00 am and 6.00 pm on Saturdays, and

(iv) during Sundays and public holidays.

3. The proponent be required to:

(a) undertake comprehensive noise compliance monitoring of representative uses of the school hall, outdoor sports courts and associated facilities (e.g. parking) outside school hours to demonstrate that the level, nature, quality and character of noise emitted by those uses and the time at which and frequency of those uses would not interfere unreasonably with or be likely to interfere unreasonably with the comfort or repose of persons not on the development site, especially the occupants of nearby residences.

(b) submit a detailed noise compliance monitoring report with noise measurements reported against relevant noise criteria and the outcomes of appropriate community consultation together with detailed recommendations concerning any additional feasible and reasonable noise mitigation and management measures, including more stringent or more relaxed restrictions on the times at which and the frequency of each type of use of the school hall, outdoor sports courts and associated facilities (e.g. parking) outside school hours.

(c) ensure that noise compliance monitoring referred to in paragraph (a) above, would include quantitative noise impact assessment to address noise emissions arising from amongst other things –

- audience/spectator noise,
- referee whistle noise,
- training sessions as well as sporting events,
- any amplified sound during sporting events and any associated training sessions,
- any amplified sound during music performances and other non-sporting events and any associated rehearsals, and
- post-event audience/spectator noise, including vehicle door slamming and departure noise.

<u>Mechanical plant and equipment</u>

Section 7.2 to EIS Appendix L states that " ... plant selections and locations are not finalised."

Recommendation

The proponent be required to:

(a) provide a comprehensive quantitative assessment of operational noise impacts of mechanical plant and equipment (especially ventilation/ air conditioning plant and equipment) on surrounding noise sensitive receivers, especially surrounding residences;

(b) ensure mechanical plant and equipment installed on the development site does not generate, (either individually or cumulatively) –

(i) noise emissions that exceed the Project Noise Trigger Level (day, evening and night assessment periods) measured at the boundary of the most affected or reasonably most affected residence, and

(ii) noise emissions that exhibit tonal or other annoying characteristics.

Public address and school bell system

The EPA notes numerous reports of community concern arising from inadequate design and installation as well as inappropriate use of school public address and bell systems and considers that appropriate design, installation and operation of those systems can both –

- meet the proponent's objectives of proper administration of the school and ensuring the safety of students, staff and visitors, and

- avoid interfering unreasonably with the comfort and repose of occupants of nearby residences.

Recommendation

The proponent be required to design, install and operate the school public address/bell system to implement all such other measures as may be necessary to ensure use of that system does not interfere unreasonably with the comfort and repose of occupants of nearby residences.

Waste collection services

The EPA notes numerous reports of community concern arising from waste collection services undertaken at schools and especially during evening and night times.

Recommendation

The proponent be required ensure waste collection services are not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.

Grounds maintenance using powered equipment

The EPA notes numerous reports of community concern arising from grounds maintenance involving the use of powered equipment (example: leaf blowers, lawn mowers, brush cutters) at schools during early morning and evening periods as well as on weekends and public holidays.

Recommendation

The proponent be required ensure grounds maintenance involving the use of powered equipment is not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.

3.2 Waste management

The proponent should manage waste in accordance with the waste management hierarchy outlined earlier.

Recommendation

The proponent be required to identify and implement feasible and reasonable opportunities for the re-use and recycling of waste, including food waste.

3.3 Water sensitive urban design and energy conservation and efficiency

The EPA acknowledges that EIS section 7.9 and Appendix J outline environmentally sustainable development initiatives without appearing to commit the proponent to implementing those initiatives, including –

(a) a range of water sensitive urban design measures, including –

  (i) rainwater harvesting and re-use, and

  (ii) water efficient fixtures; and

(b) a range of measures to maximise energy efficiency and minimise energy consumption, including installation of solar photovoltaic arrays and battery storage.

Recommendation

The proponent be required to implement ecologically sustainable development initiatives outlined in EIS section 7.9
