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SSD 8677

31 January 2018

Mr Navdeep Shergill
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Mr Shergill

SSD 8677 – FAIRVALE HIGH SCHOOL – ENVIRONMENTAL IMPACT STATEMENT (EIS)

I am writing to you in reply to your invitation to the EPA to make a submission concerning the above project EIS.

The EPA requests that this submission be read in conjunction with its letter dated 22 August 2017 in respect of the draft 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 'arms length'. And, has not reviewed any environmental management plan forming part of or referred to in the EIS.

The EPA anticipates potential water quality impacts on Orphan School Creek can be avoided by implementing appropriate erosion and sediment controls and adopting water sensitive urban design principles during the project demolition/construction and operational phases respectively.

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 and a detailed assessment of the footprint and surrounds of existing buildings following their demolition;
- (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;
- (c) construction phase dust control and management;

- (e) construction phase erosion and sediment control and management;
- (f) 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);
- (g) 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;
- (h) practical opportunities to implement water sensitive urban design principles, including stormwater re-use; and
- (i) 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



JENNIFER SAGE
Unit Head, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A

Contact officer: JOHN GOODWIN

ATTACHMENT A
- ENVIRONMENT PROTECTION AUTHORITY COMMENTS -
FAIRVALE HIGH SCHOOL RE-DEVELOPMENT

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 particular 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 (hazardous building materials)

The EPA anticipates that given the age of some of the structures on the development site, asbestos containing materials, lead-based paints and PCBs (associated with electrical equipment and lighting fixtures) are likely to be encountered during demolition.

EIS Appendix 8, in the nature of a hazardous building materials survey, confirms the presence of asbestos containing material throughout the school principally in the form of asbestos cement sheeting, 'gal asbestos' cladding, and asbestos containing floor coverings. The EPA thus anticipates that demolition of the existing school is likely to generate asbestos waste.

Since late 2015, clause 79 of the Waste Regulation has required transporters of loads of asbestos waste to provide certain details of the loads to the EPA using the "WasteLocate" system. These details include details of the source site, date of proposed transport, details of the proposed destination site and the approximate weight of asbestos waste in the load. The information must be provided to the EPA before transportation of the load commences.

WasteLocate is an online tool that allows the EPA to track the transport of asbestos waste. Transporters are required to use WasteLocate to report the movement of more than 100 kilograms of asbestos waste or more than 10 square metres of asbestos sheeting within NSW. The details can be reported on WasteLocate by using an app on a mobile phone or tablet or by using a computer.

EIS Appendix 8 does not appear to address whether lead-based paint or PCBs may be present in structures proposed for demolition.

Section 9.11 to EIS Appendix 5 advises that “due to the presence of uncontrolled fill, the likelihood of asbestos being present is possible” but was not detected during soil sampling. Appendix 5 goes on to suggest that “... residual risks associated with asbestos can be addressed by the implementation of an unexpected finds protocol ...”

The EPA considers the unexpected finds protocol in section 9.3 to Appendix 5 to be generic and limited.

Recommendation

The proponent be required (prior to commencing any work on the development site) to prepare and implement a revised procedure for identifying and dealing with unexpected finds of site contamination (including asbestos containing materials, lead-based paint and PCBs) and that the revised procedure includes details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved

Recommendation

The proponent be required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 ‘asbestos wastes’.

Note: The EPA provides additional guidance material at its web-site

<http://www.environment.nsw.gov.au/waste/asbestos/index.htm>.

Recommendation

The proponent be required to consult with Safework NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.

2.2 Site contamination (general)

EIS Appendix 5 comprises a *Preliminary Stage 1/Stage 2 Contamination Assessment and Preliminary Salinity Assessment Report* which included a desktop study, site visit, and soil sampling. The EPA considers the methodology reported in Appendix 5 is typical of a preliminary site assessment, excepting that the environmental investigation only involved –

- (a) 5,500 square metres of the 28,500 square metre development site,
- (b) historical title searches limited to Lots 13 and 14 DP1779 but not lot 12 DP 1779 or Lot 10 DP 502048, and
- (c) soil samples were only obtained from six locations.

Whilst Appendix 5 reports that contamination above screening levels was not identified in the collected soil samples, the limited number of soil samples collected is inadequate for proper assessment of the development site.

Recommendation

The proponent be required to engage a site auditor accredited under the *Contaminated Land Management Act* to review the adequacy of the site investigations and revised unexpected finds procedures.

Recommendation

The proponent be required to undertake additional investigation prior to any construction, including the footprint of relocated and demolished structures and underground utilities with the scope of that additional investigation detailed in a sampling and analysis quality plan to be provided to the site auditor for review

Recommendation

The proponent be required consider the guidance material provided in *The National Environment Protection (assessment of contamination) Measures, 2013* as amended as well as the following EPA documents when undertaking further site assessment -

- 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.

Recommendation

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

Recommendation

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.

Recommendation

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*

2.3 Noise and vibration

The EPA anticipates that demolition, site preparation (including tree clearing), bulk earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on surrounding residences, especially adjoining residences.

2.3.1 General construction hours

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

Recommendation

The proponent be required to ensure that as far as practicable all demolition, 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.

2.3.2 Intra-day respite periods

The EPA anticipates that those demolition, 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.

2.3.3 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.

2.3.4 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 (nee Transport Construction Authority), Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) 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.

2.4 Dust control and management

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

Recommendation

The proponent be required to :

- (a) minimise dust emissions on the site, and
- (b) prevent dust emissions from the site.

2.5 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 demolition, 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.

2.6 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 "*Waste Classification Guidelines Part 1: Classifying Waste*" (Department of Environment Climate Change and Water, December 2009);
- (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.

2.7 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 –

- (a) not disposed of on the development site, and
- (b) 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.

The EPA notes with concern 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 in the New South Wales Industrial Noise Policy (INP) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

The NSW Industrial Noise Policy (INP) specifies that at least a 'week's worth' of monitoring data is required to establish background noise levels and that noise levels measured during rainfall should be excluded when deriving those background levels. However, EIS Appendix 14 indicates that –

The proponent has obtained a few hours less than the week's worth of valid data required to derive background noise levels.

The INP recommends noise measurements to establish background noise levels for each time period should be undertaken at the most affected or potentially most affected noise sensitive location (i.e. residence). Section 4.2 to EIS Appendix 14 cites “.. security and access considerations ...” as reasons for undertaking measurements on the development site. However, the EIS does not include any indication as to whether permission was sought to install a noise logger at the most affected or potentially most affected residence. Additionally, the proponent provides no justification for not undertaking noise measurements at residences adjoining the development site to the north (along Mellick Street) and to the east (along Maud Street).

The busy Cumberland Highway is the predominant noise source affecting the site and local area and is located approximately 200 metres west of the (long-term noise logger) background measurement location. The background measurement location is also approximately 200 metres west of Maud Street residences that adjoin the development site. Accordingly, ambient noise levels at Maud Street residences adjoining the development site are likely to be 3 dB lower than those at the measurement location (i.e. based on traffic noise levels from the Cumberland Highway, a line source and halving with each doubling of distance).

Recommendation

The proponent be required to –

- (a) adopt background noise levels for residences in Maud Street that are 3 dB lower than background levels derived from the measurement location on the schoolgrounds, or
- (b) measure background noise levels at an adjoining most affected or potentially most-affected residence in Maud Street in accord with the guidance material in Chapter 3 and Appendix B to the New South Wales Industrial Noise Policy.

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

The EPA anticipates (with regard to the location of the proposed new school hall) that noise from normal school activities in class hours would not be acoustically significant. However, the EPA considers use of the hall for events, particularly outside school hours, has the potential to adversely impact on residences.

Recommendation

The proponent be required to ensure that the hall is not made available for community use –

- (a) after 10.00 pm and before 7.00 am, and
- (b) during Sundays and public holidays.

Recommendation

The proponent be required to ensure that the community use of the hall outside school hours does not generate–

- (i) noise that exceeds 5 dBA above the rating background noise level (day, evening and night) measured at the northern, southern and western boundaries of the development site, and
- (ii) noise that exhibits tonal or other annoying characteristics.

Recommendation

The proponent be required to ensure that the sports fields and 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.

Recommendation

The proponent be required to –

- (a) undertake comprehensive noise compliance monitoring of representative uses of the hall, sports fields and 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 further or more relaxed restrictions on the times at which and the frequency of each type of community use of the hall, sports fields and 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, and
- post-event audience/spectator noise, including vehicle door slamming and departure noise.

Mechanical plant and equipment

Section 6 to EIS Appendix 14 indicates that general learning spaces would be provided with "... assisted mechanical exhaust/ventilation (but not A/C units)." However, the EIS does not appear to include details of the proposed mechanical services, plant and equipment or show the location of that plant and equipment.

The proponent has derived amenity criteria from the existing L_{Aeq} level, which is predominantly traffic noise, rather than from the L_{Aeq} of industrial noise. Based on there being no significant industrial noise contribution, the Acceptable Noise Levels for Suburban Residence as set out in Table 2.1 to the New South Wales Industrial Noise Policy should be adopted as the Amenity Criteria levels. Having regard to the foregoing, the proponent should revise the Project Specific Criteria, which will then become the design criteria for mechanical plant and equipment to be installed and operated at the school.

Recommendation

The proponent be required to:

- (a) provide a comprehensive quantitative assessment of operational noise impacts on surrounding noise sensitive receivers, especially adjoining residences;
- (b) ensure mechanical plant and equipment installed on the development site does not generate—
 - (i) noise that exceeds 5 dBA above the rating background noise level (day, evening and night) measured at the northern, southern and western boundaries of the development site, and
 - (ii) noise that exhibits 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.

Section 7.7 to EIS Appendix 14 suggests proposes some noise mitigation measures for any updated/expanded public address and school bell system.

Recommendation

The proponent be required to design, install and operate the school public address/bell system to implement all such 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

Section 7.8 to EIS Appendix 14 suggests that there would be no significant noise impact from waste collection.

However, 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

Section 7.10 to EIS Appendix 14 suggests that significant changes to grounds maintenance is not anticipated.

However, 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. 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.

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 Appendix 19 comprises an environmentally sustainable development report that proposes –

- (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 –
 - (i) natural ventilation and lighting of all teaching and learning spaces, and
 - (ii) installation of solar photovoltaic arrays
-