



DOC18/179866-02  
SSD 8574

27 April 2018

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

Dear Mr Shergill

**SSD 8574 – WAITARA PUBLIC SCHOOL RE-DEVELOPMENT – 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 6 July 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 'arm's length'. And, has not reviewed any environmental management plan forming part of or referred to in the EIS.

The EPA anticipates significant noise impacts during demolition and construction stages of the project on adjoining and surrounding residences as well as the nearby child care centre. The EPA further anticipates significant noise impacts on surrounding residences, especially adjoining residences in Myra Street, Highlands Avenue and Inglara Avenue, particularly during community use of school facilities outside school hours.

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) demolition/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 and the nearby Balmara preschool;

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- (c) demolition/construction phase dust control and management;
- (e) demolition/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**

**- ENVIRONMENT PROTECTION AUTHORITY COMMENTS –**  
**SSD 8574 WAITARA PUBLIC SCHOOL RE-DEVELOPMENT EIS**

**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 and hazardous materials**

The EPA understands that the development involves the demolition of several buildings and the removal of a number of demountables. The EPA anticipates that given the age of some of the structures on the development site, asbestos containing materials and lead-based paints are likely to be encountered during demolition.

The EPA notes that until existing structures are demolished and removed from the site, a detailed assessment of the nature and extent of the site contamination is impracticable. And, further that during demolition further site contamination may occur.

The EPA's Contaminated Land Consultant Certification Policy provides clear guidance about best practicable measures that support the development and implementation of nationally consistent certification schemes in Australia, and encourage the use of certified consultants by the community and industry.

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.

Appendix D to EIS Appendix G comprises an *Environmental Site Assessment* undertaken by JBS&G

### 2.1.1 Site contamination

The Environmental Site Assessment (ESA) reports that soil testing of 8 boreholes and that the development site -

- (a) is not considered to be contaminated,
- (b) does not require any remediation,
- (c) is suitable for continued use as an educational establishment, and
- (d) does not warrant a detailed site investigation and reporting under SEPP 55.

The EPA's Sampling Design Guidelines recommend the number of sampling points for the lot area of the proposed school re-development (18,256 m<sup>2</sup>) to be between 25 to 30 sampling points. However, the ESA report indicates that –

- (a) soil sampling was only undertaken at 8 boreholes,
- (b) stratified soil sampling was not undertaken,
- (c) most of the development site is sealed and that there were no odours, surface soil sampling, soil discolouration or asbestos containing materials (ACM) that were observed on accessible ground surfaces at the time of inspection,
- (d) depth to groundwater is likely to be greater than 10 metres below ground surface and given the low concentrations of analytes in soil and the anticipated depth, groundwater need not be investigated, and
- (e) "... given the limited extent of investigations, implementation of an appropriate unexpected finds protocol implemented during development works would enable management of any unidentified contamination".

### Recommendation

The proponent be required to:

- (a) implement the processes outlined in *State Environmental Planning Policy 55 - Remediation of Land (SEPP55)*, to assess the suitability of the land and any remediation required in relation to the proposed use;
- (b) undertake soil sampling in accordance with the EPA's Sampling Design Guidelines and conduct a detailed site investigation and prepare a remedial action plan to address any contamination subsequently found;
- (d) have regard to the following guidance when assessing contamination at the site:
  - (i) EPA Sampling Design Guidelines
  - (ii) Guidelines for the NSW Site Auditor Scheme (3<sup>rd</sup> edition) 2017

- (iii) Guidelines for Consultants Reporting on Contaminated Sites, 2011
- (iv) The National Environment Protection (assessment of contamination) Measures 2013 as amended;
- (e) 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; and
- (f) ensure that any contamination identified as meeting the trigger in the EPA 'Guidelines for the Duty to Report Contamination') is notified to the EPA.

### 2.1.2 Asbestos containing material

Section 3.7.1 to Appendix D *Environmental Site Assessment* to EIS Appendix G indicates the presence of asbestos containing materials in buildings on the development site, presumably including buildings identified for demolition.

Whilst, the ESA advises that the Asbestos Register for Waitara Public School does not indicate the presence of asbestos containing materials in soils on the development site. And, although the site is not listed on the loose-fill asbestos insulation public register, the local Council considered that there was potential for loose-fill asbestos insulation to be found on properties not listed on the Asbestos Public Register.

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.

### **Recommendation**

The proponent be required to ensure that following relocation or demolition of any existing structures and in ground utilities further investigation be undertaken of soil contamination within the footprint of those structures and utilities prior to undertaking any construction.

### **Recommendation**

The proponent be required (prior to commencing any work on the development site) to prepare and implement a procedure for identifying and dealing with unexpected finds of site contamination (including asbestos containing materials). And, that that 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 project.

### 2.2 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 in Myra Street, Highlands Avenue and Inglara Avenue.

#### 2.2.1 *Demolition and construction – vibration impacts*

The EPA emphasises that the proponent is a 'public authority' within the meaning of the *Protection of the Environment Administration Act 1991*. And 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

For instance, the EPA's "*Assessing Vibration: a technical guideline*" (February 2006) provides guidance on the best practicable measures for assessing human response to vibration and recommendations for measurement and evaluation techniques.

However, section 4.2 to EIS Appendix I *Acoustic Report* does not appear to assess vibration impacts on human comfort in accordance with the guidance provided in the EPA's "*Assessing Vibration: a technical guideline*", February 2006 as required by section 11 of the SEARs. And, section 7 to EIS Appendix I does not reference the EPA's guidance material on vibration assessment.

## Recommendation

The proponent be required to assess vibration impacts on human comfort in accordance with the guidance provided in the EPA's "*Assessing Vibration: a technical guideline*", February 2006.

#### 2.2.2 *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.

### 2.2.3 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.

### 2.2.4 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.

### 2.2.5 *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, 4<sup>th</sup> 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 in Myra Street, Highlands Avenue and Inglara Avenue

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).

#### '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, soccer field and outdoor sports courts) outside normal school hours needs to be carefully managed to ensure noise impacts on nearby residences are minimised.

Section 4.3.4 to EIS Appendix I recommends that the school hall no be made available for community use after 10.00 pm.

### **Recommendation**

The proponent be required to ensure that the school hall is not made available for community use after 10.00 pm.

### **Recommendation**

The proponent be required to ensure that the soccer field and outdoor sports courts (i.e. basketball and handball) 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 existing soccer field 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 adjoining 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 soccer field 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 5.4 to EIS Appendix I states that details of mechanical services, plant and equipment are not yet available and section 4.3.2 appears to assess noise impacts from mechanical plant proposed to serve the new development without taking account of any existing or proposed mechanical plant serving retained buildings such as Blocks C and M and the Library.

### **Recommendation**

The proponent be required to:

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

### **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. 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 W 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) energy efficient lighting, and
  - (ii) installation of solar photovoltaic arrays.

At the same time, section 2.4 to EIS Appendix W proposes air conditioning rather than natural ventilation to classrooms as a response to noise impacts associated with the proximity of the new building to Edgeworth David Avenue. However, section 5.3 to EIS Appendix I *Acoustic Report* indicates that mechanical ventilation plant is proposed in learning spaces, common areas and the school hall and further that noise mitigation measures would be required to offset the impact of mechanical ventilation plant on internal noise levels.

Appendix W is unclear about whether the existing library would be naturally ventilated or air-conditioned given its distance from Edgeworth David Road and acoustic shielding from traffic noise afforded by the existing 2 storey block M and the proposed 3/4 storey building parallel to that road.

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