EF13/5058, DOC17/474816-02
SSD 8344

Mr Peter McManus
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

17 October 2017

Dear Mr McManus

SSD 8344 – KELLYVILLE NORTH PUBLIC SCHOOL - EIS

I am writing to you in reply to your invitation to the NSW Environment Protection Authority (EPA) to provide a submission in respect of the project EIS.

The EPA requests that this submission be read in conjunction with its letter dated 6 April 2017 providing input to the draft SEARs and highlighting the following concerns:

(a) the need to engage an accredited site auditor to confirm the suitability of the site for the proposed use;

(b) the proper management of so-called 'de-watering' of disused farm dams;

(c) the importance of a seamless handover of pollution controls between the demolition/site preparation stage and the construction phase; and

(d) operational noise impacts, especially those arising from out of hours use by external parties of the school hall, sports field and netball courts.

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

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

(a) remediation of contaminated soil hot spots and dam sediments;

(b) handling, transport and disposal of any asbestos waste encountered during demolition, site preparation and bulk earthworks;

(c) pumping out water from former farm dams for on site irrigation;

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(b) demolition, site preparation, construction and construction-related noise 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;

(d) demolition, site preparation, and construction phase dust control and management;

(e) demolition, site preparation and construction phase runoff 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.

The EPA expands on its concerns in Attachment A to this letter.

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

Yours sincerely

JACINTA HANEMANN
Regional Manager Operations, Metropolitan Infrastructure
NSW Environment Protection Authority

Contact officer: J GOODWIN
9995 – 6838

Attachment A

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

SSD 8344 KELLYVILLE NORTH PUBLIC SCHOOL EIS

1. General

The EPA considers that the project comprises distinct phases of construction (including demolition) 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 demolition, construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on –

- remediation of site contamination and further investigation of disused farm dam sediments,
- preventing runoff to stormwater during de-watering of disused farm dams,
- 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,
- effective erosion and sediment control, and
- waste handling and management, particularly concrete waste and rinse water.

2.1 Site contamination

EIS Appendix S indicates that groundwater and disused farm dam sediments were not sampled as part of the *Detailed Site (Contamination) Investigation* undertaken by Douglas Partners.

Appendix S further indicates that:

- potential sources of contamination have been identified, including uncontrolled filling from the demolition of former buildings, levelling of ground surface, and former farming and market gardening activities conducted at the site;
- soil investigation results were assessed against the Health Investigation and Screening Levels (HIL & HSL) for residential use with gardens and accessible soil, including primary school;
- concentrations of Total Recoverable Hydrocarbons (TRH) fraction C16 – C34 impacted soil (Test Pit 36/0.1 – 0.2: 5600 mg/kg) and Benzo(a)pyrene) impacted soil (Test Pit11/0.0 – 0.1: 0.89 mg/kg) have been identified;
- asbestos was not detected above the 0.1g/kg Limit of Reporting (LOR), however, asbestos fibre (AF) was detected in the sample taken from the side wall of the dam (0.029 w/w%).

The EPA notes that the detailed site investigation reported in Appendix S –

(a) indicates that there is no evidence of organochlorine and organophosphate pesticides impacted soils due to the historical market gardening activities at the site, and

(b) does not appear to address potential contamination associated with the historic use of fungicides in conjunction previous horticultural and poultry farming on nearby sites.

Section 14 to Appendix S recommends:

(a) delineation and localised remediation of TRH impacted soil;

(b) delineation and removal of soils impacted with asbestos containing material; and

(c) sampling and analysis of disused farm dam sediments "… to inform the requirements for specific management and/or remediation".

Recommendation

The proponent be required to undertake detailed investigation of potential contamination of sediments accumulated in disused farm dams on the site, including investigation of any fungicide contamination

Recommendation

The proponent be required to undertake detailed investigation of potential fungicide contamination of soils along natural drainage lines leading into the disused farm dams.

Recommendation

The proponent be required to engage a site auditor accredited under the *Contaminated Land Management Act* 1997 to undertake an audit to assess whether the site is suitable for the proposed use.

2.2 Dam de-watering

EIS Appendix H outlines a proposal to de-water disused farm dams by pumping water from the dams and irrigating that water within the boundaries of the development site.

Appendix H reports the results from in-situ water quality testing and laboratory analysis, indicating that the results for water quality parameters (including conductivity, dissolved oxygen, turbidity, total nitrogen, total phosphorous, copper and zinc) were above the ANZECC Guidelines for aquatic ecosystems, specifically freshwater 95% level of protection trigger values.

EIS Appendix S outlines concerns about the contamination of dam sediments and dam de-watering must be undertaken so as not to disturb those sediments.

Accordingly, the proponent would need to manage the water from the disused dams in such a way as to prevent discharge from the development site, as such discharge would constitute pollution of waters.

Recommendation

The proponent be required to ensure that dam de-watering is undertaken by such means as necessary to ensure that any irrigation of dam water onto the development site:

(a) is directed over as much of the available grassed areas as is practicable;

(b) occurs over a timeframe sufficient to avoid –
  (i) any runoff from the development site,

  (ii) any waterlogging of the development site, and

  (iii) any erosion of soils; and

(c) avoids disturbing sediment settled in the dams.

2.3 Asbestos containing material

EIS section 3.2 indicates that the site was cleared of structures in mid 2017 and section 3 to EIS Appendix S indicates that demolition occurred before the detailed site investigation reported in that Appendix.

The EPA notes the age and cladding of previous structures on the development site and thus anticipates the likelihood that asbestos containing material may be encountered during the course of site preparation, bulk earthworks and construction activities.

Recommendation

The proponent be required, prior to commencing any work, to prepare and implement an appropriate project specific procedures for identifying and dealing with unexpected finds of site contamination, including asbestos containing materials.

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.

2.4 noise and vibration

The EPA notes the proximity of surrounding residences and nearby pre-school.

The EPA considers that the project is likely to generate noise and vibration impacts on surrounding residences, and noise impacts on the pre-school.

2.4.1 general construction hours

The EPA anticipates that site preparation, construction and construction-related activities will be undertaken during the recommended standard construction hours.

Recommendation

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

(a) 7.00 am to 6.00 pm Monday t0 Friday,

(b) 8.00 am to 1.00 pm Saturday, and

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

2.4.2 intra-day respite periods

The EPA anticipates that those site preparation, 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 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 site preparation, 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.

2.4.3 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 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.

2.4.4 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.

2.5 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 :

(a) minimise dust emissions on the site, and

(b) prevent dust emissions from the site.

2.6 Sediment control

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.

2.7 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.

2.8 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 local waterways.

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, including appropriate restrictions on community use of school facilities outside normal school hours;

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

(c) water sensitive urban design; and

(d) energy conservation and efficiency.

3.1 Noise 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 and nearby 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.

Section 2.2 to EIS Appendix I *Acoustic Report* indicates that background noise monitoring was undertaken between 23 May 2017 and 30 May 2017. 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.

The proponent has not obtained a 'week's worth' of valid data from which to derive daytime background noise levels. In particular, the logger data graphs in Appendix A to the Acoustic Report for Tuesday 23 May and Tuesday 30 May 2017 show that –

- only a small amount of data was collected for these daytime periods, and
- that data appears to be adversely affected by setup and retrieval noise.

The EPA notes that the Assessment Background Levels (ABLs) for both Tuesdays is markedly higher than for other days and should be excluded from the Rating Background Level (RBL) calculation. And thus, results in an RBL of 36 dBA, which should apply to both daytime and evening assessment periods.

Recommendation

The proponent be required to either –

(a) re-measure background noise levels, and measure representative noise levels for the area in accordance with the guidance material in the Industrial Noise Policy, or

(b) adopt a background noise level of 36 dB(A) and a Project Specific Noise level (PSNL) of 41 dB(A) for the day time and evening assessment periods.

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.

EIS section 3.4 proposes out of hours –

- 'school care' at the school between 7.00 am and 7.00 pm,
- use of school facilities by external parties up to 10.00 pm daily,

- use of the all weather sports field by external parties –

  - up to 10.00 pm weekdays, and

  - between 8.00 am and 6.00 pm Saturdays and Sundays.

The EPA considers that the use of the hall for other events, particularly outside school hours, has the potential to adversely impact on adjoining and nearby residences.

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

Recommendation

The proponent be required to ensure that the hall, sports field 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) at any time during Sundays and public holidays.

Recommendation

The proponent be required to –

(a) undertake comprehensive noise compliance monitoring of representative uses of the hall, sports 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 and 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 use of the hall, sports 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 concerts, sporting events and any associated rehearsal/training sessions, and

  - post-event audience/spectator noise, including vehicle door slamming and departure noise.

mechanical plant and equipment

The EPA is unclear whether mechanical plant and equipment (especially mechanical ventilation plant) has been selected. Accordingly, the EPA anticipates that details of mechanical services, plant and equipment are not yet available and the EIS does not appear to show the location of plant and equipment.

Recommendation

The proponent be required to 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 boundaries 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 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) optimising building design for natural lighting, and

  (ii) installation of solar photovoltaic arrays.

However, the EIS and Appendix I appears to indicate that the school will be mechanically ventilated.
