EF13/5058, DOC17443261-02
SSD 8310

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

16 October 2017

Dear Mr McManus

SSD 8310 – CURL CURL NORTH PUBLIC SCHOOL – ENVIRONMENTAL IMPACT STATEMENT

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 23 March 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 therefore has not reviewed any environmental management plan forming part of or referred to in the EIS.

The EPA notes that the site was developed as a school in 1951 and fill imported to the site at some time during its operational life. The EIS includes a preliminary site investigation, remedial action plan, and a hazardous building materials survey.

The EPA anticipates potential water quality impacts on Greendale Creek/Curl Curl Lagoon 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 further notes that the development includes -

(a) an outdoor basketball court and several handball courts at the rear of adjoining residences in Ross Street and Abbott Road,

(b) two 'futsal' (mini-soccer) sports fields towards the northern end of the development site near adjoining residences in Playfair Road, and

(c) a school hall opposite residences on the western side of Playfair Road.

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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;

(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

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

Attachment A

Contact officer: J GOODWIN
9995 – 6838

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

CURL CURL NORTH 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 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 Asbestos containing material

Section 12 to EIS Appendix H confirms continual discovery of asbestos containing materials warranting that a detailed site investigation be undertaken.

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. EIS Appendix I reports on a hazardous building materials survey which confirms the presence of asbestos cement sheeting and lead-based paint in buildings identified for demolition.

EIS Appendix F comprises a Remedial Action Plan the Executive Summary to the Plan indicates that-

(a) during the preliminary site investigation in January 2017 asbestos cement fragments were encountered on the ground surface across the site,

(b) the sampled asbestos cement fragments were assessed to be in such poor condition as to be considered as friable asbestos,

(c) “Due to the cost of off-site disposal, the preferred option for remediation is excavation and on site burial of all fill material …” in conjunction with implementation of a long term management plan to prevent inadvertent disturbance of the capping layer; and

(d) the proponent proposes to remediate the site in 2 stages, with remediation of the southern section of the site whilst occupying the northern section and vice versa following completion of the first stage of remediation.

The EPA does not necessarily accept that –

- cost alone should determine the appropriate method of site remediation, and
- the proposed staged remediation is appropriate.

Therefore, the EPA having regard to foregoing and the nature of the proposed use, considers that:

(a) an accredited site auditor should certify that the development site can be made suitable for the proposed use (including temporary use of a section of the development site during remediation of the other section) if the site is remediated in accordance with "*Remedial Action Plan for Proposed Curl Curl North Public School Redevelopment'* prepared by Environmental Investigation Services and dated 9 August 2017,

(b) a Section A site audit statement (SAS) and accompanying site audit report (SAR) must be prepared at the completion of remediation and validation certifying suitability for the proposed use of the development site,

(c) additional investigation, including the footprint of relocated and demolished structures and underground utilities should be undertaken and the scope of that investigation detailed in a sampling and analysis quality plan to be provided to the site auditor for review;

(d) further details of the proposed remediation and validation strategy be provided to the site auditor in a Works Plan and a Validation Sampling and Analysis Quality Plan (VSAQP) for review by the site auditor prior to remediation commencing;

(e) an asbestos management plan (AMP) be prepared and submitted to the site auditor for review; and

(f) a long term Environmental Management Plan (LTEMP) be prepared following remediation of the development site to document -

  (i) the expected limitations on the development site use,

  (ii) relevant environmental and health and safety processes and procedures,

  (iii) management processes, procedures and responsibilities to be adopted by future site users within the development site, and

  (iv) details on the location and extent of placed or residual asbestos contaminated fill materials, capping layers and marker barriers within the development site.

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 to:

(a) engage a site auditor accredited under the Contaminated Land Management Act 1997; and

(b) provide a Section A site audit statement (SAS) and accompanying site audit report (SAR) prepared following completion of remediation and validation certifying suitability of the development site for the proposed use prior to undertaking any construction.

Recommendation

That the proponent be required to implement the recommendations of the Remedial Action Plan as conditioned by the accredited site auditor.

Recommendation

The proponent be required prior to commencing work to prepare and implement an appropriate procedure for identifying and dealing with unexpected finds of site contamination, including –

(i) asbestos containing materials, and

(ii) lead-based paint,

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 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 Playfair Road, Abbot Road and Ross Street.

2.2.1 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. The EIS section 3.11.1 proposes hours consistent with those standard hours subject to the proviso that “If required, after hours permits will be sought from the relevant authorities”.

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.

2.2.2 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.

2.2.3 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 (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 in Abbott Road, Ross Street and Playfair Road.

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, the EPA notes that –

(a) background noise monitoring was undertaken between 24 February 2017 and 8 March 2017,

(b) the nearest Bureau of Meteorology (BoM) weather station at Terrey Hills recorded rain every day of the monitoring period (i.e. 24 February to 8 March 2017) other than 3 March 2017.

EIS Appendix V *Construction and Operational Noise Report* does not mention rainfall observations at Curl Curl during the measurement period, whether any such observations were taken into account, or how any such observations were taken into account.

The Industrial Noise Policy guidance material also specifies that noise from an existing development should be excluded from background noise measurements. Figure 2-2 to Appendix V indicates that background noise measurements were undertaken at the rear of the adjoining residence at 56 Abbott Road and close to appears in be immediately adjacent to the existing school. The measurement period was during school term and so included noise from activities at the existing school. The EPA notes for instance that the impact of school activities appears evident in the graphical representation of the measurement data.

The EPA is unclear why background noise monitoring was undertaken during the first term of school rather than during a school holiday period when school activities would be unlikely to affect measurements.

Appendix V does not include Assessment Background Levels (ABLs), which can show day-to-day differences in levels.

Recommendation

The proponent be required to either:

(a) to re-measure background noise levels, excluding noise from activities at the existing school, but otherwise representative of noise levels in the area; or

(b) adopt background noise levels 5dB lower than those proposed, for the purposes of setting noise objectives for the proposed development (i.e. 37dBA daytime; 35dBA evening; 31dBA night-time).

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.

Section 5.6 to EIS Appendix V indicates that the school sports fields are proposed to be made available for community use "… at weekends …". The EPA considers that any potential noise impact should be carefully assessed against the need, given extensive complex of sports courts and sports fields located along the southern side of Abbott Road opposite the school.

The EPA considers the proposed community use of school facilities (especially the hall, and 'futsal' fields 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 'futsal' 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 'futsal' 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 use of the 'futsal' 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

The EPA acknowledges that EIS section 3.10 indicates "all habitable rooms including teaching and learning spaces will be naturally ventilated". The EPA anticipates the likelihood that mechanical plant and equipment will be installed to serve various facilities. The EIS Appendix V states that details of mechanical services, plant and equipment are not yet available and does not appear to show the location of plant and equipment.

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 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 S 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
