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SSD 8816

15/3/18

Ms Teresa Gizzi
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Ms Gizzi

SSD 8816 – HEALTH SERVICES ADMINISTRATION BUILDING – ENVIRONMENTAL IMPACT STATEMENT (EIS)

I am writing in reply to your invitation to the Environment Protection Authority (EPA) to make a submission concerning the above project EIS. The EPA requests that this submission be read in conjunction with its letter dated 27 October 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'. The EPA has not reviewed any environmental management plan forming part of or referred to in the EIS.

I note that section 1.0 of the EIS indicates demolition of existing structures on the development site is to be undertaken pursuant to a separate assessment process.

The EPA understands that the nearest and potentially most affected residences are located about 80 metres to the east in a high rise located at 3 Herbert Street. Accordingly, the EPA anticipates significant noise and vibration impacts on the hospital and significant noise impacts on nearby residences during the demolition/construction phase of the project.

The Health Administration Corporation is a 'public authority' within the meaning of the Protection of the Environment Administration Act 1991. 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, Table 1 to the EPA's Interim Construction Noise Guideline clearly identifies the best practicable measures in respect of standard hours of construction. The proponent should ensure that (in the absence of strong justification for undertaking activities outside standard hours) demolition activities should only be undertaken during the standard hours.

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Similarly, the EPA anticipates that although demolition of existing structures and removal of trees on the development site was the subject of a separate assessment process, the proponent would ensure that that demolition and tree removal is undertaken in a manner consistent with the recommendations in this submission concerning site preparation, bulk earthworks, construction and construction-related activities.

The EPA acknowledges that the proponent may consider it useful to engage different contractors to undertake demolition, site preparation, bulk excavation, and construction stages of the project. The EPA thus expects the proponent to adopt all such means as may be necessary to ensure a seamless transition of environmental impact mitigation measures between demolition, site preparation, bulk excavation, and construction stages of the project, particularly if different contractors are to be engaged for some or all of those stages of the project.

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, goods delivery, waste collection services and mechanical services (especially air conditioning plant);

(f) the need to assess feasible and reasonable noise mitigation and management measures to minimise operational noise impacts on surrounding residences;

(g) design, installation and operation of underground petroleum storage system to serve 1000 kVa back-up generator;

(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

SARAH THOMSON
Unit Head, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A EPA comments on SSD 8816 NSW HEALTH ADMINISTRATION BUILDING

ATTACHMENT A

ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

SSD 8816 NSW HEALTH ADMINISTRATION BUILDING

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

The EPA understands that existing structures and trees on the development site are to be demolished/removed under a separate consent process. The EPA anticipates that given the age of some of the structures and associated underground utilities due to be demolished, asbestos containing materials and lead-based paints are likely to be encountered during demolition.

Section 4.3 to EIS appendix J indicates the presence of a back-up generator and associated 15,000 litre diesel fuel tank north of existing building 51. Further, that the "... tank and generator are located on a concrete slab...". If any part of the diesel fuel tank (and the fuel supply and return lines between it and the back-up generator it serves) is located underground, it would constitute an Underground Petroleum Storage System (UPSS). The proponent would be required to provide a validation report prepared in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014:

(a) following removal of any de-commissioned Underground Petroleum Storage System, and
(b) before bulk excavation on the site other than excavation for the purposes of removing the UPSS.

The EPA considers that, prior to any site preparation or bulk earthworks, further site investigation should be undertaken in and around the footprint of demolished structures and underground utilities.

Section 13 to EIS Appendix J Detailed Site Investigation recommends preparation of an unexpected finds procedure.

Recommendations

1. The proponent be required to ensure that following 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.

2. 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 asbestos containing materials) and that the procedure includes details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved.

3. The proponent be required:

   (a) to confirm that the diesel fuel tank (and the fuel supply and return lines between it and the back-up generator it serves) are not located underground, or
   (b) if any part of the diesel fuel tank (and the fuel supply and return lines between it and the back-up generator it serves) are located underground, provide a copy of the validation report prepared in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014 following removal of the de-commissioned Underground Petroleum Storage System.

4. The proponent be required prior to 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 as any such change would render the proponent the 'person responsible' for the contamination under section 6(2) of the Contaminated Land Management Act.

5. The proponent be required to ensure that it notifies the EPA under section 60 of the Contaminated Land Management Act of any contamination encountered on the development site which meets the triggers in the EPA's *Guidelines for the Duty to Report Contamination*.

6. 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.

7. 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 site preparation, bulk earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on the adjoining hospital, on surrounding residences (especially those located at 3 Herbert Street), and on patrons of the nearby Gore Hill Oval.

2.2.1 general construction hours

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

However, section 2.5.2 to EIS Appendix H proposes construction hours between 7.00 am and 5.00 pm on Saturdays instead of the standard hours of 8.00 am to 1.00 pm but provides no strong justification for departing from the standard hours. For the avoidance of doubt, the EPA does not –

(a) consider productivity to represent strong justification for undertaking site preparation, bulk earthworks, construction and construction-related activities outside standard hours, and
(b) support the proposed departure from the recommended standard construction hours.

Recommendation

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

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

(b) 8.00 am to 1.00 pm Saturday, and

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

2.2.2 intra-day respite periods

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

(a) they are only undertaken after 8.00 am,

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

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

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

Recommendation

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

2.2.3 idling and queuing construction vehicles

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

Recommendation

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

2.2.4 reversing and movement alarms

The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW (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 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 may have significant operational noise impacts on nearby sensitive receivers, especially nearby residences in Herbert Street.

The EPA is aware of previous community concern about offensive noise emitted from operational activities associated with recent re-development on the hospital campus.

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 and winds exceeding 18 kilometres per hour should be excluded when deriving those background levels. However, the EPA notes that unattended noise monitoring was undertaken between 6 February 2017 and 15 February 2017 and that –

(a) the Bureau of Meteorology (BoM) weather station at Observatory Hill recorded significant rainfall on Tuesday 7 February, Wednesday 8 February, Thursday 9 February and Wednesday 15 February 2017,

(b) the EIS Appendix CC long-term noise monitoring graphs indicate that monitoring was not affected by rain or winds greater than 18 kilometres per hour on Thursday 9 February 2017

whereas BoM recorded 20 kilometre wind speeds at 3.00 pm as well as 5.6 millimetres of rain, and

(c) the EIS Appendix CC long-term noise monitoring graphs indicate that adverse meteorological conditions were not observed during the period from 10 February 2017 to 13 February 2017 inclusive.

The EPA further notes that contrary to the guidance material provided in INP chapter 3, unattended background noise monitoring was undertaken on the development site rather than at the most affected or potentially most affected noise sensitive receiver location, being nearby high-rise residences in Herbert Street.

Recommendation

The proponent be required to obtain at least a 'week's worth' of valid monitoring data not affected by adverse meteorological conditions and measured at the most affected or potentially most affected residence.

Mechanical plant and equipment

Section 5.1 to EIS Appendix CC indicates that major mechanical plant and equipment is proposed to be installed on the roof or in rooftop plant rooms.

Whilst the mechanical plant and equipment is yet to be selected, the proponent has –

(a) nominated representative sound power level data based on performance specifications, and

(b) identified acoustic treatments so that noise from mechanical services and plant does not exceed the criteria derived from background levels measured on the development site.

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 most affected or potentially most affected residence, and

(ii) exhibits tonal or other annoying characteristics.

Waste collection services

The EPA notes numerous reports of community concern arising from waste collection services, especially during evening and night times and on weekends and public holidays. At the same time, the EPA recognises that the proposed development would at times be used as an emergency operations centre.

Recommendation

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

Delivery of goods

The EPA notes numerous reports of community concern arising from delivery of goods to loading docks, especially during evening and night times and on weekends and public holidays. At the same time, the EPA recognises that the proposed development would at times be used as an emergency operations centre.

Recommendation

The proponent be required to ensure delivery of goods to the loading dock is not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday, except during emergency operations.

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 public facilities 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 7.00 am to 6.00 pm Monday to Friday.

3.2 Back-up Generator and Underground Petroleum Storage System

Section 6.11 of the EIS and section 2.5.2 to EIS Appendix L indicate that emergency operations would be assured by the installation of a 1000 kiva back up generator. However, the EIS appears to omit details of any Underground Petroleum Storage System (UPSS) proposed to be installed to provide fuel for the back up generator.

The proponent may only use a UPSS in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014. Any such UPSS must be designed, installed and operated with regard to Guidelines issued by the EPA.

Recommendation

The proponent be required to design, install and operate any underground petroleum storage system in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014

3.3 Waste management

The proponent should manage waste in accordance with the waste management hierarchy outlined above at section 2.6.

Recommendation

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

3.4 Water sensitive urban design and energy conservation and efficiency

The EPA acknowledges that EIS Appendix G comprises an environmentally sustainable development report.

water efficiency

Section 3.3 to Appendix G proposes a range of water sensitive urban design measures, including –

(i) rainwater harvesting and re-use, and
(ii) water efficient fixtures

However, section 3.3 does not commit the project to water sensitive urban design and instead states:

- "A rainwater tank will be considered for the cooling towers and irrigation on site ...", and
- "Landscape irrigation supply may be sourced from on-site rainwater system

Recommendation

The proponent be required to confirm its commitment to implementing water sensitive urban design measures, including rainwater harvesting, storage and re-use.

energy efficiency

Section 3.2 to Appendix G indicates that the development would incorporate a range of measures to maximise energy efficiency and minimise energy consumption, including –

(i) thermally efficient construction, and
(ii) installation energy efficient lighting.

However, the proponent does not appear to have considered practicable opportunities to reduce reliance on traditional diesel fuelled back-up emergency generation such as a supplementary photovoltaic energy collection and battery storage system.

Recommendation

The proponent be required to consider practicable opportunities for supplementing the proposed diesel fuelled back-up generator with an integrated photovoltaic energy collection and battery storage system.
