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Dear Mr Gibson

REQUEST FOR EPA INPUT ON STATE SIGNIFICANT DEVELOPMENT – WESTERN SYDNEY UNIVERSITY – INNOVATION HUB, 2-6 HASSAL STREET PARRAMATTA (SSD9670)

I refer to your recent correspondence requesting Environment Protection Authority (EPA) input on the above mentioned State Significant Development. The EPA acknowledges that the application is deemed Crown Development within the meaning of clause 226(1) of the Environmental Planning and Assessment Regulation 2000.

The proposal involves construction of a 19-storey mixed-use development incorporating education uses for Western Sydney University, commercial and retail uses. The proposal also includes landscaping, public domain, services augmentation and infrastructure works.

The EPA is advised that site preparation works have commenced pursuant to an early works development consent (DA/714/2018); as such the site is currently free of existing vegetation and structures and is bound by an A class hoarding. Archaeological investigations, piling/shoring and excavation works are subject of DA/66/2019 currently being considered by Parramatta City Council. EPA correspondence to the department responding to a request to provide input into Secretary's environmental assessment requirements for the Crown Development was forwarded to Parramatta Council for attention via email on 24 May 2019.

Based on the information provided, the development proposal does not constitute a Scheduled Activity under Schedule 1 of the *Protection of the Environment Operations Act 1997* (hereafter "the Act"). At this stage, the EPA does not consider that the proposal will require an Environment Protection Licence under the Act. However, as the activity is Crown Development the EPA will likely be the 'appropriate regulatory authority' under the Act for construction and for some aspects of operation i.e. those uses involving spaces occupied by Western Sydney University.

The EPA emphasises that it does not review or endorse environmental management plans or the like for reasons of maintaining regulatory 'arm's length'. The EPA has not reviewed any environmental management plans forming part of or referred to in the environmental impact statement (EIS).

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 Site Audit Statement from an EPA Accredited Site Auditor to confirm that the site is, or has been made suitable for the intended use pursuant to the *Contaminated Land Management Act 1997* and State Environmental Planning Policy No. 55 – Remediation of Land.

(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 and other noise sensitive receivers;

(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 and other sensitive noise receivers) arising from operational activities such as mechanical services (especially air conditioning and refrigeration plant);

(f) practical opportunities to implement water sensitive urban design principles, including stormwater re-use; and

(g) practical opportunities to minimise consumption of energy generated from non-renewable sources and to implement effective energy efficiency measures.

The EPAs detailed comments are outlined in Appendix A.

Please contact Gordon Downey on (02) 9995 5783 or gordon.downey@epa.nsw.gov.au for any questions or comments in relation to this matter.

Yours sincerely

SARAH THOMSON
Unit Head - Metropolitan Infrastructure
Environment Protection Authority

ATTACHMENT A

ENVIRONMENT PROTECTION AUTHORITY COMMENTS

WESTERN SYDNEY UNIVERSITY – INNOVATION HUB

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 and other sensitive land uses which may be adversely affected by noise impacts during demolition, site preparation, construction and operation phases of the project.

2. Construction phase

Noting that some aspects of the development will be undertaken under the previously mentioned early works DA's, 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 –

- Any restrictions imposed by, or conditions included in the required Site Audit Statement,
- 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

A Detailed Site Contamination Investigation (DSCI) has been prepared by Douglas and Partners and is included at Appendix N to the EIS (Report No.86415.02.R.001.Rev2, April 2019). The DSCI concludes that *"the site can be made suitable, from a site contamination standpoint, for the proposed commercial and tertiary education development"* subject to additional inspection, sampling, testing and clearance post demolition / excavation approved under the early works consents.

Further the EIS notes at Section 5.10:

"Early Works DA 2 (DA/66/2019) seeks approval for excavation and is currently under assessment by the City of Parramatta. Upon completion of these works, a Site Audit Statement [SAS] *will be prepared to confirm that the site is suitable in accordance with the findings of the DSI. As a result, all investigations and work related to contamination will be completed prior to the commencement of construction work on the proposed Engineering Innovation Hub"*.

The DSCI gave a cursory treatment to the potential for PFAS contamination. The development site adjoins a Defence Facility. The SAS should directly review the adequacy of the DSCI evaluation of the potential for PFAS contamination.

Recommendation 2.1

That prior to the commencement of works the subject of this approval that a Site Audit Statement (SAS), within the meaning of the *Contaminated Land Management Act 1997* and State Environmental Planning Policy No. 55 – Remediation of Land, be furnished to the Secretary confirming that the site is suitable for the proposed use. The EPA recommends that any conditions on the SAS shall be read to be a condition of the SSD Approval. The SAS should also directly address the adequacy of the assessment of the potential for PFAS contamination given the sites locality to a Defence Facility.

2.2 Noise

The EPA notes the location of the development and its proximity to adjoining and nearby sensitive land uses. The EPA anticipates that construction and construction-related activities may have significant noise impacts on surrounding noise sensitive receivers.

A Noise and Vibration Impacts Assessment (NVIA) has been prepared by Floth Sustainable Building Consultants and is included at Appendix T to the EIS. The EPA has concerns about several aspects of the NVIA:

- Existing noise levels (NVIA, Section 3) were measured on the western side of the subject development site. The measurement site is not considered representative of the nearest sensitive receiver locations as the measurement site was likely influenced by mechanical plant associated with the Commercial Hotel, especially during night time hours where the noise trace can clearly be seen to be influenced by an intermittent noise source. Construction and operational noise criteria derived from the existing noise levels should be confirmed by further monitoring of existing noise levels at a location satisfying the Noise Policy for Industry (EPA, 2017) and the Interim Construction Noise Guideline (DECC, 2007).
- Noise requirements relating to uses for which EPA will not be the operational appropriate regulatory authority under the Act should be determined by the department in concert with Parramatta City Council. For example, noise from retail and commercial tenancies including restaurants and liquor licensed premises.

2.2.1 general construction hours

The EPA emphasises that construction and construction-related activities should be undertaken during the recommended standard construction hours, with intra-day respite periods provided for annoying noises identified in Section 4.5 of the Interim Construction Noise Guideline.

Recommendation 2.2 and 2.2.1

1. The proponent be required to support the construction noise assessment criteria presented in Appendix T to the EIS with additional noise monitoring at a location consistent with the guidance in the Noise Policy for Industry (EPA, 2017) and the Interim Construction Noise Guideline (DECC, 2007).

2. 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.

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 2.2.3

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, Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) and others 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 2.2.4

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.

2.3 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 2.3

The proponent be required to minimise dust emissions on the site and prevent dust emissions from the site.

2.4 Sediment control

The development site is within the Parramatta River catchment area.

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.

Recommendation 2.4

The proponent be required to ensure that:

(a) demolition, site preparation, bulk earthworks, construction and construction-related activities do not commence on the development site until appropriate and effective sediment controls are in place, and

(b) sediment controls are inspected at least daily to ensure timely maintenance and repair of those controls.

2.5 Fuel, lubricants and chemicals

The EPA emphasises the importance of implementing all such measures as may be necessary to ensure that any spill or leakage on the development site does not enter the stormwater system.

Recommendation 2.5

1. The proponent be required to ensure that all deliveries to the development site are made under direct supervision by appropriately trained and equipped personnel:

   (a) to minimise the risk of any spill during a delivery, and

   (b) to expedite containment and clean up in the event of any spill.

2. The proponent be required to ensure that all fuel, lubricants and chemicals used on the development site are:

   (a) stored as far away as practicable from overland flow paths to stormwater, and

   (b) stored within a roofed and bunded storage compound secured against unauthorised entry.

2.6 Waste control and management (concrete and concrete rinse water)

The EPA anticipates that during 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 2.6

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.

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 project.

Recommendation 2.7

The proponent be required to ensure that:

(1) all waste generated during the project is assessed, classified and managed in accordance with the EPA "*Waste Classification Guidelines Part 1: Classifying Waste*", November 2014 and the 2016 Addendum thereto;

(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.

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 impacts

The EPA emphasises that properly establishing background noise levels in accordance with guidance material in the New South Wales Noise Policy for Industry (NPfI - EPA, 2017) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

The NPfI specifies that background noise is measured at the most or potentially most affected noise-sensitive locations. The EPA considers that the background noise monitoring on the western side of the development site was potentially affected by noise from the Commercial Hotel and may not be representative of the nearest affected sensitive receivers.

The EPA therefore considers that background noise measurements have **not** been carried out in accordance with the guidance material provided in the Noise Policy for Industry (EPA, 2017) and Interim Construction Noise Guidelines (DECC, 2007).

Recommendation 3.1

That the proponent be required to further support operational noise assessment criteria derived from the existing noise monitoring presented in Appendix T to the EIS with additional noise monitoring at a location consistent with the guidance in the Noise Policy for Industry (EPA, 2017) and the Interim Construction Noise Guideline (DECC, 2007).

3.2 Noise intrusion into building occupancies

The proponent should ensure that the building is constructed in a manner that satisfies the requirements of State Environmental Planning Policy (Infrastructure) 2007 Clauses 87 and 102 as relevant.

3.3 Mechanical plant and equipment

Consistent with standard practice, the EIS defers a definitive evaluation of mechanical plant noise to the detailed construction design phase.

Recommendation 3.3

The proponent be required to:

(a) ensure mechanical plant and equipment installed on the development, where feasible and reasonable, does not generate:

  (i) noise that exceeds the applicable project noise trigger level derived in accordance with the guidance in the Noise Policy for Industry (EPA, 2017) when measured or assessed at the most affected or potentially most affected noise-sensitive receivers, and

  (ii) noise that exhibits tonal or other annoying characteristics.

3.4 Waste management

The proponent should manage waste in accordance with the waste management hierarchy mentioned earlier.

Recommendation 3.4

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

3.5 Water sensitive urban design

The EIS includes: Appendix K – Stormwater Concept Plan (Document No. S18255) and Appendix L – Overland flow assessment and stormwater management report 2B-6 Hassall Street Parramatta (Document No. 18570-CH RPT-SWMP-190403). The documents identify stormwater harvesting, onsite detention (OSD) and proprietary treatment measures prior to controlled discharge to the stormwater system. Opportunities for beneficial reuse of harvested stormwater does not appear to have been considered.

Recommendation 3.5

That the proponent further evaluates:

(a) the potential for beneficial reuse of harvested stormwater, including a risk assessment of impacts on human health and the environment from any proposed beneficial reuse; and,

(b) the potential for groundwater to be captured in the stormwater system, or in a separate system that may ultimately require discharge from the site (e.g. lift well sumps etc), and an evaluation of potential contaminants of concern and required treatment measures prior to discharge. The Site Audit Statement required under Recommendation 2.1 of this advice should address the potential for groundwater to contain contaminants of concern; and,

(c) all discharges to stormwater from the site to ensure that pollution of waters within the meaning of s.120 of the *Protection of the Environment Operations Act 1997* does not occur.

3.6 Underground storage tanks (UST)

The proponent should be advised that the site is located within the Protection of the Environment (Underground Petroleum Storage Systems) Regulation 2014, Sensitive Zones Map and if any such UST is proposed to be installed on the site to support emergency electrical generation or the like, the system shall satisfy the requirements of the Regulation.

3.7 Radiation Control Act 1990

The proponent should be advised that should research activities / occupancies involve the storage and use of ‘regulated material’ within the meaning of the *Radiation Control Act 1990* that compliance with the requirements of the Act must be met.
