EF14/1786, DOC16581825-02
SSD 7689

Mr Andrew Hartcher
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Mr Hartcher

SSD 76898126 – WALSH BAY ARTS PRECINCT STAGE 2 EIS

I am writing to you in reply to your invitation to the EPA to provide a submission in respect of the project EIS.

The EPA has provided comments under separate cover in respect of the Sydney Theatre Company re-development (SSD 7561)

The EPA understands that Stage 2 involves –

- demolition over and adjacent to harbour waters.
- construction and construction-related activities over and adjacent to harbour waters,
- pile replacement and installation,
- construction of a waterfront square comprising either a floating deck or piled structure, and
- use of the precinct for outdoor events, including the use of amplified sound systems.

The EPA requests that the following advice be considered together with its letter dated 15 August 2014 concerning the precinct Staged Development Application (SSD 6069).

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

The EPA has identified the following site specific concerns based on the information in the Environmental Impact Statement as obtained from the Department's Major Projects web site:

(a) the need for further detailed assessment of potential site contamination following demolition of existing structures;

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(b) the need to develop and implement (as necessary) a procedure for dealing with unexpected finds of contamination including asbestos and lead-based paint encountered during demolition, construction and construction-related work;

(c) the need to minimise demolition, construction and construction-related noise and vibration impacts (including recommended standard construction hours and intra-day respite periods for highly intrusive noise generating work);

(d) need for demolition, construction and construction-related dust control and management;

(e) need for demolition, construction and construction-related erosion and sediment control and management, including control of sediment plumes during removal and installation of piles;

(e1) the need for demolition, construction and construction-related control and management of loose and dislodged materials to prevent those materials being caused or permitted to be placed in or on, or otherwise introduced into or onto harbour waters;

(f) the need to minimise operational noise impacts on noise sensitive receivers (especially nearby residences and residences on the opposite side of Sydney Harbour) arising from operational activities, including outdoor events, amplified sound systems, sound checks and rehearsals;

(f1) the need to minimise operational noise impacts on noise sensitive receivers (especially nearby residences) arising from the operation of mechanical plant and services, loading dock activities and waste collection services;

(g) the need to adopt practical opportunities to implement water sensitive urban design principles, including stormwater collection, storage, treatment and re-use for non-potable purposes; and

(h) the need to adopt practical opportunities to implement energy conservation including minimisation of the consumption of energy from non-renewable sources.

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

16-12-16

MIKE SHARPIN
Acting Manager, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS -

SSD 7689 WALSH BAY ARTS PRECICNT STAGE 2

1. General

The EPA considers that the project comprises two distinct phases (construction and operational) and has set out its comments on that basis.

2. Construction phase

The EPA anticipates a range of environmental impacts during the construction phase of the development which should be comprehensively addressed in detail by the environmental assessment. And, notes the proximity of surrounding residences.

The EPA anticipates that site preparation, bulk earthworks, construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on –

- detailed site contamination investigation and remediation,
- compliance with recommended standard construction hours,
- waste management consistent with the hierarchy of re-use, recycle and then disposal as the last resort,
- 'special waste' management (i.e. asbestos),
- feasible and reasonable noise and vibration minimisation and mitigation,
- intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting and vibratory rolling),
- effective dust control and management, and
- effective erosion and sediment control.

2.1 Site investigation and remediation

The EPA notes EIS –

- Appendix 32 - Phase 1 Environmental Site Assessment (JBS & G),
- Appendix 33 - Preliminary Sediment Investigation (Cardno), and
- Appendix 34 - Interim Audit Advice issued by the accredited site auditor.

JBS&G undertook a desk top review. They were provided with the *Initial Contamination Assessment* report from HLA- Envirosciences Pty Ltd (August 1996).

JBS&G recommended sediment and water discharge management measures for the project.

The JBS&G Report concluded that –

- current use of the site is considered to have negligible potential for contamination of land and sea,
- the site was previously used as part of the Walsh Bay Wharves shipping facility and this former use, in combination with the location of the site in the central inner city suggested that heavy metals, OCPs, PCBs, PAHs, PCBs, TPH and asbestos were contaminants of potential concern,

- the soils are not considered to present a risk to human health, and
- additional soil sampling is required to adequately characterise the land-based portion of the precinct and confirm the suitability of the site for the proposed use.

A literature review of existing information on known contaminants in sediments in the site area and the wider Sydney Harbour area was undertaken prior to collection of marine sediments in Walsh Bay Sydney and subsequent analysis of these samples for heavy metals, volatile and semi-volatile organic compounds.

Results were compared with screening levels in the National Assessment Guidelines for Dredging (NAGD), revised ANZECC/ARMCANZ Sediment Quality Guidelines and Sydney Harbour background levels, to assess the potential risk to the marine environment represented by their potential release during construction. TPH concentrations were below the Interim Sediment Quality Guideline (ISQG) levels. The Low ISQG levels were exceeded by arsenic, chromium, copper, lead, silver, zinc, dichlorodiphenyldichloroethane (DDD), total PAHs. None exceeded the High ISQG levels. No leachate analysis was undertaken.

It was found that the levels were consistent with background concentrations from literature. The concentrations from onsite were also comparable to the concentrations measured in the reference samples.

During pile replacement there is a risk that suspended sediments may impact nearby marine flora and fauna. And, several control measures were suggested to mitigate against this risk during construction. The EPA understands that sediment is not proposed to be removed from the site.

The accredited site auditor's interim audit advice (Appendix 34) dated 24 November 2016 regarding site suitability notes that –

(a) the report prepared by JBS&G concludes that; based on available information, the likely contaminants at the site do not appear to represent a potential human health risk for continued commercial use of the site. And that, that conclusion is primarily based on the limited assessment of the site undertaken by HLA-Envirosciences in 1996.

(b) without the additional investigations of the land-based portion of the site as recommended by JBS&G, it is not possible to determine whether potential contamination of soils/fill at the site present an unacceptable risk to site users under the proposed land use and whether any remediation or management is required.

The site auditor considers that it is feasible to remediate and/or manage potential contamination associated with the past use of the site on the basis that such contamination of soil/fill is able to be managed using well-developed and readily available remediation techniques.

If remediation is necessary, the remediation should be undertaken –

- following the requirements of the guidelines made or approved by the NSW EPA under s.105 of the Contaminated Land Management Act 1997, and
- a Remediation Action Plan (RAP) prepared in accordance with those guidelines.

The EPA considers that-

(a) if the sediment and water discharge management measures provided in the JBS&G report are followed, there is unlikely to be any significant impact to the adjacent sediments or water,

(b) the soil adjacent to the sea wall has yet to be characterised and thus site suitability cannot be determined.

However, as the site has not had a specifically contaminative land use, contamination is only likely to be related to localised infilling. The EPA further understands that the fill material will remain under an existing sealed surface.

Recommendation

The proponent be required to –

(a) undertake further assessment of soil contamination following demolition of existing structures and prior to undertaking any earthworks likely to disturb fill or sediment in the vicinity of the sea wall,

(b) (and if the further assessment referred to in paragraph (a) determines that there is an unacceptable risk from contamination at the site) undertake remediation in accord with a Remediation Action Plan (RAP) prepared in accordance with the guidelines under Section 105 of the Contaminated Land Management Act 1997.

Recommendation

The proponent be required to obtain (from a site auditor accredited by the EPA under the Contaminated Land Management Act 1997) a Section B site audit statement certifying that the nature and extent of the contamination has been appropriately determined and the site can be made suitable for the proposed use.

Recommendation

The proponent be required to obtain (from a site auditor accredited by the EPA under the Contaminated Land Management Act 1997) a Section A Site Audit Statement to certify the site is suitable for the proposed use.

Recommendation

The proponent be required prior to commencing any work (including demolition) to prepare and implement an appropriate procedure for identifying and dealing with unexpected finds of site contamination, including asbestos containing materials and lead-based paint, particularly in respect of the existing buildings and their curtilage.

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 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) any refuse, litter, debris or other matter is not caused or permitted to be placed in or on, or otherwise introduced into or onto Harbour waters;

(3) 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

(4) 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.

2.2.1 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 –

(a) are not disposed of on the development site, and

(b) are not caused or permitted to be placed in or on, or otherwise introduced into or onto harbour waters.

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. Demolition and construction inevitably generate dust which in turn may be caused or permitted to be placed in or on, or otherwise introduced into or onto harbour waters.

Recommendation

The proponent be required to:

(a) minimise dust emissions on the site, and

(b) prevent dust emissions from the site.

2.4 Erosion and sediment control

The Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective erosion and sediment control on construction sites.

The EPA emphasises the importance of –

(a) not commencing earthmoving or piling operations until appropriate erosion and sediment controls are in place, and

(b) daily inspection of erosion and sediment controls which is fundamental to ensuring timely maintenance and repair of those controls, and

(c) ongoing inspection of floating booms particularly during adverse wind and wave conditions.

2.5 Noise and vibration

The EPA considers that the project is likely to generate significant noise impacts on surrounding residences during demolition, site preparation, bulk earthworks and construction.

The EPA provides the following guidance material for the assessment of noise and vibration impacts:

- Interim Construction Noise Guideline (2009); and
- Assessing Vibration: a technical guideline (2006).

The proponent may download a copy of the abovementioned guidance material via the following link:

http://www.epa.nsw.gov.au/noise/

The EPA notes that section 6.4.2 to EIS Appendix 23 Noise Impact Assessment' indicates that the proposed construction hours for the project mirror the recommended standard construction hours [7.00 am to 6.00 pm Monday to Friday and 8.00 am to 1.00pm Saturday] in Table 1 to the Interim Construction Noise Guidelines (ICNG).

2.5.1 Construction hours (including respite periods)

ICNG section 4.5 specifies construction activities proven to be particularly annoying and intrusive to nearby residents. The EPA anticipates that those activities generating noise with particularly annoying or intrusive characteristics would be subject to a regime of intra-day respite periods where –

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

(b) '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 ICNG section 4.5

Recommendation

The proponent be required to:

(a) comply with the standard construction hours as recommended in Table 1 Chapter 2 of the Interim Construction Noise Guideline, July 2009; and

(b) schedule intra-day 'respite periods' for construction activities identified in the Interim Construction Noise Guideline as being particularly annoying to surrounding residents and other noise sensitive receivers.

2.5.2 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) 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.

The proponent should commit to undertaking a safety risk assessment of construction 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.

2.5.3 Queuing and idling construction vehicles and vessels

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 construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours.

3. Operational phase

The project represents a significant long-term infrastructure investment with associated potential long-term environmental impacts.

3.1 Noise and vibration impacts

The EPA is aware from long experience that significant risks of unacceptable noise impact arise from inadequate noise mitigation and management measures.

The EPA anticipates that the proposed facilities are likely to change the nature and intensity of noise impacts on surrounding noise sensitive land uses, especially nearby residences and residences on the opposite (i.e. northern) side of the Harbour. And, notes project support documentation including –

- EIS Appendix 23 Noise Impact statement, and
- EIS Appendix 24 Operational Event Noise Management Plan.

The *NSW Industrial Noise Policy, January 2000* (INP) provides guidance material on noise impact assessment and anticipates feasible and reasonable noise mitigation and management measures.

The EPA emphasises that properly establishing background noise levels in accordance with guidance material in the New South Wales Industrial Noise Policy (INP) chapter 3 and appendix B is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

Section 4.3 to EIS Appendix 23 indicates that background noise levels were established in conjunction with the Stage 1 staged development application. However, the EPA reiterates its concerns (see letter dated 15 August 2014) about the adequacy of background noise monitoring for Stage 1 – e.g. certain background noise levels were estimated rather than assessed in accord with the INP at described in section 3.3.3 to Appendix B to EIS Appendix 24.

The EPA is particularly concerned about noise impacts associated with outdoor events involving the use of amplified sound (including sound checks and rehearsals) and to a lesser extent breakout noise from indoor events. Section 6.1 to EIS Appendix 24 indicates that "... current proposals for use of the public domain do not include any uses with music in a concert format ...".

The EPA is unable to properly assess the noise impacts of outdoor events, noting that:

(a) the criteria for so-called "daytime" (10.00 am to 10.00 pm) major events are consistent with the *City of Sydney Event Guidelines*: $L_{eq(15min)}$ 65 dBA and 80 dBC;

(b) other criteria appear to be arbitrary changes of 5, 10 or 15 dB below the City of Sydney criterion, except for the "community and cultural events" criteria which are based on measured background levels;

(c) the Stage 2 *Operational Event Noise Management Plan* refers to the *Noise Guide for Local Government*, but doesn't appear to have adopted criteria from that Guide; and

(d) the criteria are different to those for the Stage 1 *Event Operational Noise Management Plan*.

The EPA notes that EIS Appendix 24 identifies 4 categories of event and outlines broad restrictions for each such category. The EPA acknowledges that all event categories are proposed to be subject to –

- an 11.00 pm curfew on music (other than for New Years Eve celebrations),
- limits on the frequency, capacity and duration of category 1 (major events),
- noise monitoring during events,
- community notifications,
- a complaints receipt, handling and response protocol, and
- a proposed event noise impact review process to fine tune event noise limits based on the impact assessment of initial events held at the precinct.

The EPA is concerned that –

- (section 3.3.3 to the extract comprising Appendix B to EIS Appendix 24) indicates that background noise levels were not established in accordance with the guidance material provided in the New South Wales Industrial Nosie Policy but instead were calculated,

- whilst category 2 events for up to 7,500 may occur on consecutive days, the EIS is unclear whether amplified sound would be permitted between 6.00 pm and 11.00pm on consecutive evenings/nights,

- whilst category 3 and 4 events appear to restrict sound systems to "... localised low output ..." systems and musical entertainment to "... live intimate entertainment only" the meaning of those proposed restrictions does not appear to have been defined,

- no restrictions are proposed on the timing and duration of sound checks and rehearsals,

- set up, dismantle, clean up and waste services activities are proposed to be permitted before 7.00 am for Category 1 major events, and

- community notifications of upcoming events should occur by letterbox drop (or other method which may be particular residents) not less than 5 days nor more than 14 days before the start of any event.

Recommendation

The proponent be required to:

(a) provide a quantitative assessment of the background noise levels (day, evening and night time) in accordance with the guidance material provided in the New South Wales Industrial Noise Policy;

(b) undertake noise compliance monitoring of mechanical plant noise during commissioning so as to ensure avoidance of unintended and unacceptable noise impacts on surrounding residences; and

(c) design, select and maintain noise generating mechanical services (especially air handling plant and equipment) to ensure that -

  (i) noise levels measured at the most affected residence do not exceed the rating background level by more than 5 dB, and

  (ii) such plant and equipment does not generate noise that exhibits tonal or other annoying characteristics.

Recommendation

The proponent be required to –

(a) design waste collection areas to avoid or minimise the activation of vehicle reversing alarms during use of those facilities; and

(b) restrict waste collection services to 'day-time' as defined in the NSW Industrial Noise Policy, January 2000

3.6 Energy and Water Conservation

The EPA notes that EIS Appendices 13 and 14 provide a sustainable design approach towards implementing practicable energy and water efficiency and conservation measures.