



**MAJOR PROJECT ASSESSMENT:  
BARANGAROO – DEMOLITION**  
*Proposed by Sydney Harbour  
Foreshore Authority*

Director General's  
Environmental Assessment Report  
Section 75I of the  
*Environmental Planning and Assessment Act  
1979*

November 2007



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## EXECUTIVE SUMMARY

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This is a report on a project application for demolition of existing structures within the Barangaroo site to prepare the site for future development, as approved in the Barangaroo Concept Plan, pursuant to Part 3A of the *Environmental Planning and Assessment Act, 1979* ("the Act"). The site is located in the local government area of the City Of Sydney. The proponent is the Sydney Harbour Foreshore Authority.

On 9 February 2007, the Minister approved a Concept Plan for the redevelopment of Barangaroo (formerly known as East Darling Harbour). The Concept Plan approved the renewal of East Darling Harbour as a new harbour precinct of Sydney, providing an extension of the city's commercial centre and a significant new public headland park comprising the following:

- A mixed use development of commercial, residential, tourist, retail and community uses involving a maximum of 388,300m<sup>2</sup> gross floor area (GFA);
- Built form design principles, maximum building heights and GFA for each development block within the mixed use zone;
- Approximately 11 hectares of new public open space/public domain, with a range of formal and informal open spaces serving separate recreational functions and including a 1.4km public foreshore promenade;
- A maximum of 8,500m<sup>2</sup> GFA for a passenger terminal and a maximum of 3,000m<sup>2</sup> GFA for active uses that support the public domain within the public recreation zone;
- Public domain landscape concept, including parks, streets and pedestrian connections;
- Creation of a partial new shoreline to the harbour and alteration of the existing sea walls; and
- Retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking.

The subject proposal is consistent with the approved Concept Plan and comprises the following 2 stages:

### Stage 1

- Demolition of Transit Sheds 3, 4, 5, and 6

### Stage2

- Demolition of Transit Shed 8;
- Demolition of gatehouses associated with wharves 3, 4, 5, 6 & 8;
- Removal of 17 light towers;
- Demolition of wash bay;
- Removal of diesel tanks; and
- Demolition of Sydney Ports office building & amenities.

The estimated project cost is \$5.13 million. The proposal will create 50 full time equivalent demolition jobs.

The proposal was placed on public exhibition for a 30 day period between 2 August 2007 and 31 August 2007. During the exhibition period, the Department received 6 submissions from public authorities and 9 submissions from the public.

Submissions were received from the following government agencies:

- Heritage Council of NSW;
- Roads and Traffic Authority (RTA);
- NSW Department of Environment and Climate Change (DECC);
- NSW Maritime;
- City of Sydney; and
- NSW Ministry of Transport.

The agencies raised submissions which the Proponent has satisfactorily addressed in the response to submissions and amended Statement of Commitments, or which have been addressed via recommended conditions of approval.

Key issues considered in the Department's assessment include:

- Consistency with approved Concept Plan
- Heritage Impacts;
- Remediation;
- Waste management;
- Traffic Impacts;
- Noise & Vibration;
- Air and Water Quality;
- Staging; and
- The Public Interest.

On 11 October 2007, the Proponent submitted an amended Statement of Commitments and a response to issues raised by agencies and the public during the exhibition period.

The Department has assessed the merits of the project and is satisfied that the impacts of the proposed demolition have been addressed via the Proponent's amended Statement of Commitments and the Department's recommended conditions of approval, and can be suitably mitigated and/or managed to ensure a satisfactory level of environmental outcome.

On these grounds, the Department is satisfied that the site is suitable for the proposed development and that the project will not result in any unreasonable environmental or social impacts to the locality and achieves a sustainable outcome. All statutory requirements have been met. The Department recommends that the project be approved, subject to conditions.

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## 2 BACKGROUND

### 2.1 THE SITE

#### 2.1.1 Site context and location

Barangaroo is located on the north western edge of the Sydney CBD. The site is bounded by the Sydney Harbour foreshore to the west and north, Hickson Road and Millers Point to the east and Kings Street Wharf / Cockle Bay / Darling Harbour to the south (see **Figure 1**). Barangaroo has an area of 22 hectares and a 1.4 kilometre harbour foreshore frontage.



Figure 1 - Location Map of the Site

## 2.1.2 Existing site features and uses

The site comprises 5 wharves (wharves 3,4,5,7 and 8). These wharves have until recently been used for commercial shipping for berthing and unloading of container ships, and are currently used as an international and domestic overseas passenger terminal.

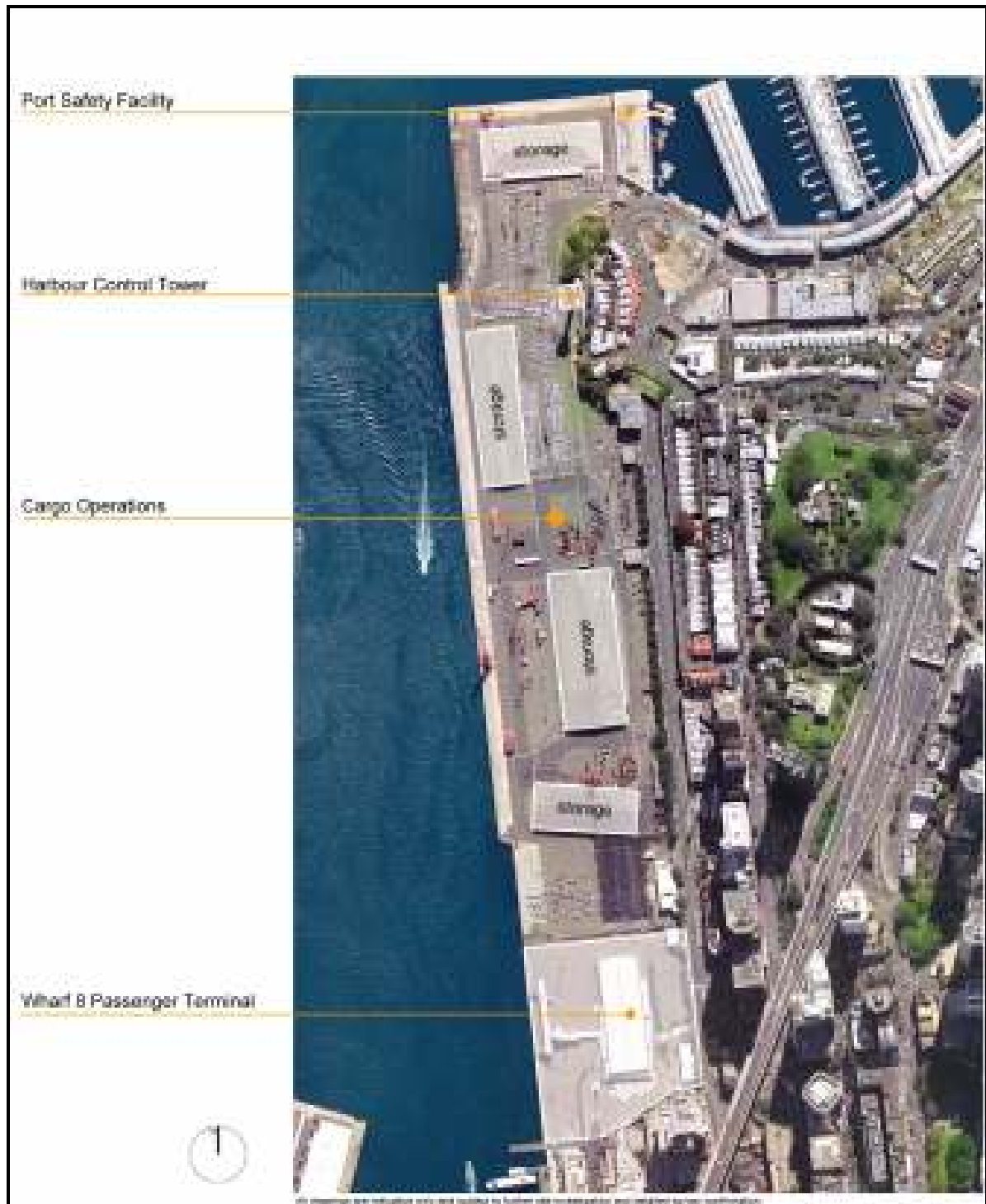


Figure 2 – Existing Site Functions



### 2.1.3 Zoning

Schedule 3 of the MP SEPP has recently been amended and now includes Part 12 Barangaroo Site. The site is zoned part RE1 Public Recreation Zone and part B4 Mixed Use zone and demolition is permissible with consent within both of these zones.



Figure 3 – Current zoning

## 2.1.4 Surrounding development

Barangaroo is located on the north western edge of the Sydney CBD. There is a transition in urban form along the adjoining eastern edge of the site from the taller predominantly commercial multi storey city buildings to the south, to the smaller scaled residential terraces in the north. Further north are the pier and shore shed structures in Walsh Bay. To the east of the site lies residential, commercial, community and tourism uses and parkland, including Observatory Hill.

The northern most part of the shoreline originally jutted into the harbour to the west forming a headland with a large hill on the point. However, today the northern headland has been largely removed. Nearby Balls Head and Berry Island Reserve are comparable to the topography of the original shoreline.

Historically the site was linked through industrial, social, physical and visual connections to its surrounds. However, major civic infrastructure including the Bradfield Highway and Hickson Road has since physically separated The Rocks and the CBD from the site at Millers Point. Despite the separation caused by this infrastructure, some less-evident connections prevail, including laneways, pathways and steps down from the upper levels to the lower levels, and in the case of Walsh Bay, to the Harbour's edge.

Due to its development as a port facility the site has no internal street network. The important street connections are those that are found adjoining the site including Argyle Street, Hickson Road, High Street, Margaret Street, Shelley Street, King Street Wharf and Lime Street.

The site has views across the water to Darling Harbour to the south, Pyrmont to the south-west, Balmain to the west, Goat Island to the north-west and Berry's Bay and Lavender Bay to the north.

The site contains only one landscaped area (Munn Street Park) located to the north of Dalgety's Bond Store.

## 2.2 SITE HISTORY

### 2.2.1 Concept Plan – MP 06\_0162

On 22 March 2006, the Minister for Planning agreed to consider Barangaroo as a potential State significant site under the provisions of the Major Projects SEPP. The Minister formed the opinion pursuant to Clause 6 that the proposal is a Major Project and subject to Part 3A of the Environmental Planning and Assessment Act, and authorised the submission of a concept plan for the site.

On 9 February 2007, the Minister approved a Concept Plan for the redevelopment of Barangaroo. The Concept Plan approved the renewal of East Darling Harbour as a new harbour precinct of Sydney, providing an extension of the city's commercial centre and a significant new public headland park, amended by MP 06\_0162 MOD 1 and comprising the following:

- Urban structure, including the public domain, street pattern and the development block pattern within the mixed use zone.
- A mixed use development involving a maximum of 388,300m<sup>2</sup> gross floor area (GFA), comprised of:
  - (a) a maximum of 97,075m<sup>2</sup> (or 25%) and a minimum of 58,245m<sup>2</sup> (or 15%) residential GFA;
  - (b) a maximum of 50,000m<sup>2</sup> GFA for tourist uses;
  - (c) a maximum of 39,000m<sup>2</sup> GFA for retail uses; and
  - (d) a minimum of 2,000m<sup>2</sup> GFA for community uses.

- Approximately 11 hectares of new public open space / public domain, with a range of formal and informal open spaces serving separate recreational functions and including a 1.4km public foreshore promenade.
- A maximum of 8,500 m<sup>2</sup> GFA for a passenger terminal and a maximum of 3,000 m<sup>2</sup> GFA for active uses that support the public domain within the public recreation zone.
- Built form design principles, maximum building heights and GFA for each development block within the mixed use zone.
- Public domain landscape concept, including parks, streets and pedestrian connections.
- Alteration of the existing seawalls and creation of partial new shoreline to harbour.
- Retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking.

MOD 1 to the Concept Plan was approved by the Executive Director Strategic Sites and Urban Renewal on 25 September 2007 and made minor amendments to the wording of the approval, but did not alter the overall approval.

### **2.2.2 Barangaroo Demolition – MP 07\_0077**

The chronology of the current application is as follows:

- On 2 May 2007, the Proponent requested Director General Environmental Assessment Requirements (DGR's).
- On 25 June 2007, the DGR's were issued to the Proponent for the subject application.
- On 16 July 2007, the Environmental Assessment (EA) for the Demolition at Barangaroo was lodged with the Department.
- The Proponent's EA was publicly exhibited for a 30 day period from 2 August 2007 until 31 August 2007.
- On 17 September 2007, a Site Audit Report, prepared by WSP Environmental, was submitted to the Department.
- On 21 September 2007, the Proponent was notified in writing of outstanding issues which were required to be addressed.
- On 11 October 2007, the Proponent submitted the response to submissions and amended Statement of Commitments.

## **3 PROPOSED DEVELOPMENT**

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### **3.1 THE PROPOSED DEVELOPMENT**

The proposal is for the demolition of a number of structures at Barangaroo in 2 stages to prepare the site for future works. The proposal comprises the following works:

#### *Stage 1 – November 2007 – May 2008*

- Demolition of Transit Sheds 3, 4, 5, and 6

#### *Stage 2 – After Sydney Ports relocate*

- Demolition of Transit Shed 8;
- Demolition of gatehouses associated with wharves 3, 4, 5, 6 & 8;
- Removal of 17 light towers;
- Demolition of wash bay;
- Removal of diesel tanks; and
- Demolition of Sydney Ports office building & amenities.

Building/structures to be retained include:

- Sydney Ports concrete control tower and associated facilities;
- Old sewer pumping station located to the south of Transit Shed 3;
- New sewer pumping station adjacent to the Port Amenities and Substation Building;
- Moore's Wharf building;
- Sandstone seawalls;
- Substations 6 & 7; and
- Dalgety's Bond Store.

A plan showing the location of these structures is found at Figure 4.

### **3.2 PROJECT AMENDMENTS**

The Proponent submitted an amended Statement of Commitments on 11 October 2007 in response to both the submissions and the Department's concerns. This incorporated an amended Demolition Noise and Vibration Management Plan, prepared by Acoustic Logic Consultancy and dated 30 September 2007.

### 3.3 ILLUSTRATION OF BARANGAROO DEMOLITION PLAN

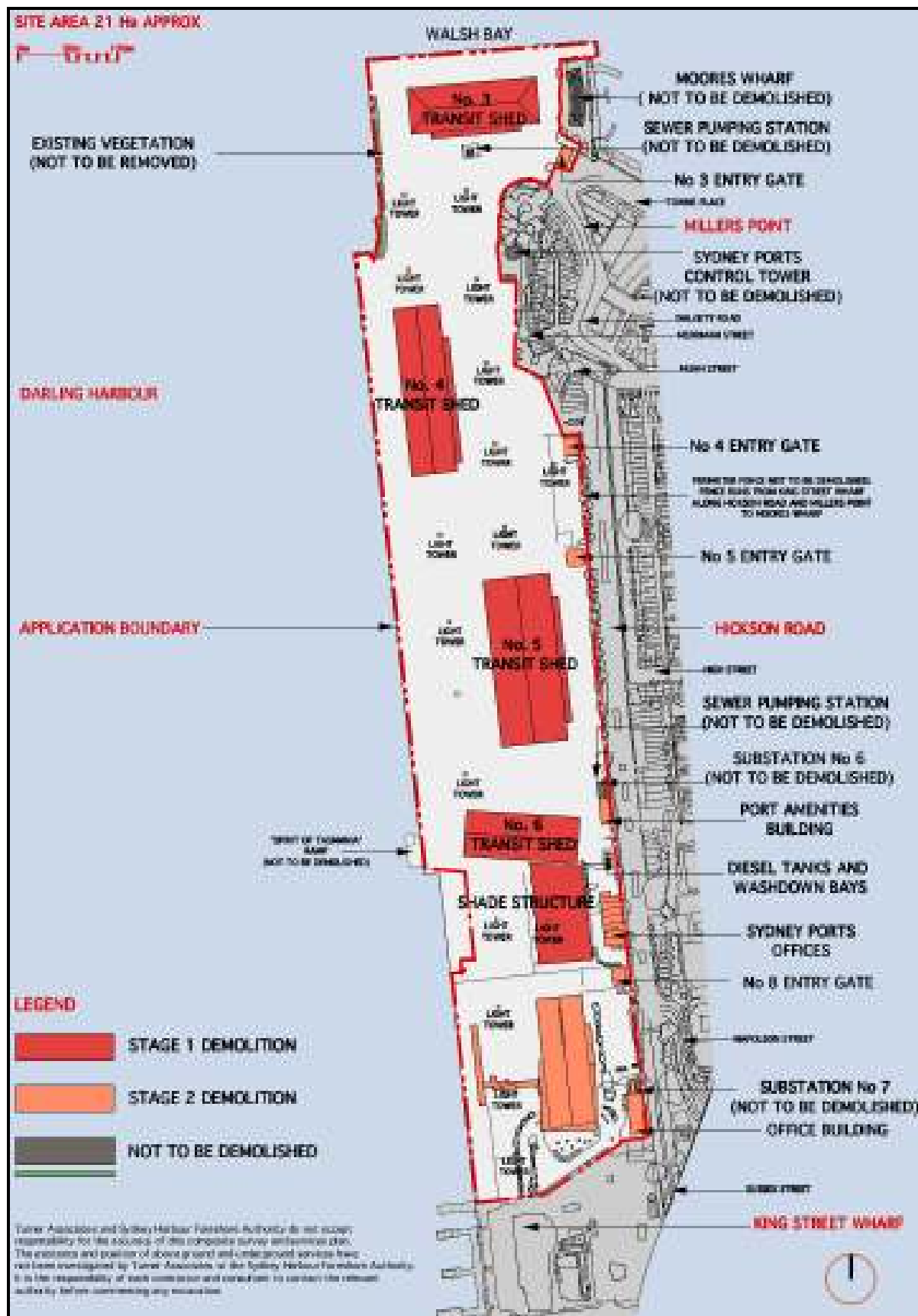


Figure 4 – Barangaroo Demolition Plan

## 4 STATUTORY CONTEXT

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### 4.1 MAJOR PROJECT DECLARATION

The project is a Major Project under *State Environmental Planning Policy (Major Projects) 2005*, being development with a capital investment value of more than \$5 million on land described in Schedule 2, Clause 10(1)(d) as a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies. The opinion was formed by the Minister on 22 March 2006.

### 4.2 PERMISSIBILITY

Schedule 3 of the MP SEPP has recently been amended and now includes Part 12 Barangaroo Site. The site is zoned partly RE1 Public Recreation Zone and partly B4 Mixed Use zone. Demolition is permissible with consent within both of these zones.

### 4.3 DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS (DGRS)

The DGRs were issued on 25 June 2007 and required the following issues to be addressed:

- Relevant EPIs and guidelines;
- Heritage;
- Remediation of the site;
- Waste management;
- Traffic;
- Noise and vibration;
- Air quality;
- Water quality;
- Infrastructure; and
- Staging.

The Department is satisfied that the DGRs have been adequately and satisfactorily addressed by the Proponent's Environmental Assessment.

The DGRs are in **Appendix A**.

### 4.4 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The objects of any statute provide an overarching framework that informs the purpose and intent of the legislation and gives guidance to its operation. The Minister's consideration and determination of a project application under Part 3A must be informed by the relevant provisions of the Act, consistent with the backdrops of the objects of the Act.

The objects of the Act in section 5 are as follows:

- (a) To encourage:
- i. the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
  - ii. the promotion and co-ordination of the orderly and economic use and development of land,
  - iii. the protection, provision and co-ordination of communication and utility services,
  - iv. the provision of land for public purposes,
  - v. the provision and co-ordination of community services and facilities,

- vi. the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
  - vii. ecologically sustainable development, and
  - viii. the provision and maintenance of affordable housing, and
- (b) To promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and
- (c) To provide increased opportunity for public involvement and participation in environmental planning and assessment.

Of particular relevance to the assessment of the subject application is consideration of the Objects under section 5(a). Relevantly, the Objects stipulated under section 5(a) (i), (ii), (vi), and (vii) are significant factors informing the determination of the application. The project does not raise significant issues with regards to (iii), (iv), (v) and (viii).

With respect to ESD, the Act adopts the definition in the *Protection of the Environment Administration Act 1991* including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms.

The Department has considered the Objects of the Act, including the encouragement of ESD in the assessment of the project application. The balancing of the project in relation to the Objects is provided in Section 5.

### ESD Principles

There are five accepted ESD principles:

- (a) *Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the integration principle);*
- (b) *If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);*
- (c) *The principle of inter-generational equity - that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle);*
- (d) *The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and*
- (e) *Improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).*

The Department has considered the redevelopment in relation to the ESD principles and has made the following conclusions:

- (a) *Integration Principle* – the social and economic benefits of the development of East Darling Harbour are well documented. The environmental impacts of the proposed demolition works will be appropriately mitigated as discussed in this report. The Department's assessment has duly considered all issues raised by public authorities. The proposal as recommended for approval does not compromise a particular stakeholder or hinder the opportunities of others.
- (b) *Precautionary Principle* – Following an assessment of the proponent's EA it is considered with certainty that there is no threat of serious or irreversible environmental damage as a result of the proposal. The site is the subject of a Concept Plan which envisages extensive development and the site has a low level of environmental sensitivity. There is little natural vegetation on the site, and the site

does not contain any threatened or vulnerable species, populations, communities or significant habitats. Recommended conditions of approval will ensure that the demolition works will not adversely impact upon the marine environment adjacent to the site.

- (c) *Inter-Generational Principle* – It is considered that the broader approved development for East Darling Harbour represents a sustainable use of a site which provides a range of uses to accommodate the economic and population growth within Sydney. The redevelopment of this site will utilise existing infrastructure. The residential components of the proposal will also indirectly reduce the rate of development demand at the urban fringe as well as enabling the orderly and timely redevelopment of land no longer required for its original purpose. It is considered that the redevelopment of this site will have positive social, economic and environmental impacts and as a result will maintain the environment for the benefit of future generations.
- (d) *Biodiversity Principle* – Following an assessment of the proponent's EA it is considered with certainty that there is no threat of serious or irreversible environmental damage as a result of the proposal. The development site has been extensively developed for some time and has a low level of environmental sensitivity. There is little natural vegetation on the subject site and the site does not contain any threatened or vulnerable species, populations, communities or significant habitats. Therefore the proposal will not impact upon the conservation of biological diversity or ecological integrity.
- (e) *Valuation Principle* – The approach taken for this project has been to assess the environmental impacts of the proposal and identify appropriate safeguards to mitigate adverse environmental effects. The mitigation measures include the cost of implementing these safeguards in the total project cost.

The proponent is committed to ESD principles and has reinforced this through the Statement of Commitments and the Environmental Assessment which explores key ESD opportunities to mitigate any adverse environmental impacts which may result during the proposed demolition works. ESD principles associated with the longer term development of the site will be detailed further in subsequent project applications.

#### 4.5 SECTION 75I(2) OF THE ACT

Section 75I(2) of the EP&A Act and Clause 8B of the Environmental Planning and Assessment Regulations 2000 (EP&A Regs) provide that the Director-General's report is to address a number of requirements in the Director General Report. These matters and the Department's response are set out as follows:

Section 75I(2) Criteria	Response
(a) Copy of the proponent's environmental assessment and any preferred project report	The Proponent's EA and response to submissions is located on the assessment file.
(b) Any advice provided by public authorities on the project	All advice provided by public authorities on the project for the Minister's consideration is set out at Appendix B of this report.
(c) Copy of any report of a panel constituted under Section 75G in respect of the project	No statutory independent hearing and assessment panel was undertaken in respect of this project.
(d) Copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project	Each relevant SEPP that substantially governs the carrying out of the project are identified and assessed immediately below.
(e) Except in the case of a critical infrastructure project – a copy of or reference to the provisions	An assessment of the development relative to all environmental planning instruments is



of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division	provided in Part 4.5 of this report.
(f) Any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.	The environmental assessment of the project application is this report in its entirety.
(g) Compliance with the environmental assessment requirements under this Division with respect to the project.	The Proponent has satisfactorily addressed the Director General's Environmental Assessment Requirement's (DGR's). This is discussed in detail in Part 5 of this report.
<b>Clause 8B Matters for Consideration:</b>	<b>Response</b>
(a) An assessment of the environmental impact of the project.	An assessment of environmental impacts of the project is found in Part 5 of this report.
(b) Any aspect of the public interest that the Director-General considers relevant to the project.	The proposal is considered to be within the public interest and is discussed in Part 5.10 of this report. The proposal will allow the site to potentially be used for interim uses which takes advantage of the attributes of the site.
(c) The suitability of the site for the project.	A description of the site and its suitability for the project is included in Part 2 of this report. The site is suitable for the proposal.
(d) Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in public submissions is included as Appendix B of this report.

## 4.6 ENVIRONMENTAL PLANNING INSTRUMENTS (EPIS)

### 4.6.1 Application of EPIs to Part 3A projects

To satisfy the requirements of section 75I(2)(d) and (e) of the Act, this report includes references to the provisions of the environmental planning instruments that govern the carrying out of the project and have been taken into consideration in the environmental assessment of the project. An assessment of compliance with the relevant EPIs is immediately below and concludes that the proposal complies with these documents.

The primary controls guiding the assessment of the proposal are:

- State Environmental Planning Policy (Major Projects);
- Sydney Region Environmental Plan (SREP) (Sydney Harbour Catchment); and
- State Environmental Planning Policy No. 55 – Remediation of Land.

The provisions, including development standards of local environmental plans, and development control plans are not required to be strictly applied in the assessment and determination of major projects under Section 75R(1) Part 3A of the Act. Notwithstanding, these standards and provisions are relevant considerations for this application. Section 75I(2)(e) of the *Environmental Planning and Assessment Act, 1979* requires the proponent to address such standards and provisions and the Department to duly consider such standards and provisions.

Accordingly the objectives of Sydney Local Environmental Plan 2005 (SLEP 2005) and Sydney Regional Environmental Plan (Sydney Harbour Catchment) and the development standards therein are appropriate for consideration in this assessment as follows.

## 4.7 PRIMARY CONTROLS

### 4.7.1 State Environmental Planning Policy (Major Projects) 2005 (MP SEPP)

The MP SEPP applies to the project as discussed in section 4.1 above.

Schedule 3 of the MP SEPP has recently been amended and now includes the land use zones for the site and also contains a number of specific development standards and provisions for the Barangaroo site, relating to height, GFA and design excellence, however these are not relevant to the subject demolition application.

Clause 21 relates to Heritage Conservation and states that a heritage item cannot be demolished or damaged. The SEPP identifies the Dalgety's Bond Store Group as a Heritage item. The proponent has submitted a Heritage Impact Statement which demonstrates that the proposal does not involve the demolition of any heritage items and will not result in any detrimental impact upon nearby heritage items and satisfies the requirements of this clause.

### 4.7.2 Sydney Regional Environmental Plan (SREP) Sydney Harbour Catchment 2005

The East Darling Harbour site is identified in the SREP Sydney Harbour Catchment 2005 as a "Strategic Foreshore Site". The Sydney Harbour Catchment Planning Principles must be considered and where possible achieved in the preparation of a draft LEP. The key relevant principles are summarised to include:

- Protect and improve hydrological, ecological and geomorphological processes;
- Consider cumulative impacts of development within the catchment;
- Improve water quality of urban runoff and reduce quantity and frequency of urban runoff; and
- Protect and rehabilitate riparian corridors and remnant vegetation.

The site is within the Sydney Harbour catchment and drains directly into the harbour. The proposed demolition works have the potential to impact upon the Harbour primarily through the run-off of stormwater, sedimentation and the spillage of hazardous chemicals. The Proponent has proposed to address these potential impacts through the implementation of the Environment and Construction Management Plan (E&CMP) prepared by ERM Environmental Consultants.

This management plan includes a Soil and Surface Run-off Water Management Plan, Stormwater Concept Plan, and a preliminary Erosion and Sediment Control Plan. These plans propose to undertake the following:

- *Implementation of Sedimentation and Erosion Control Plan in accordance with the procedures outlined in Managing Urban Stormwater – Soils and Construction – Department of Housing, 1998 and as detailed in Section 4 of the E&CMP;*
- *Installation of silt fences, sand bags and/or hay bales where required down gradient of disturbed areas, base of embankments, existing drainage lines, earthworks and stockpiles as required. These will be inspected daily and after rainfall;*
- *Cover or reinstate disturbed areas as work progresses in order to limit the length of exposed surfaces and stockpiles;*
- *Divert clean runoff around disturbed areas, where practicable;*
- *Use defined roadways; and*
- *No storage of hazardous substances on the site.*

The implementation of these requirements will ensure that the proposed demolition works will not result in any adverse impacts upon the Harbour. Conditions of approval are recommended to ensure that the provisions of these plans are implemented. The

sedimentation and erosion control measures within the E&CMP will be revised and implemented by the appointed contractor as necessary.

#### **4.7.3 State Environmental Planning Policy No. 55 – Remediation of Land**

SEPP 55 promotes the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. The majority of the site is covered by hardstand, however the demolition works will involve the removal of footings of buildings which will expose potentially contaminated soil.

A Contamination Assessment of the site was undertaken by Environmental Resources Management Australia (ERM) and was considered during the assessment of the concept plan. ERM concluded that the site could be made suitable for the proposed future land use if appropriate remedial and validation works are undertaken.

A subsequent *Draft Stage 1 Remedial Action Plan* (RAP) has been prepared by ERM in relation to the proposed demolition works. The site may be used in the future for temporary public events and ERM have discussed the preparation of the site during the demolition works in order that it be made suitable for this use. The RAP determined that the appropriate method to address contamination resulting from the demolition works is via on-site management.

The RAP recommends that where practical, contractors will remove the concrete footings and regrade the pavements without excavating impacted soils, leaving impacting soils in situ as an intermediate measure prior to detailed construction and excavation works occurring on the site at a later date. Ongoing management and maintenance will be required to ensure the integrity of the surface does not become compromised and volatile organic compounds are not discharged into the air.

The RAP satisfies the requirements of SEPP 55 and conditions of approval are recommended to ensure that the provisions of this plan are implemented. Remediation works are discussed in more detail in Section 5 of this Report.

## 5 ASSESSMENT OF ENVIRONMENTAL IMPACTS

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The Department has reviewed the EA and the revised Statement of Commitments and considered advice from public authorities as well as issues raised in general submissions in accordance with Section 75I(2) of the Act. Consideration of each of the issues as they relate to the Concept Plan proposal is provided in Section 5.1.

Each relevant issue has been identified and duly considered followed by an explanation of how the proponent has sought to address the issue. Key issues considered in the Department's assessment of the Environmental Assessment include:

- Consistency with approved Concept Plan
- Heritage Impacts;
- Remediation;
- Waste management;
- Traffic Impacts;
- Noise & Vibration;
- Air & Water Quality;
- Infrastructure;
- Staging; and
- The Public Interest.

### 5.1 CONSISTENCY WITH APPROVED CONCEPT PLAN (MP 06\_0162)

The Barangaroo Concept Plan outlines the key objectives upon which the redevelopment of Barangaroo will be based, and the key built form and open space elements which provide the framework for the long term development and management of the site.

This application forms the first stage of the redevelopment of the Barangaroo site and involves the removal of some structures prior to future remediation and construction works. The proposal will facilitate future implementation of the concept plan or any of its key development objectives.

One key issue is that of the interim use of the site. Section 15.1.2 of the Concept Plan states: *'Following the departure of the stevedoring operations and depending on the timing of development it may be necessary to create a program of interim activity on the site. The purpose of these interim uses would be to inject activity into the site and allow the public access to the site providing an appreciation of the scale and opportunity presented.'*

Demolishing the existing buildings and clearing of the site will generate the ability to hold temporary public events at the site (subject to separate relevant approvals). This is consistent with the Concept Plan as it will allow the public controlled access to the site and an opportunity to appreciate the size and scale of the site.

The approved Concept Plan was modified by the Department, and imposes a number of requirements on the Proponent to carry out further work and /or to deliver certain outcomes that are relevant to this Project Application, in the form of the approved Statement of Commitments.

The following modification to the Concept Plan is relevant to this application:

#### **C5. Consolidated Concept Plan**

- (1) *A consolidated Concept Plan containing the administrative modifications outlined below is to be provided to the Department as soon as possible and before lodgement of the first application.*
  - (a) *Legal description and ownership.*
  - (b) *Reference to Stamford on Kent as a commercial not residential building.*
  - (c) *Proposed 300 car parking station in Headland Park not shown on plans.*
  - (d) *HIS and Heritage Items Plan do not include the MSB Stores at 34 Hickson Road.*

- (e) *Inclusion of the correct version of the Heritage Impact Statement (HIS) (East Darling Harbour History, by Sydney Harbour Foreshore Authority, unpublished document, July 2006) is the incorrect version of this report.*
- (f) *Inclusion of the heritage listed former gasworks AGL building.*
- (g) *Inclusion of a list of changes from the winning scheme.*

A Consolidated Concept Plan has been submitted to the Department, and is currently under review.

The following approved Statement of Commitments, made by the Proponent at the Concept Plan stage, are relevant to the subject demolition application:

**Commitment No 49:** *A further study is to be undertaken to examine the potential for relocation and adaptation of the heritage sewer pumping station structure on the EDH site. The structure will be archival recorded prior to any possible demolition or relocation. The archival recording will be prepared in accordance with the NSW Heritage Office Guidelines.*

*Response:*

The sewer pumping station is to be retained and will not be affected by the proposed demolition works. To date the Proponent has not indicated that the study has been undertaken. This application raises no issues with respect to this Commitment.

**Commitment No 50:** *A Conservation Management Plan (CMP) will be prepared by an appropriately experienced and qualified heritage practitioner for the Dalgety's Bond Store in accordance with the NSW Heritage Office Guidelines.*

*Response:*

Dalgety's Bond Store is outside the Project Application site, and is to be retained. It will not be affected by the proposed demolition works and therefore this commitment is not relevant to the subject application.

**Commitment No 60:** *An appropriately experienced and qualified heritage practitioner or archaeologist will be engaged to prepare an Archaeological Assessment and Management Plan (AAMP) in consultation with relevant stakeholders and statutory authorities, including the NSW Heritage Office. The AAMP will identify areas of archaeological potential and provide guidelines and strategies for the management of the archaeological resource. If significant seawalls and former wharf structures are identified through the archaeological assessment and excavation processes then their conservation and interpretation within the site will be investigated. Having regard to the condition and significance of any archaeological remains uncovered, any highly significant remains will be incorporated into further stages of development with an appropriate level of interpretation. Depending upon the recommendations of the AAMP, significant archaeological deposits may be:*

- 1) uncovered and displayed in situ;*
- 2) recorded and removed with possible display or use for interpretation/public art;*
- 3) recorded and re-buried with above surface interpretation.*

*If any identified archaeological relics are found, work in the immediate vicinity will be stopped and the Heritage Council of NSW will be notified immediately. The AAMP may be staged as development progresses over the site.*

*Response:*

A *Heritage Impact Statement* (HIS), dated July 2007, has been prepared by City Plan Heritage, who consider that the proposed demolition works will have no adverse impact on significant cultural values associated with the place and the surrounding area. The demolition activity will not erode the potential to conserve nearby heritage items and interpret the intangible historic associations of the site.

Therefore, having regard to the extent and nature of the proposed works and the Heritage Impact Statement, potential archaeological relics on site are unlikely to be affected as the

majority of the slabs are to be retained. Therefore the application raises no concerns in relation to this Commitment. Heritage impacts are discussed in more detail in Section 5.2 of this report.

**Commitment No 61:** *An appropriately experienced and qualified heritage practitioner will be engaged to prepare an Interpretation Plan for the whole Barangaroo site in accordance with the NSW Heritage Office Heritage Interpretation Policy. The Plan may be staged as development progresses. The Plan will explore various cultural, social and environmental themes related to the site including, but not limited to:*

- The natural landscape
- Aboriginal history
- Manipulation of the landscape
- Maritime industry, trade and commerce
- Labour, workers and social movements
- Archaeology

*The plan will make recommendations for:*

- Public Art
  - Naming
  - Interpretive Signage and Installations
  - Display of Archaeological Deposits
  - Built Form Strategies
- The plan will also include strategies for:*
- Staged Implementation
  - Ownership
  - Identification of Responsible Stakeholders
  - Future Maintenance

*Response:*

A *Barangaroo Interpretation Strategy* (BIS) has been prepared by City Plan Heritage. The BIS outlines the main themes relevant to Barangaroo and outlines appropriate locations for interpretive elements. The BIS divides the site into Aboriginal, Landscape, Industry, Working and Other zones and has been designed as a framework for future interpretation for the Barangaroo site, with a detailed Interpretation Strategy to be provided with further project applications for the Barangaroo site. This is in line with Commitment No.61, which permits this Plan to be staged as development progresses on the site and is considered acceptable by the Department.

**Commitment No 62:** *The proponent will undertake an Archival Recording of the whole EDH Barangaroo site prior to works being undertaken. The archival recording is to be prepared in accordance with NSW Heritage Office Guidelines.*

*Response:*

This commitment has been included as a condition to be satisfied prior to commencement of any demolition on the site.

**Commitment No 63:** *An appropriately qualified and experienced heritage professional is to be engaged to provide advice in the preparation of any proposal and to supervise in the undertaking of approved works to places or structures of heritage significance.*

*Response*

The proposal will not affect any of the heritage items located on or next to the demolition site. The HIS proposes measures to be implemented in order to minimise any impacts on the sandstone sea walls during the demolition process, and these are discussed in Section 5.2 of this report. These measures are appropriate based on the scale of works and are therefore considered to be suitable by the Department.

**Commitment No 104:** *An Environmental and Construction Management Plan will be required as part of any future development on the site lodgement of any future applications and throughout works*

*Response:*

An *Environmental and Construction Management Plan* (E&CMP) has been prepared by ERM. The E&CMP establishes environmental management procedures and controls to be followed by the project team. This plan will be reviewed when necessary to reflect changes in the project team, site specific issues, non-conformances and recommendations contained in the inspections, reports and site audits.

The E&CMP assigns risk rankings to the identified environmental and community issues and describes measures to be implemented to minimise these risks. The plan also sets out the roles, responsibilities and accountabilities of the Proponent (SHFA), Head Contractor and Subcontractors. The E&CMP is considered to be suitable for the proposed demolition works.

After consideration of the above Commitments, it is concluded that the Proponent has adequately responded to and addressed the Commitments required as part of the Concept Plan approval.

## **5.2 HERITAGE IMPACTS**

### **5.2.1 European Heritage**

The HIS assesses the potential heritage impacts of the demolition of transit sheds 3, 4, 5, 6 & 8, the shade structure at Shed No 6, light towers, gatehouses, Ports Amenities Building, Sydney Ports Offices, and the 2-storey office building by Wharf 8. These sheds were built between 1970 and 1980 and do not offer any architectural merit. No structures to be demolished have any heritage listing or significance.

The heritage impact of the proposed demolition works was determined using the 7 assessment criteria as established in the NSW Heritage Manual 'Assessing Heritage Significance', which resulted in the conclusion that as the site demonstrates only the most recent phase of use and change relevant to shipping and transport, the structures proposed for demolition do not embody an historical course or pattern significant to the state or the local area.

It is noted that as the site was occupied by a series of early twentieth century finger wharves and before that by various nineteenth century wharf structures prior to the construction of existing wharfs and buildings. The subject site has the potential to reveal subsurface evidence of the prior phases of use and development. However, as the subsurface piles will not be altered during demolition, this is not considered to be a significant concern.

The HIS therefore concludes that the sheds, office buildings, gatehouses and associated ancillary structures including the shade structure and the light towers do not satisfy the level of cultural value to warrant conservation in the local or state context. The structures have no heritage significance and are simply utilitarian structures that demonstrate no particular consideration to architectural resolution or innovative structural systems that would warrant their conservation. Additionally, the Concept Plan approval does not require these structures to be retained.

The sandstone sea walls are required to be protected during demolition works, and the following measures are recommended by the HIS in order to minimise any impacts on the sandstone sea walls during the demolition process:

- *Erect a fence 10m from the inside edge of the sandstone sea walls prior to the commencement of the demolition works. No debris to be stockpiled within 10m of the seawall during demolition works.*
- *If any removal of fill is by water, no ships are to moor alongside the sandstone sea wall during the removal works.*
- *Regular inspection of the sandstone seawall shall be undertaken by the contractor during demolition of sheds 3 and 4 to check for damage caused by vibrations to the structures.*

The Heritage Council of NSW has advised that the proposed protection mechanisms for the sandstone seawall are acceptable in ensuring no damage occurs during demolition. These mitigation measures are therefore considered appropriate and are included in the recommended conditions. In addition, as noted above, a condition requiring an archival recording of the existing structures prior to demolition has also been included in the recommendation to ensure that the heritage of the site is properly recorded.

### **5.2.2 Aboriginal Heritage**

With regard to existing Aboriginal artefacts, how much physical evidence of the indigenous occupation exists on the site is unknown but unlikely given the extent and number of changes to the foreshore. Given consideration to the identified and assessed archaeological potential of the site, and the nature of the proposed works (minor disturbance resulting from the demolition works and retention of the slabs on site) there will be no impact on any likely archaeological remains pre-1788.

### **5.2.3 Conclusion**

Subject to the specific recommended conditions requiring an archival record the site and protection the sea wall, the HIS is assessed as identifying and providing adequate measures to conserve and protect the cultural heritage located within the site, in light of the proposed demolition works. In addition, the proposed demolition works are the first step in a process which will redevelop the site, providing a large area of public domain and opening up a substantial area of harbour foreshore land to the general public.

## **5.3 REMEDIATION**

Concerns have been raised in agency and public submissions in relation to removal and transport of hazardous materials and associated potential health impacts. The *Draft Stage 1 Remedial Action Plan* (RAP), dated July 2007 and prepared by ERM Pty Ltd, identifies the chemicals with levels of potential concern including polycyclic aromatic hydrocarbons (PAC's); total petroleum hydrocarbons; Toluene, Benzene, Ethylbenzene and Xylenes; Metals; and Cyanide.

The main exposure pathway of these potential contaminants is via the inhalation of vapours derived from the identified dissolved chemicals in groundwater and/or soil. The 2 primary areas of the site with elevated levels of chemicals of potential concern, these being the former Millers Point gasworks area located on the eastern side of the site between the current Passenger Terminal and Transit Shed No. 5 (see Figure 4), and the north-west portion of the site which has been reclaimed historically using uncharacterised fill and wastes from the gasworks.

Additionally, diesel and petrol storage tanks, oil/water separators and dangerous goods storage units have been identified as potential areas of environmental concern. Groundwater impacts were also identified in the former gasworks area.

The level of exposure to these chemicals is highly dependent on the integrity of the hard-standing surface cover. The scope of the RAP is limited to ensuring the site is suitable for its proposed use in the short-term for interim public uses, with additional stages of



significant remediation required in the future, when the main slabs are removed, in order to render the site suitable for its longer term proposed land use as set out in the approved Concept Plan.

Considering the scope of the proposed works, the method of remediation of the site is by way of on-site management, involving the following works:

- *Removal/demolition of all footings which protrude above slab level;*
- *Appropriate off site disposal/recycling of demolition materials in accordance with relevant legislative requirements ;*
- *Reinstatement of concrete or asphaltic concrete surface in areas where footings or other structures have been removed and underlying soils exposed;*
- *Final preparation of the site such that the surface is covered with concrete/asphaltic concrete hard-standing;*
- *Validation of the surface reinstatement works by a suitably qualified environmental consultant; and*
- *Sign off of the site works by NSW DECC accredited site auditor.*

As the demolition works will retain the majority of the concrete slabs on the site and will only remove small areas where footings protrude above slab level, the integrity of the hardstand area will be retained. Based on the submitted RAP, subject to the works being undertaken in accordance with this RAP, the site can be made suitable for hosting temporary events in the future. However, more extensive remediation of the site will be required prior to the future re-development of the site, and this will be dealt with in more detail in a subsequent project application.

A *Site Audit Report*, prepared by WSP Environmental and dated 5 September 2007 certifies that the nature and extent of the contamination on site has been appropriately determined, and the methodologies within the *Draft Stage 1 Remedial Action Plan* for Barangaroo, prepared by ERM and dated July 2007, is suitable for the potential use of the site as a venue for short duration public events. This is subject to compliance with the recommendations made in the *NSW Quantitative Human Health Risk Assessment* prepared by ERM and dated September 2007, which is included as a recommended condition of approval. DECC have reviewed the Site Audit Report and are satisfied with its methodologies and conclusions.

Given that the extent of proposed works will minimise disturbance of slabs, and subject to compliance with the RAP and the recommendations in the *NSW Quantitative Human Health Risk Assessment*, the Proponent has demonstrated that the site can be appropriately remediated to a level suitable for any proposed interim use as a potential public event venue. These requirements will be included as recommended conditions.

#### **5.4 WASTE MANAGEMENT**

A number of buildings on the site are known to contain hazardous building materials including synthetic mineral fibres, lead paint and significant quantities of bonded asbestos sheeting on the large transit warehouses, as outlined by the *Hazardous Materials Re-Inspection Survey Report, Sydney Ports Corporation* dated June 2006 and prepared by Noel Arnold and Associates:

- *Asbestos is contained in Transit Sheds 3-6; Gate Houses 3-5; and the Administration Building Meter Room;*
- *Synthetic Material Fibre (SMF) is located in Transit Sheds 4-6 and the Administration Building;*

- *Polychlorinated Bi-phenyls (PBS's) are suspected in the original light fittings throughout the premises;*
- *Lead paint was identified in Transit Shed 5 and the Administration Building.*

Some data gaps were identified in this report which will need to be investigated and addressed prior to demolition in relation to surveying of inaccessible areas not surveyed in prior reports and further assessment of light fittings and other electrical equipment for potential PCB containing electrical fittings. These requirements will be added as a recommended condition.

Notwithstanding any data gaps, the report clearly identifies the presence of hazardous materials and makes specific recommendations relating to the demolition and removal of these materials, which have been included as recommended conditions. In addition, the City of Sydney Council has recommended a number of specific conditions relating to the removal of hazardous waste, to ensure that removal of hazardous waste is in accordance with all relevant legislation and guidelines, which have also been adopted into the recommended conditions.

A *Proposed Waste Management Plan Template* (WMP Template) has been submitted, which briefly describes the methods by which waste management will be undertaken on site. The WMP Template alongside the Technical Specification for Removal of Hazardous Building Materials sets out the process that will be undertaken in the removal of these materials:

- *NSW DECC (2004) Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-liquid Wastes should be followed with waste avoidance as a priority followed by reuse and recycling/reprocessing with disposal a last resort.*
- *All demolished materials will be carefully sorted and separated on site prior to removal, to allow for the recycling of as many materials as possible.*
- *All soil or fill materials adhering to the footings will be removed using an excavator bucket and this material placed back into the void created by removal of footings.*

However, there will still be some need to transport hazardous waste from the site, and the *Demolition Transport Management Plan* (TMP), dated July 2007 and prepared by Jamieson Foley & Associates addresses the transport of hazardous goods, with the requirement that this will be carried out in accordance with a number of relevant regulations and guidelines including:

- Department of Environment and Conservation (NSW). *The Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-liquid Wastes.*
- Department of Environment and Conservation (NSW). Various user guides on the transport of dangerous goods.
- Standards Australia. *Initial Emergency Response Guide* (HB 76-2004).
- Standards Australia. Selection and use of emergency procedure guides for the transport of dangerous goods (AS 2931-1999).

Given the limited extent of disturbance to slabs proposed, it is not envisaged that any significant volume of impacted soil or fill materials will require disposal off site. A condition is recommended to ensure a satisfactory Waste Management Plan is prepared and submitted to an Accredited Certifier prior to commencement of works.

DECC is satisfied that the waste management of the demolition program can be carried out satisfactorily, subject to conditions, which are included in the recommendation. In total, there are 16 recommended conditions of approval dealing with the handling and removal of hazardous materials and the protection of the surrounding environment.

The submitted reports satisfactorily identify and address the issue of hazardous waste removal and, subject to recommendations of these reports and specific conditions, will ensure that the public interest and surrounding environment is protected. In addition a specific condition is recommended requiring the preparation of a demolition waste management plan prior to the commencement of any demolition works.

## 5.5 TRAFFIC IMPACTS

A *Demolition Transport Management Plan* (TMP), dated July 2007, has been prepared by Jamieson Foley & Associates. This report assesses the 2 stages of the demolition process independently. Stage 1 is planned for commencement in November 2007 with a demolition period of 6 months. The timing of Stage 2 will depend on Sydney Ports making alternative arrangements for the passenger ship terminal.

In the absence of a defined contractor for the site as yet, the TMP is based on a number of assumptions, and therefore sets out a number of requirements that may result in the adjustment of the TMP whereupon a contractor is hired for the proposed demolition project. The TMP specifically addresses the Director General's Requirement's (DGR's) as follows:

### 5.5.1 Consideration of removal of waste by water based transport

The potential for transportation of waste by barge or water transport will be retained as the existing wharves will be unaffected by the proposed demolition works. The feasibility of removing debris and materials for recycling by barge will be investigated by the appointed contractor and will be dependent on the destination of the material, the need for double handling of the material and the local environmental and traffic conditions at the receiving harbour/barge unloading point.

However, the Proponent's currently nominated preferred method of transport is by heavy vehicles on the roadways. This approach is acceptable given that the extent of traffic generated by these vehicles will be reasonable with minimal impact. A recommended condition also requires the contractor to investigate the feasibility of removing debris and materials for recycling by barge, either wholly or partially.

### 5.5.2 Impacts upon the operations of the passenger terminal

At this stage information as to when the passenger terminal will cease operation has not been provided. However, a concrete barrier with mesh-wire fence is proposed to physically separate the passenger terminal from the Stage 1 demolition works.

In addition, separate access points will be provided for both Sydney Ports Harbour Control Centre Tower and the passenger terminal which will continue to operate during Stage 1 of the demolition process. Demolition traffic will access the site via Gate 5 and passenger terminal and Sydney Ports Harbour Control Centre Tower traffic will utilise Gates 8 and 3 respectively. This will ensure that demolition traffic will have minimal impact on the continuing shipping operations and is acceptable. The final access points will be resolved after consultation with Sydney Ports Corporation.

### 5.5.3 Access and egress to the site

**Figure 5** (below) depicts the vehicular access routes to and from the site during the demolition process. The specific routes proposed are as follows:

*Vehicles arriving at the site will either:*

- *Exit the Western Distributor turning left onto Sussex Street at King Street, then travel north up onto Hickson Road and turn left into the site at Gate 5 or Gate 8a/b.*
- *Exit the Bradfield Highway at York Street, turning right at Margaret Street, crossing over Clarence and Kent Streets, down Napoleon Street and right onto Hickson Road for left turn access into Gates 8a/b or Gate 5.*

*Upon departing the site with demolition materials, vehicles will either*

- *Turn right out of the site at Gate 5 or Gate 8a/b, head south on Hickson Road and Sussex Street, and turn right onto the Western Distributor at Market Street.*

- Turn right out of the site at Gate 5 or Gate 8a/b, head south on Hickson Road, east up Napoleon Street, turn left onto Kent Street and access the Bradfield Highway via the on ramp opposite Gas Lane.

The stages of demolition are separated chronologically as well as spatially in terms of access points, with access for Stage 1 to be via the existing main Gate 5, at the northern end of the site (see **Figure 5**), whereas Stage 2 access will be via Gates 7a/b or 8a/b/c, at the southern end of the site.

These proposed access points, routes into and out of the site, and the types and frequency of vehicle movements are considered to be appropriate for the site and its isolated location in the north-west sector of the CBD.

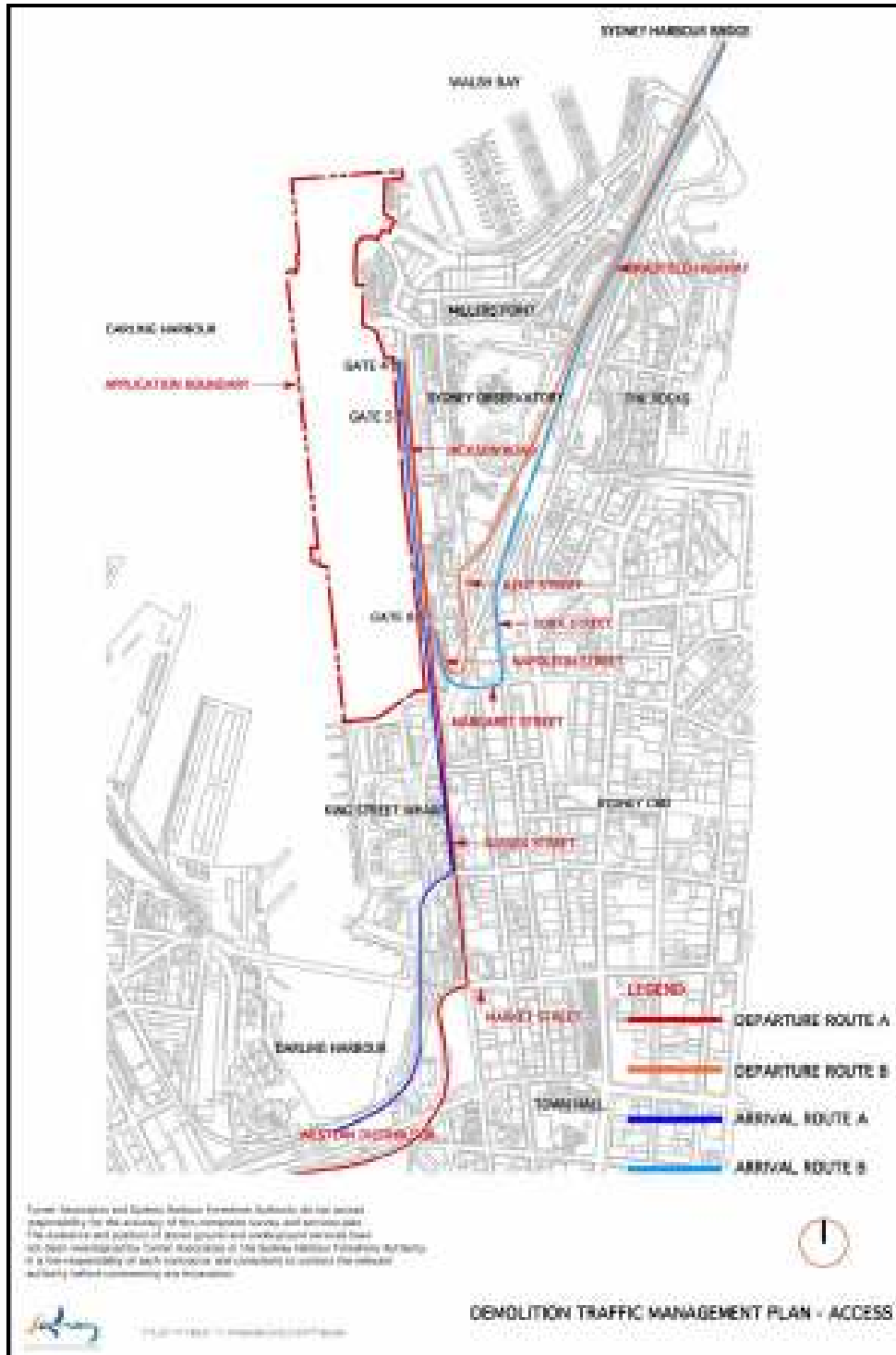


Figure 5: Access routes for proposed demolition activities.

#### 5.5.4 Impacts upon surrounding arterial road network and bus services

The proposed routes for the demolition vehicles avoid Millers Point and the majority of the CBD. Only short sections of Sussex, Napoleon, Kent, York and Margaret Streets leading onto or off the Western Distributor and Bradfield Highway will be used. These are relatively busy streets and capable of accommodating heavy trucks and equipment. Table 1 (below) is taken from the EA and provides a summary of estimated numbers of truck movements to and from the site.

Precinct	Stage	Demolition Period	Total No of Trucks <sup>1</sup> Required	Average Daily Truck Volume (2-Way)	Max Daily Volume (2-Way)	Max Hourly Volume (2-Way)
3	1B	5-7 Weeks	330	20	60	5.5
4	1A	12-18 Weeks	350	25	76	6.9
5			400	29	87	7.9
6			290	21	63	5.8
8	2	5-7 Weeks	400	24	73	6.6

Table 1: Summary of truck movements (<sup>1</sup> Truck volume at 30 tonne per truck and 50% load factor)

As the demolition traffic will be using State and regional roads in addition to short sections of CBD fringe roads, and will only occur for a short period of time, the frequency will not have a significant impact on the road network or amenity of the surrounding residents or businesses. The likely traffic to be generated by the demolition works is reasonable, with an average daily volume (2-way) of between 20-29 trucks (see Table 1) and the impact on the surrounding land uses and roads is manageable.

The NSW Ministry of Transport raised concerns during the assessment period regarding the impact of truck movements to and from the site on bus operations along York and Market Streets. The TMP addresses the issue of impacts on nearby bus services, stating that as the proposed truck routes are designed to cater for heavy vehicles, and as truck volumes are low (5.5 to 7.9 trucks per hour two-way – see Table 1), there will be little or no impact on bus services.

This is considered to be satisfactory, and in keeping with the requirements of the NSW Ministry of Transport. The RTA has raised no objection in relation to this issue. However in order to minimise impacts on the bus network along these streets, the proponent will be required to liaise with the RTA and State Transit Authority prior to utilising these routes. This is included as a recommended condition of approval.

#### 5.5.5 Conclusion

The traffic impacts of the demolition will have minimal impact upon the CBD, bus services and surrounding residents and businesses. Any impacts can be appropriately mitigated by adopting the recommendations in the TMP and by imposition of conditions, which are included in the recommendation section of this report.

### 5.6 NOISE & VIBRATION

Noise and vibration are key issues raised in both the agency and public submissions. A *Demolition Noise and Vibration Management Plan* (N&VMP), dated July 2007 and prepared by Acoustic Logic Consultancy, has been submitted to the Department.

The N&VMP assesses noise and vibration levels to potentially affected receivers in the surrounding areas and arrives at the following conclusions:

- *For at least part of the demolition period, some processes are likely to generate noise levels that will require additional management; and*
- *Ground vibration due to demolition activities is unlikely to adversely impact the surrounding receivers or railway infrastructure.*

#### 5.6.1 Noise

The applicable guideline with regard to noise levels as set out in the N&VMP is the EPA *Noise Control Manual-Construction Noise and Vibration Guideline*.

This guideline nominates acceptable levels of noise emissions above the background noise level depending on the total construction period. For periods up to 6 months the guideline recommends a noise level of 10dB(A) above the background. Noise generated by plant and equipment throughout the duration of the project will be managed to generally comply with the background +10dB criterion and where that is exceeded noise will be managed in strict compliance with the relevant Australian Standard 2436-1981 *"Guide to Noise Control on Construction Maintenance and Demolition Site"* (AS2436), specifically:

- *That all practicable measures be taken on the building site to regulate noise emissions, including the siting on noisy static processes parts of the site where they can be shielded, selecting less noisy processes, and if required regulating construction hours; and*
- *The undertaking of noise monitoring where non-compliance occurs to assist in the management and control of noise emission from the building site.*

Based on these guidelines and standards the following procedures will be used to assess noise emissions:

- *Predict noise levels produced by typical construction activities at the sensitive receivers;*
- *If noise levels exceed "background +10dB(A)" noise goal at sensitive receiver locations, investigate and implement all practical and cost effective techniques to limit noise emissions; and*
- *If the noise goal is still exceeded after applying all practical engineering controls to limit noise emissions investigate management and other techniques to mitigate noise emissions.*

The submitted N&VMP report states that there is significant separation distance between the activities and sensitive occupancies, and therefore estimates that the recommended noise levels will not be exceeded and additional mitigation methods are unlikely to be required. However, there are residences in relatively close proximity to the site, the Proponent was requested to provide further information to address the concerns raised by both DECC and local residents.

A revised Demolition Noise and Vibration Management Plan (Revised N&VMP) dated September 2007 was submitted to the Department. The Revised N&VMP addresses previous concerns by both the Department and DECC relating to data gaps and missing information associated with the original N&VMP. This includes modifying the Control of Noise Flow Chart to include mitigation measures to reduce noise, as well as providing a figure showing the locations of particular receivers which were excluded from the original N&VMP. Details of where the background noise measurements were made and where they were taken from have now also been included in the Revised N&VMP. The

recommendations of the Revised N&VMP will be required to be implemented and this has been included as a condition of approval.

The Proponent was also requested to address the proposed hours of demolition, which included a 2 pm finish time on Saturdays, in contrast to the 1pm finish time in the EPA Guideline. Whilst the Proponent argued that the proposed hours are consistent with the City of Sydney's standard condition for hours of construction work and noise within the Sydney CBD, given the nature of the proposed development and the level of concern regarding noise impacts associated with the demolition, the EPA Guidelines should prevail.

Therefore a condition of approval will be included which restricts the hours of work as follows:

- 7.00am and 6.00pm on Mondays to Fridays, inclusive;
- 8.00am and 1.00pm on Saturdays;
- No work must be carried out on Sundays or public holidays.

In addition, given that there are a large number of residences within close proximity to the site, it is also necessary for the Proponent to establish a Community Consultation Plan(CCP) to implement the following:

- (a) A site notice board located at entrance to site in a conspicuous position and having minimum dimensions 841 mmx594mm (A1) with any text on the notice board to be a minimum of 30 point type size;
- (b) Periodic newsletters mailed or emailed to concerned residents and business operators.
- (c) Monthly communication meetings;
- (d) Formal complaint management system to respond to all complaints in a timely manner and advise complainants of outcomes;
- (e) Regular personal contact with residents and business operators affected by the site;
- (f) Establish protocols for resolving differences;
- (g) Seek feedback from community groups and individuals, and;
- (h) Consultation between builder, residents and business operators to resolve pre-determined arrangements to reduce environmental impacts.

This will provide for a line of communication between the Proponent and the surrounding residents in which feedback over any residential amenity impacts resulting from the demolition works can be discussed openly and mitigation methods implemented as a result. A condition has been imposed requiring the development of this CCP.

On this basis, subject to the recommendations in the revised N&VMP and specific recommended conditions, the noise impacts on adjacent residents can be managed and minimised and are acceptable.

### **5.6.2 Vibration**

Regarding the issue of vibration levels resulting from the demolition works, the Department of Environment and Conservation NSW "Assessing Vibration: A Technical Guideline" (February 2006) will be used to assess human discomfort caused by vibration generated by demolition activities. Vibration Criteria for building damage will be based on the following:

- *Highly sensitive structures – 2mm/s PPV*
- *Sensitive structures – 10mm/s PPV*

- *Other non-sensitive or modern structures – 20mm/s (vibration in these structures would most likely be limited by human comfort criteria)*

The N&VMP addresses the issue of potential impacts upon the structural stability of nearby rail infrastructure. As the nearest operational railway tunnels are located under the Bradfield Highway and under York Street, are at least 200m from any demolition activities. In addition, the proposed works relate solely to demolition, with no excavation proposed beyond the removal of all footings which protrude above the slab level.

Therefore given the distance separation from the rail infrastructure and the nature of the proposed works, it is considered that vibration from the proposed activities would not impact upon this infrastructure. In addition, RailCorp has raised no further concerns regarding this issue at this stage of the redevelopment of the Barangaroo site.

### **5.6.3 Conclusion**

It is considered that as long as the works are carried out in accordance with the submitted management plans discussed above, the potential noise and vibration impacts from the demolition works can be appropriately mitigated and/or minimised. Extensive conditions of approval are also recommended to ensure that these measures are undertaken.

## **5.7 AIR & WATER QUALITY**

The *Environmental and Construction Management Plan* (E&CMP) prepared by ERM and dated July 2007 addresses air and water quality, discussed separately as follows:

### **5.7.1 Air**

Dust emissions were a key issue brought up by public agencies during preparation of the DGR's, as well as by the public and DECC during the submission period. The dust impacts due to the general demolition and construction works is considered potentially significant, and mitigation measures for reducing dust are required.

The E&CMP address the issue of dust emissions by stating that demolition activities will be undertaken in a manner to limit the possible generation of dust. In order to achieve this, the following techniques will be implemented:

- *Works will be undertaken with the least disturbance of the hard-standing as possible;*
- *Where earth is exposed it will be treated by wetting, compaction or covering as appropriate;*
- *Where stockpiles are to be kept on site and have the potential to generate dust, the contractor will be responsible for ensuring that they are covered;*
- *Trucks removing such materials from the site will also be covered;*
- *In order to control dust and soil emissions being transported from the site, vehicle washing and removal of mud and soil from the wheels and bodies of vehicles will be undertaken; and*
- *Vehicular paths will also be established to minimise the capture of soil and dust on vehicles whilst on site.*

The DGR's also specifically requested that the impact of exhaust emissions from vehicles and other motorised equipment being operated on site be addressed by the Proponent, whom have proposed that in order to reduce the impact of exhaust emissions from motorised equipment all vehicles will have their engines turned off whilst parked on site and machinery/plant equipment will not be left running idle when not in use for extended periods of time. All machinery will be checked before it is allowed on the site, and will be checked daily once on the site to ensure that it is in good working order.



These are appropriate measures to minimise the potential exhaust impacts of the proposal given the nature and location of the proposed demolition works. The E&CMP recommendations have been adopted to ensure that these measures are implemented.

### 5.7.2 Water

There are no permanent surface water bodies present on the site itself and stormwater is collected via a network of surface and below ground drains which flow toward the Harbour. The water quality in Sydney Harbour, and more particularly Darling Harbour, which is the closest surface water body to the site, is known to have been significantly degraded by industrial and urban activities within the catchment area, as noted in the Department of Environment and Climate Change Annual Report on the State of the Beaches 2005 – 2006.

However, it is noted that the proposed demolition works have the potential to adversely affect the quality of the waterway by way of sedimentation runoff, stormwater runoff and spillage of hazardous chemicals.

Changes in diversity and structure of marine communities are widely used for the detection of anthropogenic pollutants and human induced stressors such as increased sedimentation. Contaminated sediment and reduced water quality can induce a decline in sensitive species leading to reduced species richness and community diversity; while the more robust and opportunistic species will dominate.

The adjacent Darling Harbour marine community is a potential ecological receptor should contaminants migrate off-site and/or sedimentation into the harbour increase. Studies conducted in Sydney Harbour have demonstrated that the abundance of fish communities is positively correlated with increasing sessile community diversity (e.g. algae, mussels, ascidians) on artificial substrates such as seawalls.

In order to protect the waterway that surrounds the site from such adverse affects the Proponent proposes the following soil and surface run-off water management:

- *Implementation of a Sedimentation and Erosion Control Plan in accordance with the procedures outlined in Managing Urban Stormwater – Soils and Construction – Department of Housing, 1998 and as detailed in Section 4 of the E&CMP prepared by ERM;*
- *Installation of silt fences, sand bags and/or hay bales where required down gradient of disturbed areas, base of embankments, existing drainage lines, earthworks and stockpiles as required. These will be inspected daily and after rainfall;*
- *Cover or reinstate disturbed areas as work progresses in order to limit the length of exposed surfaces and stockpiles;*
- *Divert clean runoff around disturbed areas, where practicable;*
- *Use defined roadways; and*
- *No storage of hazardous substances on the site*

The footing removals process has been designed so as to minimise the exposure of potentially contaminated materials. Potentially impacted soil or fill materials adhered to the footings will be removed and placed back into the void created by removal of the footings. These areas will then be re-compacted and sealed to match the existing hardstand. Similarly sediment laden runoff with the potential to enter the harbour will be minimised.

Given the nature of the existing use and the proposed demolition works which incorporate works wholly on site and no work to sea walls, it is considered that as long as the procedures outlined in the E&CMP are followed, there will not be any adverse impact upon the marine communities and environment of Darling Harbour from the proposed works.

However, an Erosion and Sediment Control Plan (E&SCP) will be required to be submitted prior to commencement of demolition works. The sedimentation and erosion control measures within the E&SCP will be revised and implemented by the appointed contractor as necessary. The effectiveness of this E&SCP will be checked daily and following rainfall. This will be adopted as a recommended condition of approval to ensure that this requirement is adhered to.

## 5.8 INFRASTRUCTURE

The proponent has submitted a *Services Infrastructure Decommissioning Report*, prepared by Lincolne Scott Australia Pty Ltd and dated July 2007. This report outlines the proposed methodology for the elemental demolition or capping of existing services on site in the following ways:

- *The existing electrical systems are to be made safe or demolished across the site in accordance with two stages. The existing below ground pit and cabling system will be retained as will electrical supplies to systems required to maintain the operation of the site for safety purposes;*
- *Existing services above ground will be demolished in accordance with the two stages;*
- *The sewer and stormwater services to the site and buildings are to be capped in accordance with the two stages;*
- *Stormwater running across the site will be retained;*
- *Existing communications cabling and security cameras will be removed above ground; and*
- *Mobile cells will be removed or relocated.*

This report is considered to satisfy the DGR and its recommendations have been adopted in the recommended instrument of approval.

## 5.9 STAGING

### 5.9.1 Potential impact of demolition works on shipping movements

At this stage it is unknown whether the passenger terminal will cease operation before the commencement of the Stage 1 demolition work. A mesh-wire fence will physically separate the Stage 1 demolition works from the passenger terminal. Although the access gates are separate, at peak events there may be some short term congestion, which can be minimised by liaison between the Proponent and the passenger terminal operator to coordinate events and modify demolition activities to avoid the potential conflict between the two uses.

### 5.9.2 Timing of demolition of existing Sydney Ports' facilities

The existing passenger terminal will be demolished as part of Stage 2 of the demolition works. However, the timing of this stage is dependent on the Sydney Ports Authority locating a suitable alternative location and vacating the Barangaroo site.

## 5.10 THE PUBLIC INTEREST

The proponent provides that the proposal is in the public interest for the following reasons:

- *The proposal is consistent with the approved Concept Plan relating to the site;*
- *The proposed works will not have any adverse impact on port operations which are to remain on site in the short-term;*

- *The demolition works will not affect any listed heritage items located on the site;*
- *Mitigation measures will be implemented to ensure that there is no adverse environmental impact on the existing air and water quality of the site or surrounding land and water;*
- *Mitigation measures will be implemented to ensure that there is no adverse environmental impact on the amenity of neighbouring occupiers;*
- *The transport movements generated by the demolition works will be minimal and will have negligible impact on the operation of the surrounding road network; and*
- *The site can be made suitable for temporary public events (to be the subject of future applications).*

It is considered that this assessment of the public interest benefits of the proposal is sound. The proposed works are consistent with the approved Concept Plan as they are preparing the site for the implementation of the Concept Plan. Furthermore, the proposal will allow the site to potentially be used for interim uses which will take advantage of the attributes of the site being the large site area and proximity to the Sydney CBD and public transport nodes. Therefore, the proposal is considered to be within the public interest.

## 6 CONSULTATION AND ISSUES RAISED

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The Department has reviewed the EA and the Revised Statement of Commitments and considered advice from public authorities as well as issues raised in general submissions in accordance with Section 75I(2) of the Act. Consideration of each of the issues as they relate to the concept plan proposal is provided in Section 5.

Each relevant issue has been identified and duly considered followed by an explanation of how the proponent has sought to address the issue. Each subsection concludes with a statement on whether the issue is resolved or whether amendments are necessary by either modifying the Concept Plan or introducing new planning provisions in an environmental planning instrument.

### 6.1 PUBLIC EXHIBITION DETAILS

The proposal was placed on public exhibition for a 30 day period between 2 August 2007 and 31 August 2007.

The Proponent responded to submissions and provided an amended Statement of Commitments on 11 October 2007. The changes to the nature of the project were not significant and it was not formally re-exhibited, however the amended information was placed on the Department's website.

### 6.2 SUBMISSIONS RECEIVED ON ENVIRONMENTAL ASSESSMENT

During exhibition a total of **15** submissions were received. This included 9 public submissions (including a petition with 39 signatures) and 6 submissions were received from public authorities being:

- RTA, dated 29 August 2007;
- Heritage Council of NSW, dated 29 August 2007;
- Department of Environment and Climate Change (DECC), dated 30 August 2007;
- City of Sydney, dated 31 August 2007;
- NSW Maritime, dated 3 September 2007; and
- NSW Ministry of Transport, dated 11 September 2007.

A summary of all submissions received can be found in **Appendix B**. The proponent responded to these submissions via amended management plans and amended Statement of Commitments and the proponent's response to submissions is in **Appendix C**.

### 6.3 PUBLIC SUBMISSIONS

A detailed discussion of the key issues raised in submissions is in **Section 5** of this report, where it is concluded that, subject to conditions, the proposal is acceptable and the issues raised in the submissions can be adequately addressed and mitigated.

The remaining issues raised in the submissions are assessed immediately below.

#### 6.3.1 Lack of community consultation

The application was publicly exhibited for 30 days and surrounding land owners were notified of the proposal. In addition, a recommended condition of approval for this Project has been included to require a Community Consultation Plan be developed to manage environmental and amenity impacts through information sharing and working in partnership. This is discussed in more detail in Section 5.2.

### 6.3.2 Lack of recognition of residential character of northern end of Kent Street

The initial noise assessment was conducted for the potentially most impacted residences in High Street and the residential building on Hickson Road. The remaining residences in Kent Street were considered to be *“more distant and screened from the Barangaroo site by buildings”*, and as such were considered to receive a significantly lower level of noise emissions than residences in High Street and Hickson Road.

However, as Figure 6 illustrates, there are several high-rise residential buildings at the northern end of Kent Street, which due to height differences with the Hickson Road buildings, are not entirely screened from the site by the Hickson Road buildings. As previously stated the Proponent was required to submit a revised N&VMP addressing the potential noise impact on these buildings.

The revised N&VMP concluded that the background noise levels along this section of Kent Street would be no lower than those on High Street, given Kent Street's greater level of exposure to traffic noise from the Harbour Bridge approaches. Consequently, the additional mitigation measures recommended in the revised N&VMP to address the noise impacts to the most sensitive receivers nominated in the report, would also address the noise impacts to the Kent Street residences.

In addition specific noise monitoring in relation to the residences on the western side of Kent Street has also been required by condition. This issue was discussed in further detail in Section 5.6 above.



Figure 6: Photograph illustrating residential/commercial nature of High St/Kent St (Hickson Rd in foreground).

### 6.3.3 Overdevelopment of the site

A Concept Plan has been approved for the site and is discussed in Section 2.2.1. The design standards set out in the Concept Plan will be relevant to future project applications on the site. However, as the subject application involves demolition only, the issue of overdevelopment is not relevant to it.

#### **6.3.4 Non-compliance with Term of Approval B3 of the Barangaroo Concept Plan**

An issue was raised via public submission during the exhibition period in relation to Condition B3 of the Terms of Approval for the Barangaroo Concept Plan (MP06\_0162), which requires the creation of the new public domain area at Southern Cove, as follows:

##### **B3. Public Domain – Southern Cove**

- (1) *Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the Southern Cove (north of Napoleon Street and opposite proposed "Bull Street") are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.*
- (2) *The plans identified in (1) are to address the following objectives:*
  - (a) *An enlarged water intrusion including a component east of the proposed "Globe Street";*
  - (b) *Active edges around the enlarged waterbody, including appropriate ground floor uses in buildings to activate the foreshore area;*
  - (c) *Achieving appropriate pedestrian linkages along the foreshore and connections to Hickson Road; and*
  - (d) *A theme which celebrates the water as an important part of the landscape element.*

It is noted that this condition requires that such plans be provided to the Department prior to or concurrently with the lodgement of the first application for major public domain works. However, as the proposal is for demolition works only and no major public domain works are proposed at this stage, Condition B3 does not apply to this application.

#### **6.3.5 Site security**

24 hour security presence will be maintained on the site and will be the responsibility of the Demolition Contractor. This is included as a recommended condition of approval.

#### **6.3.6 Event management**

This project application is solely for demolition of existing structures on the site and specific events are not proposed by it. Therefore this issue is not relevant.

#### **6.3.7 Inadequacy of SEPP 55 considerations.**

Remediation issues are discussed in detail in Section 5.3 where it is concluded that the site is suitable for the proposed uses and satisfies SEPP 55. The proposed works do not involve any significant excavation but rather localised ground intrusion where footing will be removed. The small areas of ground that will be disturbed will be made good ensuring that no contaminated soils will be exposed, and any that are will be appropriately treated. It is noted that DECC has reviewed the draft Stage 1 Remedial Action Plan (RAP) and Site Audit Statement and considers that it is adequate for the extent of works that are proposed.

### **6.4 SUBMISSIONS FROM PUBLIC AUTHORITIES**

The following issues were raised by public authorities:

#### **6.4.1 RTA**

The RTA raises no objections provided the hazardous materials are securely covered while transported, and that all trucks are not travelling in and out of the site during AM and PM peak periods. This requirement has been included as a condition of approval.

## 6.4.2 Heritage Office

The project at this stage is limited to demolition of buildings that are not of heritage significance and the Heritage Office did not raise any concerns.

The Heritage Office did review the proposed mechanisms for the protection of the sandstone seawall and colour photograph records recommended in section 6.3 of the Heritage Impact Statement prepared by City Plan Heritage and were satisfied that these are acceptable in ensuring no damage occurs to the seawall during the demolition process. These recommendations are included in the recommended conditions.

The Heritage Office also recommended a condition requiring that if any archaeological remains are found, work is to stop and the Heritage Office is to be notified in accordance with the requirements of the Heritage Act, with work not resuming until further comments are sought from the Heritage Office in relation to the management of the relics found. This condition is also included in the recommendation.

## 6.4.3 Department of Environment and Climate Change (DECC)

### NOISE

- It is unclear how the Demolition Noise and Vibration Management Plan (N&VMP) document fits into the planning process. DECC are concerned that there doesn't seem to be any process included in the EA for revising the N&VMP to reflect any conditions of approval that might impinge on it.*

*Response:*

This issue will be dealt with via a condition requiring that once a Contractor has been appointed, the Proponent must submit a revised Noise and Vibration Management Plan for the approval of the Department of Environment and Climate Change.

The proponent has also addressed this issue in the Statement of Commitment's, with No.26 stating that the N&VMP will be updated if required.

- DECC seeks to have noise impacts minimised through restrictions on hours for demolition, the adoption of best practice demolition methods and all feasible and reasonable mitigation measures.*

*Response:*

The revised N&VMP has provided a list of 10 mitigation measures that could be employed in order to reduce noise impacts to surrounding localities. This is also included in the revised Control of Noise Flow Chart. These include acoustic barriers, selection of alternate quieter appliances, silencers, and community consultation.

In addition, there are 6 recommended conditions of approval which address noise impacts.

- The use of hydraulic hammers is mentioned in 4.2.4 and 4.2.5. Consideration may need to be given to respite periods as a result of hammering.*

*Response:*

Condition C16 – Noisy Demolition satisfactorily addresses the need to restrict the hours of noisy demolition works so as to minimise disturbance to the surrounding locality. In addition, time management of activities is discussed in Section 7 of the N&VMP.

- DECC does not necessarily agree with the receiver goal internal noise level of 55dBA in Table 6 and elsewhere in the document.*

*Response:*

The level is based on the background plus 10dB(A) noise goal adopted and discussed in the N&VMP. This is consistent with the noise goals in the EPA Noise Control Manual Construction Noise and Vibration Guideline.

## WASTE

- *DECC recommends that all waste material at the premises is classified according to the EPA "Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes (2004)" prior to the waste being removed from the site for re-use, recycling or disposal.*

*Response:*

A condition has been included to address this issue.

## AIR QUALITY

*Suggested Conditions:*

- *All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.*

*Response:*

The former has been added as a recommended condition of approval in response to DECC's concerns.

- *A HAZMAT Part 6 Audit is required prior to commencement of demolition.*

*Response:*

Subsequent to receiving DECC's submission, a Site Audit Report was submitted to the Department, prepared by WSP Environmental and dated 5 September 2007. This was assessed by DECC and considered to be acceptable, and is discussed in more detail in Section 5.3. Therefore, it is not considered that this suggested condition is necessary.

The Department therefore considers that the issues raised by DECC have been dealt with satisfactorily via the amended *Noise and Vibration Management Report* and Statement of Commitments, providing sufficient evidence concerning the ability to mitigate noise and vibration issues associated with the demolition works. The specific issue of noise and vibration is considered in Section 5.6.

The remaining issues have been dealt with via appropriate conditions of approval, and the Department is therefore satisfied with the response and that these concerns have been addressed.

### 6.4.4 City of Sydney

City of Sydney raised no objections, however recommended a number of conditions, which have generally been included in the recommendation with the exception of the condition regarding hours of work, which has been adjusted to reduce the hours of work by 1 hour on Saturdays in order to meet the EPA standard hours of construction work.

There were several conditions which related to new construction and were not relevant to this application, and they have also been excluded from the final recommendation.

### 6.4.5 NSW Maritime

NSW Maritime requests the following conditions of approval be applied:

- *Demolition works will be carried out in such a way that no demolition debris falls, flows or is carried to the waters of Sydney Harbour.*



- *No sediment and like material can enter the waterway or drainage system for the duration of works.*
- *Any haybales that are used for erosion, sediment and pollution control are to be suitably treated (eg wrapped in geotextile fabric) and secured so that potential for seeds or other propagules to enter the marine environment is minimised.*
- *Suitably constructed and managed sediment fence is to encompass the site along the entire boundary adjoining NSW Maritime land.*

NSW Maritime also request that it be noted that Section 4.4.1 of Barangaroo Demolition Works: Environmental and Construction Management Plan, makes mention to the procedures required of the document Managing Urban Stormwater – Soils and Construction – Department of Housing, 1998. This document has been revised and as such any works relating to sediment and erosion control measures should refer to the current version Managing Urban Stormwater – Soils and Construction – Department of Housing/Landcom, 2004.

This information has been noted by the Proponent and the construction and installation of silt fences, straw bale filters and geotextile sausage inlet filters will be in accordance with the revised document described above.

The conditions requested by NSW Maritime are included in the recommendation.

#### **6.4.6 NSW Ministry of Transport**

In general, the Ministry of Transport consider that the EA adequately addresses the majority of issues raised in the DGR's. However, a concern is raised regarding the potential impact of demolition truck movements on bus operations along York and Market Streets. The Ministry of Transport recommends that the applicant liaise directly with the RTA and STA concerning the suitability of York and Market Streets for truck access.

This requirement has been noted by the Proponent and is included as a recommended condition.

The Proponent's full response to the submissions is in **Appendix C**.

## 7 CONCLUSION

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The Department has assessed the EA and considered the submissions in response to the proposal. The key issues raised in submissions related to noise and air quality management, as well as lack of community consultation. The Department has considered these issues and a number of conditions are recommended to ensure the satisfactory addressing of these issues and acceptable impacts as a result of the proposal.

The proposed development is consistent with the approved Concept Plan, will establish the site for future development, and will facilitate the interim use of the site subject to development consent. The project application has satisfactorily addressed the potential impacts associated with the demolition works, in particular in relation to mitigating environmental impacts from water runoff, contamination, and construction impacts.

On these grounds, the Department considers the site to be suitable for the proposed development and that the project is in the public interest. Consequently, the Department recommends that the project be approved, subject to the conditions of approval.

## 8 RECOMMENDATION

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It is recommended that the Minister:

- (A) consider the findings and recommendations of this Report; and
- (B) approve the carrying out of the project referred to in the Environmental Assessment and amended documentation in response to submissions, under Section 75J *Environmental Planning and Assessment Act, 1979*; subject to conditions and Statement of Commitments and sign the Determination of the Major Project (**tag A**).

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## APPENDIX A. DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

<b>Application Number</b>	07_0077
<b>Project</b>	Demolition Works at Barangaroo, Sydney
<b>Location</b>	Lot 3 & 5 DP876514; Lot 7 DP 43776; Lot 100 DP 838323; and Lots 6 & 7 DP 869022 – Barangaroo, Sydney
<b>Proponent</b>	Sydney Harbour Foreshore Authority
<b>Date issued</b>	25 June 2007
<b>Expiry date</b>	25 June 2009
<b>General requirements</b>	<p>The Environmental Assessment (EA) must include:</p> <ol style="list-style-type: none"> <li>1. An executive summary;</li> <li>2. A description of the proposal including: <ul style="list-style-type: none"> <li>• Description of the site and surrounds; and</li> <li>• Likely environmental impacts.</li> </ul> </li> <li>3. Address the following: <ul style="list-style-type: none"> <li>• Consideration of any relevant statutory provisions;</li> <li>• Overview of other environmental issues and any relevant provisions arising from environmental planning instruments;</li> <li>• An environmental risk analysis of the project;</li> <li>• An appropriately detailed assessment of the key issues specified below;</li> <li>• A draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures</li> <li>• A conclusion justifying the project, taking into consideration the environmental impacts of the proposal, and whether or not the project is in the public interest;</li> <li>• A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading.</li> <li>• A quantity surveyor's cost estimate report to verify the capital investment value of the project, specifically calculated in accordance with the definition of 'CIV' under Section 245N of the EP&amp;A Regulation 2000.</li> </ul> </li> </ol>
<b>Key issues</b>	<p>The Environmental Assessment must address the following key issues:</p> <p><b>Relevant EPIs and Guidelines to be addressed</b></p> <ul style="list-style-type: none"> <li>• SEPP 55; and</li> <li>• Concept Plan (MP06_0162).</li> </ul> <p><b>Heritage</b></p> <p>The Environmental Assessment must provide the following:</p> <ul style="list-style-type: none"> <li>• An appropriate level of heritage assessment in relation to the demolition works, including the preparation of a report prepared in accordance with the NSW Heritage Office's Statement of Heritage Impacts 2002;</li> <li>• An appropriate level of archaeological and aboriginal assessment in consultation with the NSW Heritage Office, to determine whether or not the proposed demolition works are likely to result in any impact upon archaeological and aboriginal material on the site; and</li> <li>• Protection measures for sandstone sea walls during demolition, and assessment of impacts on these.</li> </ul> <p><b>Remediation of Site</b></p> <p>The Environmental Assessment must address the following:</p>

	<ol style="list-style-type: none"> <li>1. Assess all potential contamination impacts;</li> <li>2. Identify any remediation and/or protection works required resulting from the demolition works based on the findings of the contamination investigation;</li> <li>3. On completion of the above, a suitably qualified consultant must provide a report (copy to EPA) as it relates to investigation and/or remediation action plans in accordance with the EPA's Guidelines for Consultants Reporting on Contaminated Sites (1997) and relevant components of other guidelines made or approved under section 105 of the CLM Act 1997;</li> <li>4. The proponent must have the report audited by an accredited site auditor on the appropriateness of the works undertaken to meet the project objectives i.e. to assess all potential impacts from demolition works on soils and groundwater and the risks posed by such disturbance before submitting the report to the EPA for approval; and</li> <li>5. The Stage 1 Remediation Action Plan (RAP), which will be part of the Environmental and Construction Management Plan (Demolition) is to be submitted with the application should address odours, the management of any waste that is excavated during the removal of footings and a contingency plan for containment of identified contamination.</li> </ol> <p><b>Waste Management</b> The Environmental Assessment must address the following:</p> <ul style="list-style-type: none"> <li>• Demolition wastes that may be generated - likely quantities, identification of types of materials including hazardous, proposed disposal destinations and best practices for safe handling and disposal in accordance with WorkCover's Occupational Health and Safety requirements and EPA guidelines (Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (EPA 1999));</li> <li>• A Hazard and Emergency Management Plan should be prepared which addresses handling, transport and storage of hazardous materials including spill requirements and fire water management. The need for management facilities for contaminated spills should be considered.</li> <li>• Assessment of the potential toxicity levels of loads transported on arterial and local roads and the consequential preparation of an incident management strategy for accidents, where required.</li> </ul> <p><b>Traffic</b> The Environmental Assessment must provide a Traffic Impact Study which specifically addresses the following:</p> <ul style="list-style-type: none"> <li>• Consider likely impacts from demolition traffic on nearby bus services;</li> <li>• Impacts of demolition traffic upon the operations of the passenger terminal, including events and functions staged at terminal;</li> <li>• Opportunities to maintain pedestrian access and safety adjacent to the subject site during the period of activity;</li> <li>• Consideration of the potential removal of waste by water based transport;</li> <li>• The proposed means of vehicular access to and from the site and safety of proposed access points;</li> <li>• Impact of generated traffic upon surrounding arterial road network and intersections; and</li> <li>• Details of anticipated truck routes to minimise impacts on residential areas.</li> </ul> <p><b>Noise and Vibration</b> The Environmental Assessment must address noise and vibration impacts as follows:</p> <ul style="list-style-type: none"> <li>• Impact upon the structural stability of nearby rail infrastructure (City</li> </ul>
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	<p>Circle/North Shore Line tunnels); and</p> <ul style="list-style-type: none"> <li>Acoustic impacts shall be assessed in accordance with the EPA's Environmental Noise Control Manual, 1994 to ensure the demolition works do not result in unreasonable impacts upon surrounding properties. Baseline information should be provided for all properties likely to be affected in order to allow evaluation of the projected noise and vibration impacts of the proposal.</li> </ul> <p><b>Air Quality</b> Provide an appropriate level of air quality impact assessment prepared in accordance with Approved Methods for Modelling and Assessment of Air Pollutants in NSW (EPA) including:</p> <ul style="list-style-type: none"> <li>Emissions of dust generated by demolition activities;</li> <li>Wind erosion from exposed surfaces and stockpiles; and</li> <li>Impact of exhaust emissions from vehicles and other motorised equipment being operated on site.</li> </ul> <p><b>Water Quality</b> The Environmental Assessment must identify, describe and quantitatively assess the potential impacts of the demolition works on water quality and the marine environment during the demolition works.</p> <p>An integrated soil and water management plan should be developed to prevent an increase in pollutant loads being exported from the site during demolition and should address but not be limited to:</p> <ul style="list-style-type: none"> <li>The potential for water pollutants to be generated;</li> <li>Measures to be taken to collect, store and treat stormwater, wash down water, wheel wash water, etc;</li> <li>Materials storage areas, ponds or beds for slurry or other materials;</li> <li>Management methods to ensure that sediment is not exported from the site;</li> <li>Separation of clean water and contaminated water;</li> <li>Measures to prevent litter entering the Harbour;</li> <li>Identification of any significant effects on hydrological conditions and where applicable appropriate studies;</li> <li>Monitoring proposals; and</li> <li>Impact on upstream and downstream flooding taking into account any existing flood plain management plans.</li> </ul> <p>The Environmental Assessment should include an assessment of the likely ecological impact of the proposed works on marine communities and individual species.</p> <p><b>Infrastructure</b> The Environmental Assessment should include a Services Infrastructure Decommissioning report which outlines services to be retained, decommissioned and removed during the demolition works.</p> <p><b>Staging</b> The Environmental Assessment is to provide details regarding the staging of all stages of demolition work, in particular addressing the following:</p> <ul style="list-style-type: none"> <li>Potential impact of the proposed demolition works on shipping movements generally and on any ships booked in to berth at the passenger terminals (including both the existing and proposed temporary facility);</li> <li>Timing of demolition of existing passenger terminal and construction of the new temporary facility; and</li> <li>Timing of demolition of the Sydney Ports' maintenance facilities (Central Depot).</li> </ul>
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	<b>Statement of Commitments</b> The Environmental Assessment must include a draft Statement of Commitments detailing measures for environmental management, mitigation measures and monitoring for the project.
<b>Consultation</b>	You should undertake an appropriate and justified level of consultation with relevant following parties during the preparation of the Environmental Assessment: <ul style="list-style-type: none"> <li>• Department of Environment and Climate Change (Jasper Childs Ph 9995 6846)</li> <li>• City of Sydney Council (Chris Corradi Ph 9246 7592)</li> <li>• RTA (Pahee Sellathurai Ph 8814 2219)</li> <li>• Ministry of Transport (David Hartmann Ph 9268 2228)</li> <li>• NSW Heritage Office (Robyn Conroy Ph 9873 8583)</li> <li>• RailCorp (Nerida Morgan Ph 8202 2317)</li> <li>• NSW Maritime Authority (Persephone Rougellis Ph 9364 2176)</li> <li>• Sydney Ports Corporation (Lynne Sheridan Ph 9296 4806)</li> </ul>
<b>Deemed refusal period</b>	Under clause 8E(2) of the Environmental Planning and Assessment Regulation 2000, the applicable deemed refusal period for both the Project Application and the Concept Plan Application is 60 days.

## APPENDIX B. SUMMARY OF SUBMISSIONS

### BARANGAROO DEMOLITION

MP07\_0077

#### SUMMARY OF ALL SUBMISSIONS RECEIVED FOR THIS APPLICATION

#### ISSUES RAISED IN AGENCY SUBMISSIONS

DATE	STAGE OF PROCESS	AGENCY COMMENT
<b>Department of Environment and Climate Change</b>		
30/8/2007	Exhibition	<p><b>NOISE</b></p> <ul style="list-style-type: none"> <li>It is not clear how the Demolition Noise and Vibration Management Plan (N&amp;VMP) document fits into the planning process. DECC are concerned that there doesn't seem to be any process included in the EA for revising the N&amp;VMP to reflect any conditions of approval that might impinge on it.</li> <li>DECC seeks to have noise impacts minimised through restrictions on hours for demolition, the adoption of best practice demolition methods and all feasible and reasonable mitigation measures.</li> <li>The NMP should include a commitment for it to be revised once the demolition contract has been let and the selected contractor's preferred demolition methods and equipment are identified.</li> <li>The storage shed mentioned in 4.2.4 is not shown on Figure 6, nor could we find it on other documentation provided.</li> <li>Consideration may need to be given to respite periods during hydraulic hammering activity.</li> <li>The 2 pm finish time on Saturdays is different from the 1 pm finish time in the EPA Construction Noise Control Guideline.</li> <li>The Control of Noise Flow Chart is not entirely clear. There are feedback arrows that appear to be unnecessary and some possible mitigation measures are not mentioned.</li> <li>No figure provided showing the locations of the receivers listed in 8.1.</li> <li>Insufficient details are provided in 8.2 in relation to the measurements on which the background noise levels presented in Table 2 are proposed.</li> <li><i>The appropriateness of the levels in Table 2 cannot be assessed without additional appropriate details, nor can the appropriateness of the receiver goal external noise levels elsewhere in the document be accepted without the additional details.</i></li> <li>The discussion regarding the predicted noise levels provides details in qualitative terms that need to be presented in quantitative terms.</li> <li><i>The "typical façade noise reduction of 25dBA" quoted in 8.5 may be an overestimate.</i></li> <li>DECC does not necessarily agree with the receiver goal internal noise level of 55dBA in Table 6 and elsewhere in the document.</li> <li>The receivers on the site mentioned in 8.7 should be identified.</li> <li>Demolition noise in the vicinity of Wharf 6 is mentioned in 8.8 but nowhere else.</li> </ul>

		<p>WASTE – Suggested condition:</p> <ul style="list-style-type: none"> <li>All waste material at the premises is to be classified according to the EPA "Environmental Guidelines: Assessment, Classification &amp; Management of Liquid &amp; Non-Liquid Wastes (2004)" prior to the waste being removed from the site for re-use, recycling or disposal.</li> </ul> <p>AIR QUALITY – Suggested conditions:</p> <ul style="list-style-type: none"> <li>All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.</li> <li>A HAZMAT Part 6 Audit is required prior to commencement of demolition.</li> </ul>
<b>Heritage Council of NSW</b>		
29/8/2007	Exhibition	<ul style="list-style-type: none"> <li>Mechanisms for the protection of the sandstone seawall and colour photograph records recommended in the Heritage Impact Statement are considered acceptable.</li> <li>A condition of approval is requested, requiring that if any archaeological remains are found, work should stop and Heritage Office be notified in accordance with the requirements of the Heritage Act. Work could resume after seeking further comments from the Heritage Office in relation to the management of the relics found.</li> </ul>
<b>City of Sydney</b>		
30/8/2007	Exhibition	City of Sydney raise no objections in principle.
<b>NSW Maritime</b>		
03/9/2007	Exhibition	<p>NSW Maritime requests the following conditions of approval be applied:</p> <ul style="list-style-type: none"> <li>Demolition works will be carried out in such a way that no demolition debris falls, flows or is carried to the bed or waters of Sydney Harbour.</li> <li>No sediment fines and like material can enter the waterway or drainage system for the duration of works.</li> <li>Any haybales that are used for erosion, sediment and pollution control are to be suitably treated (e.g. wrapped in geotextile fabric) and secured so that potential for seeds or other propagules to enter the marine environment is minimised.</li> <li>Suitably constructed and managed sediment fence is to encompass the site along the entire boundary adjoining NSW Maritime land.</li> </ul> <p>NSW Maritime also point out that Section 4.4.1 of the Environmental and Construction Management Plan makes mention to the procedures required of Managing Urban Stormwater – Soils and Construction – Department of Housing, 1998. This document has been revised and as such any works relating to sediment and erosion control measures should refer to the current version Managing Urban Stormwater – Soils and Construction –Landcom, 2004.</p>
<b>RTA</b>		
29/8/2007	Exhibition	No objections provided the hazardous materials are securely covered while transported, and that all trucks are not travelling in and out of the site during AM and PM peak periods.
<b>NSW Ministry of Transport</b>		
11/9/2007	Exhibition	In general, the Ministry of Transport consider that the EA adequately addresses the issues raised in the DGR's. However, a concern is raised regarding the potential impact of demolition truck movements on bus operations along York and Market Streets. The Ministry of Transport recommends the applicant liaise directly with RTA and STA concerning the suitability of York and Market Streets for truck access.



## **ISSUES RAISED IN PUBLIC SUBMISSIONS**

<b>LACK OF CONSULTATION WITH COMMUNITY</b>
No consultation has been carried out with the residential receivers in the surrounding area.
<b>SITE SECURITY</b>
Security patrols should continue throughout the demolition period.
<b>TRAFFIC, ACCESS AND PARKING</b>
Concern is raised that the proposal will generate a significant increase in traffic to the area.
Demolition traffic should not be permitted to use Route B (via Harbour Bridge) due to the increased congestion it would cause. If possible movements should be via water.
Childcare Centre currently experiencing difficulties with truck movements to the wharves and commercial vehicles parking illegally in the designated drop off zone outside the Centre. Concerned that the demolition works will compound this problem.
Consideration should be given to providing parking within the wharf areas to minimize the potential for problems from these sources.
Use of Gate 8 instead of Gate 5 for access and egress to the site should be considered in order to mitigate impacts on childcare centre.
Truck movements along Kent Street, Hickson Road, Margaret Street, and Napoleon Street will affect neighbouring properties.
<b>PROPOSED WORKS DO NOT INCLUDE WORKS TO CREATE A NEW SOUTHERN COVE.</b>
Condition B3 of the Terms of Approval for the Concept Plan (MP06_0162) requires that detailed design plans for the Southern Cove are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. This has not been submitted.
<b>NOISE ISSUES</b>
Unacceptable levels of noise generated by demolition works and heavy trucks at Gate 5 on Hickson Road.
Residential character of northern end of Kent Street is not recognised, being described as commercial in the documentation.
There is no baseline noise level established on which to form the basis of monitoring and remedial action. Ground noise baselines should be established in these residences and a plan to mitigate noise should be documented.
Stronger monitoring and controls are required for demolition machinery as they conduct the work. Recommend that noise monitoring be undertaken by the Sydney Harbour Foreshore Authority itself at the Childcare Centre prior to and during the demolition period to inform its decision making.
Noisy demolition should not be undertaken between the hours of 12.30pm and 2.30pm, to allow the existing commercial/restaurant users to operate as normal.
As a condition of approval, noise constraints should be imposed between the hours of 7am to 8am, Monday to Saturday. In addition, a prohibition on —jack hammering, rock breaking, saw cutting or the like should be in effect during those hours.
Mediterranean Shipping Company (MSC) regularly hosts functions on balcony, are concerned about effect of demolition noise on use of this balcony, as work is scheduled to commence in Spring, when this area has most appeal. MSC therefore request that:
<ul style="list-style-type: none"> <li>Noisy demolition is not undertaken between the hours of 12.30pm and 2.30pm, allowing the existing commercial/restaurant users to operate as normal.</li> <li>Kissing Point Wharf be extended the same courtesy as Wharf 8 in terms of large functions not</li> </ul>

being subjected to demolition noise.
<ul style="list-style-type: none"> <li>That a noisy works program be provided to MSC well in advance (and updated regularly) so that they can plan around it where possible.</li> </ul>
Billabond Childcare Centre are concerned about noise from trucks and disagree with the assumption in the V&NMP that "Given the existing number of vehicle and heavy vehicle movements...., no adverse impacts are expected from the number of demolition vehicle movements." The potentially detrimental effects to the child care environment will impact the children and the carers.
Mitigation works to minimize the noise impact are essential based on predicted noise forecasts.
BAG request monthly liaison meetings with local residents to review progress and provide information on upcoming activities and movements.
Hours of work should be changed to between 7.30am – 6pm, 8am – 6pm or 9am – 4pm Monday to Friday and 8am – 12pm or 9am – 12pm on Saturday, in order to minimise noise disturbance.
Local residents within 1000 metres of the boundary of the Barangaroo site should be included in Barangaroo communications plans, particularly with respect to environmental and noise issues that may arise.
These residents should be notified of the specific communications protocol required for complaints and the action plans triggered by such complaints.
<b>AIR QUALITY</b>
Air testing and regular consultation with neighbouring properties should be undertaken. A base reading should be taken before demolition begins and air monitoring throughout the project. These monitoring test results should be discussed with the childcare centre.
MSC request close liaison between the contractor and King Street Wharf management, so that if any asbestos/hazardous materials spills occur, they can shut down the AC immediately as the AC intakes are close to the site.
MSC also request a full schedule of works for the removal of asbestos so that internal precautions may be implemented during these times; and a copy of the site's Health and Safety Plan to assure them that appropriate measures are being taken to safeguard the wellbeing of their staff.
Concerns about the possibility of leakage of hazardous materials from contaminated ground to the air. Ask that an air monitoring position at the boundary of the Centre and establishment of a base reading before demolition begins and regular consultation with nearby business and residences on Hickson Road on the results of the testing be a requirement imposed on the project from the outset.
As demolition and hazardous material removal begins, readings above the base would trigger agreed procedures to manage the situation.
Also ask that monitoring results be discussed regularly.
Demolition works and removal and transport of hazardous materials represent a health risk from airborne particles. No specifics are provided regarding the level of dust abatement to be achieved or what levels are considered acceptable to nearby residents and workers. How is the level of dust abatement to be achieved?
Emergency and site management information to deal with unexpected hazards should be provided to public and a progress report should be maintained on a monthly basis, for example if dangerous vapours escape into the atmosphere or if there is mobilisation of lead dust, asbestos or synthetic fibres.
Nearby residents should be given a Communication Plan before the Remediation Action Plan is finalised so that community concerns are incorporated.
<b>EVENT MANAGEMENT</b>
The use of the site after demolition as a site for temporary events presents likely future difficulties to the childcare centre. Request that suitable consultation arrangements be made by SHFA regarding temporary events at Barangaroo.

<b>SEPP 55 CONSIDERATIONS INADEQUACY</b>
Application fails to address the requirements of SEPP 55 with respect to nearby residents who might be affected by the demolition process. Application should not be considered further until this deficiency is addressed and all interested parties have had a reasonable period to review it and comment on its adequacy.
<b>OVERDEVELOPMENT AND POORLY PLANNED.</b>
Overdevelopment of the site.

## APPENDIX C. RESPONSE TO SUBMISSIONS

### BARANGAROO DEMOLITION

#### MP07\_0077

#### RESPONSE TO SUBMISSIONS RECEIVED FOR THIS APPLICATION

ITEM	RESPONSE	COMPLIES?
<b>COMPLIANCE WITH THE CONCEPT PLAN</b>		
<b>Department of Planning</b> Modification C5(1) of the approved Concept Plan requires submission of a Consolidated Concept Plan to the Department before lodgement of the first application. The timing of submission of this document is required to be confirmed as the current application is technically first.	<i>A Consolidated Concept Plan has been prepared and is ready to be submitted to the Department of Planning (DoP) following the gazettal of the SEPP amendment. It is understood that this will happen within the next week.</i>	YES
<b>Barangaroo Action Group</b> SEPP (Major Projects) 2005 - Apparently this is a consolidation of the Concept Plan, which we trust will include some of the Millers Point residents' earlier suggestions. We look forward to viewing this Plan as the current uncertainty is not encouraging.	<i>See comment above.</i>	YES
<b>Barana</b> Concerned that the proposed demolition works do not include demolition/excavation works to create the new Southern Cove, a requirement of Condition B3 of the Terms of Approval for the Barangaroo Concept Plan (MP06_0162).	<i>Details relating to the creation of the new Southern Cove area are to be submitted with the first project application for major public domain works. This application does not propose any public domain works and as such it is not a requirement to submit this information at this stage. The public domain works will be an important part of delivering the Barangaroo redevelopment and it is intended that this will be one of the first areas to be redeveloped.</i>	YES
<b>ACOUSTIC IMPACTS</b>		
<b>DECC</b> The N&VMP appears to be an EA, with an N&VMP attached that has elements of a NIA within it. There does not appear to be a process included for revising the N&VMP to reflect any conditions of consent that might impinge on it, nor for revising the N&VMP to ensure it is relevant for the demolition contractor's methods and equipment.	<i>The aim of the Acoustic Impact Assessment was to:</i> <ul style="list-style-type: none"> <li><i>Identify potential for noise generation;</i></li> <li><i>Identify potential receivers;</i></li> <li><i>Develop a process which could be implemented by the demolition contractor; and</i></li> <li><i>Indicate how noise and vibration impacts would be managed.</i></li> </ul> <i>If required the N&amp;VMP will be updated by the demolition contractor and a commitment has been made to reflect this in the Statement of Commitments (SoC).</i>	YES
<b>DECC</b> The use of hydraulic hammers is mentioned in 4.2.4 and 4.2.5. Consideration may need to be given to respite periods, given the predicted noise levels at receivers, noted in Tables later in the N&VMP, as a result of hammering.	<i>The Flowchart within Acoustic Logic's report provides for an array of mitigative measures that might be used. Respite periods might be one such measure which might be considered in the flow chart presented.</i>	YES (if conditioned)
<b>DECC</b> The 2pm finish time on Saturdays is different from the 1pm finish time in the Construction Noise Control Guideline (formerly published as Chapter 171 of the Environment Protection Authority (EPA), 1994, Environmental Noise Control Manual), and timing must comply with	<i>The proposed hours are within those permitted within the City of Sydney's standard condition for hours of construction work and noise within the Sydney CBD i.e.: 7.00am and 7.00pm on Mondays to Fridays, inclusive, and 7.00am and 5.00pm on Saturdays, and no work must be carried</i>	YES

requirements of the consent authority.	<i>out on Sundays or public holidays.</i>	
<b>DECC</b> The Control of Noise Flow Chart is not entirely clear. There are feedback arrows that appear to be unnecessary and some possible mitigation measures are not mentioned. For example; <ul style="list-style-type: none"> <li>– Temporary enclosures around noisy sources;</li> <li>– Timing of activities;</li> <li>– The provision of respite and the use of alternative (lower noise) machinery; and</li> <li>– What happens if agreement, as indicated by the last box, cannot be reached?</li> </ul>	<i>The Flow chart has been modified and now includes alternative mitigation measures etc.</i>	<b>YES</b>
<b>DECC</b> There does not appear to be a figure showing the locations of the receivers listed in 8.1.	<i>A figure has now been added refer to the amended report.</i>	<b>YES</b>
<b>DECC</b> Insufficient details are provided in 8.2 in relation to the measurements on which the background noise levels presented in Table 2 are proposed. It raises the question of: <ul style="list-style-type: none"> <li>– Over what duration were the measurements made?;</li> <li>– At what time were they made?; and</li> <li>– How many measurements were made?</li> </ul>	<i>Details of what measurements were made and where they were taken from are now included in the Acoustic Report.</i>	<b>YES</b>
<b>DECC</b> The appropriateness of the levels in Table 2 cannot be assessed without additional appropriate details, nor can the appropriateness of the receiver goal external noise levels (External criteria – which are based on the levels in Table 2) elsewhere in the document be accepted without the additional appropriate details.	<i>Comments have now been added to the report to aid evaluation of the report.</i>	<b>YES</b>
<b>DECC</b> The discussion accompanying the predicted noises levels provides details in qualitative terms that need to be presented in quantitative terms. For example; The second paragraph in 8.3 states: "...many of the noise sources are present over a small period of the day or may be present for a few days with a significant intervening period before the activity occurs again." To get a satisfactory appreciation of the likely impact the NMP need to specify: <ul style="list-style-type: none"> <li>– How many of the noise sources;</li> <li>– How long the "small period" of the day is;</li> <li>– How many is "a few days"; and</li> <li>– How long is the "intervening period"?</li> </ul>	<i>These comments also apply to 8.5.</i>  <i>The information and the level of detail requested by the DECC cannot be provided at this stage and would not be (meaningfully) available until such time as a contractor is engaged. The nature of construction noise is that there is a balancing act between noise level, duration of the activity and the period over which the activity occurs per day. This is why the flowchart proposed is a sensible compromise.</i>	<b>YES</b>
<b>DECC</b> The "typical façade noise reduction of 25dBA" quoted in 8.5 may be an overestimate.	<i>The reduction nominated is 'typical'. The noise reduction will also depend on the characteristics of the noise source and the individual construction details of various rooms. It is not likely to be significantly lower than the 25dBA specified. The actual noise reduction provided by facades at critical receiver locations can be refined later as required, which may indicate greater noise reduction than nominated.</i>	<b>YES</b>
<b>DECC</b> DECC does not necessarily agree with the receiver goal internal noise level of 55dBA in Table 6 and elsewhere in the document and it poses the question of where is this level from?	<i>The level is based on the background plus 10dB(A) noise goal adopted and discussed in the N&amp;VMP. This is consistent with the noise goals that the City of Sydney usually adopts for assessing daytime noise impacts in the CBD.</i>	<b>YES</b>
<b>DECC</b>	<i>This is now done.</i>	<b>YES</b>

The receivers on the site mentioned in 8.7 should be identified.		
<b>DECC</b> Demolition noise in the vicinity of Wharf 6 is mentioned in 8.8 but no-where else, nor on any figure, in any of the documentation we have.	<i>This comment needs to be further clarified before a response can be given.</i>	<b>N/A</b>
<b>DECC</b> The highest predicted noise levels are associated with hydraulic (or "rock") hammering, however there is no consideration given to the need for respite periods.	<i>Time management of activities is mentioned in the 'Assessment Methodology and Mitigation Methods that Would be Applied' section of the report.</i>	<b>YES</b>
<b>Billabond Children's Centre:</b> Unacceptable levels of noise generated by heavy trucks entering and leaving the site from Hickson Road at Gate 5 to which will be added the noise of the demolition of the transit sheds, particularly if their demolition is carried out concurrently. We strongly recommend that noise monitoring be undertaken by the Sydney Harbour Foreshore Authority itself at the Centre prior to and during the demolition period to inform its decision making.	<i>It is considered that the current mitigative methods within the report are sufficient to ensure that acoustic impacts will be appropriately minimised.</i>  <i>If required the NMP will be updated by the demolition contractor and a commitment has been made to reflect this in the Statement of Commitments (SoC).</i>	<b>YES</b>
<b>Billabond Children's Centre:</b> The maximum hourly truck volume (Section 5.6.2 of the EAR refers) and the period of demolition of the longest duration proposed in the demolition plan would seem to be experienced at the point closest to the Centre. Noting that Billabond has an outdoor area close to and facing Hickson Road, it is difficult to accept that the resultant truck noise will be no worse. Mitigation works to minimise the noise impact would seem to be essential based on predicted noise forecasts and agreed monitoring results.	<i>See comment above.</i>	<b>YES</b>
<b>Mediterranean Shipping Company (MSC):</b> In relation to noise impact: <ul style="list-style-type: none"> <li>Noisy demolition is not undertaken between the hours of 12:30pm and 2:30pm, allowing the existing commercial/restaurant users to operate as normal, albeit for a limited time-span.</li> <li>KSW be extended the same courtesy as Wharf 8 in terms of large functions not being subjected to demolition noise (including Melbourne Cup).</li> <li>That a noisy works program be provided to MSC well in advance (and updated regularly) so that we can plan around it where possible.</li> </ul>	<i>This request is not feasible and would result in the demolition works being protracted out for a longer period of time. The proposed hours are consistent with those permitted by the City of Sydney's standard condition. The implementation of noise mitigation measures included in the NMP should be sufficient to reduce any potential impacts. Again it is noted that the NMP will be reviewed if necessary.</i>	<b>YES</b>
<b>Public Submission</b> There have been no noise measurements in Kent Street residences to establish "ground noise"/ consequently, there is no baseline noise level established on which to form the basis of monitoring and remedial action.	<i>The noise assessment was conducted for the potentially most impacted residences. East of the Barangaroo Site, it was assessed that the most impacted residences would be the residences in High Street (which is also representative of the high rise residential buildings on the western side of Kent Street) and the residential building on Hickson Road. The remaining residences in Kent Street are both screened from the Barangaroo site by buildings and are more distant, and as such would consequently receive a significantly lower level of noise emissions than those nominated within the report.</i>	<b>YES</b>

	<i>Acoustic Logic's experience suggests that background noise levels along Kent Street would be no lower than those on High Street given Kent Street's greater level of exposure to traffic noise from the Harbour Bridge approaches. The result of this is that what ever measures are put in place to address noise emissions to the most sensitive receivers (i.e. those nominated in the report) will also address noise emissions to Kent Street.</i>	
<b>Barangaroo Action Group:</b> There are a considerable number of residents (over 1000) in the immediate vicinity who have not been included as "recipients" in the plan. This is a major oversight and should be rectified immediately. For example: <ul style="list-style-type: none"> <li>Ground noise baselines should be established in these residences and a plan to mitigate noise should be documented.</li> <li>These residents should be included in the communications plans, particularly with respect to environmental and noise issues that may arise.</li> <li>The residents should be notified of the specific communications protocol required for complaints and the action plans triggered by such complaints.</li> </ul>	<i>See comment above.</i>	<b>YES</b>
<b>SEPP 55 – LAND CONTAMINATION</b>		
<b>Barangaroo Action Group:</b> The Remediation Action Plan is totally inadequate from the perspective of nearby residents and office workers who it could reasonably be expected to be directly affected by any contamination created by the demolition. The plan is solely focused on future visitors to the site itself. With respect to impacted residents the Plan merely notes that under the NSW EPA auditor guidelines a "communications plan will be required to keep neighbours "informed" of activities on the site".  This is plainly unreasonable and undermines the objectives of stakeholder consultations. A mandated Communication Plan should have been developed, and implemented, BEFORE the Remediation Plan was finalised so the concerns and issues of affected residents and office workers could be adequately reflected in the Plan.	<i>The proposed works do not involve any significant excavation but rather localised ground intrusion where footing will be removed.</i>  <i>The small areas of ground that will be disturbed will be made good ensuring that no contaminated soils will be exposed. Further to this the Environmental &amp; Construction Management Plan (E&amp;CMP) outlines measures that will be implemented in regards to dust emissions from the site. As such there will not be any risk to neighbouring properties. It is also noted that DECC has reviewed the draft Stage 1 Remedial Action Plan (RAP) and considers that it is adequate for the extent of works that are proposed.</i>	<b>YES</b>
<b>Barangaroo Action Group:</b> In its comments on SEPP 55 at Section 5.1 the Application focuses on the consent and remediation requirements to make the land suitable for a "proposed use". It further states in this Section that "temporary public events will take place on the Barangaroo site". The Application however fails to address how the requirements of SEPP 55 with respect to nearby residents who might be affected by the demolition process. The Application should not be further considered until this deficiency is addressed and all interested parties have had a reasonable period to review it and comment on its adequacy.	<i>See comment above</i>	<b>YES</b>
<b>WATER QUALITY</b>		
<b>NSW Maritime</b>	<i>As noted, the E&amp;CMP incorrectly cited the</i>	<b>YES</b>

Section 4.4.1 of the Barangaroo Demolition Works: Environmental and Construction Management Plan, must make mention of the procedures required of the document Managing Urban Stormwater – Soils and Construction – Department of Housing, 1998. This document has been revised and as such any works relating to sediment and erosion control measures should refer to the current version Managing Urban Stormwater – Soils and Construction – Department of Housing/Landcom, 2004.	<i>3rd Edition of Managing Urban Stormwater – Soils and Construction all references should have read: NSW Department of Housing / Landcom (2004) Managing Urban Stormwater – Soils and Construction, 4th Edition. The procedures referred to relate to the construction and installation of silt fences, straw bale filters and geotextile 'sausage' inlet filters which should be constructed and installed in accordance with the drawings and construction notes provided in SD6-8, SD6-7 and SD6-11 of NSW Department of Housing / Landcom (2004).</i>	
<b>NSW Maritime</b> Demolition works will be carried out so that no demolition debris falls, flows or is carried to the bed or waters of Sydney Harbour.	<i>The client is happy to comply with this condition and a commitment has been made to reflect this.</i>	<b>YES</b>
<b>NSW Maritime</b> No sediment fines or like material can enter the waterway or drainage system for the duration of the works.	<i>The client is happy to comply with this condition and a commitment has been made to reflect this.</i>	<b>YES</b>
<b>NSW Maritime</b> Any haybales that are used for erosion, sediment or pollution controls are to be suitably treated and secured so that the potential for seeds or other propagules to enter the marine environment is limited.	<i>The client is happy to comply with this condition and a commitment has been made to reflect this.</i>	<b>YES</b>
<b>NSW Maritime</b> A sediment fence is to be constructed along the entire boundary that adjoins NSW Maritime land.	<i>The client is happy to comply with this condition and a commitment has been made to reflect this.</i>	<b>YES</b>
<b>DECC</b> The management of waste is described more in relation to the Occupational Health and Safety (OH&S) impacts that may arise rather than the environmental impacts associated with generation and disposal of the waste.	<i>As noted in Table 3.1 and section D.1 of the E &amp; CMP, all wastes shall be handled, classified, transported and disposed of in accordance with NSW EPA (2004) Environmental Guidelines: Assessment, Classification &amp; Management of Liquid &amp; Non-liquid Wastes. Table 3.1 also provides an assessment of the potential environmental issues associated with inappropriate waste management and disposal. It is noted that Table D2 – Toxicity Characteristics of Hazardous Materials (which relates to potential OH&amp;S impacts) was included in the E &amp; CMP in order to meet a requirement specified by the Director General of the DoP.</i>	<b>YES</b>
<b>DECC</b> It is not clear from the proposal that the applicant has undertaken an asbestos audit in accordance with the requirements of Part 6 of the OH&S (asbestos) regulations 2003. It is recommended that this be clarified and be undertaken if it has not already been done.	<i>A Hazard Materials Survey has been prepared and was included as an Appendix to the Demolition Project Application.</i>	<b>YES</b>
<b>DECC</b> There is insufficient detail in Section 5.5.1 Waste Management, as to how these different types of waste are to be classified prior to removal from the site.	<i>All waste on the premises will be classified according to the EPA "Environmental Guidelines: Assessment, Classification &amp; Management of Liquid &amp; Non-Liquid Wastes" (2004) prior to the waste being removed from the site. A commitment has been made to reflect this.</i>	<b>YES</b>
<b>Mediterranean Shipping Company (MSC):</b> In relation to asbestos/hazardous materials removal: – Request close liaison between the contractor and KSW Management, e.g.	<i>SHFA's Stakeholder Manager will formulate a list of stakeholders who will be kept regularly up to date on the demolition project. Should anyone wish to be on that register they should phone the Stakeholder</i>	<b>YES</b>



<p>KSW Management/Security be altered immediately if there is a hazardous spill so that they can shut the air con down immediately if necessary.</p> <ul style="list-style-type: none"> <li>- We also request a schedule of works for the removal of asbestos be provided to MSC so that internal precautions may be implemented during these times.</li> <li>- We request that MSC be provided with a copy of the site's health &amp; Safety Plan to assure us that appropriate measures are being taken to safeguard the wellbeing of our staff.</li> <li>- We note that "Dust impacts due to the general demolition and construction works is considered potentially significant" and request that the exterior of KSW be cleaned, to the account of Sydney Harbour Foreshore Authority at the conclusion of the demolition.</li> </ul>	<p><i>Manager on: 9240 8893. As dust emissions will be appropriately managed on the site it is not considered necessary to give an undertaking to clean the exterior of KSW. Further we note that there are other construction sites within King Street Wharf itself which are in much closer proximity to the existing buildings at King Street Wharf and therefore have greater potential to generate dust etc.</i></p>	
AIR QUALITY		
<p><b>Billabond Children's Centre:</b> Demolition of the transit shed will create dust, the more so if the demolition of the various structures is conducted concurrently. Trucks exiting Gate 5 will also potentially dispersing dust from their loads, unless they are fully covered. Against this risk, we seek an air monitoring position at the boundary of the Centre and establishment of a base reading before demolition begins. As demolition and hazardous material begins, readings above the base would trigger agreed procedures to manage the situation.</p> <p>We also ask that monitoring results be discussed regularly with us. As in the case of noise testing, the Joint Venture Partners intend to continue their own testing of air quality at the Centre. We propose to make those results available to the Sydney Harbour Foreshore Authority. We believe that it is in the interests of commercial operators and community bodies for the demolition works to be subject, in a formal way, to the same quality assurance so as to informal decision making as the demolition gets underway.</p>	<p><i>Instrument based real-time (as would be required to ensure timely corrective action) monitoring &amp; quantification of dust concentrations in air can be problematic and unreliable. It is therefore proposed that dust monitoring be conducted via regular visual inspection by an appropriately trained construction supervisor. Should visible dust be noted moving off site by the construction supervisor or should a complaint be received, appropriate corrective action will be implemented as soon as practicable.</i></p> <p><i>Prior to commencement of any potential dust generating activities, weather forecasts will be reviewed and should strong westerly winds be predicted, appropriate control measures (including potentially rescheduling the dusty works) will be implemented. Further other mitigative strategies such as covering stock piles or watering will be implemented.</i></p>	<p><b>YES</b></p>
<p><b>Barangaroo Action Group:</b> No specifics are provided about the level of dust abatement that will be achieved; what levels of dust are considered to be "acceptable" to nearby residents and office workers, on what criteria the acceptability of certain dust levels has been determined and how dust levels are to be monitored. Because of the strong prevailing westerly winds it is absolutely certain that any dust generated will directly affect the residential apartment blocks located immediately to the east of the site. This will have at least economic consequences (due to dust accumulation on the residential buildings requiring cleaning and repainting) and possible health impacts as well.</p>	<p><i>As above.</i></p>	<p><b>YES</b></p>
<p>No specifics are provided regarding the level of dust abatement to be achieved or what levels are considered acceptable to nearby</p>	<p><i>Section 7.7.3 of the Draft Stage 1 Remedial Action Plan for Barangaroo sets out where unacceptable levels of dust are considered</i></p>	<p><b>YES</b></p>

residents and workers.	to have been generated, the Contractor shall initially suppress ambient dust by: – Water sprays applied by a spray nozzle or water misting hoses; or – Secure sheeting over exposed areas. Additionally, Contractor may be required to reduce the area of exposed surfaces, install perimeter sprays, conduct work in favourable weather conditions, and/or use of chemical dust suppressants provided these do not pose any risk of further ground or water contamination.	
<b>HERITAGE</b>		
<b>Heritage Council of NSW</b> It is requested that should any archaeological remains be found, the work should stop and Heritage Office notified in accordance with the requirements of the Heritage Act.	The applicant is happy to comply with this and the Statement of Commitments reflects this.	<b>YES</b>
<b>City of Sydney</b> A report that details the strategy for the protection of the sea wall throughout the works must be submitted to the determining authority and Council for Approval.	This condition is not considered necessary given that the Heritage Office is satisfied with the measures already proposed by City Plan Heritage in Section 6.3 of the Heritage Impact Statement.	<b>YES</b>
<b>City of Sydney</b> The interpretation strategy should be further expanded in providing recommendations that look towards achieving the final implementation of the plan; this includes appropriate locations for interpretation, responsibility for providing financial resources i.e. budgeting for the implementation of the strategy and the identification of stakeholders in relation to the implementation. Details such as preliminary locations of various interpretive components, and the persons or groups who will be responsible for funding the interpretation should be provided.	The interpretation strategy will be further explored and expanded during the formulation of future Project Applications on the site. At this stage it is not considered relevant to provide further detail on this issue given that no construction works are proposed.	<b>YES</b>
<b>TRAFFIC/ACCESS</b>		
<b>RTA</b> Proposes a requirement that trucks are not to travel in and out of the site during AM and PM peak periods.	Trucks carrying demolition materials will only arrive or exit the site between 9.30am and 3.30pm Monday to Friday and 8am to 2pm on Saturdays.	<b>YES</b>
<b>City of Sydney</b> Access for construction vehicles shall be limited to Gate 3 only (to safeguard residential environment in Towns Place).	Gate 3 is not appropriate as this would mean that trucks will have to travel further north along Hickson Road and via Towns Place. Perhaps this condition was meant to stipulate Gate 5 and Gate 3 was entered in by mistake?	<b>YES (Gate 5)</b>
<b>City of Sydney</b> Arrival Route B shall only be used after 9.30am on weekdays.	Arrival Route B shall only be used after 9.30am on weekdays The hours of trucks carrying demolition trucks will be restricted to 9.30am and 3.30pm on weekdays and 8am and 2pm on Saturdays.  SHFA is happy to comply with this condition.	<b>YES</b>
<b>Ministry of Transport</b> The potential impact of demolition truck arrival movements along York and Market Streets on bus operation is a concern. The City of Sydney, RTA and STA are presently reviewing the capacity of this key intersection, given increasing congestion and delays for buses. It	SHFA will liaise with the RTA / STA prior to utilising this access route.	<b>YES</b>

is recommended that the applicant liaise directly with the RTA and STA concerning the suitability of York and Market Streets for truck access.		
<b>Billabond Children's Centre:</b> We do not believe the reasons given for using Gate 5 outweigh the protection of our children and their carers and ask that the access/exit regime be reconsidered before demolition.	<p><i>Average truck volumes are 20-29 veh/day two-way (2 per hour), with a peak construction period loading factor of 3, ie 60-87 veh/day (5-7 per hour). The peak loads are only expected on a limited number of short periods of intense activity. Outside these periods volumes are below average. It is also noted that the current movements generated by the wharf are greater than this and run 24 hours a day.</i></p> <p><i>Sydney Ports retain occupation of the passenger terminal site (Wharf 8) indefinitely as well as the small brick building north of the terminal known as Central Depot until end 2008. The maritime legislation will remain on the passenger terminal site and therefore demolition trucks cannot access Gates 7a/b and Gates 8a/b/c.</i></p> <p><i>Use of Gate 6a is possible, but it is located opposite the Billabond Child Care Centre and therefore offers no benefit.</i></p>	<b>YES</b>
<b>Billabond Children's Centre:</b> We ask that considerations be given to providing parking within the wharf areas to minimise the potential for problems in relation to dropping off and picking up children. Staff parking will be provided within the boundaries of the site.	<i>A commitment has been made to reflect this.</i>	<b>YES</b>
<b>Billabond Children's Centre &amp; Event Management:</b> We ask that suitable consultation arrangements be put in place by the Sydney Harbour Foreshore Authority regarding temporary events at Barangaroo that take account of the operational hours of Billabond and the need for parents and staff to access the Centre each day both by car and on foot.	<i>Should temporary events take place on the site, these will be the subject of a separate application which will be publicly notified for comment.</i>	<b>YES</b>
<b>Public Submission</b> Truck movements along Kent Street, Hickson Road, Margaret Street, Napoleon Street in particular will affect us. Estimates are 25-75 movements per day including large semi-trailers. This means 1 truck every 6-10 minutes every day. This will cause chaos in Kent Street particularly around the crossing adjacent to the Bridge entry point. This is already a dangerous location and the site of several pedestrian accidents.	<p><i>Average truck volumes are 20-29 veh/day two-way (2 per hour), with a peak construction period loading factor of 3, i.e. 60-87 veh/day (5-7 per hour). The peak loads are only expected on a limited number of short periods of intense activity. Outside these periods volumes are below average.</i></p> <p><i>While the vehicles are identifiable, the traffic impacts are negligible. It is also noted that the current movements generated by the wharf are greater than this and run 24 hours a day. The demolition contractor is required to have in place an incident-recording and management plan for crashes, near crashes and other incidents for trucks used during the demolition works, both on public roads and within the works site. Should corrective action be required, this will undertaken by the demolition project manager and SHFA.</i></p>	<b>YES</b>
<b>Public Submission</b>	<i>The hours of trucks carrying demolition</i>	<b>YES</b>

<p>The proposed demolition traffic management plan includes two routes. Route B is via the Harbour Bridge. The Environmental Assessment Report states, "While these streets are relatively busy they are capable of accommodating heavy trucks and the minor increase in traffic". Experience of daily use of bus services in this area suggests that this statement is grossly misleading. In both morning and afternoon peak periods the roads included in route B are extremely congested. In particular the three intersections at York/Margaret, Margaret/Clarence and Margaret/Kent Streets are prone to gridlock. All bus services from the CBD to the North Shore pass through the Margaret/Clarence intersection and are often delayed by the congestion. There is also very heavy pedestrian traffic at this same intersection. Congestion is likely to get worse when the American Express building on Hickson Road is fully occupied. Demolition traffic should not be permitted to use Route B. If possible movements should be via the water.</p>	<p><i>trucks will be restricted to 9.30am and 3.30pm on weekdays and 8am and 2pm on Saturdays. With this in mind it is considered that Route B can be safely used. The suitability of water-based transport depends on the end destination. If transfers are required elsewhere to road-based transport, the impacts are also transferred to potentially equally or more sensitive areas. Double handling has cost implications.</i></p>	
<p>Concern is raised that the proposal will generate a significant increase in traffic to the area. Demolition traffic should not be permitted to use Route B (via Harbour Bridge) due to the increased congestion it would cause. If possible movements should be via water.</p>	<p><i>The potential for transportation of waste by barge or water transport will be retained as the existing wharves will be unaffected by the proposed demolition works. The feasibility of removing debris and materials for recycling by barge will be investigated by the appointed contractor and will be dependent on the destination of the material, the need for double handling of the material and the local environmental and traffic conditions at the receiving harbour/barge unloading point. However, the proponents preferred method of transport is by heavy vehicles.</i></p>	<p><b>YES</b></p>
<p><b>HOURS OF WORK</b></p>		
<p><b>Barangaroo Action Group:</b> Working hours should be reduced in line with the predominately residential nature of the area to 8:00am to 6:00pm Monday to Friday (excluding public holidays) and 8:00am to 12:00pm Saturdays. The City of Sydney's Standard Construction Hours are 7am to 7pm Monday to Friday and 7.00am to 5.00pm Saturdays.</p>	<p><i>The proposed hours of construction works are less than those permitted by the City of Sydney and to reduce the hours further would be onerous and would increase the overall time of demolition works. The NMP includes measures to reduce the impact of construction noise and with that in place it is considered that the proposed hours of operation are reasonable.</i></p>	<p><b>YES</b></p>
<p><b>Barangaroo Action Group:</b> The proposal seems unacceptable mainly due to the High Noise factor we would propose that it should be re-defined as "Hours of High Noise". As an example from Monday to Friday Hours of work could be 7am to 6pm but "Hours of High Noise" could be 8:30am to 4:30pm. On Saturday Hours of work could be 8am to 12pm and "Hours of High Noise" would be 9am to 12 pm. We should comment that we are not arguing to reduce the overall working hours as the sooner this task is completed the better.</p>	<p><i>See above.</i></p>	<p><b>YES</b></p>
<p><b>Public Submission</b> The proposed hours of work are unacceptable as they will have a significant impact on residents. There will be significant noise generated by heavy equipment including</p>	<p><i>See above.</i></p>	<p><b>YES</b></p>

jackhammers at unacceptable times of the day. Work hours should be reduced to 8:00am to 6:00pm Monday to Friday and 8:00am to 12:00pm on Saturday.		
<b>Public Submission</b> High Level of Noise should be contained from 9am to 4pm Monday to Friday and Saturday 9am to 12pm.	<i>See above.</i>	<b>YES</b>
<b>Public Submission</b> When taking into account the increased vehicle movements to the site during early morning we would prefer that the start time be put back 30 minutes to 7:30am.	<i>See above.</i>	<b>YES</b>
<b>Public Submission</b> We accept that any demolition or development will have noise of some sort. The proposed noise goals in respect of the demolition seem high (+10dB above background noise) and do not allow for any reprieve periods within the hours of work. A comparison of the levels sought against the criteria for other demolition/developments within the city CBD suggests that noise from construction/demolition would not normally exceed 5dB above background noise between the hours of 7am to 8am Monday to Saturday. This seems a more acceptable approach and ensures a reasonable limit to the extent of noise, especially during the morning period. We ask that as a condition of approval, noise constraints be imposed between the hours of 7am to 8am (7:30am to 8:30am if start time is deferred) Monday to Saturday. In addition, a prohibition on jack hammering, rock breaking, saw cutting or the like to be in effect during those hours.	<i>The issues of appropriate noise goals and mitigative measures have been discussed above as has the issue of hours of construction work.</i>	<b>YES</b>
<b>SECURITY</b>		
<b>Public Submission</b> We note your comments regarding security of the site. At the present time, in addition to the security systems that are documented to remain until Stage 2, the site is monitored by mobile security patrol. In view of the size of the site and its accessibility from the waters edge we would prefer that the mobile patrols continue. The patrols provide a visible deterrent to unauthorised access and allow for a faster response in the event of any illegal attempt to enter the site.  We are of the opinion that without regular patrols the site has the potential to become a haven for undesirables, skateboarders and hoons with cars.	<i>24 hour security presence will be maintained on the site. This will be the responsibility of the Demolition Contractor. Should nearby residents notice anything unusual SHFA's 24 hour contact line (1300 655 995) is available to report the incident.</i>	<b>YES</b>
<b>COMMUNITY CONSULTATION</b>		
<b>Barangaroo Action Group:</b> The Application, in Table 3 of Section 5.2 lists a statement of commitments which the applicant states it has completed as required by the Concept Plan. It is noted that not one of the stated activities has involved any community consultation whatsoever, nor have community or local resident views been sought in relation to any of the issues which	<i>The Statutory consultation process has been complied with in regards to the preparation of this Project Application. Should anyone in the community wish to contact SHFA regarding the project they are able to do so by contacting the Stakeholder Manager Major Projects Officer at SHFA on 9240 8893 or if there is an emergency out of office hours, the 24</i>	<b>YES</b>

the applicant was committed to address by the Concept Plan.	<i>hour contact line is available - 1300 655 995</i>	
<b>Public Submission</b> The majority of residential "receivers" in the Millers Point area, i.e. the residents in Stamford on Kent, Georgia, Highgate, Stamford Marque and Observatory Tower, have not been consulted nor even considered in any of the plans. This represents and omission of several thousand directly affected residents who live in the area.	See comment above.	<b>YES</b>

## **APPENDIX D. STATEMENT OF COMMITMENTS**

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### **Environmental management and mitigation measures**

1. Noise, vibration, dust, soil and erosion arising from the proposed demolition works will be managed in accordance with the Environmental and Construction Management Plan (E&CMP) prepared by ERM. The E&CMP will be updated if required. Prior to, and throughout the duration of the demolition works.
2. The necessary approvals and permits required will be obtained prior to demolition works commencing. Prior to works commencing.
3. All operations and activities occurring on the site will be carried out in a manner that will minimise the emissions of dust from the premises.

### **Water Quality**

4. Any works relating to sediment and erosion control measures on the site will be implemented in accordance with "Managing Urban Stormwater – Soils and Construction" (Department of Housing/Landcom 2004) Throughout the duration of the demolition works.
5. Demolition works will be carried out so that no demolition debris falls, flows or is carried to the bed or waters of Sydney Harbour
6. Measures will be implemented to ensure that no sediment, fines or like material will enter the waterway or drainage system. Throughout the duration of the demolition works.
7. Any haybales that are used for erosion, sediment or pollution controls are to be suitably treated and secured so that the potential for seeds or other propagules to enter the marine environment is limited. Throughout the duration of the demolition works.

### **Waste Management**

9. All waste on the premises will be classified according to the EPA "Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes" (2004) prior to waste being removed from the site Throughout the duration of the demolition works.
10. Hazardous materials will be securely covered while transported. Throughout the duration of the demolition works.

### **Heritage**

11. A photographic recording of all buildings and structures to be demolished on the site will be prepared by a qualified and experienced heritage practitioner. Prior to works commencing.
12. Appropriate protection measures will be implemented around heritage items located on the site. In particular the measures included in Section 6.3 of the Heritage Impact Statement prepared by City Plan Heritage will be implemented to protect the Seawall during the demolition process. Prior to, and throughout, demolition works.
13. An appropriately qualified and experience heritage practitioner or archaeologist will be engaged to oversee the removal of footings and any other subsurface work. As required throughout demolition works

14. Should any archaeological remains be found, work will cease and the Heritage Office will be notified in accordance with the requirements of the Heritage Act 1977. As required throughout demolition works

15. The Interpretation Strategy will be further explored and developed during the detailed design phase of the Barangaroo Project and will include details such as budgeting and the identification of stakeholders in relation to the implementation. To be undertaken during the detailed design of either the public domain works or built form.

### **Transport**

16. Demolition works will be undertaken in accordance with the Construction Traffic Management Plan prepared by Jamieson Foley Pty Ltd . Throughout the duration of the demolition works.

17. All construction vehicles will be parked on the site and will not park within the local streets. This includes demolition contractors/staff. Throughout the duration of the demolition works.

18. All demolition vehicles will be washed down prior to leaving the site. Throughout the duration of the demolition works.

19. SHFA will liaise with the RTA and the STA in respect to the capacity of the intersection of York and Market Streets as required. Ongoing

20. Temporary safe pedestrian routes will be provided along the Hickson Road frontage of the site. Throughout the duration of the demolition works.

### **Remediation works / contaminated land**

21. The proposed remedial works will be undertaken in accordance with the Stage 1 Remediation Action Plan (RAP) prepared by ERM. Prior to, and throughout, demolition works.

22. Remediation works will be validated by a suitably qualified environmental consultant. The validation of site works will then be submitted to a NSW DECC accredited Site Auditor for sign off. Immediately following demolition and remediation works.

23. Further more detailed RAPs will be prepared for future stages of the redevelopment of Barangaroo. Ongoing

### **Residential amenity**

24. Noise mitigation measures as outlined by Acoustic Logic Consultants will be complied with. Throughout the duration of the demolition works.

25. Hours of demolition works will be limited to 7am - 6pm, Monday to Friday and Saturday 8am – 2 pm. Throughout the duration of the demolition works

26. If required the Noise Management Plan (NMP) will be updated by the demolition contractor. As required.

### **Stakeholder consultation**

27. Further consultation and information sessions will be held as necessary to communicate the redevelopment process and to ensure all stakeholders have the opportunity to keep up to date on the progress of the redevelopment of Barangaroo. Ongoing

28. SHFA's Stakeholder Manager will formulate a list of stakeholders who wish to be kept regularly up to date on the demolition project. Should anyone wish to be on the register they



should contact the Stakeholder Manager on 9240 8893. As required throughout the duration of the demolition works.

29. A 24 hour contact number will be available throughout the duration of the demolition works which residents can call if there is an emergency (1300 655 995). Should any resident have a complaint or suggestion regarding the carrying out of the demolition works SHFA's Stakeholder Manager can be contacted on 9240 8893 (standard business hours). Throughout the duration of the demolition works.

30. A site notice board will be erected at the main entry to the site which include the following information as a minimum:

- Name of the Demolition Contractor
- Designated contact person for the site, with 24 hour contact details
- Telephone and facsimile numbers and email address

Prior to works commencing on the site.

31. Should out of hours works be required, residents will be given one weeks notice. As required.

### **Site Security**

32. 24 hour security presence will be maintained on the site. This will be the responsibility of the Demolition Contractor. Throughout the duration of the Demolition Works.

### **Sydney Ports Operations**

33. Demolition of the Wharf 8 Passenger Terminal, Sydney Ports Office building and Sydney Ports Amenities building will not occur until a suitable alternative has been approved and constructed to the satisfaction of the Sydney Ports Authority (SPA). Subject to future consultation with the Sydney Ports Authority.

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