

BARANGAROO

HEADLAND PARK & NORTHERN COVE

Preliminary Assessment and Request for
Director-General's Requirements for **Early Works** and **Main Works** Project Applications



M|G Planning
URBAN PLANNERS

BARANGAROO SYDNEY AUSTRALIA



BARANGAROO

HEADLAND PARK AND NORTHERN COVE

PRELIMINARY ASSESSMENT AND REQUEST FOR
DIRECTOR-GENERAL'S REQUIREMENTS FOR EARLY
WORKS AND MAIN WORKS PROJECT APPLICATIONS

Submitted to: DEPARTMENT OF PLANNING –
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NB: 3D image on front cover showing whole of Barangaroo site has been included for context only. Please note this application relates to the Headland Park and Northern Cove area only.

1. INTRODUCTION

1.1 PURPOSE OF THIS REPORT

The Barangaroo Delivery Authority (the Authority) is seeking the Minister for Planning's approval of two project applications (PAs) for works to create the proposed Barangaroo Headland Park and Northern Cove under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed PAs relate to (1) Early Works; and (2) Headland Park Main Works.

This purpose of this report is to:

- provide an overview of the proposed works;
- identify the key environmental assessment issues likely to be associated with each of stages of the Headland Park's development; and
- provide a brief examination of the likely extent and nature of any potential impacts.

This information is intended to provide a basis for the Director-General of the Department of Planning to issue the requirements for the preparation of Environmental Assessments.

This report has been prepared by MG Planning Pty Ltd on behalf of the Authority, the proponent for the project.

1.2 BACKGROUND

Barangaroo (formerly East Darling Harbour) is a 22 hectare area of Sydney's harbour foreshore immediately adjoining the western edge of Sydney's CBD which has been identified for urban renewal by the NSW State Government. The redevelopment of the Barangaroo site with its 1.4km foreshore to Sydney Harbour will provide for approximately half of the site to be dedicated to open space and public domain with a new Headland Park at the northern end. The site will also deliver approximately 500,000m² of commercial, residential, tourism, retail and community space in the development zone and around 11 hectares in the public domain. It will accommodate over 22,000 workers and residents and attract in the order of 12 million visitors each year.

On 9 February 2007 the Minister for Planning approved the Concept Plan for the site and on 12 October 2007 the land was rezoned to facilitate its redevelopment via an amendment to Schedule 3 of the Major Projects SEPP.



□ The Site

Figure 1: The Barangaroo Site

The Concept Plan dedicates the western and northern halves of Barangaroo to parkland and public open space. The proposed Headland Park and Northern Cove will be located in the northern part of the site and “will create an iconic place that reflects its prominent location in the string of harbour headlands that include, among many others, Mrs Macquarie Point, Ballast Point, Balls Head and Goat Island” (“Barangaroo Consolidated Concept Plan 2007”, Sydney Harbour Foreshore Authority, p.72).

Since 2007 work has progressed on the planning for Barangaroo including an extensive tender process for development of Stage 1 of the development comprising Blocks 1 – 4. On 20 December 2009 Lend Lease was appointed as the preferred proponent to develop Stage 1 of the site. On 23 February 2009 the winning scheme was placed on public exhibition and the government announced the design consultants selected to work with the Authority to design the new Headland Park and other public spaces

1.3 APPROVED CONCEPT PLAN

The Concept Plan as originally approved by the Minister for Planning contemplated an urban structure comprising 11 hectares of foreshore promenade and public domain, street patterns and development blocks. The public domain includes a new Headland Park at the northern end of Barangaroo, new Northern Cove and Southern Cove water insertions and car parking under the Headland Park to ensure community access to the park.

On 11 November 2009 the Minister for Planning approved a modification to the Concept Plan which was primarily aimed at achieving a more naturalised design for the northern headland. The modification was prepared in response to the requirement in the Minister's Terms of Approval requiring further detailed design for the northern headland and northern cove, particularly:

- the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland; and
- an enlargement of the northern cove and a greater naturalised shape, form and edges including treatment surrounding the cove.

The approved modified design for the Headland Park and North Cove also resulted in the following amendments to the Approved Concept Plan:

- the removal of Block 8 and part of Block 7; and
- subject to heritage impact assessment and consideration of options for re-use/relocation, in principle agreement to the demolition of three items which are listed on Sydney Ports and Sydney Water Section 170 Heritage Registers - the Sydney Ports Harbour Control Tower, the MWS&DB Sewage Pumping Station and the sandstone seawall along the north-western edge of the site.

Figure 2 below shows the revised urban structure for the Barangaroo site resulting from this modification to the Concept Plan. Figure 3 shows the Headland Park in further detail.



Figure 2: Approved Urban Structure (amended Concept Plan)



Figure 3: Headland Park design developed profile

2. PROJECT APPLICATIONS

The Authority is proposing to lodge two PAs relating to the Headland Park and Northern Cove. Both applications are consistent with the Approved Concept Plan (as modified) and do not require any additional modifications.

The PAs will relate to that part of the site shown in Figure 4 below:



Figure 4: Area covered by Headland Park Project Applications

The Project Applications will relate to both the Headland Park and Northern Cove parts of the site as delineated on Figure 4 above. The detailed design of the Northern Cove part of the site will also have regard to future planning for the Central Parklands contained within Stage 2 of the site (Blocks 5, 6 and part of 7).

It is proposed to stage the works required to construct the Headland Park, allowing for early commencement of preliminary works while the detailed design is progressed. It is therefore proposed that individual Environmental Assessments will be submitted for (1) Early Works and (2) Main Works with relevant as follows:

2.1 EARLY WORKS

This PA will seek approval for the early works required to prepare the site for the construction of the Headland Park. The early works will include three main components:

1. bulk earthworks;
2. sandstone extraction program; and
3. retention / relocation (yet to be determined) of the MWS&DB Sewage Pumping Station and network.

These components are outlined in further detail below:

1. Demolition and Bulk Earthworks

These works will include:

- Site enabling works such as:
 - Demolition of above ground structures (excluding Sydney Port Harbour Control Tower), ground slabs, footings and light poles;
 - Decommissioning of existing redundant site services (HV electrical, stormwater, water);
 - Establishment of a construction compound including sheds and site hoardings;
 - General preparation of site for bulk earthworks; and
 - Installation of temporary services for construction.
- Placement of fill as part of the formation of the final landform - It is estimated that the Headland Park part of the Barangaroo site will receive approximately 300,000m³ of material from the Stage 1 basement excavation works. This material will be utilised for placement and compaction on site or for temporary stockpiling. Site levels following receipt of fill will be as approved in the Concept Plan with an allowance reserved for final design.

The proposed early works project application will seek approval to commence site establishment works while the detailed design work for the Headland Park continues.

Matters that will need to be considered in regard to the demolition and bulk earthworks include:

- Filling and stockpiling;
- Consistency of fill placement with final design to avoid redundant work;

- Human health environmental risk assessment (HHERA) requirements including the establishment of acceptance criteria for Public Open Space use in relation to fill received from Stage 1;
- Environmental management during construction to prevent adverse impact on the environment including the harbour and surrounding residential areas;
- Short and long term stability of the site and newly compacted material; and
- Provision of any new buried services within the early works fill placement.

2. Sandstone extraction program

The early works includes extraction of up to 60,000m³ of rough sawn sandstone blocks for reuse within the Barangaroo site from beneath the existing apron in the area. Geotechnical investigations have indicated that a substantial area of quality medium to hard Hawkesbury Sandstone exists beneath the slab at the base of and adjacent to the cliff face near the current surface level.

The sandstone extraction program will be undertaken from site after the removal of the concrete slab and general fill material down to bedrock. This material depth is between 500mm and 2m below current surface.

Removal of the sandstone material is proposed through a method of large rocksaw and other earth moving equipment, depending on the use of the stone. Rocksaws will be used to cut the sandstone into a variety of rough sawn blocks, removed from the extraction area by crane and stockpiled for later use in engineered retaining walls, seawalls, kerblines, general landscaping, landscaping pavers and facades etc. Rock hammers will also be used to break large boulders for reuse in the naturalistic landscape of the parkland and marine edge. The remaining rubble from these activities will be reused as either ballast or crushed for road and paving base.

Consideration will be given to the following matters in relation to the proposed sandstone extraction:

- Staging of stone extraction, filling and stockpiling;
- Size and depth of extraction area;
- Quality of material for various applications;
- Sustainability and heritage benefits;
- Management of groundwater inflows during construction and long term;
- Control of ground movements adjacent to extraction area to ensure stability;
- Environmental management during construction to prevent adverse impact on the environment including the harbour and surrounding residential areas; and

- Future use of the void as a storage area for bulk earth material from other site works and/or underground building use.

3. Retention / relocation (yet to be determined) of the Sewage Pumping Station and Network

To allow for the development of the Headland Park, the existing Sewage Pumping Station Sydney Water assets and its network of pipes will need to be either buried in-situ, relocated on site or relocated to a site nearby. This is particularly due to the fill requirements of the parklands to be formed above the facility. As detailed in the Statement of Commitments (SoC) for the Approved Concept Plan (Commitments 48 and 48A) a heritage impact statement is to be prepared to consider the options including:

- *Retention of the Pumping Station in situ albeit buried, as a future archaeological resource; or*
- *Its relocation and adaptive reuse within the Barangaroo site (including a recommended methodology for this course of action); or*
- *Its relocation to a relevant location (including a recommended methodology for this course of action); or*
- *Recommendations for its interpretation both within the Barangaroo site and elsewhere, should the study conclude that this is the appropriate course of action*

The heritage impact statement will be prepared in consultation with a heritage experienced engineer to ensure minimal alteration and damage to the structure. Moving the whole structure in one piece should be investigated.

If the heritage impact statement recommends either relocation or demolition, archival recording of the structure will be undertaken. The archival recording will be prepared in accordance with the NSW Heritage Office Guidelines.

It is proposed that the heritage impact statement and services feasibility report be undertaken and a recommended course of action be determined for the future of the Sewage Pumping Station and network. Following this it is intended that recommended course of action be approved as part of the Early Works Project Application.

Matters to be considered in relation to the retention / relocation of the sewerage pumping station include:

- Heritage significance, potential impact and opportunities for interpretation;
- Sydney Water Section 170 Register listing;
- Need for archival recording;
- Archaeological assessment;

- Impact on services etc.

2.2 HEADLAND PARK MAIN WORKS

This application will seek approval for the works required to construct the final Headland Park design. The main works will include:

1. Demolition or modification (yet to be determined) of Sydney Harbour Control Tower.
2. Shaping of the shoreline including creation of the Northern Cove.
3. Detailed design of the Headland Park.

These components are outlined in further detail below:

1. Demolition or Modification of Sydney Harbour Control Tower

The original Concept Plan flagged demolition of the Sydney Harbour Control Tower however further consideration is required to determine whether the Tower is demolished or retained in situ. If retained in situ the supporting base (cylindrical concrete pedestal) of the structure may be partially buried to create the new landform. Further options for the treatment of the Tower will be assessed and the preferred option included and addressed in the Headland Park main works EA.

2. Shaping of the shoreline including creation of the Northern Cove

This work will involve extraction of approximately 150,000 m³ of material within or behind the existing caissons and seawall that form the current edge of the site. A new seawall or other alternate treatment will be constructed at the new shoreline and then material will be removed from behind the caissons /existing seawall. The existing caissons / seawall will then be removed allowing the harbour to enter the site in the location of the northern cove and along the new shoreline. The dismantled existing sandstone seawall will be reused on site.

Material extracted to form the final landform will be reused on site. Appropriate best practice environmental management measures will adopted to ensure no adverse impact on water quality within the Harbour.

3. Detailed Design of Headland Park

This component will seek approval of the final Headland Park design including the final landform (made up of available excavated fill and potentially, if required, a structure to form the headland profile), landscape design, stormwater strategy, services and infrastructure, pedestrian pathways, Globe Street “extension’, car park within headland, park amenities and heritage interpretation.

It is the intention to balance cut and fill across the site which will support sustainability outputs for the project (for example limiting the need for transportation of material off site). The final composition of the headland profile (fill and structure) will be dependent on the cut and fill balance and the timing of fill availability. The construction program targets completion of the park by 2014 however a contingency volume may be required to accommodate fill from the remainder of the site at a later date. Alternatively a structure may be required in part to establish the headland in addition to compacted fill. This will be further clarified as part of the upcoming EA.

The EA would include all relevant specialist information to enable the construction of the Headland Park.

2.3 STAGING

The Authority's program for the PAs is as follows:

Project Application	Lodge	Est. Approval	Commence	Completion
Early Works	May 2010	Aug. 2010	Sept. 2010	Dec. 2010
Main Headland Park Works	July 2010	Dec. 2010	Jan. 2011	2014

3. PRELIMINARY ASSESSMENT

The following Preliminary Assessment identifies the key potential environmental issues arising from the early works and main works. This information has been prepared to assist the Director-General of the Department of Planning in identifying requirements for preparation of the Environmental Assessments which will accompany the PAs.

A brief description of the likely nature and extent of potential impacts and the level and scope of assessment proposed is included below. It should be noted that no significant impacts are anticipated as a result of the proposed works.

3.1 KEY ISSUES

As outlined above it is proposed to lodge two individual PAs for works related to the construction of the Headland Park. It is requested that the Director General issue the requirements for the preparation of environmental assessments to accompany each project application. The key environmental considerations associated with the proposed works as follows:

- Compliance with Concept Plan Approval and Major Development SEPP listing;
- Design Excellence;
- Urban Design and Public Domain treatment;
- Landscape Design
- Traffic and Parking;
- Heritage and Archaeology;
- Water Management (including management of ground water and harbour water during construction);
- Noise;
- Air Quality;
- Utilities and Services;
- Contamination;
- Sustainability;
- Geotechnical considerations;
- Crime Prevention through Environmental Design;
- Visual Impact and Views; and

The matrix below identifies issues relevant to each of the proposed PAs:

Issue	Project Application	
	Early Works	Main Works
Compliance with Concept Plan Approval and Major Development SEPP listing	Yes	Yes
Design Excellence	No	Yes
Urban Design and Public Domain treatment	No	Yes
Landscape Design	No	Yes
Traffic and Parking	Yes (construction)	Yes
Heritage and Archaeology	Yes	Yes
Water Management	Yes (construction)	Yes
Noise	Yes (construction)	Yes
Air Quality	Yes (construction)	No
Utilities and Services	Yes	No
Contamination	Yes	No
Sustainability	Yes	Yes
Geotechnical considerations	Yes	No
CPTED	No	Yes
Visual Impact and Views	No	Yes

3.2 COMPLIANCE WITH CONCEPT PLAN APPROVAL AND MAJOR DEVELOPMENT SEPP LISTING

Both the early works and main works are intended to be consistent with the approved Concept Plan (as modified) and provisions contained within the Major Development SEPP. At this stage, it is not envisaged that any modifications to the Concept Plan will be required as a result of the proposed works. Further each of the Environmental Assessments will address the requirements outlined in the SoC.

The Environmental Assessments for each project application will include a detailed assessment of compliance with the Approved Concept Plan and the relevant SoC. The Environmental Assessment for the main works will also demonstrate compliance with the “*Barangaroo Headland Park Design Strategy Review*” prepared by Conybeare Morrison (September 2008) as required by the SoC (Commitment No 104).

3.3 DESIGN EXCELLENCE

The achievement of design excellence is paramount for the development of Barangaroo. The objective is to create the opportunity for world class architectural and urban design outcomes that enhance Barangaroo, respect the built surrounds, engage the Sydney CBD with the harbour’s edge and provide a new façade expressing design excellence to the western edge of the city. Further, the aim is to develop a new environmentally and ecologically sustainable city precinct that brings together world leading environmental building design and innovation. The achievement of design excellence also extends to the public domain and the extensive parklands that will characterise the site.

The main works Environmental Assessment will need to demonstrate that these objectives can be appropriately met and that quality design and ESD outcomes are achieved. Appropriate graphic representations of the urban design and public domain will be included in the EA report.

3.4 URBAN DESIGN AND PUBLIC DOMAIN TREATMENT

With respect to the Headland Park, the Approved Concept Plan notes that:

The Headland Park will complete the archipelago of green headlands that define Sydney's western harbour... The landscape of the park will take its cues from the family of surrounding promontories ... The future design of the park will include forms that interpret the pre-existing built forms and shoreline.

It is intended that the Headland Park will become an iconic headland park at the northern end of the Barangaroo site to complement the headland parks of Sydney Harbour such as Goat Island, Ballast Point and Balls Head.

A set of governing principles and aims have been developed for the public domain at Barangaroo. These are intended to complement the broader Barangaroo Project urban design principles as outlined in the Approved Concept Plan. The proposed design for the Headland Park, as detailed in the main works EA, will be assessed against these governing principles. The EA will also assess the proposal against the broad objectives and principles for Barangaroo.

The SoC identifies the requirement for a Public Domain Plan for Barangaroo. As part of the Headland Park Modification to the Concept Plan, a commitment was included that within the framework of the Public Domain Plan, a Headland Park Sub-Plan will be prepared for the Headland Park. This Sub-Plan is to address:

- all planning, accessibility and design issues related to the connectivity of the Headland Park to its surrounding environment;
- incorporate traffic and transport planning, event management and recreational capacity;
- proposals and options to increase cultural experiences at the Headland Park;
- measures to provide for diverse activation of the parklands while being sensitive to local community needs;
- Crime Prevention Through Environmental Design (CPTED) safety strategies;
- heritage conservation and adaptive reuse as part of the urban and landscape design, including management and interpretation (refer also Commitment No. 60); and
- Sustainability program for the Headland Park at design, construction and operations stages.

The Headland Park Sub-Plan is to be submitted with the main works PA. In addition, the SoC (Commitment No 12B) requires that a Recreational Plan be prepared to inform the Headland Park Sub-Plan, which will consider the following:

- the desires of the general and local communities;
- transport needs and connections;
- activation of the parkland spaces;
- cultural and recreational needs;
- the park location and space capacity constraints including the relationship to the increasing population of the city and Barangaroo
- universal access; and
- operation times, events and management.

The Recreation Plan will similarly be submitted with the main works PA.

3.5 LANDSCAPE DESIGN

The main works Environmental Assessment will include the final landscape design for the Headland Park in the form of a detailed landscape plan prepared by a qualified designer that will achieve the objectives for the precinct as outlined above. It will include, among other matters:

- a hierarchy of spaces;
- detailed levels, edge conditions and pedestrian pathways;
- materials and plantings (including planting of non invasive plant species as required by Commitment 68);
- street furniture;
- lighting;
- public art;
- way finding strategy;
- signage; etc

The Environmental Assessment will incorporate an assessment of the landscape design against best practice measures and relevant guidelines.

3.6 TRAFFIC AND PARKING

The Environmental Assessment Reports for both the early works and main works will be supported by Traffic Impact Assessments that consider traffic impacts associated with each of these stages of the Headland Park's development. In the case of the early works, the main traffic will be that associated with bringing the fill onto the site and sandstone extraction. For the main works, there will be both construction and operational traffic impacts that will need to be assessed.

The Traffic Impact Statement for the main works will include an assessment of:

- assumptions used in calculating traffic estimates;
- likely traffic impacts on local street network and intersections;
- public transport usage and mode split assumptions;
- required improvements to surrounding road network;
- pedestrian and cycle accessibility;
- vehicular access in and around the site; and
- parking usage and availability.

Construction Traffic Management Plans will be prepared to consider the construction impacts on both the early works and main works.

The Minister's Terms of Approval requires the preparation of a Transport Management and Access Plan (TMAP) for the proposed development. The TMAP is required to provide details in relation to public transport, traffic and pedestrian access between the Barangaroo site and Wynyard. The TMAP is currently being prepared and will address traffic and access issues associated with development of the Headland Park and Northern Cove as part of its overall assessment of the site's transport and access needs.

3.7 HERITAGE AND ARCHAEOLOGY

The proposed early works and main works will potentially result in some heritage and archaeological impacts. These impacts will be assessed in the respective EAs.

As noted above, the SoC requires that a heritage impact statement be prepared in relation to the MWS&DB Sewage Pumping Station which will include an examination of the potential for relocation and adaptation of the structure. This assessment will be included in the early works EA.

In relation to the Main Headland Park Works PA a further heritage impact assessment will be undertaken to determine the impact of removal of the sandstone seawall (Commitment

57) and demolition / partial burying of the Sydney Harbour Control Tower (Commitment 59). This assessment will include proposed measures to be taken to mitigate any adverse impact.

Further in accordance with the SoC (Commitment Nos 60, 60A – 60C inclusive) an Archaeological Assessment will also be prepared to cover the entire site area and will be submitted with the Early Works PA. It will identify areas of both terrestrial and maritime archaeological potential and provide guidelines and strategies for the management of archaeological resources. It will also identify mitigation strategies including archaeological monitoring during construction works.

3.8 WATER MANAGEMENT

The SoC (Commitment Nos 22-25) require the preparation of an Integrated Water Management Plan for the entire Barangaroo development prior to the lodgement of any relevant project application other than for demolition or early/site preparation work and remediation. This Plan is to address water demand management, wastewater management and stormwater management and include:

- an investigation of a “fit-for-purpose” approach to alternative sources of water for substitution of potable mains water for non-potable use. In line with BASIX water efficient appliances and fixtures are to be used for potable water demand management throughout the development.
- investigation of schemes to manage wastewater from the residential and commercial buildings as a resource, with wastewater treated and recycled as an alternate source of non potable water, especially with regard to public open space irrigation.
- an investigation of the feasibility of on-site treatment of stormwater from external catchments at Millers Point, to national best practice standards. Opportunities to integrate the design of Water Sensitive Urban Design (WSUD) elements (such as detention ponds) into the public domain, parks and built form are to be explored.

The EA for Early Works will identify potential construction impacts on Harbour and groundwater and any appropriate mitigative and management measures to ensure water quality is protected.

The EA for the Main Headland Park Works will include an integrated water management plan for the Parkland consistent with the broader Plan for the entire Barangaroo site. It will have regard to future development on the remainder of the Barangaroo site.

3.9 NOISE AND VIBRATION

There will be noise and vibration impacts arising from both the proposed early works and main works. Impacts will primarily be restricted to the construction phase (as a result of the proposed sandstone extraction and fill compaction) however the final use of the site as a

public parkland may have some noise impacts, especially during major events. To address these matters a Noise Impact Assessment and Mitigation Measures Report (as required by Commitment No 84) will be prepared by an acoustic consultant for inclusion of each of the respective EAs. These reports will address the proposed construction methodology, will identify relevant impacts and will recommend mitigation measures to ameliorate adverse impacts. In relation to the Main Headland Park Works PA, the report will also assess the impact and required mitigation measures of the final use.

3.10 AIR QUALITY

The proposed works have the potential to result in air quality impacts during the construction phase due to dust emissions and exhaust fumes. These matters will be addressed in the Environmental and Construction Management Plan to be prepared for each application. Matters to be addressed will include:

- assessment of potential impacts from demolition, extraction and compaction activities, wind, vehicle emissions etc;
- required measures to address likely impacts;

3.11 UTILITIES AND SERVICES

Whilst the site is currently serviced for electricity, gas, sewer, water, stormwater and telecommunications, the infrastructure in most cases will not be adequate to provide for the new development and major upgrades have been proposed.

The SoC (Commitment No 20) requires the preparation of a Utility Services Infrastructure Plan prior to the lodgement of any relevant project application other than for demolition or early / site preparation work and remediation.

A suitable expert will be engaged to prepare a Utility Services Infrastructure Plan for the site as part of the main works PA. The Plan will address matters outlined in the SoC (Commitment Nos 20 and 21 as relevant).

3.12 CONTAMINATION

Contaminated materials have been identified within the park area due to historical filling and reclamation activities but groundwater has been shown to be only marginally impacted and to require no remediation. The contamination within the fill materials can be managed in situ by ensuring the fill materials are capped so that users of the park have no exposure to the contaminants and by implementation of a long term environmental management plan. Further consideration of potential contamination and appropriate treatment measures will be included in the early works EA.

It should be noted that the Headland Park and Northern Cove are located outside the area declared to be a remediation site under the *Contaminated Land Management Act 1997* (Declaration No. 21122, Area No. 3221).

It is proposed to receive fill on the site as part of the Early Works PA from excavation being undertaken on the Stage 1 part of the Barangaroo site. This fill will be meet HHERA (Human Health Environmental Risk Assessment) criteria, as agreed with the Department of Environment, Climate Change and Water (DECCW). The criteria to be established will reflect the proposed public use of the site. Excavated fill will meet the relevant HHERA criteria to ensure that it is acceptable to remain on the site and that there will be no unacceptable risk of harm to human health or any other aspect of the environment.

The Environmental and Construction Management Plan, to be submitted with the Early Works PA, will set out relevant procedures to ensure receipt of acceptable fill only.

3.13 SUSTAINABILITY

The approved Concept Plan requires that future applications are accompanied by sustainability strategies that address water, energy, micro-climate, environmental quality / amenity, landscape, transport, waste and materials for the development. The ESD Strategy is to demonstrate how the development satisfies key performance indicators for each of the ESD focus areas (refer Commitment Nos 64 – 71 as relevant). An ESD Strategy will be included in the main works EA which will address this requirement.

3.14 GEOTECHNICAL AND STRUCTURAL ENGINEERING CONSIDERATIONS

A geotechnical assessment will be included in the early works EA which will address a range of matters, in particular, the structural stability of the sandstone extraction and filling activities on the site as well as structural integrity of the construction of the Northern Cove.

Structural engineering considerations of constructing the proposed car park within the headland will be addressed in the main works EA.

3.15 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

The SoCs requires that any development is undertaken in accordance with CPTED principles and that this is to be demonstrated in any future relevant PAs. In particular, the Headland Park Sub Plan is required to identify CPTED strategies for incorporation into the detail design of the park.

An assessment of the final Headland Park design against CPTED principles and identification of strategies to minimise crime and ensure public safety will be included in the main works EA.

3.16 VISUAL IMPACT AND VIEWS

The main works Environmental Assessment will include an assessment of the visual impact of the proposed final design of the Headland Park when viewed from significant vantage points and from areas surrounding the site. In particular an assessment will be made of the impact on significant views identified within the Concept Plan and the SoC (Commitments 50 and 51). Photomontage images will be prepared to demonstrate the impact of the proposed works.

4 CONCLUSION

The information contained in this preliminary assessment is to assist the Director-General in determining the matters to be addressed in the Environmental Assessments for (1) early works and (2) main works associated with the development of the Barangaroo Headland Park and Northern Cove.

The proposed works are consistent with the Approved Concept Plan and do not require any modifications.

Potential impacts associated with both stages have been identified in this Preliminary Assessment. It is envisaged that none of these impacts will be significant and any potential impacts can be readily addressed through appropriate mitigation measures.

Having regard to this preliminary assessment it is requested that the Director-General issue the requirements for the preparation of the both the Early Works and Main Works Environmental Assessments.



APPENDIX 1



Concept Plan - Terms of Approval

Modification of Major Project Approval

Section 75W of the *Environmental Planning & Assessment Act 1979*

I, the Minister for Planning, modify under S.75W of the *Environmental Planning and Assessment Act 1979*, the Concept approval referred to in Schedule 1 in the manner set out in Schedule 2 and the Statement of Commitments set out in Schedule 3.



The Hon. Kristina Keneally MP
Minister for Planning

Date:

11 Nov. 2009.

MP06_0162 MOD 3

SCHEDULE 1

Concept approval for Barangaroo, East Darling Harbour (MP06_0162) granted by the Minister for Planning on 9 February 2007 comprising:

- A mixed use development involving a maximum of 388,300m² gross floor area (GFA), comprised of:
 - (a) a maximum of 97,075m² (or 25%) and a minimum of 58,245m² (or 15%) residential GFA;
 - (b) a maximum of 50,000m² GFA for tourist uses;
 - (c) a maximum of 39,000m² GFA for retail uses; and
 - (d) a minimum of 2,000m² 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 8,500m² GFA for a passenger terminal and a maximum of 3,000m² 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 a partial new shoreline to the harbour.
- Retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking.

SCHEDULE 2

Part A – TERMS OF APPROVAL

Delete A1 and replace with:

A1 Development Description

Concept approval is granted only to the carrying out of the development solely within the Concept Plan area as described in the documents titled "**East Darling Harbour State Significant Site Proposal, Concept Plan & Environmental Assessment (Volume 1 & 2)**" prepared by JBA Urban Planning Consultants & SHFA (dated October 2006), amended by **Barangaroo Part 3A Modification Report (Volume 1 & 2)** prepared by MG Planning Pty Ltd & SHFA (dated June 2008) and amended by **Barangaroo Part 3A Modification Report – Headland Park and Northern Cove** prepared by MG Planning Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated January 2009 including:

- (1) A mixed use development involving a maximum of **489,500m²** gross floor area (GFA), comprised of:
 - (a) a maximum of 97,075m² and a minimum of 58,245m² residential GFA;
 - (b) a maximum of 50,000m² GFA for tourist uses;
 - (c) a maximum of 39,000m² GFA for retail uses; and
 - (d) a minimum of 2,000m² GFA for community uses.
- (2) 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.
- (3) A maximum of 8,500m² GFA for a passenger terminal and a maximum of 3,000m² GFA for active uses that support the public domain within the public recreation zone.
- (4) Built form design principles, maximum building heights and GFA for each development block within the mixed use zone.
- (5) Public domain landscape concept, including parks, streets and pedestrian connections.
- (6) Alteration of the existing seawalls and creation of a partial new shoreline to the harbour.
- ~~(7) Retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking until Sydney Ports confirms operations have been relocated.~~

Delete A2 and replace with:

A2 Development in Accordance with Plans and Documentation

- (1) The following plans and documentation (including any appendices therein) are approved as part of the Concept Plan:

- (a) **East Darling Harbour State Significant Site Proposal Concept Plan and Environmental Assessment (Volume 1) and Appendices (Volume 2)** prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated October 2006.

Except as modified by

- (b) **Barangaroo Part 3A Modification Report (Volume 1) and Appendices (Volume 2)** prepared by MG Planning Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated June 2008, and
- (c) **Barangaroo Part 3A Modification Report – Headland Park and Northern Cove** prepared by MG Planning Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated January 2009.

- (2) The following Preferred Project Report including a revised Statements of Commitment are approved:

- (a) **Response to Department of Planning and Revised Statement of Commitments** prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated January 2007.

Except as modified by

- (b) **Preferred Project Report Barangaroo Part 3A Modification – Commercial Floor Space and Revised Statement of Commitments and Preferred Project Report Addendum** prepared by MG Planning Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated October 2008, and
- (c) **Preferred Project Report Barangaroo Part 3A Modification Report – Headland Park and Northern**

Cove prepared by MG Planning Pty Ltd on behalf of the Barangaroo Development Authority and dated September 2009 and Preferred Project Report Addendum Map prepared by the Barangaroo Development Authority dated September 2009 (Revision F).

- (3) In the event of any inconsistencies,
- (a) the revised Statement of Commitments in Schedule 3 of this approval prevails to the extent of any inconsistency in the plans and documentation identified in (1), and
 - (b) the modifications of the Concept Plan approval identified in Part B & C Schedule 2 prevail over the documentation listed in (1), (2) and (3) (a) above.

Delete A4 and replace with:

A4 Determination of Future Applications

- (1) The determination of future applications for development is to be generally consistent with the terms of approval of Concept Plan No. 06_0162 as described in Part A of Schedule 1, and subject to the modifications of approval set out in Parts A, B & C of Schedule 2, except as provided in (2) below.

Part B – MODIFICATIONS TO CONCEPT PLAN

Delete B1 and replace with:

B1. Public Domain – Northern Headland

- (1) Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the northern headland 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) above are to address the following requirements and objectives:
- (a) the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland;
 - (b) encourage pedestrian permeability along the foreshore, with links to Hickson Road, Argyle Place, Towns Place and "Globe Street";
 - (c) ensure adequate surveillance of the park to enhance security while limiting vehicular access into and through the park;
 - (d) a welcoming aspect when approaching the northern headland from the south along "Globe Street" and Hickson Road, in landform, materials, accessibility and view lines;
 - (e) public safety through the day and night considering surveillance, lighting, planting and materials; and
 - (f) the impact on and the treatment of the Sewage Pumping Station.
- (3) The above redesign may include provision of a public car park within the headland.

Delete B4 and replace with:

B4 Built Form

- (1) Approval is given to a mixed use development involving a maximum of **489,500m²** gross floor area (GFA), comprised of:
- (a) a maximum of 97,075m² and a minimum of 58,245m² residential GFA;
 - (b) a maximum of 50,000m² GFA for tourist uses;
 - (c) a maximum of 39,000m² GFA for retail uses; and
 - (d) a minimum of 2,000m² GFA for community uses.
- (2) Despite (1) above future project applications are not to exceed the GFA, maximum residential GFA and building heights specifically identified in table (2)(a) below, except as provided for in C1(1).
- (a) Development Blocks:

	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7
GFA	11,800m ²	211,907m ²	85,568m ²	121,000m ²	41,225m ²	3,000m ²	15,000m ²
Residential GFA (Max)	-	20,000m ²	9,575m ²	25,000m ²	15,000m ²	-	14,000m ²
Height (Max AHD)	RL 62	RL 180	RL 112	RL 100	RL 34	RL 29	RL 35
Height above existing ground level	60 m	178 m	110 m	98 m	32 m	27 m	33 m

- (3) The specific forms contained in *Section 13.0 - Built Form* of the EA are not approved as part of this approval. This is due to concern that appropriate street edges and forms are not provided to Hickson Road and "Globe Street" (see additional design principle below). Not approving indicative building forms also allows evolution of design excellence.
- (4) Despite (3) above future project applications are to provide a comparison, and outline any variations from, the urban design principles outlined in Section 7.3.3 of the Barangaroo Part 3A Modification Report dated June 2008 and the objectives of the Performance Based Urban Design Controls set out in the Preferred Project Report Barangaroo Part 3A Modification dated October 2008.
- (5) Despite (4) above future project applications are to demonstrate consistency with the Built Form Controls identified by modification B9.
- (6) Future project applications for buildings within Blocks 2, 3, 4 and 5 may accommodate a redistribution of GFA (but not in excess of the total area for those blocks) resulting from the Built Form Controls identified in modification B9.

Add Modification B10 – Lightweight Bridge, floating Dock or Pontoon as follows

B10. Lightweight Bridge, Floating Dock or Pontoon

The construction of a lightweight bridge, floating dock or pontoon to facilitate pedestrian movement over the Northern Cove to continue the axis of Globe Street is to be investigated during the preparation of the further detailed design plans for the Northern Cove and these plans are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works in the vicinity of the Northern Cove.

SCHEDULE 3

Proponent's Statement of Commitments

Barangaroo Concept Plan Statement of Commitments

Subject	Commitments	Timing
<p>Design Excellence Strategy</p>	<p>1. A Design Excellence Strategy that clearly articulates a process to achieve quality in both the private built form and the detailed design of the public domain (streets, pedestrian connections, parks and squares) is to be prepared.</p> <p>2. The Design Excellence Strategy may include the preparation of site specific design guidelines, articulate a process(es) for the conduct of design competitions for major developments and the design of public open spaces, and / or establish a competitive tender process for individual development site(s).</p> <p>3. A Technical Working Group is to be established to prepare the Design Excellence Strategy. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce or equivalent body (under its terms of reference dated 26 November 2006).</p> <p>4. The Terms of Reference for the Technical Working Group is to be consistent with the requirements for preparation of the Design Excellence Strategy specified in this Statement of Commitments and are to be endorsed by the Barangaroo Taskforce or equivalent body.</p> <p>5. The Design Excellence Strategy is to be submitted by the Working Group to the Barangaroo Taskforce or equivalent body. The Barangaroo Taskforce or equivalent body will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent will report to the Barangaroo Delivery Authority Board on recommendations from the Working Group.</p> <p>6. Following endorsement, the Design Excellence Strategy is to be made publicly available in a manner to be determined by the Barangaroo Taskforce or equivalent body.</p>	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application relating to buildings or to the establishment of the public domain, other than for demolition or early/site preparation work and remediation.</p>
<p>Provision and Financing of Social and Physical Infrastructure</p>	<p>7. The following Implementation Plans will be prepared for the site as a whole and / or for specific components or stages of the project:</p> <ul style="list-style-type: none"> ▪ Public Domain Plan(s); ▪ Transport Management Plan & Access Plan; ▪ Community & Social Plan(s); and ▪ Utility Services Infrastructure Plan(s). <p>8. The Implementation Plans are to:</p> <ul style="list-style-type: none"> ▪ Verify the scope and accurately cost all of the social and physical infrastructure needed to support the proposed development. ▪ Identify the relevant requirements for timing and staging of provision of that facility, service or physical infrastructure. ▪ Identify any relevant Government agency policy initiatives that will need to be in place to deliver specific outcomes. ▪ Provide details with respect to the funding mechanism(s) for delivery of the identified infrastructure. ▪ Provide sufficient detail to enable the proponent to enter into planning agreements with developers, relevant Government agencies, the City of Sydney 	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application relating to buildings or to the establishment of the public domain, other than for demolition or early / site preparation work and remediation.</p>

Subject	Commitments	Timing
	Council and / or the Minister for Planning if and as required, to collect contributions for the provision of infrastructure either through a cash contribution or works-in-kind or both.	
	<p>9. Technical Working Groups are to be established to prepare the Implementation Plans. The membership of the Working Groups is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006) or equivalent body, and may include or consult with representatives from the Sydney Harbour Foreshore Authority, Department of Planning, City of Sydney Council, State Transit Authority, Sydney Ferries Corporation, Railcorp, Sydney Ports, NSW Maritime, Department of Housing, NSW Roads and Traffic Authority, Sydney Water and / or other infrastructure providers as is determined appropriate.</p> <p>10. Terms of Reference for the Technical Working Groups are to be consistent with the requirements for preparation of the Implementation Plans specified elsewhere in this Statement of Commitments and are to be endorsed by the Barangaroo Taskforce or equivalent body. The Barangaroo Taskforce or equivalent body will report to the IPCC on relevant matters as recommended by the proponent team and Working Groups. The proponent will report to the Barangaroo Delivery Authority Board on recommendations from the Working Groups.</p> <p>11. The Implementation Plans may be updated throughout the development of the project. Following endorsement, the Implementation Plans are to be made publicly available in a manner to be determined by the Barangaroo Taskforce or equivalent body.</p>	To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application other than for demolition or early / site preparation work.
Public Domain Plan	<p>12. The Public Domain Plan/Plans referred to at Commitment 7 is to include the following as generally described in the Concept Plan:</p> <ul style="list-style-type: none"> ▪ An introductory explanation for the types, hierarchy, interrelationships of spaces, and the appropriateness of these spaces to the end users of the public domain. ▪ A new Headland Park. ▪ Waterfront parks and squares. ▪ A foreshore promenade. ▪ An informal sports playfield. ▪ A north-south pedestrian promenade street. ▪ An internal street system that 1) defines development blocks, 2) provides for the easy flow of people and vehicles, 3) acts as a comfortable stage for activity and human interaction, 4) creates a distinctive address for each new development building, and 5) creates a connection between Hickson Road and the harbour edge. ▪ On-street bicycle lanes to create a route utilising Napoleon Street, the Napoleon Street extension, and the proposed Globe Street. ▪ An off-street cycle route within the Headland Park to link between proposed Globe Street and Hickson Road (north). ▪ Shared use of the pedestrian promenade street by bicycles. <p>12A. Within the framework of the Public Domain Plan, a Headland Park Sub-Plan (HP Sub Plan) will be prepared for the Headland Park. The will address the following:</p>	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application other than for demolition or early / site preparation work and remediation.</p> <p>To be prepared as part of future Project Application for the Headland Park</p>

Subject	Commitments	Timing
	<ul style="list-style-type: none"> ▪ all planning, accessibility and design issues related to the connectivity of the Headland Park to its surrounding environment; ▪ incorporate traffic and transport planning, event management and recreational capacity ▪ proposals and options to increase cultural experiences at the Headland Park ▪ measures to provide for diverse activation of the parklands while being sensitive to local community needs ▪ Crime Prevention Through Environmental Design (CPTED) safety strategies ▪ heritage conservation and adaptive reuse as part of the urban and landscape design, including management and interpretation (refer also SoC No. 60) ▪ Sustainability program for the Headland Park at design, construction and operations stages <p>12B. To inform the preparation of the HP Sub Plan for the Headland Park a Recreational Plan will be prepared which will consider the following:</p> <ul style="list-style-type: none"> ▪ the desires of the general and local communities ▪ transport needs and connections ▪ activation of the parkland spaces ▪ cultural and recreational needs ▪ the park location and space capacity constraints including the relationship to the increasing population of the city and Barangaroo ▪ universal access ▪ operation times, events and management <p>13. The Public Domain Plan/Plans is to provide design details with respect to the following:</p> <ul style="list-style-type: none"> ▪ Indicative levels in the parks, edge conditions of parks and pedestrian connections through parks. ▪ Materials and planting. ▪ Safe and convenient walking routes and facilities. ▪ Street furniture. ▪ Design standards for the road network (dimensions, materials, drainage), kerb parking and loading spaces, crossings, cycling and taxi facilities, including bicycle parking facilities). All extensions to the existing road network within the Barangaroo site are to comply with the geometric requirements of the RTA road design guide. ▪ The mix of parking/loading/other kerb controls. ▪ Design requirements/guidelines for integrated water management/water sensitive urban design consistent with the Integrated Water Management Plan referred to at Commitment 22. ▪ Design requirements and details relating to the recreational facilities as referred to at Commitment 18. ▪ Requirements for a public parking structure of up to 300 car spaces in the Headland Park area. <p>14. The Public Domain Plan is to incorporate a Public Art Strategy.</p> <p>15. In addition to the general matters specified at Commitment 8, the Public Domain Plan is to address:</p> <ul style="list-style-type: none"> ▪ The future ownership and maintenance of parks. 	<p>To be prepared as part of future Project Application for the Headland Park</p>

Subject	Commitments	Timing
	<ul style="list-style-type: none"> ▪ The feasibility, both conceptually and financially, of establishing the elevated Headland topography. 	
<p>The Transport Management and Access Plan.</p>	<p>16. The Transport Management & Access Plan (TMAP) referred to at Commitment 7 is to be prepared following:</p> <ul style="list-style-type: none"> ▪ An assessment of the area wide traffic impacts of the development on the Sydney CBD road network using the RTA's PARAMICS traffic model (including the effects of changes to the bus service network). ▪ The preparation of the TMAP or equivalent to investigate the following: <ul style="list-style-type: none"> (a) a cohesive street network connecting land use components and local roads within and to CBD streets and regional roads; (b) the method by which traffic estimation figures are generated; (c) identification of public transport service opportunities and constraints with a view to encouraging a high level of travel by public transport, walking and cycling; (d) likely traffic impacts on local and regional intersections – including the key junctions for buses on Clarence at Market Street, York at Market Street, and Napoleon at Margaret Street; (e) identification of local and regional infrastructure improvements; (f) the timing of traffic and public transport infrastructure improvements so they are in line with the staged development of the Barangaroo site. <p>The PARAMICS model is to be used in an iterative manner during the preparation of a TMAP or equivalent to test:</p> <ul style="list-style-type: none"> (a) impact on traffic operation of changes to pedestrian movements and volume configurations; (b) different bus access strategies; and (c) variations in traffic generation estimates (depending on the relative attractiveness of pedestrian, rail, and bus access). <p>The outcomes of the area wide traffic impact modeling are to form part of the consideration of the physical road transport infrastructure to be addressed in the preparation of the TMAP.</p> <p>17. The Transport Management & Access Plan is to consider and address the following matters:</p> <ul style="list-style-type: none"> ▪ Design and construction of a traffic signal controlled intersection at Sussex Street / Napoleon Street, to facilitate the main point of vehicular entry into the development site intersection (to RTA requirements). ▪ The feasibility of future specialist transport services to the site (including light rail, boutique tourist bus services, river metro route) and the need to protect possible future alignments for these services. This is to include a possible future light rail system with appropriate reservation of road space on Hickson Road. ▪ Off-site improvements that will facilitate pedestrian and cycle access between the site, Wynyard Railway Station, Millers Point, the Rocks, Circular Quay and Dawes Point. This is to include 	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application other than for demolition or early / site preparation work and remediation.</p>

Subject	Commitments	Timing
	<p>consideration of pedestrian links to existing bus services and the potential for grade separated connections between the site / Hickson Road and Wynyard Station, which will meet pedestrian desire lines and provide physical linkages to the adjoining residential area of Millers Point, which will facilitate easy access to and regular use of services, facilities and public spaces at Barangaroo by existing local communities. Consideration of off-site pedestrian improvements is only where those improvements can be demonstrated to positively improve the amenities of the proposed development and its connections to surrounding developments. Consideration of more general public domain improvements for the benefit of the wider CBD is not required.</p> <ul style="list-style-type: none"> ▪ Options for the extension / amendment of bus services. Initial options include extensions to services from QVB, and east-west bus link (Erskine Street, Wynyard Street and Regimental Square) and services which currently terminate at Wynyard. This is to include consideration of the need for any off-site traffic works to provide for improved east-west bus movements relating to servicing of the site. ▪ Any options for extended bus services to the site will be subject to endorsement by the Ministry of Transport (MOT), State Transit Authority (STA) Services will be progressively provided in line with the staged development of Barangaroo. ▪ Bus stops and access, including the location of bus stops along Hickson Road, and any relocation of existing stops. ▪ Provision of off-road layover facilities for buses and for coach drop off and parking, including the need for on-street tourist coach parking facilities at the northern end of the site (in Hickson Road and Munn Street). ▪ Provision of passenger wharf facilities, including at least one public ferry wharf with appropriate landside facilities adjacent to the site. The role of this commuter / tourist / recreational wharf, and possible adjustments to ferry services is to be the subject of consultation with Sydney Ferries / MOT / NSW Maritime / Sydney Ports Corporation. ▪ Feasibility of creating a westward extension of Grosvenor Street to Kent Street and provision of two way vehicular access on Kent Street. ▪ Re-alignment and / or retention of Margaret Street along the southern boundary of the site and land use implications of such changes. ▪ Desirability of replacing existing all day (10 hour) on-street parking in Hickson Road by parallel shorter term parking 	
<p>Community & Social Access Plan</p>	<p>18. The Community & Social Plan/Plans referred to at Commitment 7 is to include the provision of the following facilities within the Barangaroo site:</p> <p>Social</p> <ul style="list-style-type: none"> ▪ A multi-purpose facility designed to accommodate a range of community programs. The facility will have the capacity to accommodate an innovative mix of functions and tenancies, including complimentary commercial concessions, and with the potential to respond to changing social needs. ▪ A minimum of two long day-care and early learning centres. <p>Health</p> <ul style="list-style-type: none"> ▪ A range of outdoor spaces, linkages and facilities 	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application other than for demolition or early / site preparation work and remediation.</p>

Subject	Commitments	Timing
	<p>designed to enable active recreation including walking / jogging, informal team sports, outdoor exercise, court games, and non-motorised water sports.</p> <ul style="list-style-type: none"> ▪ A range of outdoor spaces, structures and / or buildings for relaxation, social interaction and passive recreation. <p>Cultural</p> <ul style="list-style-type: none"> ▪ Consideration of floor space for cultural industries and or cultural industries development. This may be achieved in conjunction with the development of community infrastructure. ▪ A flexible outdoor venue for city scale cultural events. <p>Recreation</p> <ul style="list-style-type: none"> ▪ A harbour foreshore walk / cycle path linking King Street Wharf with Millers Point. ▪ Active sports areas and associated toilet, change and shower facilities. ▪ A regional play space with an innovative, engaging mix of facilities and environmental features to function as a major destination for families. ▪ Public open spaces immediately adjacent to residential areas designed to allow a range of passive recreation activities attractive to residents and regional visitors. ▪ Well-designed pedestrian linkages allowing easy and safe access to recreational spaces and facilities from commercial and residential areas within East Darling Harbour and from Millers Point, Walsh Bay, Kent Street, and King St Wharf. <p>19. Design requirements and details relating to the facilities noted at Commitment 18, and in particular to the health and recreation facilities are to be incorporated into the Public Domain Plan.</p>	
<p>Utility Services Infrastructure Plan</p>	<p>20. The Utility Services Infrastructure Plan/Plans referred to at Commitment 7 is to include and provide details in relation to the following within the Barangaroo site:</p> <ul style="list-style-type: none"> ▪ Infrastructure requirements for integrated water management, including stormwater treatment, as determined through the preparation of the Integrated Water Management Plan referred to at Commitment 22; ▪ Type, extent and location of utility services (power, gas, water, sewer, stormwater, communications) consistent with the ESD principles and other commitments incorporated within this Statement of Commitments; ▪ Coordinated response to infrastructure design and delivery on the site and consideration of infrastructure benefits to the adjoining precincts. <p>21. As part of the preparation of the Utility Services Infrastructure Plan:</p> <ul style="list-style-type: none"> ▪ Further investigations are to be undertaken with respect to the existence of any services (such as pipes and cables) and structures within the Barangaroo site. Consultation with Railcorp is to be undertaken on this issue. ▪ Locations for electricity sub-stations and transformers are to be examined. No sub-stations or transformers are to be placed in above ground public domain areas, but instead installed underground or in-buildings. 	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application other than for demolition or early / site preparation work and remediation.</p>

Subject	Commitments	Timing
	<ul style="list-style-type: none"> ▪ Appropriate investigations are to be undertaken to ensure that the impact on safety, integrity and operation of NSW rail network – through the development's effect on traction (electrical) power supply on the operation of current City underground rail network – is appropriate. 	
<p>Integrated Water Management Plan & Guidelines</p> <p>Potable Water</p> <p>Demand Management</p> <p>Wastewater Minimisation</p> <p>Stormwater Management</p>	<p>22. An Integrated Water Management Plan/Plans is to be prepared for future development. The Integrated Water Management Plan is to incorporate a Water Demand Management Plan, Wastewater Management Plan and Stormwater Management Plan. The public domain and infrastructure provision requirements identified in the Integrated Water Management Plan are to be incorporated into the Public Domain Plan and / or Utility Services Infrastructure Plan as relevant.</p> <p>23. The Water Demand Management Plan/Plans is to include an investigation of possible schemes to reduce potable water demand through source substitution. A "fit-for-purpose" approach to alternative sources of water for substitution of potable mains water for non-potable use will be used to scope the Plan. In line with BASIX (and extending to commercial properties), water efficient appliances and fixtures are to be used for potable water demand management throughout the development.</p> <p>24. The Wastewater Management Plan/Plans is to include an investigation of schemes to manage wastewater from the residential and commercial buildings as a resource, with wastewater treated and recycled as an alternate source of non potable water, especially with regard to public open space irrigation.</p> <p>25. The Stormwater Management Plan/Plans is to include an investigation of the feasibility of on-site treatment of stormwater from external catchments at Millers Point, to national best practice standards. Where feasible, harvested stormwater is to be used to meet non-potable demand. Stormwater leaving the EDH site will be treated to national best practice standards as a minimum, specifically reducing average annual loads of total suspended solids by 80% and nutrients by 45%. In addition, litter and gross pollutants are to be removed from stormwater running into the harbour. Opportunities to integrate the design of Water Sensitive Urban Design (WSUD) elements (such as detention ponds) into the public domain, parks and built form are to be explored.</p>	<p>To be prepared prior to / concurrently with the preparation of the Public Domain Plan and Utility Services Infrastructure Plan, and submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application other than for demolition or early / site preparation work and remediation.</p>
<p>Housing Strategy</p>	<p>26. A Housing Strategy is to be prepared that:</p> <ul style="list-style-type: none"> ▪ Identifies the preferred mix of housing opportunities defined by price, dwelling type and dwelling size. ▪ Incorporates intermediate housing tenure options. ▪ Sets a suitable intermediate housing component as a proportion of total housing provision. ▪ Includes a range of mechanisms to subsidise the development of the intermediate housing component. ▪ Retains land provided for intermediate housing in Government ownership with leases up to 99 years. <p>27. A Technical Working Group is to be established to prepare the Housing Strategy. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006) or equivalent body.</p>	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application for development within the Mixed Use Zone other than for demolition or early / site preparation work.</p>

Subject	Commitments	Timing
	<p>28. The Terms of Reference of the Technical Working Group is to be consistent with the requirements for preparation of the Housing Strategy specified in this Statement of Commitments and endorsed by the Barangaroo Taskforce or equivalent body.</p> <p>29. The Housing Strategy is to be submitted by the Working Group to the Barangaroo Taskforce or equivalent body. The Barangaroo Taskforce or equivalent body will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent team will report to the Barangaroo Delivery Authority Board on recommendations from the Working Group.</p> <p>30. Following endorsement, the Housing Strategy is to be made publicly available in a manner to be determined by the Barangaroo Taskforce or equivalent body.</p>	
Marketing and Promotion Strategy	<p>31. A Marketing and Promotion Strategy/Strategies is to be prepared to promote Barangaroo's and the broader Sydney region's development opportunities to international companies, investors and property brokers. The Strategy will cover the lifespan of the redevelopment and focus on attracting investment from outside the Sydney region and State. The Strategy will emphasise the unique attributes of the site such as the lifestyle and workforce skills available in this urban waterfront precinct.</p> <p>32. A Technical Working Group is to be established to prepare the Marketing and Promotion Strategy. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006) or equivalent body.</p> <p>33. The Terms of Reference of the Technical Working Group is to be consistent with the requirements for preparation of the Retail Marketing and Promotion Strategy specified in this Statement of Commitments and endorsed by the Barangaroo Taskforce or equivalent body.</p> <p>34. The Marketing & Promotion Strategy/Strategies is to be submitted by the Working Group to the Barangaroo Taskforce Delivery Authority. The Barangaroo Taskforce or equivalent body will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent team will report to the Barangaroo Delivery Authority Board on recommendations from the Working Group.</p> <p>35. Following endorsement, the Marketing & Promotion Strategy is to be made publicly available in a manner to be determined by the Barangaroo Taskforce or equivalent body.</p>	To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application for development within the Mixed Use Zone other than for demolition or early / site preparation work and remediation.
Retail Management Plan	<p>36. A Retail Management Plan is to be developed to guide and encourage the right mix of retail that will establish EDH as a distinctive retail precinct. The Plan will outline innovation management strategies, foster design leadership, and encourage originality and differentiation.</p> <p>37. The Retail Management Plan is to be drafted to adapt to retail trends and changes over time by having in place a set of coordinated retail management</p>	To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any relevant project application for development within the Mixed Use Zone other than for demolition or early / site preparation work and remediation.

Subject	Commitments	Timing
	<p>guidelines for the site that will refresh the offerings, yet ensure consistency of vision and connection between the office and residential blocks, while maintaining an appropriate mix and market positioning of the Barangaroo retail precinct.</p> <p>38. The Retail Management Plan is to include the opportunity for ephemeral retailing events, such as markets and festivals, which are consistent with the overall retail image or brand of the precinct.</p> <p>39. A Technical Working Group is to be established to prepare the Retail Management Plan. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006) or equivalent body.</p> <p>41. The Terms of Reference of the Technical Working Group is to be consistent with the requirements for preparation of the Retail Management Plan specified elsewhere in this Statement of Commitments and endorsed by the Barangaroo Taskforce or equivalent body.</p> <p>42. The Retail Management Plan is to be submitted by the Working Group to the Barangaroo Taskforce or equivalent body. The Barangaroo Taskforce or equivalent body will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent team will report to the Barangaroo Delivery Authority Board on recommendations from the Working Group.</p> <p>42A. Following endorsement, the Retail Management Plan is to be made publicly available in a manner to be determined by the Barangaroo Taskforce or equivalent body.</p>	
Parking & Servicing	<p>43. Off-street bicycle parking and shower facilities are to be provided within buildings in line with City of Sydney Council Code rates.</p> <p>44. All on-site parking areas should conform to the requirements of AS2890.1:2004.</p> <p>45. The following maximum car parking rates shall apply to future development within the site:</p> <p>Commercial Uses - 1 space / 600m² GFA Residential -1 bedroom unit – 1 space / 2 units 2 bedroom unit – 1.2 spaces / unit 3 bedroom unit – 2 spaces / unit Other Uses -City of Sydney Council rates Passenger Terminal - subject to a future traffic report based on demand estimates</p> <p>46. All building servicing and loading facilities will be in line with City of Sydney Council code rates.</p> <p>47. All service/delivery areas will conform to the requirements of AS2890.2: 2002 subject to driveways complying with the City of Sydney requirements.</p>	At the stage of any relevant project application.
Heritage Sewer Pump Station	48. A Heritage Impact Statement will be prepared to for the sewage pumping station which is to guide its future treatment. The Heritage Impact Statement is to consider the following options:	At the stage of any relevant development or project application relating to the sewer pump station structure.

Subject	Commitments	Timing
	<ul style="list-style-type: none"> ▪ retention of the Pumping Station in situ, albeit buried, as a future archaeological resource; or ▪ its relocation and adaptive reuse within the Barangaroo site (including a recommended methodology for this course of action); or ▪ its relocation to a relevant location (including a recommended methodology for this course of action); and ▪ recommendations for its interpretation both within the Barangaroo site and elsewhere, should the study conclude that this is the most appropriate course of action. <p>The Heritage Impact Statement will be prepared in consultation with a heritage experienced engineer to ensure minimum alteration and damage to the fabric. Moving the whole structure in one piece should be investigated.</p> <p>48A. If the Heritage Impact Statement recommends either relocation or demolition, archival recording of the structure will be undertaken. The archival recording will be prepared in accordance with the NSW Heritage Office Guidelines.</p>	
Dalgety's Bond Store	49. 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 and in consultation with the NSW Heritage Office. Any proposal for major alterations and additions to the building site will be guided by the CMP.	At the stage of any development or project application relating to the Dalgety's Bond Store.
Views to Millers Point Conservation Area	<p>50. Future development within the Barangaroo site is to retain views to Observatory Hill Park from public spaces on opposite foreshores; and to retain a panorama from Pyrmont Park around to the Harbour Bridge as seen from Observatory Hill Park, and as shown within the Concept Plan by the photomontage images included in the Heritage Impact Statement prepared by City Plan Heritage, amended by the Barangaroo Modification Report dated June 2008 prepared by MG Planning.</p> <p>51. Future development within the Barangaroo site is to provide adequate view corridors over and between new built form to maintain the key attributes of views from Millers Point. The key attributes to be retained are:</p> <ol style="list-style-type: none"> 1) views to significant tracts of the water, 2) the junction of Darling Harbour and the Harbour proper, 3) the opposite foreshores, 4) panoramic qualities of existing views, and 5) the most distinctive views to landmark structures, <p>All the above are shown within the Concept Plan and illustrated by the photomontage images included in the Heritage Impact Statement prepared by City Plan Heritage.</p>	<p>To be demonstrated / assessed as part of any relevant development /project application.</p> <p>To be demonstrated / assessed as part of any relevant development application/ project application.</p>
Grafton Bond Store (Sandstone Wall)	52. Future development within the Barangaroo site is to retain the ability to appreciate the Millers Point headland and the roofscape of terrace houses throughout Millers Point when viewed from public spaces on opposite foreshores. The detailed design of future development within Barangaroo should ensure a relationship between new built form and existing structures and design details within Millers Point Conservation Area. Consultation is to be undertaken with NSW Heritage as	To be demonstrated / assessed as part of any relevant development application / project application.

Subject	Commitments	Timing
	<p>part of the detailed project Application Stage.</p> <p>53. An appropriately experienced and qualified heritage practitioner will be engaged to prepare Advice and a Schedule of Conservation Works that will guide the conservation of the sandstone wall on the eastern side of Hickson Road as part of the construction of any proposed pedestrian bridge across Hickson Road. The Advice and Schedule of Conservation Works will inform the design of the proposed Hickson Road bridge and, in particular, how it meets the wall, and shall include conservation works to the palisade fence, sandstone piers and plinth, the cutting wall, the existing High Street steps (southern end), in-filled steps (northern end), and the substation at the southern end. Any new fence elements shall be sympathetic to the existing significant fence fabric.</p>	<p>At the stage of any development or project application relating to the construction of the proposed pedestrian bridge across Hickson Road.</p>
Moreton's Hotel	<p>54. A Conservation Management Strategy (CMS) will be prepared by an appropriately experienced and qualified heritage practitioner for the Moreton's Hotel in accordance with the NSW Heritage Office guidelines and in consultation with the NSW Heritage Office. The CMS will provide specific guidelines and conservation policies for the implementation and construction of any pedestrian walkway running through (with owner's consent) or alongside the Hotel, but will not address the whole Moreton's Hotel site.</p>	<p>At the stage of any development or project application relating to Moreton's Hotel.</p>
Munn Street Terraces	<p>55. A Heritage Impact Statement (HIS) will accompany any application for works to Munn Street or in the vicinity of the Munn Street Terraces. That HIS will include an assessment of how the development proposed satisfies the following Principles:</p> <ul style="list-style-type: none"> ▪ The design of the building any structures proposed adjacent to the west of the Terraces will be sympathetic in bulk and scale and retain a reasonable level of amenities for the occupants of the Terraces. ▪ Works to Munn Street will retain and conserve the front verandas, other building elements of significance along the southern frontage and the remnant cross walls and floors from the demolished terraces attached to the western elevation. ▪ Works to Munn Street will retain and conserve significant landscape elements associated with the former street and the Terraces, such as the sandstone retaining walls and fences. 	<p>At the stage of any development application / project application relating works to Munn Street or in the vicinity of the Munn Street Terrace.</p>
Moores Wharf Building	<p>56. A Conservation Management Strategy (CMS) should be prepared for the Moores Wharf Building in accordance with the NSW Heritage Office Guidelines if a change of use or activity is proposed that requires substantial alteration to the place. The CMS will provide guidelines for the adaptive reuse of the building, which will be implemented in association with any development application for the building. The CMS will also suggest other appropriate uses in addition to the current use for Ports Security administration, particularly uses related to harbour activities.</p>	<p>At the stage of any development application / project application relating to the Moores Wharf building.</p>
Sandstone Seawall	<p>57. A Heritage Impact Statement will be prepared in relation to the proposed relocation and reuse of the sandstone seawall in the vicinity of the Headland Park.</p>	<p>At the stage of any development application / project application relating to the sandstone seawall.</p>

Subject	Commitments	Timing
Palisade Fence and High Steps (High Street)	58. The proposed pedestrian bridges over Hickson Road will include conservation works to the palisade fence, sandstone piers and plinth, the cutting wall, the existing steps (southern end), in-filled steps (northern end), and the substation at the southern end. The conservation works will be implemented through preparation and adoption of a Schedule of Conservation Works. Any new fence elements will be sympathetic to the existing significant fence fabric. An appropriately experienced and qualified heritage practitioner will be engaged to provide advice on the construction of the pedestrian bridge, how it meets the wall, and the conservation of the wall.	At the stage of any development application / project application relating to the proposed bridges over Hickson Road.
Port Operations and Communications Centre (Harbour Control Tower)	59. A Heritage Impact Statement will be prepared to assess the significance of the Harbour Control Tower. The Heritage Impact Statement will be undertaken using the State Heritage Register criteria for listing.	To be assessed at the stage of any development application / project application relating to the Harbour Control Tower.
Archaeology	<p>60. All affected potential historical archaeological sites or 'relics' of Local and State significance are to be subject to professional Archaeological Assessment in accordance with Heritage Council guidelines. The Assessment must address both terrestrial and maritime archaeological resources and must be prepared by a practitioner (or practitioners) with both terrestrial and maritime experience. The Assessment must consider the desirability and staging of any proposed archaeological excavation and/or recording before construction works commence and also other mitigation strategies such as archaeological monitoring (or 'watching brief') during construction works.</p> <p>60A. A Research Design including an Archaeological Excavation Methodology will be prepared in accordance with Heritage Council guidelines for each site which is to be impacted by the proposal. Those documents will be prepared for the approval of the Director of the Heritage Branch, Department of Planning. The archaeological Excavation Director will be a qualified archaeologist, and will meet the current Excavation Director Criteria for State significant sites as published by the NSW Heritage Council.</p> <p>60B. After archaeological works are undertaken, a copy of the final excavation report(s) will be prepared and lodged with the Heritage Branch, Department of Planning, to the State Library of NSW and also to the Local Studies Library in the City of Sydney. The information within the final excavation report will be in accordance with Heritage Branch requirements.</p> <p>60C. A repository for the relics salvaged from any historical archaeological excavations will be nominated by the Barangaroo Delivery Authority.</p>	To be assessed at the stage of any development application / project application involving surface disturbance.
Interpretation	<p>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 will explore various cultural, social and environmental themes related to the site including, but not limited to:</p> <ul style="list-style-type: none"> ▪ The natural landscape ▪ Aboriginal history ▪ Manipulation of the landscape ▪ Maritime industry, trade and commerce ▪ Labour, workers and social movements ▪ Archaeology 	<p>Prior to commencement of any works on the site including any demolition or excavation works.</p> <p>The final Interpretation Plan should be submitted for the approval of the Director of the Heritage Branch, Department of Planning, for approval within 6 months of the completion of the construction works.</p>

Subject	Commitments	Timing
	<p>The plan will make recommendations for:</p> <ul style="list-style-type: none"> ▪ Public Art ▪ Naming ▪ Interpretive Signage and Installations ▪ Display of Archaeological Deposits ▪ Built Form Strategies <p>The plan will also include strategies for:</p> <ul style="list-style-type: none"> ▪ Staged Implementation ▪ Ownership ▪ Identification of Responsible Stakeholders ▪ Future Maintenance ▪ any individual demolished, dismantled or buried heritage items; ▪ historic/significant buildings retained within the precinct; and ▪ the public domain areas of the precinct. <p>61A. After completion of the archaeological fieldwork, the findings of the archaeological work should be incorporated into the Interpretation Plan.</p>	
Archival Recording	<p>62. Photographic and archival recording of all affected heritage items, as identified in the specialist reports prepared as part of the Environmental Assessment for the project, will be undertaken prior to the commencement of any construction activity. Recording will be completed in accordance with the Guidelines Issued by the Heritage Council of NSW. Copies of these photographic recordings will be made available to the Heritage Branch, Department of Planning, to the State Library of NSW and also to the Local Studies Library in the City of Sydney.</p>	<p>Prior to commencement of any works on the site including any demolition or excavation works.</p>
Supervision and Advice	<p>63. Specialist consultants in heritage, landscape, interpretation, historical archaeology and maritime archaeology will be nominated for the Barangaroo project. The consultants will have appropriate qualifications and experience commensurate with the scope of works. The name and experience of the consultant/s will be submitted to the Director of the Heritage Branch, Department of Planning, for approval prior to commencement of works. The heritage consultant/s will advise on the detailed design resolution of new heritage related works, undertake site inductions, and inspect design and installation of services involving heritage items and fabric (to minimise impacts on significant fabric and views) and manage the implementation of the conditions of approval for the project. A report by the principal heritage consultant (illustrated by works' photographs) will be submitted to the Director of the Heritage Branch, Department of Planning, for approval, advice and comment within 6 months of the completion of the works which describes the work, any impacts/damage and corrective works carried out.</p>	<p>Prior to lodgement of any relevant applications and throughout works.</p>
Notification of demolition of Section 170 Heritage Items	<p>63A. The Director of the Heritage Branch, Department of Planning is to be notified in writing within 14 days of the demolition of any heritage item listed on a Section 170 Register by the relevant government agency responsible for that Register.</p>	

Subject	Commitments	Timing
<p>ESD</p> <p>Water</p> <p>Energy</p> <p>Micro Climate</p> <p>Landscape</p> <p>Transport</p> <p>Waste</p> <p>Wind</p>	<p>64. There is to be an environmental focus on strategies for Water, Energy, Micro-Climate, Environmental Quality / Amenity, Landscape, Transport, Waste and Materials for the development. Each building on site will achieve the primary benchmark of a "5 star" standard of Commercial: Green Star 5 star, and Residential: Green Star Residential score >60, and each development will be required to demonstrate how it satisfies each of the following Key Performance Indicators for each of the ESD focus areas referred to below.</p> <p>65. There is to be a 35% reduction in Potable Water Consumption compared to a standard practice development and a 40% reduction in flow to sewer compared to a standard practice development.</p> <p>66. There is to be a 35% reduction in Greenhouse Gas Emissions compared to a standard practice development. 20% of power is to be purchased from low impact, renewable sources or alternatively there should be a 20% reduction in GHG emissions through carbon offsets. The purchase of renewable energy should be at World Best Practice level.</p> <p>67. Key public open spaces (parks and squares) are to receive direct sunlight in mid-winter.</p> <p>68. Primarily non-invasive plant species are to be used on the site.</p> <p>69. Ensure that there is sufficient public transport to achieve points under the public transport credit for Green Star Rating Tools for commercial buildings and a future Green Star Tool for residential buildings.</p> <p>70. Centralised recycling areas are to be provided in all buildings and 100% of waste bins for public use are to allow for waste separation.</p> <p>71. Wind tunnel modelling and verification of proposed treatments will be carried out at the building design application stage due to the significant exposure of the site to the southerly and westerly winds. Any development proposal for the southern portion of the site should be subjected to a wind tunnel study, carried out in accordance with the procedures outlined in industry recognised guidelines such as the Australasian Wind Engineering Society Quality Assurance Manual.</p>	<p>ESD report to be lodged with each relevant development application / project application.</p> <p>To be demonstrated / assessed as part of each relevant development / project application.</p> <p>To be demonstrated / assessed as part of each relevant development /project application.</p> <p>To be demonstrated / assessed as part of each relevant development / project application.</p> <p>As above</p> <p>As above</p> <p>Wind report to be lodged with each development application /project application</p>
<p>Geotechnical and Environmental Site Remediation</p>	<p>72. Further site investigations and assessments will be undertaken prior to a Remedial Action Plan (RAP) being prepared. The RAP may be prepared in stages that follow the progressive redevelopment of the site and development blocks. The RAP will address a range of known existing site conditions.</p> <p>73. A Technical Working Group is to be established to oversee the preparation of the RAP. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its Terms of Reference dated 26 November 2006) or equivalent body. The Terms of Reference of the Technical Working Group are to be consistent with this Statement of Commitments and endorsed by the Barangaroo Taskforce or equivalent body.</p> <p>74. The RAP is to be submitted by the Working Group to the Barangaroo Taskforce or equivalent body. The</p>	<p>To be submitted to the Barangaroo Taskforce or equivalent body prior to the lodgement of any development application /project application involving surface disturbance.</p>

Subject	Commitments	Timing
	<p>Barangaroo Taskforce or equivalent body will report to the IPCC on relevant matters as recommended by the Working Group. The Project Team will report to the Barangaroo Delivery Authority Board on recommendations from the Working Group.</p> <p>75. Following endorsement, the RAP is to be made publicly available in a manner to be determined by the Barangaroo Taskforce or equivalent body.</p>	
Residential Amenities	<p>76. Building Types: In terms of the classifications under the Residential Flat Design Code (RFDC) , generally the residential buildings on the Barangaroo site are to consist of Row Apartment, Courtyard Apartment, Slab (Block), Tower and Hybrid building types.</p> <p>77. Building Heights, Floor Space Ratios and Setbacks: All building heights and setbacks are to comply with the development block envelope controls contained within the Concept Plan.</p> <p>78. Building Separation: Building separations should have regard to separation distances set out in the RFDC. Where smaller separation distances are provided consistent with the Concept Plan urban design envelopes, the amenities, privacy and solar access to existing and proposed dwellings and the public domain need to be adequately considered.</p> <p>79. Landscape Design: Generally, landscape spaces for future residents of Barangaroo will be in the form of roof terraces and balconies. All private landscape design should be consistent with the design principles set out on pp46-47 of the RFDC. Due to the frontage of the extensive new harbour-side park, the proposed street tree planting and the adjacency to the city centre, there is no requirement for deep soil planting within blocks.</p> <p>80. Apartment Mix: Housing across the Barangaroo site should provide a variety of types, sizes and configurations. Flexible live / work housing types are highly appropriate for the city centre fringe location.</p> <p>81. Solar Access: Living rooms and private open spaces for at least 70 % of apartments in a development should receive a minimum of 3 hours direct sunlight between 9 a.m. and 3 p.m. in mid-winter. For up to 30 % of dwellings, 2 hours is required (excluding south-facing units).</p> <p>82. Single Orientation Apartments: Apartment buildings should aim to maximise cross ventilation. The number of single aspect apartments with a southerly aspect (SW-SE) should be limited to a maximum of 10 % of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed.</p>	To be demonstrated / assessed in any relevant development application / project applications for residential development.
Acoustic	83. All future development application / project applications will be required to include a Noise Impact Assessment & Mitigation Measures report. All noise emissions from a building's plant and equipment are to be at levels complying with the recommendations of the NSW EPA Industrial Noise Policy. When setting noise emission limits for each site, the cumulative impact of	Noise Impact Assessment and Mitigation Measures report to be submitted with all relevant development application / project applications.

Subject	Commitments	Timing
	<p>noise emissions from all the sites in the fully developed precinct shall be taken into account.</p> <p>84. Any future traffic management plans will incorporate strategies that minimise transportation noise levels associated with vehicle movements.</p> <p>85. To prevent negative impacts resulting from the ordinary operation of the passenger terminal and other community facilities, the envelope of buildings constructed within Barangaroo should be designed to limit sound intrusion from these noise sources. Typical noise levels in occupied spaces adjacent to these noise sources during peak usage periods should comply with the recommended noise levels in AS2107.</p> <p>86. Plans of management developed for noise generating community facilities shall contain measures that seek to balance the use of these facilities with the amenities of nearby potentially sensitive land uses.</p> <p>87. Where deemed appropriate, the facades of new residential and commercial buildings along Hickson Road should be designed to reduce traffic noise levels in occupied spaces in accordance with the levels recommended in AS 2107.</p> <p>88. Noise emissions from patrons within proposed licensed premises will be assessed during development approval against Liquor Administration Board Guidelines and appropriate plans for managing patrons' arrival / departure developed.</p> <p>89. All future development application / project applications will be required to include a Construction Management Plan incorporating measures for managing construction noise and vibration emissions including time limits on audible construction activities.</p>	
Built Form	<p>90. The built form of each development block will follow the Design Principles, Design Requirements, and Development Controls as set out in Part B and as amended by the Barangaroo Modification Report dated June 2008 prepared by MG Planning. Final designs for each development block will be prepared by development partners who will be subject to the Design Excellence Strategy.</p> <p>91. The built form of development Blocks 2 to 5 inclusive shall be consistent with the performance based urban design controls contained in Table 1 to Section 2.1.1 of the Barangaroo Part 3A Modification Report – Commercial Floor Space Preferred Project Report prepared by MG Planning dated October 2008. In cases where the design is not consistent with the control objectives, justification should be given as to why the control was not applicable and what attributes of the design have been provided in lieu to ensure that the Built Form Principles of the Consolidated Concept Plan or design excellence can be achieved.</p>	<p>To be demonstrated / assessed as part of any development application / project application for commercial use.</p> <p>As above</p>
Commercial Uses	<p>92. All future development applications for commercial uses will be required to address how the proposal:</p> <ul style="list-style-type: none"> ▪ Complements, connects with and extends the commercial activity of the existing Sydney CBD; ▪ Contributes to the character of Barangaroo as a unique business address; 	<p>To be demonstrated / assessed as part of any development application / project application for commercial use.</p>

Subject	Commitments	Timing
	<ul style="list-style-type: none"> ▪ Offers opportunities for major corporate tenants; ▪ Where appropriate includes a mix of support related commercial and retail offerings such as convenience retail, personal services, cafes, bars and health and recreation facilities; ▪ Enhances and encourages walking and cycling and connectivity to public transport services; ▪ Provides a clear interface to the public domain and includes publicly accessible open space or pedestrian connections and arcades within the private development. 	
<p>Sydney Ports Consultation</p>	<p>93. Sydney Ports Corporation shall be consulted on all aspects of the Barangaroo redevelopment that affect the operation of the Wharf 8 Passenger Terminal, any additional passenger terminal, the harbour control tower and the harbour safety function in the Moore's Wharf building, including potential use of the new harbour inlet by non-motorised recreational craft.</p> <p>93A Transfer of the HCT to Barangaroo Delivery Authority will not be undertaken until such time as Barangaroo Delivery Authority and Sydney Ports are satisfied on selection of an alternate suitable site and the transfer of existing equipment and staff along with uninterrupted operations under the Port Safety Operating License.</p> <p>94. Sydney Ports Corporation shall be consulted on the detailed exclusion zone requirements for the Wharf 8 Passenger Terminal at future project application stages of development.</p> <p>95. The operation of the Wharf 8 Passenger Terminal will continue uninterrupted during its temporary relocation while the final new building is constructed and during the relocation back to the existing location in the new facilities.</p> <p>96. Moores Wharf and the Harbour Control Tower will be fenced off for security purposes prior to future public access on site.</p> <p>97. Sydney Ports and NSW Maritime shall be consulted regarding any proposals associated with Port Operational Requirements that result in the extension of structures alongside or over water into Sydney Harbour.</p> <p>98. Future car parking for the Wharf 8 Passenger Terminal will be provided consistent with the current car parking provisions for the facility, and subject to the needs of the future terminal.</p>	<p>Subject to consultation with Sydney Ports</p>
<p>Ongoing Consultation and Information</p>	<p>99. Ongoing consultation with Government agencies including City of Sydney Council (Strategic Planning Department, Community Services and Programs Unit and Recreation and Community Services Unit), Department of Housing NSW, NSW Maritime, Railcorp, Sydney Ports, NCOSS, private landowners, and community stakeholders will take place according to established planning and development approval procedures.</p> <p>100. NSW Maritime will be consulted in relation to the following:</p> <ul style="list-style-type: none"> ▪ Any proposal that has the potential to impact upon navigational safety. ▪ The potential to expand ferry and charter boat 	<p>Ongoing</p>

Subject	Commitments	Timing
	<p>operations within the redevelopment site.</p> <ul style="list-style-type: none"> ▪ On-going maintenance of seawalls, launching and berthing facilities. ▪ Proposed encroachments into NSW Maritime's land at Darling Harbour. ▪ The development of the proposed coves and inlets which will become part of the navigable waters of Sydney Harbour. ▪ Other issues which will inevitably arise from the interface with NSW Maritime's land. ▪ Port security matters. <p>101. 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.</p>	
CPTED	<p>102. All future development is to be designed in accordance with the principles of the Crime Prevention Through Environmental Design.</p>	<p>To be demonstrated / assessed as part of any relevant development / project application.</p>
Construction	<p>103. An Environmental and Construction Management Plan will be required as part of any future development on the site.</p> <p>103A. All construction contractors, subcontractors and personnel are to be inducted and informed by the nominated heritage consultant/s prior to commencing work on site as to their obligations and requirements in relation to historical archaeological sites and 'relics' in accordance with existing guidelines issued by the Heritage Council of NSW.</p> <p>103B. Significant heritage items and built elements that are to be retained are to be adequately protected during the works from potential damage. Protection systems must ensure historic fabric is not damaged or removed.</p>	<p>To be demonstrated / assessed as part of any relevant development / project application.</p>
Headland	<p>104. The future detailed design of the Headland Park including the northern cove, Globe Street and adjacent Block 7 is to be prepared in accordance with the Headland Park Urban Design Framework and Preferred Project Parkland Objectives detailed in the "Barangaroo Headland Parklands Urban Design Report" prepared by Conybeare Morrison (August 2009).</p>	<p>To be demonstrated as part of any project application which relates to the Headland Park and surrounds.</p>