

Management Plan Platypus, North Sydney Amendment 1, 2020



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The Harbour Trust acknowledges the Traditional Custodians and Owners of the land encompassing Sub Base Platypus in North Sydney. We respectfully acknowledge the Cammeraygal People including their Elders past, present and emerging.

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Schedule of Amendments

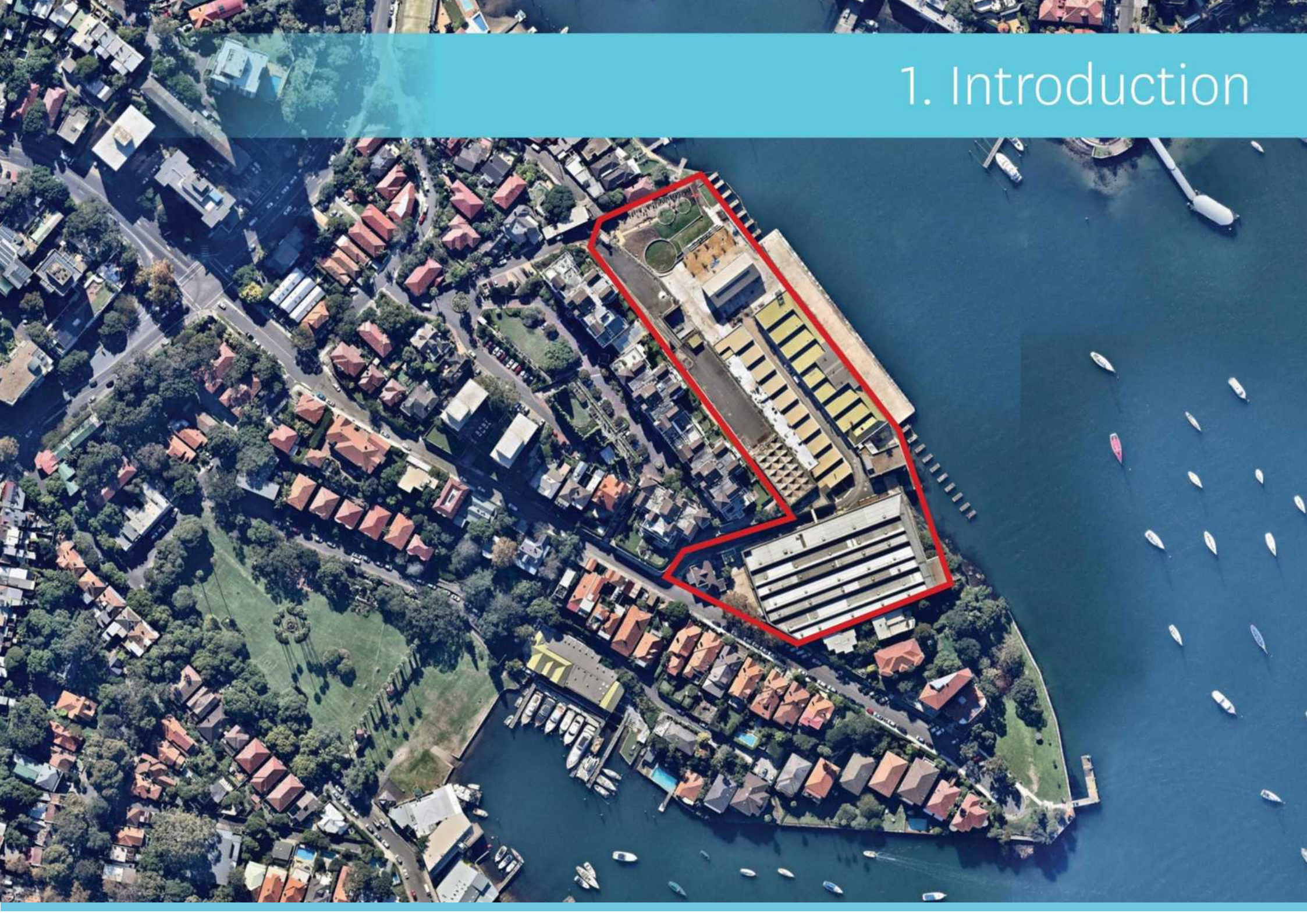
The Platypus Management Plan was adopted by the Harbour Trust on 8 December 2016 and came into force on that date. Subsequently, the Management Plan has been amended as follows:

Amendment 1 – Adopted and came into force on 12 May 2021.

The Plan has been amended to provide for:

- Revised design outcome for the RANTME Factory (also known as the Torpedo Factory);
- Other amendments proposed to the Management Plan include updates to Section 3.4 containing related Harbour Trust policies and other minor housekeeping matters.

1. Introduction



1. Introduction

Section 1 sets out the requirement for and purpose of this Management Plan and provides an introduction to the land to which this plan applies.

1.1. Requirement for a Management Plan

On 21 August 2003 the Minister for Environment approved a Comprehensive Plan for the harbour sites managed by the Sydney Harbour Federation Trust (the Harbour Trust).

The Comprehensive Plan, which was prepared in accordance with the requirements of the *Sydney Harbour Federation Harbour Trust Act 2001* (SHFT Act), sets out the Harbour Trust's vision for its various sites.

The former HMAS Platypus site (Platypus) was formally transferred to the Harbour Trust on 23 July 2005 and is classified as Trust land under the SHFT Act. In 2009, the Minister for the Environment approved an amendment to the Comprehensive Plan to include Platypus.

The vision for Platypus is to transform the site into a public park with buildings and facilities adapted for a range of cultural, recreational, community and commercial uses.

The Harbour Trust's Comprehensive Plan also requires the preparation of more detailed management plans for Harbour Trust sites. This is such a plan.

1.2. Purpose of the Management Plan

The purpose of this Management Plan is to guide and implement the outcomes proposed in the Comprehensive Plan for the rehabilitation and adaptive re-use of Platypus. As with its other sites, the approach taken by the Harbour Trust in the preparation of this Plan is to draw the desired outcomes for the future of the site from its intrinsic characteristics.

This Plan also aims to protect and manage the heritage values of Platypus. Platypus possesses heritage values from its varied history and may have potential Commonwealth Heritage values. Therefore this Plan is consistent with the Commonwealth Heritage management principles set out in Schedule 7B of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

1.3. The Site

Platypus has had a diverse history as Cammeraygal country, a gas works, a Naval torpedo maintenance facility, the HMAS Platypus submarine base and now as an emerging new public park. It is the site's relationship to the harbour that has contributed to this history and which makes it significant. Like other Harbour Trust sites, Platypus reflects some of the characteristics that have shaped the development of Sydney as a harbour city, such as the mixed uses along the foreshore and the benching of the sandstone peninsula for maritime and industrial facilities. Sections 4 and 5 discuss the site and its history in greater depth.

1.4. Land to which the Management Plan Applies

This Plan covers land owned by the Harbour Trust ('Trust land') and adjoining land ('Harbour land'). Trust land is located within DP109583 (Lot A), as shown in Figure 1.

Adjoining land includes the Submarine Wharf which is located within DP945479 and is owned by NSW Roads and Maritime Services (RMS) and licensed under an agreement to the Harbour Trust.

1.5. Commencement Date

This Management Plan was adopted by the Harbour Trust on 8 December 2016 and it came into force on that date. Subsequent amendments are listed in a schedule following the title page.



LEGEND

No.	Building Name
1.	RANTME Factory
2.	Submarine School
3.	RANTME Office
4.	Gatehouse
9.	Car Park Guardhouse
10.	Workshop Building
11.	Retort House
12.	Exhauster House (Compressor House)
13.	Coal Store
17.	POL Store
- - - - -	Trust Land

Fig.1 Plan Area



R-2200



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2. Aims of this Plan



2. Aims of this Plan

Section 2 outlines the aims of this Management Plan.

2.1. Aims for Platypus

To achieve the Harbour Trust's vision for Platypus this Plan aims to:

- **Create a waterfront urban park**
- **Protect, manage and interpret the site's heritage values**
- **Maximise public access to the site**
- **Revive the site with a mix of new uses that are compatible with the site's character and constraints**
- **Protect local environment and amenity**

In doing this, it also aims to:

- Be consistent with Commonwealth Heritage management principles
- Establish Platypus as a place of public enjoyment by providing public spaces of high amenity
- Improve pedestrian links between the levels, to public transport and to surrounding areas
- Maximise opportunities for access to the foreshore
- Provide for water-based public access
- Realise the potential for easy access to and within the site including access for people with disabilities
- Increase public open space throughout the site
- Provide visitor facilities and amenities such as lookouts and children's play facilities
- Facilitate the adaptive re-use of the site and its buildings for a diverse mix of cultural, commercial and community uses
- Encourage uses and activities that are sensitive to local amenity especially with respect to minimising traffic and noise generation
- Apply the principles of Ecologically Sustainable Development (ESD)
- Provide interpretative opportunities for visitors to understand and appreciate the rich and varied history of Platypus
- Remediate hazardous materials and manage contamination in accordance with a long term Environmental Management Plan.

3. Planning Framework



3. Planning Framework

Section 3 outlines the planning framework that will guide the future use of Platypus.

3.1. Sydney Harbour Federation Trust Act

The objects of the Harbour Trust are set by the *Sydney Harbour Federation Trust Act 2001* (SHFT Act), which are to:

- *Ensure that management of Trust land contributes to enhancing the amenity of the Sydney Harbour region*
- *Protect, conserve and interpret the environmental and heritage values of Trust land*
- *Maximise public access to Trust land*
- *Establish and manage suitable Trust land as a park on behalf of the Commonwealth as the national government*
- *Co-operate with other Commonwealth bodies that have a connection with any harbour land in managing that land*
- *Co-operate with New South Wales, affected councils and the community in furthering the above objects.*

The SHFT Act defines land that is vested in the Harbour Trust as ‘Trust land’ and surrounding land (such as the former submarine wharf) as ‘Harbour Land’. The SHFT Act requires the Harbour Trust to prepare a Plan (the Comprehensive Plan) for *Trust land* which may also cover *Harbour land*. The Harbour Trust prepared such a plan in 2003, and a subsequent amendment to include Platypus was approved in 2009. The Comprehensive Plan recognises the strategic value in including *Harbour land* as it allows the Harbour Trust to take a holistic approach to its planning.

3.2. Harbour Trust Comprehensive Plan

The Comprehensive Plan is a broad strategic plan which sets out a vision for all of the Harbour Trust’s sites and includes a process for preparing more detailed Management Plans for specific places, such as Platypus.

The Comprehensive Plan provides a framework for the remediation, rehabilitation and adaptive re-use of Platypus to provide a sequence of new public waterfront places (Chapter 10a).

The Comprehensive Plan sets out overarching Objectives and Policies for all of its sites (Part 3). Those that are most relevant to this Plan are Ecologically Sustainable Development (ESD); transport management; cultural heritage; adaptive re-use of places and buildings; removal of buildings; design approach; working harbour; tourism; contamination; water quality and catchment protection; access, open space and recreation; and education. The ways in which these objectives and policies will be implemented are covered throughout this Plan.

Part 3 also sets out Consultation and Communications Objectives and Policies. This Plan will be prepared in consultation with the Harbour Trust’s Community Advisory Committee (CAC) and Aboriginal and Torres Strait Islander Advisory Group, the broad community, the Local Aboriginal Land Council, special interest groups, and Local, State and Commonwealth Governments.

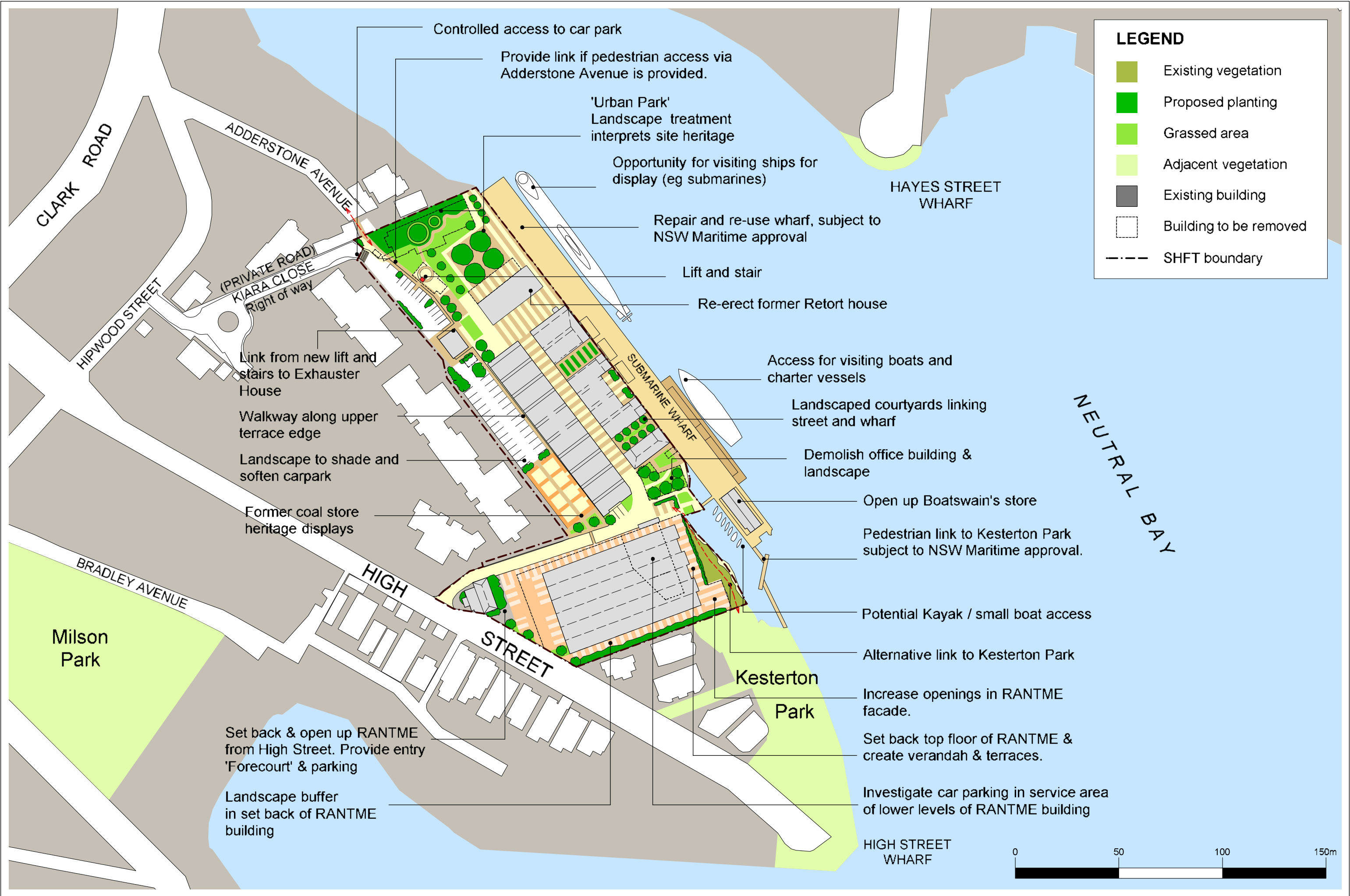


Fig.2 Comprehensive Plan Outcomes



3.3. Harbour Trust Management Plan

Harbour Trust Management Plans are site specific plans that refine and detail the site objectives and outcomes established in the Comprehensive Plan. They identify desired outcomes, suitable land uses, and how a site's environmental and heritage values should be protected and interpreted. This Management Plan is to be read in conjunction with the SHFT Act and Comprehensive Plan, in particular the Outcomes identified in Part 10a (See Figure 2), and the Objectives and Policies in Part 3 of the Comprehensive Plan.

3.4. Related Harbour Trust Policies and Guidelines

The Harbour Trust has a number of general policies and guidelines that guide the revitalisation of Platypus.

Some of the current relevant policies and guidelines are the Harbour Trust's *Reconciliation Action Plan, Corporate Plan; Leasing Policy; Rental Subsidy Policy for Contributory and Delivery Partners; Draft Access Guideline; Events Policy; Heritage Strategy; and Recreation Strategy.*

This Plan has to be interpreted having regard for these policies.

3.5. Commonwealth Legislation – EPBC Act 1999

All 'actions' on Harbour Trust land are controlled by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Section 26 of the *EPBC Act* protects Commonwealth land from actions taken on or outside it that may have a significant impact on the environment. Section 28 protects the environment from actions taken by the Commonwealth or a Commonwealth agency that may have a significant impact.

The environment is defined to include:

- a) ecosystems and their constituent parts, including people and communities*
- b) natural and physical resources*
- c) the qualities and characteristics of locations, places and areas;*
- d) heritage values of places*
- e) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), (c) or (d) above.*

3.6. Assessment of Actions

The Harbour Trust is the approval authority for actions on its lands and assesses actions in accordance with the SHFT Act, Comprehensive Plan and EPBC Act.

The Harbour Trust will consult with the community about significant proposals. In some exceptional circumstances, proposed actions that are likely to have a significant impact on the environment or heritage values will also be referred to the Minister for further assessment and approval under the EPBC Act.

3.7. State Legislation

The SHFT Act specifically excludes any land owned by the Harbour Trust from the operations of state planning law. This includes State Policies (SEPPs) and Regional Environmental Plans (REPs) prepared by the State Government and Local Environmental Plans (LEPs) prepared by councils.

Notwithstanding this the Harbour Trust aims to follow State legislation in order to ensure consistency and best practice. This Plan has been prepared so that it is consistent with both State and local plans.

Although NSW planning legislation does not apply to Platypus, the impact of development outside Platypus must have regard to any potential impacts on the site (and vice versa).

The key State planning policies and plans that are relevant to Platypus include:

NSW Planning and Environment

➤ **Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005**

This Plan (now deemed a State Environmental Planning Policy or SEPP) applies to the whole of Sydney Harbour's waterways, the foreshores and entire harbour catchment. This includes Platypus. It provides a framework for future planning, development and management of the waterway, heritage items, islands, wetland protection areas and foreshores of Sydney Harbour.

The planning principles of the SEPP relevant to Platypus include the:

- Appreciation of the role of Sydney Harbour in the history of the Aboriginal and European settlement
- Recognition and conservation of the heritage significance of particular heritage items in and around Sydney Harbour
- Conservation of the significant fabric, settings, relics and views associated with the heritage significance of heritage items
- Conservation of archaeological sites and places of Aboriginal heritage significance.

➤ **A Plan for Growing Sydney 2014**

This is a plan for the future of the Sydney Metropolitan Area over the next 20 years. The Plan provides key directions and actions to guide Sydney's productivity, environmental management, and liveability – including the delivery of housing, employment, infrastructure and open space.

North Sydney, including Platypus, is located within an identified 'Global Economic Corridor' in the Plan, which is an "area of concentrated employment, economic activity and other uses in centres, transport gateways and industrial zoned land extending from Port Botany and Sydney Airport, through Sydney CBD, north-west through Macquarie Park, and towards Norwest, Parramatta and Sydney Olympic Park".

The Plan predicts that by 2030, there will be demand for around 190,000 new stand-alone office jobs in Sydney, many of which will be situated along this Corridor. It is an overarching priority of the Plan to work with North Sydney Council to "provide capacity for additional mixed-use development in the precinct that make up Global Sydney for offices, retail, tourism, arts, culture, services and housing".

NSW Roads and Maritime Service

NSW Roads and Maritime Services (RMS) is an arm of Transport for NSW and is responsible for the development, management and use of waterways in NSW's major ports, including Sydney Harbour.

The wharf at Platypus is located on land that is owned by RMS and licensed to the Harbour Trust. Approval from RMS is therefore required prior to carrying out any works to the wharf or other structures that extend beyond the boundary of the Harbour Trust land.

RMS has prepared policies and guidelines that it considers for development on property under its jurisdiction. These include:

- *Obtaining permission to lodge a development application*
- *Engineering Standards and Guidelines for Maritime Structures (2005)*
- *Roads and Traffic Authority (RTA) Water Policy*

NSW Environment Protection Authority

NSW Environment Protection Authority (EPA) policies and guidelines for the protection of the environment will guide the development and operation of Platypus. This includes the following:

- *Interim Construction Noise Guideline (2009)*
- *Assessing Vibration: a technical guideline (2006)*
- *NSW Industrial Noise Policy (2000)*
- *Noise Guide for Local Government (2013)*
- *Environmental Action for Marinas, Boatsheds and Slipways (2007)*
- *Protection of the Environmental Operations (Waste) Regulation 2014.*
- *Waste Classification Guidelines (2014)*

NSW Liquor and Gaming

Liquor & Gaming NSW is part of the Department of Justice and is responsible for the regulation of liquor in NSW. The *NSW Office of Liquor, Gaming and Racing Noise Criteria* was developed to assess licensed premises that may generate noise impacts affecting surrounding residential areas.

NSW Fisheries

NSW Fisheries provides the following guidance material for the assessment of fish habitat impacts on the site - Policy and Guidelines for Fish Habitat Conservation and Management 2013, which will be considered by the Harbour Trust in its assessment of any proposals that pose a potential impact on fish habitats. Port Authority of NSW

The Port Authority of NSW is responsible for Sydney Harbour. Any disturbance of the seabed will require Harbour Master approval under the *Management of Waters and Waterslide Lands Regulations (NSW)*.

Local Government – North Sydney Council

Platypus is located in the municipality of North Sydney. While North Sydney Council has no jurisdiction over Platypus, the following Council plans and strategies are relevant to this plan:

- *Development Control Plan (DCP), 2013*
Council's DCP highlights the potential of Platypus for a mix of uses, open space, linkages to existing open space areas, continued foreshore pedestrian access and water access. The objectives include "Continuous pedestrian access is to be provided along the entire foreshore frontage" and "Pedestrian links are to be provided to Kesterton Park and High Street" (Section 7.2.4).
- *Local Environmental Plan (LEP), 2013*
Council's LEP zones Platypus as Infrastructure (SP2 Commonwealth Government) and lists the site as a local heritage item. The objectives of this zone are "to provide for infrastructure and related use" and "to prevent development that is not compatible with or that may detract from the provision of infrastructure".
- *North Sydney Integrated Cycling Strategy, 2014*
Council's *Cycling Strategy* proposes an upgraded cycle route along Clarke Road and Broughton Street (identified as Route 2 – Sydney Harbour Bridge to Neutral Bay). This route crosses High Street which provides direct connection to Platypus.
- *Draft Careening Cove Planning Study, 2015*
North Sydney Council's Draft Careening Cove Study identifies recommendations to improve access between Platypus and the surrounding area; including improved pedestrian amenity, a link to Platypus from Kesterton Park, improved way-finding, and public domain upgrades.

4. Site Description and History



4. Site Description and History

Section 4 describes the history and environment of Platypus and its surrounds.

4.1. Local Context

The north shore of Sydney Harbour was thinly populated at the end of the 18th Century when Neutral Bay, the home of the former HMAS Platypus site, was designated by Governor Phillip in 1789 as a 'neutral' anchorage for visiting French scientific expeditions and other foreign vessels.

Today Neutral Bay is a prime inner-city waterfront residential area. When substantial waterfront industry left the bay, the area gradually became more gentrified. The bay is in active use today with several ferry wharves, private boat shed activity and several waterfront parks.

Kesterton Park is located on the foreshore to the immediate south of Platypus. Other nearby parks include Anderson Park and Milson Park, and across the bay Kurruba Point Reserve.

There is a diversity of building types ranging from traditional waterfront housing, high rise units set back from the foreshore, stepped blocks of waterfront units, neighbouring waterfront activities in the form of marinas, wharves and the Platypus site which extends over a large portion of the waterfront.

Platypus directly adjoins residential areas, including the Iora Apartment complex which is in an elevated position to the west, built upon part of the former gas works site.

4.2. The Site

Platypus has an area of approximately 1.83 hectares and currently includes 10 buildings with a total floor area of approximately 14,391m². The built area adjoins Neutral Bay via a broad 14 metre wide concrete wharf leased from RMS (See Figure 1).

The topography of the site has been modified as a result of its industrial past. The largest exposed rock face runs parallel to Neutral Bay and stands approximately 17 metres to 18 metres in height. The original sandstone cliffs have been cut to create terraced platforms to make them capable of supporting large working areas. This modified cliff line expresses the industrial processes of the former gas works. The excavated sandstone rockfaces are also strong visual elements on the west side of Neutral Bay.

Platypus is physically divided into three discrete and disconnected areas:

- *High Street level* - With direct street frontage to High Street, this level contains the former Gatehouse and a large factory building that runs the length of the southern boundary of the site, and overlooks Neutral Bay.
- *Waterfront level* – A flat area fronting the foreshore located at the base of a modified cliff line. This level contains the majority of the site's buildings, the former Submarine Wharf and the newly created open space. A roadway cutting from High Street provides access to this level.
- *Upper level* – A narrow strip of land along the top of the cliff that contains a storage building, the former Coal Stores and the main car park for the site. Access to the upper level car park is through Kiara Close and a pedestrian bridge over the roadway cutting.

4.3. How the Place Evolved

Natural Forces

The underlying geology of the peninsula is Hawkesbury sandstone which was laid down millions of years ago. About 6,000 years ago the sea reached its current level to form the flooded river valley of Sydney Harbour.

The climate of the area is typical of the Sydney region, which can generally be described as temperate. Average rainfall is 1,215mm per annum (BOM 2016).

The site's natural topography is steep rock faces with benches, cracks and intermittent crags (Ecological 2010). Little of the original land profile remains today and there are no apparent creek lines, although water seepage does occur through the layers of rock.

The site has been significantly modified by the construction of the gas works since the late 1880s. Much of the site is land that has been reclaimed from Neutral Bay. The remainder of the site has been formed by cutting benches in the sandstone cliff face with the spoil used for reclamation.

Aboriginal Settlement

The Cammeraygal (also referred to as Camaragal) clan occupied part of the north shore of Port Jackson. Their territory extended to the west of Bradleys Head and to the east of the Lane Cove district including the former HMAS Platypus site. Aboriginal people would have camped in sandstone caves on the harbour foreshore and fished in its waters. Roots and berries were obtained from native plants and possums and kangaroos were hunted.

In the early 19th century two Aboriginal names recorded for areas around HMAS Platypus were *Wurru-birri* for the western side of Kurraba Point and *Wéyé Wéyé* for the head of Careening Cove. Either of these names may have extended to include Platypus, though the actual areas covered by these names were not

recorded. *Wurru-birri* is probably the same name that is currently written *Wirra-birra*.

Aboriginal cultural sites providing evidence of the earliest owners and occupiers exist on the North Shore in areas such as Balls Head, Berry Island and at Cammeray, however due to industrial use and land disturbance no evidence has been found of Aboriginal habitation on or in the immediate vicinity of Platypus.

Early European Settlement

In 1789, Governor Phillip established Neutral Bay as a 'neutral' anchorage for foreign ships visiting Sydney Harbour. Careening Cove, to the south of Neutral Bay, was a shallow cove used for careening, a method of landing a ship far up a bay so that its hull could be cleaned when the tide ran out.

Whaling Industry

By 1828, whaling had become an important industry in Sydney and Surveyor-General Major Thomas Mitchell suggested the foreshore between Careening Cove and Sirius Cove as a suitable place for the industry. High Street was formed and the land either side subdivided into 6 four acre whaling allotments. However the whaling industry collapsed in 1840 and no whaling activity took place at the site.

Establishment of the Gas Works, 1876

In 1875 an Act of the NSW Parliament authorised the manufacture and supply of gas to residents of the North Shore. James Walter Fell and Charles Watt, both former employees of the Australian Gas Light Company (AGL), went into partnership and purchased land from Wood and Younger fronting Neutral Bay. The process of making gas involved the carbonisation of coal in ovens called retorts. These excluded air and caused the gas to condense. It was then purified in a lime solution before being stored under pressure in a holder or reticulated to customers. Coal was delivered by boat to a small wharf in the north-west of the site.

At this time the gas plant consisted of the first Retort House, built on reclaimed land at the northwest corner of the property and a small Gas Holder located west of this. Excavation of the site created a flat area at the waterfront and another on the ridge, creating the distinct level changes still evident today.

Gas Works Expansion, 1890-1912

After James Fell died in 1882 the partnership was liquidated and the North Shore Gas Company Ltd was established. The land reclamation was extended eastwards and the company embarked on a period of major expansion which saw the construction of a new Retort house, a Gas holder, Exhauster House, Boiler House and Coke Plant.

The new Retort House was a demountable construction with cast iron columns, wrought iron roof girders and clad in corrugated iron. In 1889 a coal miners strike created difficulty in supply of coal and this led to the construction of a Coal Stores on the northern side of the Retort House.

The completion of the North Shore rail line in 1893 and extension of the tramline to Crows Nest encouraged continued population growth on the North Shore and increased demand for gas. In 1890 adjoining property on the southern boundary of the gas works site was purchased, doubling the original landholding. The original 1877 Retort and Gas Holder near the foreshore were demolished and replaced.

The completion of the North Shore rail line in 1893 and extension of the tramline to Crows Nest encouraged continued population growth on the North Shore and increased demand for gas. In 1890 adjoining property on the southern boundary of the gas works site was purchased, doubling the original landholding. The original 1877 Retort and Gas Holder near the foreshore were demolished and replaced.

In 1902 a new access road was built through the cutting to the waterfront, along what was then the southern boundary of the site. Further excavation of the cliffs made room for a new Coal Store, 260 feet in length. It was constructed of stone from the excavation and built above the Retort House, allowing gravity feed of coal through its tunnels to the retorts.

Additional land was acquired in a piecemeal fashion and an Office and Stores building was erected on the south corner of High Street. A new Exhauster House was built into the cliff excavation and new Condensers, Purifiers and a new Governor House were also constructed.

Gas Works Closure, 1932

Increased consumer demand for gas led to the North Shore Gas Company establishing a larger more modern and economical gas works at Oyster Cove, Waverton in 1917. With the onset of the Great Depression, production of gas at Neutral Bay ceased in 1932. A main was laid connecting the two plants and the three gas holders at Neutral Bay were used for storage and supply of gas manufactured at Oyster Cove to reservoirs in Cremorne and Mosman.

One holder was removed in 1943 as it was leaking excessively and another was dismantled in the 1970s. During this period the introduction of natural gas led to the closure of many coal powered gas works including Oyster Cove, which ceased gas manufacture in 1976.

The North Shore Gas Company and AGL merged in 1980 and the third gas holder remaining on the Neutral Bay site was modified to store natural gas for emergencies. AGL retained part of the site until 1983 when it was sold and redeveloped for the 'Iora' residential development.

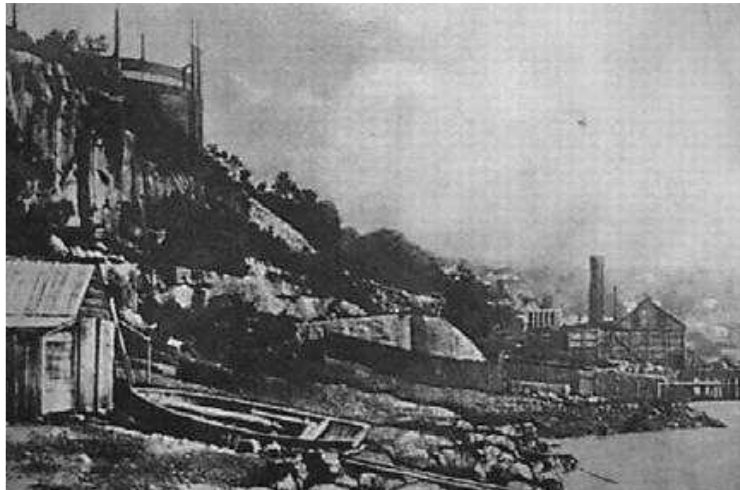


Figure 3: First Retort House and Gas Holder, 1884

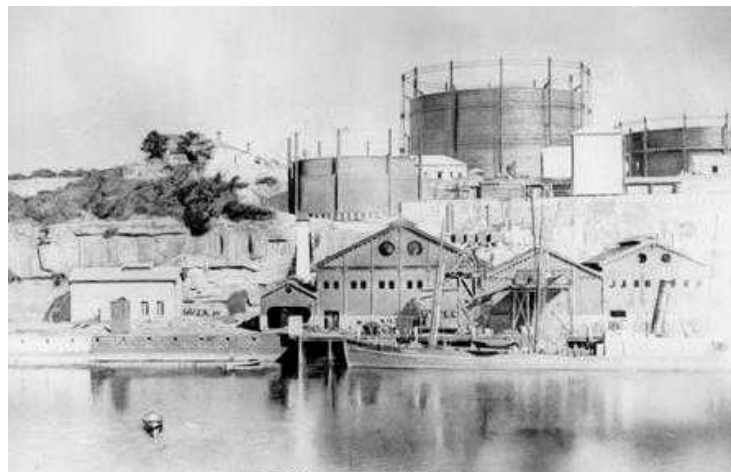


Figure 4: Gas Works Expansion, 1902

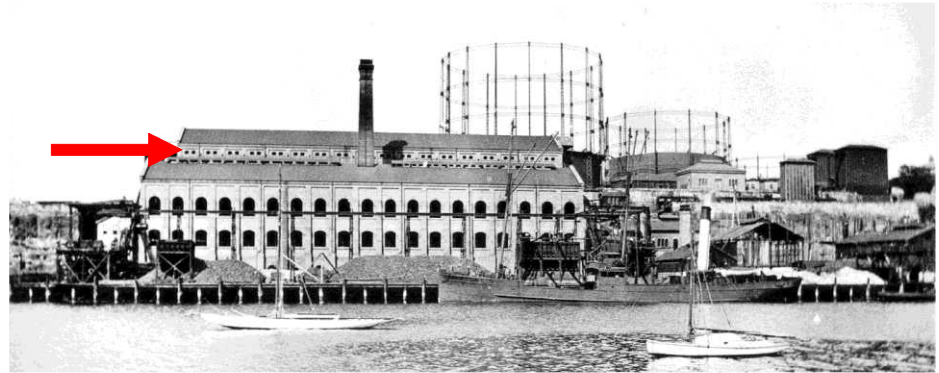


Figure 5: Coal Stores (Bldg 13), 1924 (A remnant of a two storey structure at the top of the cliff, indicated by red arrow)

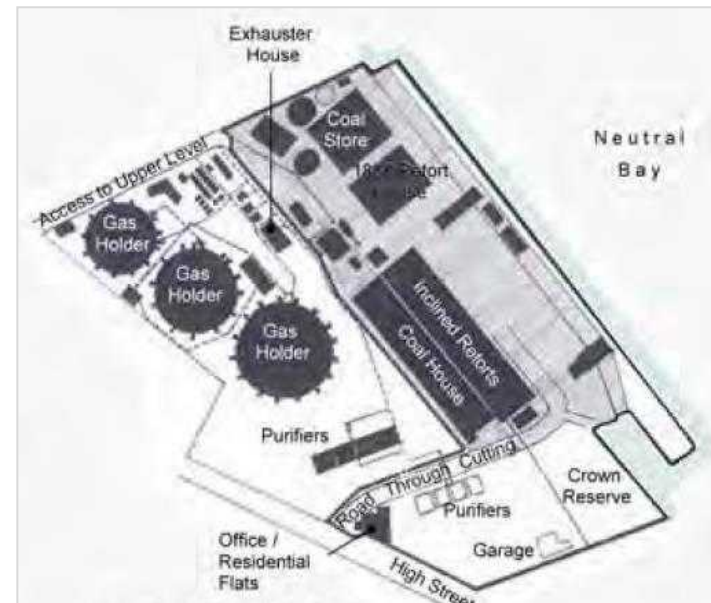


Figure 6: Last Phase of Gas Works, 1891-1936 (Comprehensive Plan)



Figures 6a & 6b: Sandstone Cliff at the Southern end of the site, c.1935
(The red arrow indicates the location of the sandstone cliff over which the RANTME
Factory was built in 1942)

Torpedo Factory, 1942

After the bombing of Pearl Harbour the Australian Government equipped Australian forces to retaliate in the event of an attack upon Australia.

The gas works site, situated on the harbour and in proximity to the existing Navy Torpedo Depot at Garden Island, was considered an ideal location for the establishment of a torpedo factory. In March 1942, the Commonwealth resumed part of the site for this purpose. Initially it was planned to reuse the existing factory buildings, however in order to meet the production program most were demolished. The only buildings retained were the Retort House, Gatehouse on High Street, Exhauster House and part of the Coal Stores.

Two Torpedo Maintenance Workshops were erected on the lower level of Platypus. The Royal Australian Navy Torpedo Maintenance Establishment Building (RANTME Factory) was built on the southern side of the access cutting. It was constructed to house offices and facilities for naval staff with a large factory space for torpedo manufacture and maintenance on the top floor at the level of the High Street entrance. The Torpedo Factory employed about 200 civilian workers, 25% of whom were women.

The tunnels within the Coal Store were bricked in and this building was converted to an air raid shelter. The building at the entrance of the site on High Street was converted from residential flats to serve as a gatehouse and office.

The complex of buildings constructed after the resumption was developed as the main torpedo workshops for Australian, British and US Navies in the South Pacific during WWII. The swiftness of the demolition and reconstruction on the site reflected the urgency of works undertaken during war time emergency.

HMAS Platypus, 1967

After the war ended the torpedo workshops continued to service the British Navy submarine fleet based at HMAS Penguin and the Australian Navy's destroyer fleet. The sheds on the waterfront were converted to submarine workshops and torpedo maintenance was transferred to the RANTME Factory.

Moored submarines, up to six at a time, provided an identifying feature of Neutral Bay between the 1960s and 1990s. In 1964 the Royal Australian Navy's Submarine Service was established. After the purchase of six 'Oberon' class submarines from the UK, HMAS Platypus was officially commissioned in 1967 as a shore support depot. HMAS Platypus was the base for the six 'Oberon' class submarines as well as other visiting submarines, and provided the operational headquarters and communications base for the Australian Submarine Squadron. Off duty personnel were accommodated at HMAS Penguin in Balmoral.

Cockatoo Island Dockyard played a role in refitting the 'Oberon' class submarines in specially equipped purpose built buildings. The first refit of HMAS Oxley began in March 1971, and the final refit, that of the HMAS Orion, was carried out on the Island in 1988.

All Submarine training was carried out in the UK at HMS Dolphin in Gosport, until 1981 when the RAN Submarine School was established at Platypus. The students would learn how a submarine worked and carry out 'Category Training' where recruits learned a specific area of submarine workings; for example engineering technicians, sonar operators or chefs. Some of the training was undertaken at sea and the students would go to the UK to do the escape tank part of the training until a facility was built at HMAS Stirling in Western Australia.

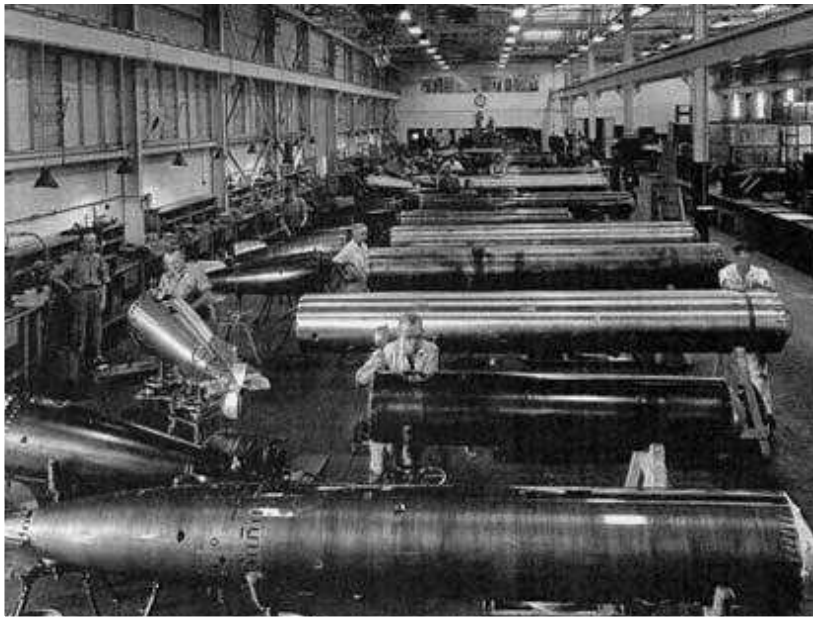


Figure 7: Torpedo Assembly in the RANTME Factory



Figure 8: Submarine mooring at Platypus

Site Closure – Transfer to Harbour Trust

In the 1990s it was decided to re-equip the Navy with Collins Class submarines. Platypus was not considered suitable for this new class of submarine. HMAS Platypus and the Torpedo workshops were closed in 1999 when the Commonwealth transferred the submarine base to HMAS Stirling in Western Australia. The Torpedo Maintenance Workshops were transferred to the Missile Maintenance Facility at Kingswood.

The Department of Defence embarked on plans to dispose of the site. In 1997 a development application (DA) for 95 dwellings, on the remainder of the Defence site, was lodged with North Sydney Council. The DA was approved by the Land and Environment Court, however, the DA consent lapsed and the development did not go ahead.

In 2005, the Commonwealth Government announced the handover of the site to the Sydney Harbour Federation Trust for the purpose of rehabilitating the site as a public park.

4.4. Remediation of Platypus (2010-2016)

As a result of its former use as a Gasworks and Defence base, significant contamination was present on site when it was transferred to the Harbour Trust in 2005.

The fill and bedrock materials beneath the surface of the site, particularly at the northern end, were contaminated with a range of substances associated with the production of coal gas, including tar and tarry wastes.

Under the Memorandum of Understanding between the Harbour Trust and the Department of Defence, costs associated with the remediation of Platypus were borne by the Department of Defence (\$46 million).

Platypus has been listed by the NSW Environment Protection Authority (EPA) as a contaminated site under the *Contaminated Land Management Act 1997* (CLM Act). Platypus will be removed from the EPA list of contaminated sites once the remediation works have been certified by the auditor. The harbour area adjacent to Platypus, in Neutral Bay, is no longer declared a contaminated site under the CLM Act (See Section 5.6).

The Platypus Remediation Project was carried out by the Harbour Trust from 2010-2016 in two stages.

Stage 1 of Remediation (April 2010-May 2012)

This involved above-ground decontamination and site preparatory works. This included the demolition of the former three storey Naval Administration Building (Building 8) and its adjoining lift shaft, and the single storey former Flammable Liquids Store (Building 7), as shown in Figure 9 below.



Figure 9: Demolition of Naval Administration Building (2010)

To prepare buildings for demolition, hazardous materials such as lead paint, asbestos and synthetic mineral fibres was removed from the building fabric or abated.

Stage 2 of Remediation (May 2012- April 2016)

This involved the construction of an odour control enclosure, and installation of an emission control system and water treatment plant.

Around 3,000 tonnes of tar-containing materials were excavated and removed by barge and disposed of off-site (See Figures 10-11).

An additional 27,000 tonnes of material remained on site where it was treated and stabilised. It was then used to backfill the excavated area and mounded and capped with clean soil to form the base for the urban park at the northern part of the site (See Figure 35).

As part of the remediation works, the Harbour Trust also repaired the seawall and wharf, and replaced the power supply. When operated by Defence, the Submarine Wharf was 215 metres in length. The Harbour Trust demolished part of the wharf (100 metres) and repaired the remaining central 115 metres of the wharf due to its highly degraded state. It was not deemed cost effective to repair the southernmost 60 metres and northernmost 40 metres of the wharf so the upper deck sections were demolished. The raker piles and headstocks were retained at both ends, to be reused as support for part of a future walkway to the south and new timber deck to the north (See Figure 12). The former Boatswains Store (Building 16) on the southern end of the wharf was demolished during this period (See Figure 13).

Figure 14 summarise Platypus' key phases of development.



Figure 10: Excavated Tar Pit, Retort Building in the background (2013)



Figure 12: Retained Wharf Headstocks



Figure 11: Odour Enclosure (2013)



Figure 13: Former Boatswains Store

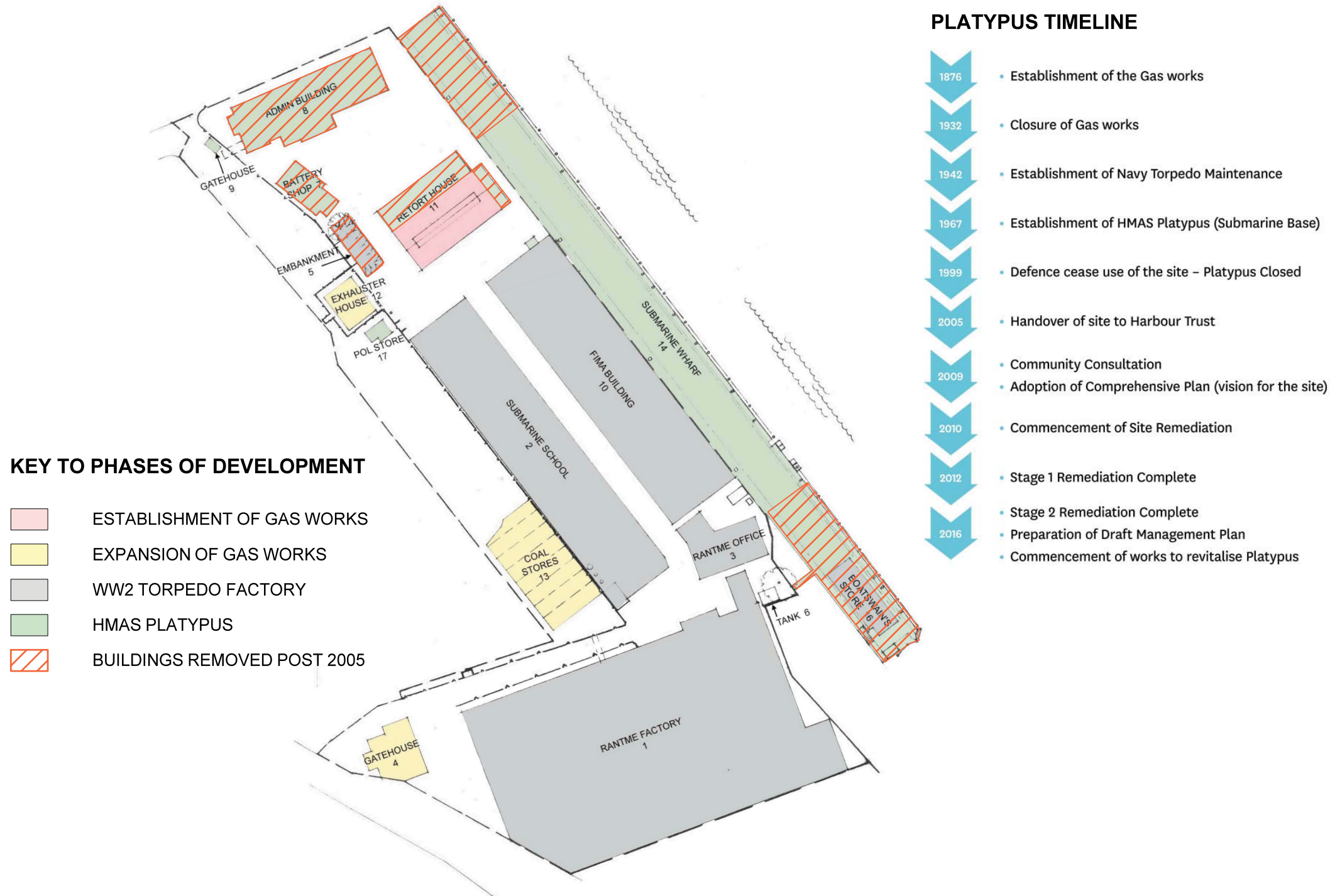


Fig. 14 Historical Development



5. Site Analysis



5. Site Analysis

Section 5 provides an analysis of the site's environment and issues.

5.1. Structures and Site Features

Platypus' history as a gas works and then a Naval base is embodied in its landform, buildings and structures (See Section 6).

The large scale and bulk of most of the buildings on the site dominate the western shore of Neutral Bay. The buildings range in size and function and are in various states of dilapidation and will require considerable restoration and modification to make them suitable for re-use. Some of the buildings will be demolished, in full or in part, but the majority of the site's buildings will be retained and adaptively reused.

The following section provided a description of the site's buildings, structures and site features:

Gatehouse (High Street Level)

The Gatehouse (Building 4) is a two-storey brick building, with a floorspace of 310m², located at the entrance to the site on High Street. It was constructed circa 1910 to house the gasworks offices. Its exterior was originally face brick and render with a two storey verandah. After the gasworks closed it was leased as residential flats. It was later converted to a Gatehouse for the Torpedo Factory with a residence on the first floor, resulting in the enclosure of the verandah, replacement of joinery and rendering of the whole facade.



Figure 15: Gatehouse (circa 1942 and present)

RANTME Factory/Torpedo Factory (High Street Level)

The RANTME (*Royal Australian Navy Torpedo Maintenance Establishment*) Factory (Building 1) was constructed in the early 1940s. It is the largest building on site, with a floorspace of 6,302m², over its multiple levels. It formerly housed offices and facilities for Naval staff with a large factory for torpedo manufacture and maintenance on the top floors.

It is an imposing presence when viewed from the harbour and spans across a stepped sandstone platform.

The RANTME Factory has three levels. The upper level is enclosed in lightweight walls clad in profiled steel. Steel columns support steel roof trusses of the saw-tooth roof allowing natural light into the factory. The ground and basement levels have fair-faced brick walls. Internally the lower levels have load-bearing walls and concrete columns supporting a concrete floor slab with suspended ceilings.

Part of the building is currently being used as a public car park (with 39 car spaces and 10 motorcycle spaces) for site visitors.



Figure 16: RANTME Factory

Submarine School (Waterfront Level)

The Submarine School (Building 2) was constructed in the early 1940s to house torpedo assembly works for the RANTME Factory. In 1967, as part of the commissioning of HMAS Platypus, the building was extended and the upper level was re-clad. It subsequently became a training school for Navy candidates who wished to specialise as submariners.

The Submarine School is a two-storey building, with a floor space of 3,353m², and abuts the cliff face. It consists of load-bearing cavity brick walls supporting a suspended concrete slab at first floor level.

The external brickwork is painted and the first floor is clad externally in profiled metal sheeting. The roof is divided into steel saw tooth roof trusses to the north and concrete slab flat roof to the south.



Figure 17: Submarine School

RANTME Office (Waterfront Level)

The RANTME Office (Building 3) was constructed between 1942 and 1943 as the administration building for the RANTME Factory.

It is a three-storey building, with a floor space of 723m², connected to both the waterfront and the internal roadway from High Street. The building comprises brick ground floor walls with a concrete sill at first floor level and light-weight cladding on a steel frame on the upper two floors.



Figure 18: RANTME Office

FIMA Workshop (Waterfront Level)

The Fleet Intermediate Maintenance Activity (FIMA) Workshop (Building 10) was constructed between 1942 and 1943 and formerly used for torpedo assembly, storage, and then modified for submarine maintenance and repair activities. This included the addition of a steel tower for testing periscopes to the northern end of the building.

It is a single-storey building, with a floor space of 2,635m², facing the wharf and waterfront. The building is also accessed by the internal street that runs between it and the Submarine School.

The building contains a brick base wall and light weight cladding to upper wall areas. The roof has a saw-tooth profile with nine 'teeth' butting up against the back of a long hipped roof slope facing the wharf. In the middle of the east front is a flat-roofed raised section with three concrete floor levels that housed electrical services.



Figure 19: FIMA Workshop

Retort House (Waterfront Level)

The Retort House (Building 11) was constructed between 1886 and 1887 for the conversion of coal to gas, which essentially involved heating the coal to a high temperature in chambers, called 'Retorts'. It is the only extant building relating to the 19th century phase of gas working at Platypus.

It is a single storey building, with a floor space of 370m², facing the waterfront adjacent to the landscaped park. The building consists of classically inspired cast iron columns, latticed girders and iron roof trusses.

The building was modified a number of times:

- 1907 – Installation of an overhead tramway system to carry coal
- 1924 – Conversion into a Carburetted Water Gas Plant building
- 1967 – Insertion of a mezzanine level and external additions for use as a Naval Store and re clad with metal sheeting, obscuring the columns that were originally visible externally
- 2010 – The Harbour Trust removed the northern intrusive additions



Figure 20: Retort House

Submarine Wharf and Seawall

The Submarine Wharf was built in the 1960s for HMAS Platypus and replaced a smaller timber wharf built in 1913 for the former Gas Works. The wharf consists of a reinforced suspended concrete deck supported on round concrete pylons with a row of steel fender piles along its outer face. Originally 215 metres in length, the length of the deck was reduced as part of the Harbour Trust's remediation works. A central area of wharf deck (115 metres) has been retained, as have the raker piles and headstocks at both ends. See Section 4.4 for further details on the remediation works. In early 2017, a new lowered timber wharf deck (approximately 40 metres in length) will be constructed at the northern end of the wharf.

A concrete encasement for services extends below the wharf along its length on concrete piles. The face of the wharf incorporates metal piles to act as a buffer for vessels berthed alongside. The wharf sits approximately 3.89 metres above mean high water level and the depth alongside is 8.5 metres.

The seawall is a dry-laid ashlar sandstone wall, built in the 1890s, that stretches along the waterfront of Platypus. The seawall was repaired as part of the Harbour Trust's remediation works.



Figure 21: Submarine Wharf and Seawall

Exhauster House (Middle Level)

The Exhauster House (Building 12) was constructed in 1906 and contained exhauster engines which regulated the pressure of gas exiting the retorts and entering the purifying system. In 1942 it was converted to a Compressor House to generate compressed air for use in torpedo maintenance and repair.

It is a single storey building, with a total floor space of 119m², located on the mid cliff level in a purpose-made niche in the sandstone cliff. It is a square brick building with a flat concrete roof. It has a symmetrical eastern facade with a central doorway and three narrow sash windows either side with prominent white-painted concrete lintels and sills. Stairs to the waterfront level were removed as part of the Harbour Trust's remediation works.



Figure 22: Exhauster House

Coal Stores (Upper Level)

The Coal Stores (Building 13) were constructed in 1906 to feed coal into large inclined retorts. It is a one storey building, remnant of a two storey structure that once sat at the top of the cliff (See Figure 5).

Coal was hand loaded from colliers into a bucket elevator which carried the coal to the top of the cliff. Coal was then hand transferred into hoppers to be gravitated into retorts.

The building was modified in 1942 for use as an air raid shelter, with the majority of the Coal Stores demolished. Seven vaulted cells, totalling 547m² in area, are all that remain from the lower floor of a two-storey gabled building. The cells consist of ashlar sandstone walls penetrated by tunnels with arched brick ceilings.



Figure 23: Coal Stores

Car Park, POL Store and Car Park Guardhouse (Upper Level)

The car park on the upper level can accommodate approximately 55 parking spaces in a non-defined layout. It can be accessed by Kiara Close.

The Petroleum Oil Lubricants (POL) Store (Building 17) and car park Guardhouse (Building 9) are located in the upper level in the car park, and both were built in the 1960s.

The POL Store is a simple brick stores building with a concrete flat roof and two metal doors, 26.4m² in area. It was built to contain petroleum oil lubricants (flammable materials).

The car park Guardhouse is a small single storey building (6m²) that provided a security point for access to the car park and also to the former lift tower of the administration block (which was demolished as part of the Harbour Trust's remediation works) and was also likely to have provided security to the car park.



Figure 24: POL Store and Car Park Guardhouse

Sandstone Cliff

The existing vertical cut cliff face is a prominent visual feature which runs the length of the site, parallel to Neutral Bay and stands approximately 17-18 metres in height. Part of the cliff is concealed within the RANTME Factory /Torpedo Factory.

The cliffline (See Figures 6a & 6b) was modified with the establishment of the gasworks, and excavated further as the gasworks expanded. Some of the upper edges of the cliff have been built up with sandstone blocks and/or brick. The cliff face bears the marks of former structures and pipes that had been braced against or fixed to the cliff.

A roadway has been cut through the sandstone to provide access between High Street and the waterfront level.



Figure 25: Sandstone Cliff Face

5.2. Flora and Fauna - Terrestrial

Platypus retains very few natural values as the landscape has been completely modified due to its past use. Flora and fauna investigations carried out by Eco Logical Australia Pty Ltd (Eco Logical) in 2010 found no intact native vegetation communities, and no threatened terrestrial flora or fauna species present at Platypus, reflecting the site's highly modified environment.

There is little vegetation remaining on the site, other than that recently introduced as part of the landscaping works in the northern park area. The Harbour Trust planted native shrubs, tree and grasses, which will provide habitat for fauna species and improve biodiversity at Platypus.

Terrestrial Flora

According to Eco Logical (2010), Platypus would have originally supported Sydney Sandstone Gully Forest and Sydney Sandstone Ridge-top Woodland communities on the upper slopes and Coastal Sandstone Heath on the thinner soils. While these three vegetation communities have different growth patterns, especially the Coastal Sandstone Heath, they are marked by similar species including Smooth-barked Apple (*Angophora costata*), Red Bloodwood (*Corymbia gummifera*), Old Man Banksia (*Banksia serrata*) and a number of smaller perennials.

Estuarine Complex would have been present along the foreshore and included species such as Grey Mangrove (*Avicennia marina var. australasica*). All of these types of vegetation have been largely cleared in the local area with isolated remnants at Balls Head, Cremorne Point and Berry Island Reserve.

The man-made cliffs provide important habitat for native fern and fern allies including Batswing Fern (*Histiopteris incisa*), Maidenhair Fern (*Adiantum aethiopicum*) and the primitive Skeleton Fork Fern (*Psilotum nudum*).

Other small pockets of vegetation on the site contain planted native and exotic trees, palms, shrubs and groundcovers in garden beds. Significant specimens include one 15m high Cabbage Tree Palm (*Livistona australis*) that occurs naturally in rainforest gullies of the Sydney region, and several recolonising Port Jackson Figs (*Ficus rubiginosa*) around the cliff edges. Introduced trees that have ornamental and/or habitat value include River Sheoak (*Casuarina cunninghamiana*), Norfolk Island Pine (*Araucaria heterophylla*), Spotted Gum (*Eucalyptus maculata*) and several exotic conifer specimens.

Moderate weed infestation around the site's edges and garden beds including several weeds listed under the NSW *Noxious Weeds Act 1993* have been recorded. These include Pampas Grass (*Cortaderia selloana*), Lantana (*Lantana camara*), Asthma Weed (*Parietaria judaica*) and Green Cestrum (*Cestrum parqui*).

According to Eco Logical (2010), native vegetation was formerly confined to the sandstone cliffs to the northwest, and areas of opportunistic growth that have arisen in the years since the site was retired from active use.

Terrestrial Fauna

Platypus provides limited habitat for native fauna, however Possums, Skinks, Geckos and Blue-tongue lizards have been observed in the locality. Port Jackson Figs and other tree specimens also provide habitat for the Grey-headed Flying-fox (*Pteropus poliocephalus*) which is listed as vulnerable in Schedule 2 of the *NSW Threatened Species Conservation Act 1995* (TSC Act).

Several common native bird species have been observed on the site, including the Pied Currawong (*Strepera graculina*), Australian Magpie (*Gymnorhina tibicen*), Silver Gull (*Larus novaehollandiae*), and Noisy Miner (*Manorina melanocephala*). Exotic birds include the Common Myna (*Acridotheres tristis*) and the Feral Pigeon (*Columba livia*).

In total, up to 14 fauna species (including mammals, birds and reptiles) have been observed on site, in surveys and anecdotally.

An Anabat analysis (Eco Logical 2010) identified two threatened bat species, Large-eared Pies Bat (*Chalinolobus dwyeri*), and Eastern Bentwing-Bat (*Miniopterus schreibersii oceanensis*). During pre-clearance remediation surveys completed in 2010 by Eco Logical, no microbats were observed or detected flying over, foraging, or exiting any potential roosts at Platypus.

Depending on future uses of Platypus, additional investigation may be required to determine the presence of potential significant native fauna, such as the vulnerable Common Bent-wing Bat (*Miniopterus schreibersii*) that may occupy the Coal Stores (Building 13), the native 'Water Rat' (*Hydromys chrysogaster*) along the foreshore, and native frog species that may inhabit the drains along the base of cliffs.

5.3. Flora and Fauna - Aquatic

In 2010, surveys were undertaken by NGH Environmental to ascertain the condition of the aquatic environment, prior to the commencement of repairs to the seawall and concrete wharf. NGH's findings include:

- *Various intertidal and subtidal habitats were recorded in vicinity of the proposal site including rocky reefs with macroalgal cover, sandy beds and vertical surfaces such as seawalls and wharf piles.*
- *No seagrass beds were recorded in proximity of the concrete wharf and seawall.*
- *Intertidal biodiversity was composed of common species of invertebrates such as oysters, mussels and gastropods.*
- *Subtidal biodiversity included various species of fish and invertebrates. The seawall and the full length of the timber and concrete piles were covered with common sessile invertebrates, mostly ascidians and sponges.*
- *Fish species diversity and overall numbers were generally low in vicinity of the wharf with the most abundant conspicuous species being leatherjackets.*
- *White's Seahorse (*Hippocampus whitei*), listed under the EPBC Act, was observed clinging to the sponges on the wharf piles.*

Prior to the commencement of wharf refurbishment works in 2010, and following the receipt of appropriate permits under the *EPBC Act*, the Harbour Trust successfully relocated a population (approximately 10 individuals) of White's Seahorses from the waters below the concrete wharf to appropriate habitats, such as under other wharves within Neutral Bay, by an appropriately qualified marine ecologist in consultation with the Department of Primary Industries (DPI).

In 2016, NGH Environmental prepared an Aquatic Biodiversity Assessment of Neutral Bay in the location of the southern section of the wharf as part of the investigation for a potential overwater link between the site and Kesterton Park. No threatened, protected or migratory species were observed during the survey. However, the following species were determined to have the potential to use that area as habitat:

- Black cod *Epinephelus daemeli* (vulnerable under the *NSW Fisheries Management Act 1994* and *EPBC Act 1999*);
- Seahorses, weedy seadragons, pipefish (protected under the *EPBC Act 1999* and *NSW Fisheries Management Act 1994*);
- Elegant wrasse *Anampses elegans* (protected under the *NSW Fisheries Management Act 1994*); and
- Bleekers devil fish *Paraplesiops bleekeri* (protected under the *NSW Fisheries Management Act 1994*).

Intertidal habitats were located on vertical surfaces within the study area, namely wharf piles and the seawall, and some small sections of rocky reef. Subtidal habitats included vertical surfaces such as the wharf piles and the seawall as well as rocky reefs covered with macroalgae, and sandy seabed. Seagrass beds (*Halophila* sp.) were located in the study area.

In 2016, NGH Environmental also found a small area (around 1000 square metres) to the south west of the concrete wharf that contained rocky areas covered with macroalgae. Macroalgal cover of these areas was high (above 75%) and in good condition. Eight species of macroalgae were recorded with the more conspicuous ones being *Ecklonia radiata*, *Padina elegans* and *Sargassum linearifolium*. Macroalgae are deemed type 2 – moderately sensitive key fish habitat in accordance with criteria developed by DPI (2013). Sponges were also recorded, as well as a low number of fish species such as bream (*Acanthopagrus australis*), leatherjackets (*Monacanthus chinensis*), ludericks (*Girella tricuspidata*). All of these had been recorded during previous surveys and are well established at the site.

NGH Environmental observed a small number of fish species around the wharf piles including bream (*Acanthopagrus australis*), leatherjackets (*Monacanthus chinensis*) and sandy sprat (*Hyperlophus vittatus*).

No seahorses were recorded during the 2016 survey although they were identified along the wharf piles in surveys undertaken in 2010 and 2014.

5.4. Access and Transport

Platypus is well situated to take advantage of its proximity to walking and cycling networks, public transport (bus, ferry and train), and its waterfront provides the opportunity for water-based access, including charter ferries.

Platypus is also located close to a major arterial road (Bradfield Highway), however vehicle access is via narrow residential tributary streets, and on-site parking is limited (currently approximately 80 spaces).

Given these opportunities and constraints, this Plan aims to promote the use of sustainable modes of transport. This will be achieved in part by improving pedestrian and cycling connectivity between Platypus and surrounding areas, and maximising water-based public access.

In 2016, a specialist transport consultant (ARUP Pty Ltd) was engaged to undertake a Transport and Access Management Plan (TAMP). The Draft TAMP provides a comprehensive analysis of the constraints and opportunities of Platypus and the surrounding area in terms of road access, parking, public transport, proposed uses and trip generation. The findings of the Draft TAMP are discussed below.

Opportunities for improving site access and recommendations for managing transport and parking are provided in Section 7.

Historical Use

Historically, due to the need for security, access to Platypus was restricted. The waterfront connection, with the coming and going of vessels contributed greatly to the industrial and Naval character of Platypus.

Under Defence occupation, the site was roughly divided in two, with RANTME workers (predominantly civilians) and deliveries arriving via the High Street gate and submarine squadron personnel (predominantly Navy) arriving via the Kiara Close gate. At its peak, in the 1980s, up to 880 personnel commuted to Platypus daily. Traffic analyses carried out by Defence in 1997, when staffing levels had reduced to 120, indicated that the average weekday traffic generation of the site was about 430 vehicle movements per day.

Pedestrian Access

The constricted access through Platypus and the change from a closed Naval base to a public precinct will require the site to be carefully managed to provide direct, safe and inviting access for pedestrians. Figure 26 illustrates the existing pedestrian access conditions.

At present the main pedestrian access point to Platypus, and the only access way to the waterfront is via the High Street entrance. It has no separate footpath and is shared with vehicles. A pedestrian bridge over the access road provides a link between the High Street level and upper car park level. (See Figure 27)

The upper level car park is accessed via Kiara Close (See Figures 28-29). This is a private road however the Harbour Trust and North Sydney Council have an easement over the road granting a public right-of-way (pedestrians and vehicles). Under the covenant, North Sydney Council is responsible for managing the roadway. This provides an opportunity to implement improvements to the roadway for providing safe public access..

Until recently, a lift (part of the former Administration Building) provided access between the upper car park and waterfront levels. This lift was demolished as part of the remediation works, with the result that there is currently no direct pedestrian access between these levels.

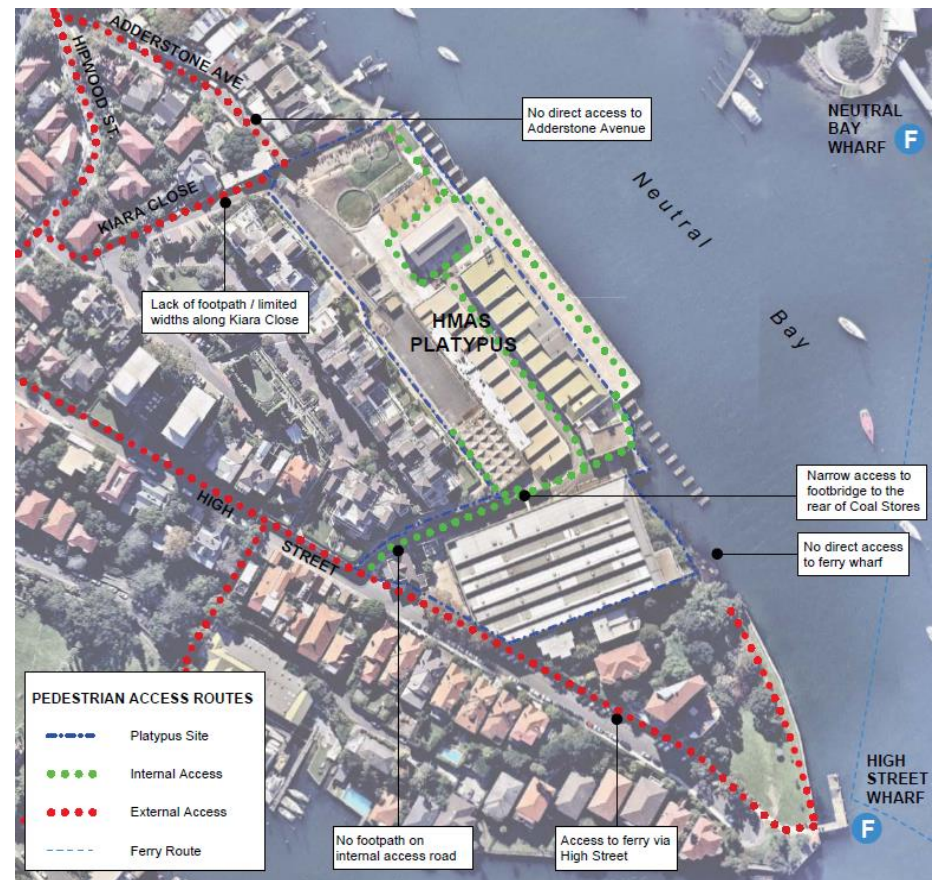


Figure 26: Existing Pedestrian Conditions



Figure 27: Access Road and Pedestrian Bridge



Figure 29: Upper Car Park and Pedestrian Right-of Way (around Iora)



Figure 28: Kiara Close

Bicycle Access

Platypus is located near to an existing cycling route (Sydney Harbour Bridge to Neutral Bay). An upgraded cycle route along Clarke Road and Broughton Street is in the planning and concept development stage with North Sydney Council. The improved cycleway would improve cyclist safety, travel times and connectivity between Platypus and Milsons Point Station.

Public Transport

Platypus is well served by public transport (See Figure 31). Investigations undertaken by ARUP (2016) found that public transport accessibility to Platypus is good during peak hours, but this declines in the evening when public transport frequencies reduce.

Both North Sydney and Milsons Point train station are less than 1km walk from Platypus, with the latter providing a slightly shorter and more pleasant walk for pedestrians. Trains arrive frequently however there is a lack of permeability and way-finding which means walking conditions between train stations and the site are considered by ARUP to be poor.

Buses run every 20 minutes within 500 metres of Platypus (on Clark Road). A weekday bus service connects with Milsons Point Station (Route 269, from McMahons Point to Kirribilli) and a daily service connects to the Sydney CBD (Route 263, from Cammeray to the City).

North Sydney Ferry Wharf is located 250 metres from the High Street entrance to Platypus (See Figure 30). This provides a daily convenient mode of transport, with quick travel times to Circular Quay (F5 ferry route - Circular Quay, Kirribilli, Kurraba Point and Neutral Bay).



Figure 30: Ferry Wharf (Kesterton Park) and Bus Stop (Clarke Road)

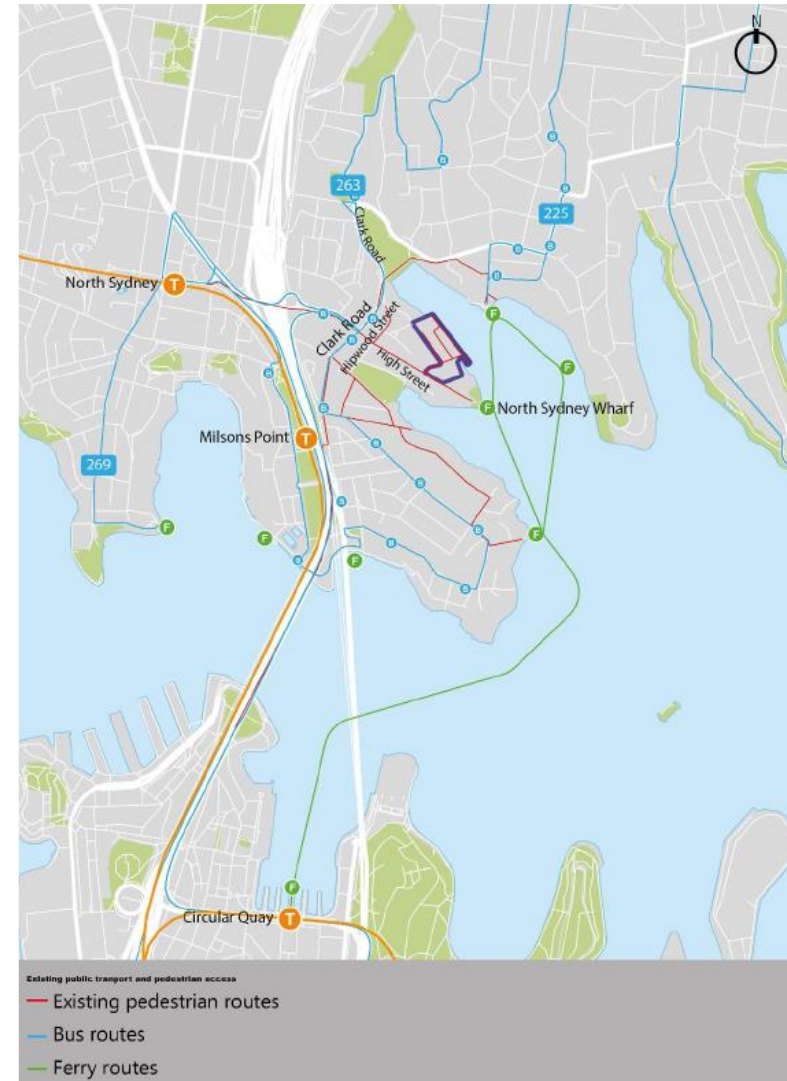


Figure 31: Existing Public Transport to Platypus (ARUP 2016)

Water Based Access

The site's waterfront location offers significant opportunities for water-based access for casual boaters, charter ferries, small-scale local tours, and commercial boat operators.

The deck of the existing Wharf is significantly elevated above water levels as it was designed for submarines. A floating pontoon would need to be constructed to facilitate access for conventional vessels.

Vehicular Access

Platypus is located within a dense residential precinct. Vehicular access to Platypus requires careful management to minimise potential traffic impacts on pedestrian safety and residential amenity.

Currently vehicular access to Platypus is via two main entry points: via High Street to the developed portion of the site; and via Kiara Close to the car park at the upper level which is currently controlled via steel gates. These two entry points provide access to separate levels.

The intersection of High Street with Clark Road provides the principal vehicular access to High Street. East of Clark Road, High Street becomes a local road narrowing to 6.8 metres. This section of High Street has a 15 tonne limit. At its eastern end, High Street terminates at the North Sydney Ferry Wharf, adjacent to Kesterton Park.

Traffic

The roads surrounding Platypus (Kiara Close, Hipwood Street and Kiara Close) are designated as 'Local Roads' which have a maximum environmental capacity of 300 vehicles per hour (RTA 2002).

ARUP (2016) undertook traffic counts on these roads and analysed a range of potential future use scenarios. The analysis showed that the existing roads operate well within the environmental capacity and anticipated levels of traffic generated by the potential reactivation of the site will not increase traffic levels above the capacity of these local streets.

Details of traffic management measures are discussed in Section 7.7.

Parking

At present Platypus can accommodate approximately 80 parking spaces; comprising 55 spaces in the upper car park (See Figure 29), 10 spaces in the forecourt beside the Gatehouse, and 15 spaces on the internal roadway.

Parking surveys were undertaken by ARUP (2016) on Kiara Close, Hipwood Street and High Street to determine utilisation and turnover. The survey included timed and unrestricted on-street parking, as well as resident permit holder parking. Unrestricted on-street parking is generally in high demand, which is likely to be used by ferry commuters, residents, and visitors to the Marina/Milson Park. The surveys found there was some remnant capacity in each of these parking zones. Nevertheless, Platypus will need to be largely self-sufficient with its on-site parking provision in order to protect the amenity of local residents.

Details of parking demand measures that will be implemented are discussed in Section 7.7.

5.5. Condition of Site Services

Most of the site services require repair and/or upgrading. The provision and distribution of new services will be tailored to meet future requirements.

Water Supply

The majority of Platypus is fed by a 100mm water main from High Street. As well as general water, this service supplies the fire hydrant, fire hose reels and sprinklers (where connected). The Gatehouse is connected through a smaller, separately metered supply from High Street. The water service is in a fair condition although most buildings have been isolated.

Sewer and Drainage

Sewer and drainage connections are in place for most buildings. As part of the remediation works, a cliff line seepage collection and management system was installed and the sewer line and pits in the access road were replaced.

Electrical and Gas Supply

As part of the remediation works, the electrical power supply to Platypus was upgraded, which involved the installation of a new kiosk substation and associated high voltage cabling. There is an alternate 11kv supply from Adderstone Avenue which was intended to be used as an emergency backup supply. There is an existing gas supply to the site from High Street, which is currently disconnected until required.

Fire Services

Some upgrading of the fire hydrant service was carried out by Defence around 2005. This will need to be further upgraded as part of the revitalisation of the site to comply with current standards.

Mechanical and Telecommunications Services

There is no significant operational mechanical services infrastructure at Platypus, such as ventilation.

Platypus is connected to a Telstra Telecommunications pit located on High Street, with only phone lines connected in the Gatehouse at this stage. Future works would require further main distribution frame (MDF) and intermediate distribution frame (IDF) installation and reticulation.

5.6. Hazardous Materials and Contamination

Hazardous Building Materials

Many hazardous building materials were removed as part of the Harbour Trust's site remediation works (See Section 4.4), however there are some remnant hazardous materials in buildings.

A Hazardous Building Materials Survey carried out at Platypus by *Hibbs & Associates Pty Ltd* (2015) identified the following remnant hazardous materials within some buildings:

- Asbestos containing materials (ACM)
- Synthetic Mineral Fibre (SMF) materials
- Major lead based paint systems applied to the buildings
- Fluorescent light capacitor fittings containing polychlorinated biphenyls

The SMF and ACM materials were reported to be in a good and stable condition. While they are maintained in this condition and remain undisturbed, they do not pose a measurable asbestos related health risk to the occupants or visitors to Platypus.

See Section 7.7 for further details on how hazardous materials will be managed.

Contamination - Wharf Area and Neutral Bay

An Environmental investigation of Neutral Bay sediments was carried out by the Department of Defence in 1997. The investigation identified that similar to many locations in Sydney Harbour, concentrations of several contaminants in sediments exceeded the *ANZECC (2000) Sediment Quality Guidelines Values*. Some of these contaminants were likely to be remnant from the former gas works use of the site, and others from contemporary sources. As a result, this area adjacent to Platypus was declared a contaminated site under the *Contaminated Land Management Act 1997*.

In 2012, the Harbour Trust engaged Environmental Resources Management Australia Pty Ltd (ERM) to undertake a further assessment of Neutral Bay to identify the nature and extent of contamination within the site and Neutral Bay to inform the wharf remediation works.

The *Environment Protection Authority* (EPA) subsequently carried out supplementary sediments sampling in the bay area. Having reviewed the sampling results, together with the ERM report (2012), the EPA ceased the investigation area declaration as it was considered that the contamination in the sediments were no longer significant enough to warrant regulation and were unlikely to present an unacceptable human health risk.

5.7. Views

Platypus offers expansive views of Neutral Bay, and the site is prominent when viewed from the western shore of Neutral Bay and adjacent residences including the Iora residential complex and High Street. Vistas within Platypus also contribute to an appreciation of its character.

5.8. Noise Impact Assessment

As part of the preparation of this Plan, the Harbour Trust engaged a specialist acoustic consultant to undertake a Noise Impact Assessment (Benbow Environmental, 2016). This Draft Assessment analysed a range of possible new uses to identify potential noise amenity impacts to the surrounding area, including cafes, restaurants, functions, small maritime industries, a gym and educational facilities.

This included a detailed noise survey across the surrounding residential areas to determine the existing background and ambient noise levels in the area. From the existing background noise levels, noise criteria were derived in accordance with the NSW *Environment Protection Authority, Industrial Noise Policy (EPA 2000)*, the *NSW Office of Liquor, Gaming and Racing noise criteria (OLGR)*, and sleep disturbances limits set by the World Health Organisation. Reasonable noise limits were established to protect the acoustic amenity of these areas. These limits set the noise design objectives that activities at Platypus will need to satisfy.

The ability of potential activities and uses to meet the noise objectives was then assessed through extensive noise modelling. The Draft Assessment provides guidance for the selection of possible uses and identifies acoustic treatment, noise control measures and restrictions in operating hours necessary to minimise the noise impacts on the surrounding residences.

The modelling found that the management of night-time activities is required to reduce potential sleep disturbance on surrounding residences. A series of recommendations and measures was provided in order to mitigate potential noise emissions from the site and minimise the noise impact on the surrounding residences. See Section 7.7 for further details about the ongoing management of operational noise.

6. Heritage Values



6. Heritage Values

Section 6 sets out Platypus' heritage significance, and values.

6.1. Heritage Listings

Register of the National Estate

The Register of the National Estate (RNE) was closed in 2007 and is no longer a statutory list. Platypus was on the 'Interim List' in 2004 when responsibility for the RNE was transferred from the former Australian Heritage Commission to the Australian Heritage Council. At that time, Platypus had been publicly proposed for entry in the Register. On 19 February 2012 all references to the RNE were removed from the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Australian Heritage Council Act 2003*.

RNE places can be protected under the EPBC Act if they are also included in another Commonwealth statutory heritage list, or are owned or leased by the Commonwealth, including sites such as Platypus. That is, RNE places owned or leased by the Commonwealth are protected from any action likely to have a significant impact on the environment, which includes a place's heritage values.

Commonwealth Heritage

Platypus is not currently listed as a Heritage place under the *EPBC Act*. However, as Platypus is a Commonwealth-government owned place that was listed on the Interim List of the RNE, as well as on the NSW State Heritage Inventory as an item listed by local government, and in the North Sydney Council LEP (see below), it is appropriate to manage the place in accordance with the Commonwealth Heritage management principles.

Moreover, a Conservation Management Plan (CMP) prepared by *Clive Lucas, Stapleton & Partners Pty Ltd* (2008) identifies Platypus as possessing potential Commonwealth Heritage Values and recommends that it should be nominated for inclusion on the Commonwealth Heritage List. See Section 6.2 for further discussion.

The Harbour Trust will consider the case for nominating Platypus for formal inclusion on the Commonwealth Heritage List.

NSW State Heritage Register

Platypus and the former Gas Work remains at 1 Kiara Close (now Iora residential complex) are listed on the NSW State Heritage Inventory as an item listed by local government.

North Sydney Local Environmental Plan 2013

The following is identified as an item of Local Heritage significance (Item No. I0859) in the *North Sydney Local Environmental Plan 2013*: "Gasworks remains, HMAS Platypus", at 1 Kiara Close and 118–138 High Street, also known as Lots 0–81, SP 36253; Lot 1, DP 945479; Lot A, DP 109583.

6.2. Conservation Management Plans (CMP)

The following Conservation Management Plans have been prepared for Platypus:

- *Godden and Mackay (1997) Heritage Assessment and Conservation Policy, HMAS Platypus, Neutral Bay;*
- *Clive Lucas, Stapleton & Partners Pty Ltd (2008), Conservation Management Plan.*

Summary Statement of Significance

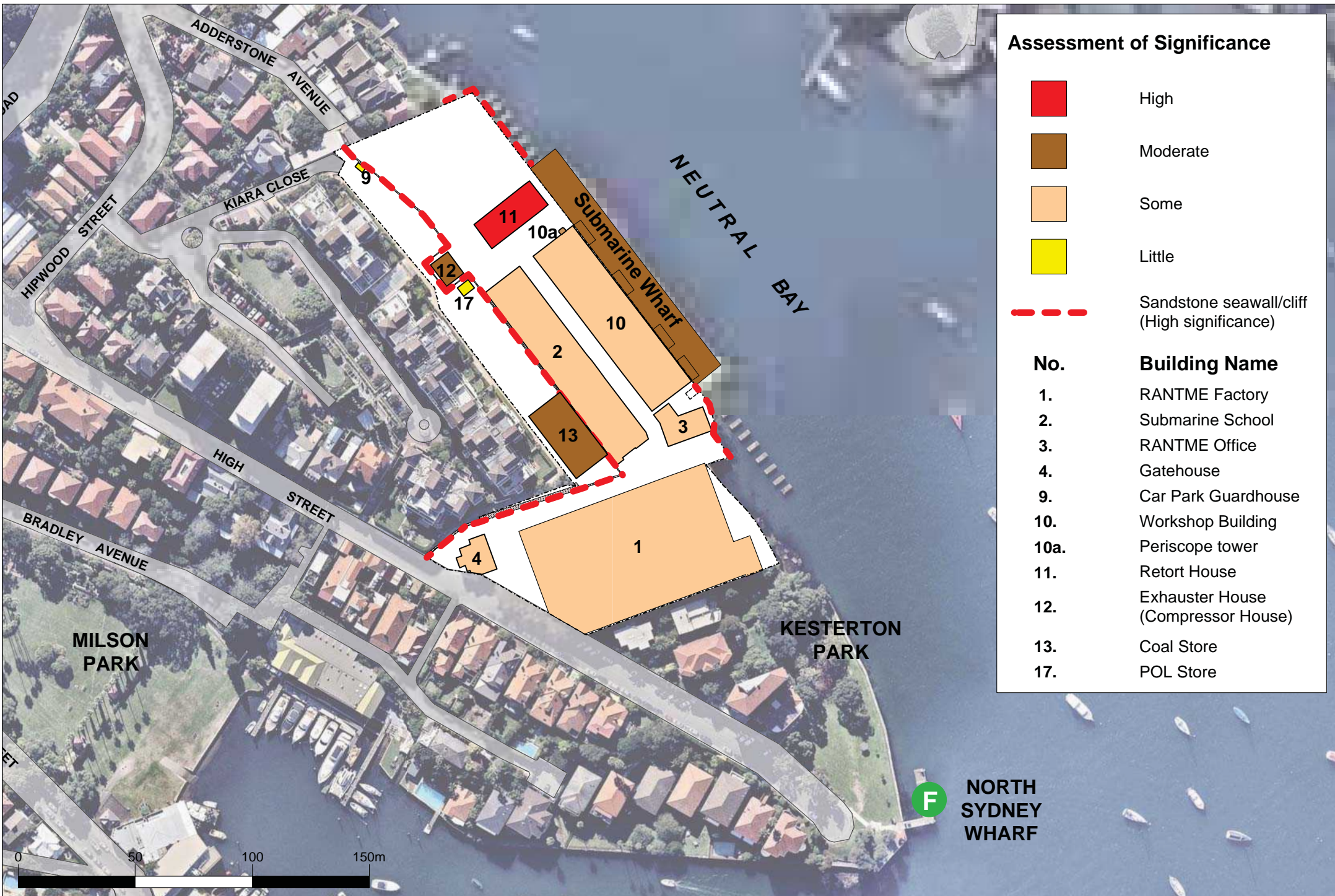
The following statement of significance is extracted from the Clive Lucas, Stapleton & Partners CMP (2008):

HMAS Platypus is of historic significance for its former uses as a gasworks (1877-1932), RAN torpedo factory (1942-1997), and submarine base (1967-1999). Held in high regard for its contribution to Australia's efforts in World War II and in the establishment of the nation's first permanent submarine squadron, HMAS Platypus is associated with many achievements in engineering and defence work, including carrying out torpedo manufacture to an extraordinary level of precision and operating as the global headquarters for Australia's six Oberon-class submarines, involving advanced technologies in communications and electronic warfare. Both uses served to establish Australia as an independent naval force within the region during and after World War II.

Although little fabric remains of the gasworks phase at the place, the site's main aesthetic significance arises from works to the landform undertaken during the 19th century, resulting in a dramatic wall of sandstone rising vertically from the harbour. The Retort House, the only extant building relating to the 19th century phase of gasworking on the site, is a rare and potentially aesthetically significant building (though later accretions obscure views of its cast iron structure). The utilitarian

World War II-era buildings which dominate the site and the place's reliance on water access give HMAS Platypus a robust industrial character which is increasingly rare in Sydney Harbour.

The buildings and structures at Platypus range in significance due to their former use and development phase (See Figure 32, Table 1 and Section 7.4).



Assessment of Significance

- High
- Moderate
- Some
- Little
- Sandstone seawall/cliff (High significance)

No.	Building Name
1.	RANTME Factory
2.	Submarine School
3.	RANTME Office
4.	Gatehouse
9.	Car Park Guardhouse
10.	Workshop Building
10a.	Periscope tower
11.	Retort House
12.	Exhauster House (Compressor House)
13.	Coal Store
17.	POL Store

F NORTH SYDNEY WHARF

Fig.32 Significance of Buildings and Structures

Potential Commonwealth Heritage Values

The EPBC Act provides that a place has Commonwealth Heritage Value if it meets one of the criteria prescribed in the EPBC Regulations (2000). The following statement of potential Commonwealth Heritage Values is derived from the Clive Lucas, Stapleton & Partners CMP (2008). The statement identifies that the site potentially meets several of the criteria specified in the Regulations. The primary sources of potential significance for Platypus are:

Criterion a (Historic):

The place's importance in the course, or pattern, of Australia's natural or cultural history

- The former use of Platypus during the gasworks phase, Torpedo factory phase, and Submarine squadron phase is significant.
- The history of the site's environment-cultural landscape resulting largely from excavation and land reclamation is significant; including the cliff face, road cutting, excavated niche and seawall
- The outstanding level of technological and engineering skills associated with the torpedo manufacturing which was carried out by Australians using Australian materials and this is considered to be one of the great achievements in science and industry to come out of the war effort.
- As the sole provider of gas to the North Shore region, Platypus played an instrumental role in the settlement of the North Shore in the 19th century.
- The site's long and important use by Defence is of historical significance.

Criterion b (Rarity):

The place's possession of uncommon, rare, or endangered aspects of Australia's natural or cultural history

- Platypus past uses as a torpedo factory and submarine base which served the entire nation is rare. Although other sites in Australia were involved in torpedo manufacture during World War II, the Torpedo Factory was the final assembly point and the head of the line of production for the torpedo manufacturing project.

- The Submarine Wharf, the first of its type to be constructed in Australia, is now one of very few of its type in Australia.
- The Retort House is rare within Sydney as it is one of the last remaining buildings to have been used in gas making in the 19th Century since the introduction of the technology to Australia in 1828.

Criterion c (Research/technical):

The place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history

- Platypus potentially has archaeological significance primarily due to its former use during the gasworks phase.
- The seawall, as an archaeological feature, has moderate significance.

Criterion d (Representativeness):

The place's importance in demonstrating the principal characteristics of a class of Australia's natural or cultural places or environments

- Platypus is of some significance as representative of the rapidly planned and constructed facilities characteristic of the early years of World War II (Torpedo Factory phase: FIMA Building, Submarine School, RANTME Office, RANTME Factory, Gate House)
- It is also representative of the fast-disappearing industrial/maritime character of Sydney Harbour a working part (Gasworks phase: Retort House, Coal Stores)

Criterion e and f (Aesthetic):

The place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group; and The place's importance in demonstrating a high degree of creative or technical achievement at a particular period

Platypus is not found to have significant Commonwealth Heritage values under these criteria

Criterion g (Social):

The place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

- Platypus, as the first base for the Australian Submarine Squadron, is of social significance to individuals who were directly or indirectly associated with the operation of the submarine squadron.
- Platypus is held in high esteem by individuals who were involved with the Torpedo Establishment.

Criterion h (Association):

The place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history

- Platypus is of significance under this criterion for its association with the Royal Australian Navy (RAN), both as the site of the Torpedo Factory and its successor agencies, and as the site of the HMAS Platypus submarine depot.
- Many noteworthy individuals have had a part in the direction and operation of the site under the auspices of the RAN.

The CMP identifies items of significance and provides a set of policies and recommendations to maintain and enhance the cultural significance of the site and to guide its future management. These recommendations are addressed in this Plan.

6.3. Aboriginal Heritage

An Assessment of the Aboriginal Site History of Platypus (Rosemary Kerr, 2006) found that due to the significant industrial use and land disturbance at the site, no evidence has been found of Aboriginal habitation on or in the immediate vicinity of Platypus (See Section 4.3).

6.4. Archaeology

Archaeological investigations carried out at Platypus as part of the CMP (2008) found that:

While some remains may survive, given the extensive disturbance that has occurred at the site, it is considered unlikely that most subsurface remains relating to the gasworks will survive intact and in situ. Surviving remains are anticipated to consist of the occasional building slab from former gasworks structures, associated building rubble, and underground pipework.

The CMP (2008) included an assessment of the maritime archaeological potential of the site. The assessment found that:

HMAS Platypus is not an identified maritime archaeological site and does not lie within a known maritime archaeological area. However HMAS Platypus does have some maritime archaeological potential.

No underwater archaeological survey has been carried out in the waters of Neutral Bay to date. The NSW Maritime Heritage online database records three shipwrecks in close proximity to Neutral Bay (Argo, Austral and Katie), however all three have since been refloated.

Non-inclusion of an old shipwreck or maritime archaeological site on heritage databases is of no consequence to an owner's responsibility not to cause damage. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

7. Outcomes



7. Outcomes

Section 7 identifies the desired outcomes for the revitalisation of Platypus as a new waterfront public park.

7.1. Vision

Platypus will be rehabilitated to provide a sequence of terraces, streets, squares and gardens for public enjoyment by the waterfront. The sequence of public spaces will culminate in the urban park, with greenery providing shade as well as a place to appreciate the whole of the site's heritage.

The internal walks will link to existing open space and walks in the neighbourhood, adding to the succession of vantage points overlooking the harbour. Access through the site to the waterfront will be improved and new links provided, which will make pedestrian access more direct and offer greater diversity and choice.

Access to the former Defence site is currently hidden and constrained. The access from High Street via the dramatic cutting will be made more inviting and opened up to reveal views of Neutral Bay. It will provide both pedestrian and limited vehicular access. The Harbour Trust will work with stakeholders to improve Kiara Close for pedestrian and managed vehicular access.

Platypus will become a part of the network of public spaces along the foreshore in Neutral Bay. A new foreshore pedestrian link is proposed to Kesterton Park. Access for boats of different sizes will be provided – historic vessels, charter ferries and recreational boats.

While the industrial heritage values of the buildings will be retained, the buildings and public spaces will be adapted and opened up to suit the new uses and the amenity required for public visitation. The conversion of the buildings will be compatible with the palette of materials and finishes prevalent on the site. The cohesive character of the buildings and spaces will be retained, helping to maintain the sense of being in a strange and different place and instilling an understanding of Platypus' former uses.

The totality of the heritage of Platypus will be expressed through the design of the public spaces. Artefacts, access to some of the special features within the buildings and historical information will furnish the network of walks. Some of the buildings, structures and spaces, such as the former Coal Stores, the Exhauster House, the Periscope tower, the entrance to the RANTME Factory, and the new foreshore park to be created at the eastern end of the RANTME Factory will provide focal points in the interpretation of the site's heritage.

A diverse ecology of uses will be established. Buildings and spaces will be adapted for a range of cultural, recreational, community and commercial uses that are compatible with the site's nature, character and constraints. Measures will be put in place to ensure that the local environment and amenity is protected and to incorporate Ecologically Sustainable Design (ESD) principles.

'Urban Park' - Interpret site heritage, provide Submariners memorial.

Provide children's play facilities, shade, seating, picnic/barbecue facilities.

Managed access to car park.

Work with Council and landowner to improve road safety.

Investigate potential for pedestrian access via Adderstone Avenue.

Provide additional stairway.

Provide pedestrian access (stairs/lift) between car park, Exhauster House and lower park level in suitable locations.

Landscape to soften appearance of carpark.

Demolish part of former workshop and create landscaped courtyard linking street and wharf.

Investigate adaptive reuse of Coal Stores that respects heritage and local amenity while improving visitor experience.

Investigate potential public walkway / useable outdoor space on Coal Stores harbour aspect.

Investigate potential use of tunnel.

Provide pedestrian bridge link.

Managed access to site.



Small vessel access, investigate potential pontoon.

Opportunity for visiting ships (e.g. submarines).

Retort House: restore and adapt for publicly orientated use.

Re-use wharf as public promenade with maritime activities, subject to RMS approval.

Demolish RANTME office and create a landscaped plaza.

Pedestrian link to Kesterton Park & Ferry Wharf subject to RMS and Council approval.

Access for visiting vessels and small boats / kayaks.

RANTME / Torpedo Factory

Demolish multi-level eastern portion of building, up to cliff line, to create new foreshore park with landscaped terraces.

Remove walls on west, north and east sides to open building up.

Reveal 'Cliff' line beneath existing building.

Public walkway along northern and eastern sides of building.

Provide parking within RANTME Factory.

Potentially setback western facade to enlarge forecourt.

Potential Pedestrian link to Kesterton Park.

Southern façade of remnant RANTME factory retained to protect privacy & amenity of adjoining residences.

Potential new multipurpose structure with amenities (indicative footprint).

Retain roof on remnant building.

LEGEND

- Pedestrian Access
- Buildings
- Harbour Trust Boundary
- Viewing Point
- Shared Vehicular/ Pedestrian access
- Building to be removed
- Potential pedestrian connection
- Possible New Structure

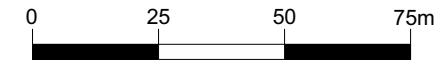


Fig.33 Outcomes

7.2. Public Domain and Access Improvements

Public access to and through the site will be maximised by providing high quality public spaces that are attractive and congenial for visitors.

Platypus will be reborn with improved access, vantage points and tantalising water views. A series of new landscaped open spaces will be provided, each with a distinct character and outlook:

- **Urban park** (at the northern end of the site)
- **Waterfront Courtyard** (cut through the FIMA workshop)
- **The Wharf** (as a promenade, and a place of leisure and activity)
- **Foreshore Link** (Overwater to Kesterton Park)
- **Boating Access** (new pontoon)
- **Landscaped Plaza** (in place of the RANTME Office, framing the view down the cutting from High Street)
- **Entry Forecourt** (facing High Street)
- **Foreshore Park** (Landscaped terraces replacing the multi-level harbour facing portion of the RANTME Factory)
- **RANTME/Torpedo Factory Walkway** (along the northern and eastern sides of the RANTME Factory)
- **New links between levels** (stairs and lift)
- **Kiara Close** (safety improvements for road users and pedestrians)
- **Upper level walk** (adjacent to the Coal Stores)

The internal street, the wharf, the upper level walkway, public access through the RANTME Factory, and the new foreshore park will link these spaces to each other and to the network of walks in the neighbourhood, improving site permeability.

A summary of these opportunities for improving pedestrian access and internal walking routes is illustrated in Figure 34.

The exposure of open spaces to the sun and wind requires consideration. Where shade planting is not practical, shade structures will be provided that are designed to be compatible with the scale and industrial character of the buildings.

To Harbour Walk
and High Street

Ferry wharf

Kesterton Park

Water access

Kesterton Park
link



Include a public car park to
support visitors accessing
the site

Entry forecourt

Lift and/or stairs

Cutting connects High
Street with lower levels

Landscaped Plaza

New pedestrian
connections

Create a new
foreshore park

Lift and/or stairs

Provide pedestrian
connection across
the cutting and to
different levels

Access through
landscaped
courtyard

Public promenade



Cliff-top walkway

Urban park

Stairs

To Kiara Close

To Adderstone Avenue

Water access

Fig.34 Public Domain and Access Improvements

Urban Park

In 2016 the Harbour Trust created a landscaped park on the waterfront at the northern end of the site. The park has been designed with a mounded area of lawn and trees to provide shade and a buffer to adjoining land as well as in-ground sculptural elements that interpret the site's former gas works use. The cliff face forms a dramatic back-drop to this space.

A level area set in a grove of trees links the mounded park with the Retort House which will be a central feature in this waterfront urban park (See Figures 35-36, and Section 7.3).

Children's play facilities that tell the story of the place, catering for different age groups will be provided. Additional outdoor recreational facilities will be considered, such as outdoor gym equipment, water bubblers and shaded picnic/barbecue areas.



Figure 35: Former gas works interpreted in park landscaping

Landscaped park and plaza

Retort House restored and adapted for publicly orientated use

Stairs and lift connection to upper levels

Childrens' play facilities with elements that interpret site history



Fig.36 Retort House and Urban Park

Waterfront Courtyard

Two of the central bays of the FIMA Workshop will be demolished to create a landscaped courtyard, providing a visual and pedestrian link between the internal street and the wharf. The courtyard will help punctuate and soften the current hard-edged character of the waterfront, while providing a sheltered and pleasant space for visitors. (See Figures 37-38).



Figure 37: FIMA Workshop
(Potentially remove central bay indicated in red outline)

Demolish two bays of FIMA Workshop and provide landscaped courtyard, improving connection to internal street

Provide shelter to improve amenity

Public promenade along wharf with potential for maritime related activities

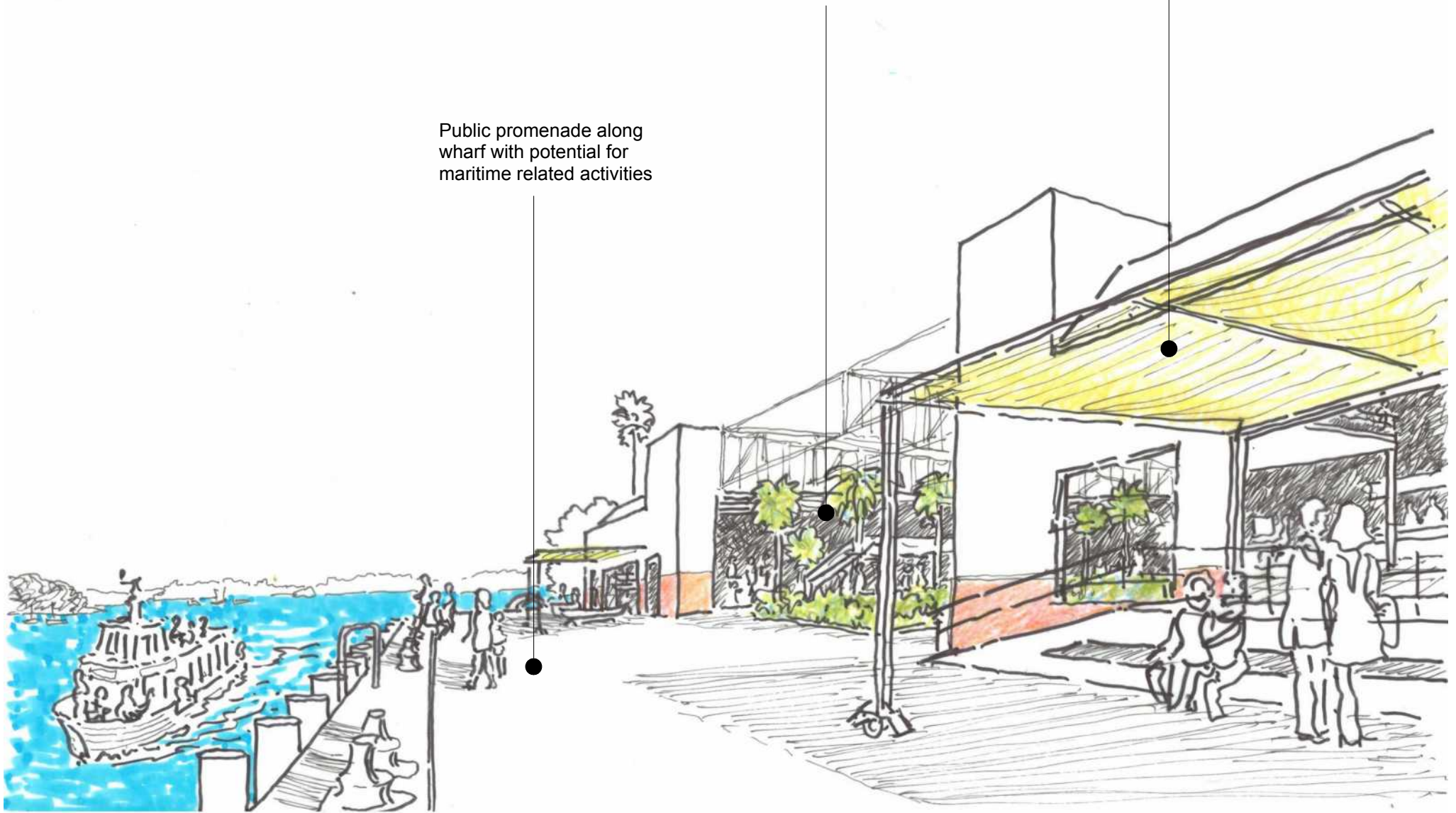


Fig.38 Waterfront Courtyard

Wharf, Foreshore Link and Boating Access

The wharf will be reused as a space for public access and recreation, maritime activities, and vessel berthing. A balance will need to be achieved between maritime activities and safe public access along the wharf.

The wharf will be designed as a foreshore promenade with shade, places of rest, with the waterfront courtyard providing a high level of amenity for visitors. The wharf will connect High Street, Kesterton Park and the North Sydney ferry wharf with the urban park and possibly also to the new foreshore park and upper level of the RANTME Factory. (See Figures 39-40)

This Plan aims to link Platypus with Kesterton Park to improve site connections. The existing pedestrian link to Kesterton Park is by an overwater structure incorporating pontoons for small boats and kayaks to berth either in the sheltered basin between the wharf and the natural rocky shoreline, or facing the harbour. This would be an accessible link suitable for prams and wheelchairs.

An additional pedestrian link to Kesterton Park could be provided along the foreshore, through the new foreshore park and adjacent public land. This link would need to incorporate steps and would be subject to the agreement of North Sydney Council and Crown Land NSW.

The wharf provides an opportunity for large visiting historic ships, such as submarines to be moored at Platypus providing an occasional temporary attraction relevant to the site's history. Water-based access to Platypus and berthing will be facilitated by the construction of pontoons suitable for a range of vessels, including charter boats and recreational vessels berthing at the southern and/or northern ends of the wharf.



Figure 39: View of Platypus from Kesterton Park (2016)

Fully accessible pathway to Kesterton Park

Potential pedestrian link to Kesterton Park

Provide pontoons / boating facilities for small vessel / kayak access, on one or both sides of walkway

Demolish multi-level eastern portion of building, up to cliff line, to create new foreshore park with landscaped terraces

Reveal and interpret site's natural, indigenous and defence history

Landscaped plaza



Fig.40 Foreshore Park and Access Platypus, North Sydney

Landscaped Plaza

The former RANTME Office Building will be fully demolished (See Section 7.3), opening up views towards the bay as one enters the site through the cutting. A new plaza will be designed to provide more landscaped open space and more direct access between the wharf and High Street. (See Figures 41-42)

This area will become an important arrival/orientation point for the site, providing a direct connection between High Street, the upper level, the buildings, the waterfront and Kesterton Park link.



Figure 41: RANTME Office

Landscaped plaza in place of demolished RANTME office

Provide pedestrian connection/s to lower level and RANTME Factory

Provide pedestrian link to new foreshore park and potential link to Kesterton Park



Fig.42 Landscaped Plaza

RANTME/Torpedo Factory Entry Forecourt and Foreshore Park

The RANTME Factory stretches from High Street through to the foreshore. At its High Street end the upper level of the building is at street level. This level sits upon a sandstone shelf for much of its length, which steps down towards the harbour, where the building has a lower level. This 'step' is similar to a cliff, comprised partly of natural rock, and partly of a sandstone-block retaining wall. The cliff edge runs in an approximate diagonal line beneath the floor of the RANTME Factory's upper level.

This Plan proposes working with the key elements of the site: its landform, foreshore location, surrounding context, and the structure itself - to modify the building to provide substantial public benefit. This will be achieved by removing part of the building, and adapting the remnant building, to provide:

- A new public park on the harbour foreshore
- Public access - with new connections to, and between, the upper level and the new park, and along the foreshore
- Elevated views from the upper level of the remnant building, overlooking the new park and Neutral Bay
- Protection and interpretation of heritage values
- Improved amenity for the entry forecourt (High Street Square)
- Visitor parking on the upper level
- Sustainable design, using the roof to capture solar power and rainwater
- Potential new space for community/cultural activities within the upper level
- Protection of local amenity
- Improved visual outcomes – the removal of the multi-storey, harbour-facing section of the RANTME Factory, and the peeling away of walls on three of its sides, will substantially reduce the visual bulk and scale of the building, and open up views to and through the site.

These outcomes are discussed in more detail below.

New Foreshore Park

The harbour-facing, multi-storey portion of the building, east of the cliff-line, will be removed to facilitate the creation of a new public park on the foreshore, for passive recreation. The removal of this portion of the building will reveal the cliff which will form an attractive and dramatic backdrop to the new park. The layers of the site's history will be revealed and interpreted: including the natural foreshore, indigenous heritage, and the gasworks and defence phases. The park will be made up of landscaped terraces, possibly using remnant structures – such as concrete floor slabs and lowered walls - to create formed spaces that are sheltered and congenial, and which interpret the building that once stood there. The provision of seating and shade will be in harmony with the landscape character. Stairs and public paths may connect the park to the remnant upper level of the RANTME Factory, north to Platypus Lane, and south towards Kesterton Park (this southern link would be subject to the agreement of North Sydney Council and Crown Land NSW). The new park will be designed to protect local residential amenity from potential noise, light and privacy impacts.

Remnant Upper Level

The upper level, west of the cliff-line, will be retained and adapted to provide a functional space that is publicly accessible, and which retains a substantial area of original built fabric, enabling appreciation of the building's heritage values. The external walls on the upper level's western (High Street), northern (Platypus Lane) and eastern (Harbour) facades will be lowered to open up views into and from the interior space. A low level wall would be retained along the perimeter to serve as a balustrade. The wall on the southern elevation will be retained to ensure ongoing protection of adjoining residents' amenity – by preventing potential noise, light and privacy impacts.

The characteristic sawtooth roof will be retained above the remnant building. This will allow the volume of the space and its historical use to be appreciated - while providing a covered space for community use; and the ability to collect solar power and rainwater, screen parking, and contain noise and light. Planter boxes may be provided around edges, and suspended from walls, columns and roof trusses, to create a landscaped space. Consideration will need to be given to preventing the ingress of birds and other wildlife.

Removing the wall cladding facing High Street will substantially reduce the bulk and scale of the building, providing a more welcoming entry forecourt (High Street Square) to both the RANTME Factory and the site as a whole. High Street Square will be attractively paved and landscaped as a pedestrian-only public space. Interpretation of the Torpedo Factory's heritage may be incorporated in the forecourt design. An inviting and accessible pedestrian entry will be provided at the RANTME Factory's threshold with High Street Square. The building may potentially be setback further from High Street, to increase the area of High Street Square.

Visitor parking for approximately 40 vehicles will be provided on the upper level, at the High Street end. The vehicle driveway to/from High Street will be widened to allow two-way access. The parking area will be partly screened by retaining some of the original internal walls ('blast walls' - which also support understanding of the building's original function as a Torpedo Factory), as well as by establishing new landscaping elements along edges.

A wide public walkway will be provided around the upper level's northern and eastern edges. The walkway will connect with the existing bridge over Platypus Lane and provide access suitable for people with disability to the existing lift. The eastern, harbour-facing end of the upper level will have a generous area, with seating, for enjoying the elevated views over the new foreshore park and the bay below. Stairs may potentially be provided to connect the upper level with the new park on the foreshore.

The covered upper level provides a rare opportunity for a sheltered public space for community/cultural activities - such as occasional markets, displays, exhibitions, performances, fitness, and gatherings. Services (water, electricity, lighting) will be provided to facilitate this. A new, self-contained multi-purpose space - for publicly-orientated uses such as a café and/or community/cultural activities, with amenities - may also be provided within the upper level of the RANTME Factory. This would be located in the south-eastern corner of the upper level, and contained within the envelope of the RANTME Factory's roof structure. The scale, location and materials of this new self-contained space will need to be sympathetic to its setting within the RANTME Factory Building, and should be designed to maximise views out towards Neutral Bay.



Existing



Proposed

Figure 43: RANTME Factory – Proposed Foreshore Park



Existing



Proposed

Figure 44: RANTME Factory – Proposed Entry from High Street

Open up building

Relandscape to provide welcoming entry forecourt

Retain on-street parking

Vehicular access into building



Fig.45 RANTME Factory and Entry Forecourt

Pedestrian connections via lift and bridge to lower level and RANTME Factory

Remove walls on west north and east sides to open building up.

Provide pedestrian links to foreshore landscape terraces & potentially on to Kesterton Park

Southern facade retained to protect privacy & amenity of adjoining residences

Potentially setback western facade to enlarge forecourt



Fig.45a RANTME Factory

Upper Level Walkway and Access between levels

The upper level walkway, Exhauster House midway up the cliff, and the waterfront level need to be connected to provide through access for pedestrians traversing the site, and a more direct link between parking and destinations. This will be provided by the new stairs and lifts in one or more locations that are discreet and which best serve the site functionally. (See Figures 36, 42 and 46)

Pedestrian access along the upper level will be improved including the potential for a walkway along the cliff edge.

The pedestrian bridge across the cutting linking the upper level with the RANTME terrace could be repaired. Alternatively, a new bridge could be constructed in a more suitable location.

The design treatment of the upper car park will include landscaping to soften its appearance and its use will be closely managed. The Harbour Trust will work with the adjacent landowners and North Sydney Council to implement traffic safety improvements to Kiara Close. (See Section 7.6)

The possibility of a new pedestrian connection from the urban park to Adderstone Avenue remains a long-term ambition. Opportunities for realising this will be investigated with the adjoining landowner.



Figure 46: View of the upper level and Exhauster House

Internal Street

The narrow entry road through the cutting and its continuation between the sawtooth roofed buildings provides one of the site's most unusual and distinctive urban places.

This access way will need to be carefully managed to create a safe and pleasant space for pedestrians.

It will be managed as a shared zone, with priority for pedestrians while allowing access for some parking and service vehicles (See Section 7.8).

The streetscape character of similar material finishes, scale and repetitive building modules will be retained, but punctuated with the addition of the waterfront courtyard and landscaped plaza. Where practical, unsympathetic service infrastructure and other added accretions along the cut sandstone wall will be relocated to less intrusive positions.

7.3. Adaptive Re-use of Buildings

Platypus will be revitalised through the introduction of a diverse mix of cultural, recreational, community and commercial uses.

The full or partial demolition of buildings will enhance the appearance and public amenity of the site while providing additional space and reducing the bulk of buildings. Works to buildings, and their fabric treatment, will be carried out according to their levels of significance to ensure the protection of heritage buildings.

Potential noise, transport and parking impacts will be a key consideration in the selection of uses for buildings (See Section 7.6). In addition, the design of any adaptive work will consider appropriate acoustic treatment to minimise noise impacts on surrounding properties.

The refurbishment of buildings will include the sustainable use of materials, and installation of energy and water saving measures, while uses will be selected that are compatible with managing transport demand.

The scale and footprint of the existing buildings will be reduced through selective demolition of buildings (in full or part). Once this plan is fully implemented the total gross floor area (GFA) of the site's buildings will have been reduced by approximately 35% since the transfer of Platypus to the Harbour Trust in 2005 (when total GFA across the site was approximately 16,512 m²).

RANTME Factory/Torpedo Factory (Building 1)

Outcomes for the adaptive re-use of the RANTME Factory are described in Section 7.2.

Gatehouse (Building 4)

The High Street Gatehouse will be retained for uses such as a dwelling, office or small retail space. The building will be restored to allow appreciation of some of its original external features. This, in conjunction with the demolition of the garage/carport will help create an attractive welcoming entry forecourt to Platypus. This building is in an ideal location for providing natural surveillance of the site entry. Part of the Gatehouse could potentially be adaptively reused as a Rangers' office to provide security at the entrance to the site.

RANTME Office (Building 3)

The former RANTME Office will be entirely demolished to open up views towards the bay as one enters the site, and provide additional landscaped open space.

Submarine School (Building 2)

The Submarine School would suit a range of uses such as offices, small retail spaces, storage, exhibition/workshop/studio spaces, corporate and/or out-of-school training facilities, sport and fitness uses, and/or rehearsal studios. Opportunities for design treatment of the street-facing side of the building will be explored, to improve amenity and make it more welcoming.

FIMA Workshop (Building 10)

Two bays will be removed to create a courtyard, effectively cutting the building into two separate sections. The buildings will be opened up towards the harbour and the street to make the sawtooth roofed workshop more attractive to a broad mix of uses, such as studio/workshops, creative offices, small retail spaces, or maritime related uses.

This would be consistent with its former workshop use while contributing to an active waterfront precinct by providing visitor orientated uses. The building could also be used as a waterfront cafe/restaurant/function space offering expansive views of the harbour. The southern end of the building could be opened up to face the proposed new landscaped plaza, and provide a waterfront visitor-orientated use such as a cafe/restaurant or kayak hire facility.

Retort House (Building 11)

The Retort House will be reclad and refurbished to showcase its heritage significance. The Harbour Trust will investigate opening up the sides of the building, providing indoor and outdoor space with views through the building to the park, harbour and cliff-face, resulting in a visually permeable building. It will become the centre-piece of the waterfront promenade along the wharf and the urban park. It could include uses such as a pavilion for occasional performance and events, hospitality, restaurant or a similar function that would create interest within the site at the waterfront. See Figure 33.

Exhauster House (Building 12)

The Exhauster House will need to be connected to a new lift and stairs. The building enjoys an aerial view over much of the lower level of the site and the use of this building should be opened to the public as much as possible. It could be re-used for uses such as an exhibition or ceremony space, studio/workshop, or for heritage interpretative displays.

Coal Stores (Building 13)

The Harbour Trust will investigate the adaptive reuse of the Coal Stores that respects its heritage values, while providing a use that improves visitor experience. This could include uses such as displays and exhibitions, or other visitor focused uses.

The existing walkway from the car park to the entrance to the Coal Stores is narrow and it is unlikely that compliance with the *Disability Discrimination Act (DDA)* and *Building Code of Australia (BCA)* can be achieved without partly demolishing the Coal Stores. As an alternative, the construction of a cliff top elevated walkway will be explored. This presents the opportunity to provide an accessible walkway and harbour-facing useable space fronting the Coal Stores. The use of any outdoor area will need to be treated appropriately to mitigate any potential noise impacts.

A new lift and/or stairs could potentially be constructed in this area to provide a direct link to the waterfront level. A pedestrian bridge link will provide access to the RANTME Factory.

Car Park Guardhouse (Building 9, Upper Level)

The upper car park Guardhouse will be demolished to improve the appearance of the site at this entry point and to facilitate the upgrading of the car park. New stairs could potentially be constructed in this area to provide a direct link to the waterfront level.

POL Store (Building 17)

The POL Store will be demolished, and a new lift and/or stairs could be constructed in this area.

7.4. Heritage Conservation

The reactivation of Platypus and adaptive reuse of buildings will be guided by the Australia ICOMOS *Burra Charter* and the Commonwealth Heritage management principles and the 2008 Conservation Management Plan (CMP).

The character and heritage values of Platypus will be conserved, protected and interpreted. Buildings and elements will be conserved according to their heritage significance (See Table 1, which is derived from the CMP).

Platypus will be reactivated with uses and activities that are compatible with and respect the site's heritage significance. Changes to the fabric of buildings will be carried out in a manner that is sympathetic to their heritage values.

The CMP will guide the adaptation of buildings and introduction of new features to facilitate the appropriate use of the site. The replacement of intrusive elements or fabric of some or little significance will be permitted, provided they preserve identified views, are of sympathetic scale, form, bulk, materials, and colours, and designed in accordance with the character of Platypus.

Table 1: Heritage Significance and Fabric Conservation

Significance	Building/Structure	Fabric Conservation
High	<ul style="list-style-type: none"> ○ Retort House ○ Sandstone cliff ○ Iron brackets on cliff face ○ Niche in cliff ○ Sandstone seawall 	Aim to retain all the fabric. If adaptation is necessary for the continued use of the place, minimise the changes, removal and obscuring of significant fabric and give preference to changes that are reversible.
Moderate	<ul style="list-style-type: none"> ○ Exhauster House ○ Coal Stores ○ Graffiti of submarine names ○ Hose reel ○ Periscope tower ○ Possible Tunnel under road ○ Submarine Wharf/Bollards 	Aim to retain most of the fabric. If adaptation is necessary, more changes can be made than would be possible for fabric of high significance but the same principles apply.
Some	<ul style="list-style-type: none"> ○ Submarine School ○ RANTME Office ○ Gatehouse (High Street) ○ FIMA Workshop ○ RANTME Factory 	Preference should be given to the retention of this fabric, but adaptation or removal should be allowed, if necessary for community amenity or commercial necessity, provided its removal would cause no damage to more significant fabric.
Little	<ul style="list-style-type: none"> ○ POL Store ○ Gatehouse (Upper car park) 	Fabric of little significance may be retained or removed, whilst minimising damage to adjacent fabric of significance, having been properly recorded.

Interpret Heritage Values

As detailed in Section 6 (Heritage Values), Platypus' heritage values are derived from its historical use as a gasworks, torpedo factory and submarine base. One of the primary objectives of the Harbour Trust, in conserving the heritage values of its lands and opening them up to public access, is to convey their rich natural and cultural heritage in a meaningful, relevant and engaging way to the general public.

The main interpretive messages, illustrated on Figure 47, include opportunities for interpreting the Indigenous, industrial and Defence heritage of Platypus. Some of the buildings and structures, such as the Coal Stores, Exhauster house, Periscope tower, and the entrance to this will provide focal points in the interpretation of Platypus' heritage.

The Harbour Trust will investigate opportunities to guide the staged implementation of interpretative material. This will include the collection of oral history from former submariners, naval personnel and civilians who worked at Platypus, as a means of enhancing the interpretation of the place.

The totality of the heritage of Platypus will be expressed through the design of the public spaces, such as the gas holding tanks interpreted in the park landscape, and submariner's memorial. Interpretation will be guided by an Interpretation Plan and would be through a mix of methods such as site naming, signage, mobile phone applications, hand held devices, displays and tours.

Activities will be undertaken in accordance with the *ICOMOS Burra Charter*, the Commonwealth Heritage Management Principles, and the site's Conservation Management Plan (2008).

If any buildings are demolished, their former use will be interpreted to inform the public of the historical role they played in the development of Platypus.



Entry forecourt: Information about the site's history: the Cammeraygal people; a gasworks, torpedo maintenance and submarine base

Gasworks Phase (1876-1932)



Former gas holding tanks interpreted in the park landscape



Retort House: to be conserved with interpretation of its gasworks use



Interpret former use of Exhauster House



Coal Store: Interpret for use of e.g. heritage, interpretation signage, displays and exhibitions

Torpedo Factory Phase (1942-1964)



Interpret workshop history in the courtyard design



Interpret former use of Torpedo Factory



Interpret former use of RANTME Office

Submarine Base / HMAS Platypus (1967-1999)



Submariners Memorial; Interpret former Administration Building



Opportunity for a themed children's playground and / or a display of historical images of Navy Heritage on the curved concrete wall



Interpret former use of Periscope Tower



Interpret submarine use, including service hatches along the wharf edges; Historical links with the Cockatoo Island submarine refit program



Interpret former use of Submarine School



Fig.47 Heritage Interpretation Opportunities



7.5. Selection of Uses / Leasing

The Harbour Trust's selection of uses for the site's buildings is a fundamental tool for achieving the aims of this Plan. The Harbour Trust will invite proposals through a public Expression of Interest and/or Request for Proposals process.

The general principles that underlie the selection of uses include uses that:

- Further the objects of the SHFT Act
- Are consistent with the Comprehensive and Management Plans
- Make a positive contribution to the enjoyment and understanding of the place and its heritage
- Provide diversity and suit the character and heritage values of the buildings and the site
- Generate a sustainable return to contribute to the cost of maintaining the site for public enjoyment
- Are compatible with managing transport demand
- Are compatible with potential operational impacts, and environmental and amenity constraints.

Prospective tenants will be informed about the heritage significance of the site and of heritage sensitivities associated with buildings for lease. Where relevant, leases will include conditions to ensure the protection of significant buildings and fabric.

7.6. Accessibility

The provision of public access is a fundamental objective of the Harbour Trust. This commitment entails a responsibility to create an environment that is accessible to all members of the community, including children, the elderly, and people with disabilities. Access for people with disabilities will be fulfilled as far as possible given the topography and nature of the site. A consideration of accessibility issues will encompass access to the site, navigation between the different levels as well as access to individual buildings and spaces.

As specific uses for different buildings begin to materialise and precincts are identified, detailed Access Audits will be carried out to identify barriers to access for people with disabilities. Once identified, the Harbour Trust will employ different access solutions depending on the purpose of the building and its anticipated uses. The impact of each option upon the fabric of the buildings and heritage significance of the place will be considered and assessed before a final solution is selected.

Solutions chosen will be simple and wherever possible not result in major modifications to existing buildings and structures. Any modifications to significant heritage fabric should be reversible to minimise damage to original materials.

New landscaped areas and facilities (such as accessible toilets, water fountains, playgrounds and information posts) will be designed and planned to reflect the diverse needs of the community. These provisions will benefit not only people using mobility aids such as wheelchairs but also aged visitors, children, and people with strollers.

Shade and seating will be generously provided around the site so that people can rest and experience the park at their leisure.

7.7. Design Principles

Works and activities at Platypus will also be guided by the following design principles:

Construction Design Standards

The buildings at Platypus were designed for industrial and military use and will need to be upgraded to achieve compliance with the National Construction Code (NCC) and relevant Australian Standards. This includes matters such as disabled access, fire protection, emergency egress, and sanitary facilities.

The Harbour Trust and/or prospective tenants will engage NCC and Accessibility consultants to determine the need and consequently the nature and extent of works necessary to achieve compliance.

Ecologically Sustainable Development (ESD)

Ecologically Sustainable Development (ESD) can be defined as: *"Development that improves the quality of life, both now and in the future, in a way that improves the ecological processes on which life depends"* – National Strategy for ESD (1992).

The Harbour Trust aims to manage its sites in accordance with ESD principles using an approach to sustainability that considers economic, environmental and social factors in decision-making, performance, and reporting.

Platypus presents an excellent opportunity to select uses and implement innovative practices to ensure an economically thriving, socially vibrant and ecologically protected site.

The proximity of the site to public transport offers significant advantages to encourage sustainable travel behaviour. Buildings and structures present an opportunity for adaptive reuse. The location of Platypus on Sydney Harbour presents potential for it to become both a key attraction for the public and an important component of the working harbour. Using this range of opportunities to build knowledge about sustainability could present a key step forward for sustainability in Sydney.

The Harbour Trust's vision for achieving a sustainable site includes:

- Bringing the place back to life as an example of sustainability in practice
- Maximising its resilience in the context of future changes
- Using the site appropriately given its past and future
- Providing learning experiences and building knowledge about sustainability.

To realise this vision, the following objectives, have been identified to guide the site's sustainable development:

Built Environment

Aim: To provide flexible and resource-efficient space for suitable new uses. This will be achieved by:

- Providing and designing for sensitive adaptive reuse, modification or additions
- Selecting appropriate building materials
- Using appropriate construction methods.

Transport

Aim: To promote sustainable forms of transport to and from the site. This will be achieved by:

- Encouraging the use of public transport, walking and cycling
- Assessing the potential transport-related impact of proposed uses
- Car parks will be designed so that electric vehicle charging points can be installed at a later time and car-sharing encouraged.

Water

Aim: To minimise the use of potable water and to minimise pollution. This will be achieved by:

- Providing different levels of water quality to match requirements: for e.g. potable water for drinking, and treated water for other uses
- Installing rainwater harvesting systems to collect and reuse rainwater
- Adhering to Water Sensitive Urban Design principles
- Efficient facilities that reduce water consumption.

Energy

Aim: To reduce energy use and utilise renewable energy where possible. This will be achieved by:

- Retrofitting existing buildings (subject to practical constraints and heritage considerations) to minimise energy consumption; such as maximising natural ventilation, and insulating buildings to minimise the need for mechanical heating and cooling
- Installing devices such as photovoltaic cells and solar panels for hot water (The north facing sawtooth roofs are ideal for this).

Materials and Waste

Aim: To reduce materials used and waste generated at Platypus. This will be achieved by:

- Minimising the amount of waste generated by visitors and workers
- Recycling building materials and other consumables
- Implementing an effective waste management system
- Minimising the use of materials, which deplete natural resources or create toxic pollution in their manufacture, use or disposal.

Water Sensitive Urban Design

In addition to ESD measures discussed above, principles of Water Sensitive Urban Design (WSUD) are to be incorporated into the redevelopment of Platypus in order to achieve water quality, water conservation and ecological objectives. Effective integration of these objectives will require the application of concepts on a site wide basis. The key concepts to be applied are:

- Source controls – removal or mitigation of the pollutant source, and on-site rainwater use
- Conveyance controls – applied during the conveyance of stormwater to the harbour
- Discharge controls – applied at the point where water leaves the site.

Protection of Views/ Privacy

The visual amenity of neighbouring properties will be protected to ensure the use of the site does not cause overlooking or loss of privacy. This will include planting vegetation and tree species to provide a visual buffer to adjacent residences. Planting in the upper car park will be low level to ensure it does not obstruct views from the neighbouring properties

The modification of buildings and provision of additional public open space will improve views to and from the site.

Crime Prevention through Environmental Design (CPTED)

The design and use of Platypus will have regard to *Crime Prevention through Environmental Design (CPTED)* principles to provide safety and security to users and the community. This will include measures such as:

- Surveillance (natural, formal and technical)
- Access control and space management
- Effective lighting of public places
- Landscape design
- Regulatory signage

7.8. On-going Site Management

Platypus has a number of constraints which mean that its reactivation must be undertaken sensitively to ensure that the environment and amenity of the site and its surrounds are protected. Constrained street access, limited parking and the topography and residential nature of Neutral Bay means traffic, parking and noise are particular issues that will need to be carefully managed.

Walking, Cycling and Public Transport

New connections and improved conditions for pedestrians will encourage use of public transport to access the site.

Incentives to encourage sustainable travel behaviour will be investigated, as well as infrastructural and operational means of improving access and parking to and within the site. Employees will be encouraged to walk, cycle, car pool and take public transport.

The Harbour Trust will liaise with North Sydney Council and (where relevant) landowners, to improve pedestrian access to Platypus; such as improvements to pedestrian safety at Kiara Close; a new path to Kesterton Park linking Platypus to the ferry wharf; and way-finding signage between Platypus and Milsons Point Station. The Harbour Trust will also liaise with Council to provide bus shelters at the Clark Road bus stops and improved connections to the cycling network.

The Harbour Trust will liaise with transport authorities to provide increased public transport services as the site comes to life. As Platypus becomes more active, the Harbour Trust will explore opportunities for other transport options such as a shuttle bus or charter ferry service.

Bicycle parking rails will be located throughout the site and at the High Street entrance. End of trip facilities for cyclists will be provided, such as secure lockups and showers. Employers will be encouraged to offer staff a bicycle loan scheme.

Public transport information will be made available throughout the site and on the Harbour Trust's website.

Traffic and Parking

Given the limited availability of on-site parking, uses will be selected that are best suited to encouraging the majority of workers and visitors to access the site by public transport, walking and cycling. The selection of future uses includes consideration of potential parking and traffic impacts. Uses that have a low parking demand and are low traffic generating will be prioritised.

Balancing the mix of uses would also allow the parking and traffic peak times for different uses to be staggered over times of the day, and days of the week.

In order to ensure any on-site events, such as conferences and functions, do not generate large car parking demand, the organisers will be encouraged to provide a charter coach/ferry services or offer free public transport to attendees.

There is the potential for a car share company to provide a car at Platypus that could be used by staff throughout the day such as for off-site meetings, which would further reduce the need to drive to work.

Initially, the existing number of on-site parking spaces will be sufficient to allow the site to be opened up. Opportunities to increase the amount of parking spaces identified in this Plan will be investigated as the site is gradually reactivated.

A number of scenarios for increasing, upgrading and improving parking within Platypus were investigated by ARUP (2016); including the following:

- **Upper Car Park** – The upper car park, when formalised, can accommodate approximately 53 parking spaces. Accessible spaces for people with a disability will be provided in a convenient location, such as close to the proposed lift. The use of the car park, by visitors and workers, will be closely managed. A boom-gate is not preferred as it makes for an unwelcoming entry point, but also for the functional reason that vehicles denied entry will be unable to turn at this point.
- **Gatehouse Forecourt** – The possibility of providing up to 30 spaces was investigated in the proposed High Street entry forecourt. However, the preferred outcome for this location is to landscape it as a public forecourt.
- **Internal Street** – Up to 15 spaces could be accommodated on the internal roadway. This would be allocated to regular users of the site and not the general public; such as staff, service vehicles and deliveries. It will be managed as a shared zone, with priority for pedestrians. In the long term, and with the allocation of additional parking elsewhere, it would be preferable for there to be no parking along the internal roadway. Access to the internal roadway will be controlled, such as with removal bollards, to restrict access via the High Street entrance to authorised employees and service vehicles.
- **RANTME Factory** – Car parking for approximately 15 spaces was explored as a possibility in the service areas in the lower level of the building. This would require significant excavation and structural works, the cost of which is likely to be prohibitive. This would also introduce more cars on the internal roadway, which is not preferable.

The potential to provide parking within the upper level of the RANTME Factory was investigated. Car parking for approximately 40 spaces could be accommodated in part of the building.

Parking within the RANTME Factory is a more attractive alternative to parking in the Gatehouse Forecourt as it contains visual and noise impacts within a building, while allowing the creation a more welcoming entry forecourt.

Due to its location and easy access from High Street, this area may be best suited to short-stay spaces.

The number of additional parking spaces that are able to be provided on site will depend on detailed design development, consideration of traffic generation, and funding availability.

Parking will be managed at Platypus through measures such as time restrictions, paid parking, permits, an online booking system, and in-ground sensors and CCTV. The Harbour Trust will investigate implementing an online car parking booking system to further discourage opportunistic trips by car.

The Harbour Trust may explore with Council and landowners opportunities for the installation of digital dynamic signage to be installed at High Street to identify the number of spaces available.

Together these measures would be an effective means of directing vehicles to their designated car park to avoid cars circling between High Street and Kiara Close.

As the site becomes revitalised, parking and traffic will be continuously monitored to identify any impacts and associated solutions. Prospective tenants of significant new uses will be required to submit a traffic impact assessment of their proposed use as part of the Harbour Trust's planning approval process.

Noise

The revitalisation of Platypus will be implemented in accordance with controls set by the NSW EPA and the measures recommended specifically for Platypus by Benbow Environmental (2016) in order to protect local amenity (See Section 5.6). Noise controls for the site include the NSW Industrial Noise Policy (INP), NSW Road Noise Policy, and Interim Construction Noise Guideline. The *Liquor and Gaming NSW* standards for noise criteria will be applied to licensed premises to ensure they do not cause noise impacts to adjoining residences.

The measures to ameliorate noise will include appropriate acoustic treatments of buildings as necessary (such as insulation and window design), operating hours, limits on music levels and other restrictions on use. These measures will be included in building design/fit out, planning approval conditions and lease and licensing agreements with site tenants and users.

The noise emissions associated with the use of the urban park for formal outdoor activities (such as weddings and functions) is predicted to comply with the noise criteria at all residential receptors during the daytime and evening. During the night-time, there is potential for some noise impacts and therefore outdoor events would need to be restricted to day and evening, or require restrictions on sound power levels.

Lighting

Lighting will be designed to meet appropriate safety standards, provide security and enhance the visual qualities of the park, while minimising glare and light spill.

Potential light impacts associated with new uses will be considered to ensure light spill and glare does not unreasonably impact on local amenity.

The design, selection of and installation of lighting systems will have regard to their daytime appearance, whilst also considering the night time effects of

lighting on the nature and character of the space. The design of all outdoor lighting must consider the impacts upon local amenity and views of the site.

Demolition and Construction Management

The construction phases and the subsequent use of the site will be managed so as to minimise potential impacts on surrounding residences and areas (such as through the generation of dust, noise, vibration and light spill).

Works associated with the development and operation of Platypus will be required to go through a development application approval process. Through this process, the Harbour Trust will assess any potential environmental impacts to ensure local amenity is protected.

Works and activities at Platypus have the potential to generate dust and sediments. These actions will be carried out in accordance with EPA Guidelines and requirements to ensure air quality and waterways are protected.

Demolition and construction works will be undertaken during standard construction hours and in accordance with NSW EPA requirements.

Hazardous Materials and Remediation

Further investigation will be required to confirm the status of potential hazardous building materials prior to demolition, or refurbishment works that may lead to their disturbance. Any removal of hazardous materials will be carried out in accordance with relevant requirements and standards; including *SafeWork NSW* and the *Protection of the Environmental Operations (Waste) Regulation 2014*.

The site also contains treated contaminants that have been capped with clean material to make the site safe for public access. Ongoing management requirements of retained contamination will need to be documented and implemented by the Harbour Trust in accordance with a Long Term Environmental Management Plan (LTEMP) for the site. This plan will address management and monitoring of retained contamination, as well as potential environmental impact of projects, leasing or use.

The cliff line seepage collection system installed as part of the remediation works will require ongoing maintenance.

Waste Management

Where possible, the Harbour Trust will encourage minimisation of waste generation, in keeping with ESD principles. Waste generated on the site will be disposed of and recycled according to its classification and in accordance with the EPA's Waste Classification Guidelines (2014).

Maritime Activity

All maritime activities and the use of the wharf, including boat access, maintenance activities, berthing visiting ships, or transport shall be conducted in a manner that protects local amenity; maximises public access; does not cause light spill or pollution; and does not cause disturbance of sediments or significantly impact any flora or fauna within the harbour.

All relevant EPA Regulations, Sydney Water licences and/or any other relevant Standards will be complied with, and where relevant, operators will be required to obtain licence/s for their proposed activities.

The Harbour Trust will work with RMS, Transport for NSW and the Port Authority of NSW to ensure the use of the wharf and navigation of boats to the site is carried out safely and efficiently, and existing ferry operations are not impacted.

Security

In the long-term, once the site is revitalised, the Harbour Trust aims to keep the site open to the public 24 hours a day, similar to other public parks and Harbour Trust sites. The site would be managed through passive surveillance and security patrols. CCTV could be installed in accordance with the Harbour Trust's CCTV Guidelines.

8. Implementation



8. Implementation

Section 8 outlines the process for implementing this Plan, including a prioritised works program for potential projects.

Timeframe and Priorities for Implementation

The Harbour Trust is responsible for preparing plans for its sites and then overseeing their implementation.

The Harbour Trust is a self-funding agency and, as identified in the Harbour Trust's Comprehensive Plan, implementation of this Plan is subject to funding availability and will take place over a number of years and/or stages. The Harbour Trust has discretion as to the extent and staging of the work to be carried out.

Priorities for the implementation of this Plan have been determined in a manner consistent with Part 11 of the Harbour Trust's Comprehensive Plan. These priorities are indicative and may change over the life of this Plan in response to funding availability and other changing circumstances.

Table 2 summarises the outcomes to be achieved through the implementation of this Plan. It identifies individual elements of the project and prioritises those elements.

Key supporting plans/studies that will guide these works include:

- Conservation Management Plan (Clive Lucas, Stapleton and Partners 2008)
- Draft Transport and Access Management Plan (ARUP 2016)
- Draft Noise Impact Assessment (Benbow 2016)

The following principles will guide the prioritisation of projects:

- **Re-Open Platypus** - Open as much of Platypus as possible for safe public access and passive recreation as soon as possible.
- **Re-Connect Platypus** - Improve connections between the site levels, to the surrounding area and to public transport, and maximise opportunities for public access to the foreshore.
- **Respect Heritage and Environment** - Conserve and interpret the site's rich, layered history in engaging and accessible ways, and protect the environment and amenity of the local area.
- **Re-activate Waterfront** - Create a vibrant waterfront precinct by preserving and adapting buildings to suit low-impact cultural, commercial and community uses.
- **Re-invest in Platypus** - Select a complementary mix of activities to re-activate buildings and generate a sustainable return to contribute to the cost of maintaining Platypus for public enjoyment.

Future Actions

➤ **Assessment and Approval of Actions**

Proposed actions will be assessed for their potential impacts on heritage values and the environment in accordance with the EPBC Act, and for their consistency with the outcomes identified in this Management Plan and in the Harbour Trust's Comprehensive Plan (see Section 3 of this Plan). Consideration will also be given to operational issues (such as transport and access). Approved actions will be subject to conditions to avoid potential impacts; or to put in place measures to minimise or mitigate impacts, and to manage activities in accordance with relevant legislation and standards.

➤ **Unforeseen Archaeological Discoveries**

Archaeology includes: buildings, structures, objects and relics, landscapes and other remains, both above and below the ground. All of these items have enormous potential to contribute to our knowledge of the place by revealing information about how people lived and worked there. All relics are protected by Commonwealth legislation and the intentional uncovering of relics, without a permit, is forbidden.

Appropriate provisions will be included in planning approvals, leases, and any contracts for works requiring that in the event that relics are unintentionally uncovered, work must cease in the area where the relics were found and the Harbour Trust immediately informed. The Harbour Trust will arrange for a suitably qualified archaeologist to visit the site and undertake an assessment before determining the appropriate course of action. If Aboriginal materials are discovered, the Metropolitan Local Aboriginal Land Council will be informed.

➤ **Records of Intervention & Maintenance**

The Harbour Trust is proposing to use the CMP'S Inventory Sheets as the starting point for establishing an ongoing record for the site's buildings and structures. This will enable all relevant information relating to a building or structure (e.g. its history, statement of significance, conservation policies, leasing arrangements, etc) to be available for reference in one document.

➤ **Aboriginal Consultation**

The Local Aboriginal Land Council were consulted through the development of this Plan and this will be ongoing, in accordance with the Aboriginal Heritage Objectives and Policies set out in Part 3 of the Comprehensive Plan.

➤ **Future Consultation**

Community consultation and communications is critical to the implementation of this Plan.

The Harbour Trust's Community Advisory Committee (CAC) and Aboriginal and Torres Strait Island Advisory Group will continue to have input throughout the reactivation of Platypus. Significant projects will be exhibited for public comment as part of the Harbour Trust's development assessment process.

Consultation will be ongoing. The Harbour Trust will consult with the community, special interest groups, and Local, State and Commonwealth Governments.

The Harbour Trust will continue this process in accordance with the Consultation and Communications Objectives and Policies set out in Part 3 of the Harbour Trust's Comprehensive Plan.

➤ **Monitoring and Review of the Plan**

During the implementation, this Plan will be continuously monitored in terms of its objectives and consistency with the Commonwealth Heritage management principles.

At least once in every 5 year period after this Plan's adoption it will be reviewed, which will include an assessment of whether the Plan is consistent with the Commonwealth Heritage management principles in force at the time.

Table 2: Project Implementation – Priorities

Outcome	Location	Element	Priority
Improved Public Access and Safety	Entire Site	Provide pedestrian access (including disability access) between the various levels of the site; including a lift/stairs between the upper and waterfront levels	High
		Implement measures for site identification; including wayfinding, building signage and street naming	High
		Implement access safety and security controls and improvements; including fire safety, security (CCTV, building security, Rangers office), fencing/gates, bollards, balustrades	High
		Implement traffic management measures; including vehicle parking, signage, line-marking	High
		Designate areas for vehicle loading/unloading, bike parking and disabled parking	High
		Integrate the site into North Sydney Council’s pedestrian and cycling network including providing complementary directional and interpretive signage	High
		Work with transport authorities and Council to provide improved public transport services to the site	High
		Repair the pedestrian footbridge	Medium
		Provide mooring for visiting recreational boats and kayak access/storage facilities.	Medium
	Upper Car Park	Safety improvements to the car park	High
		Parking management measures, such as paid parking and indication board	Medium
	High Street	Develop an entry precinct, to establish a sense of arrival (elements include lowering/removing street facing wall; establishing car parking, refurbishing the Gatehouse)	High
		Set back the RANTME building to improve the entry forecourt	Medium
	Wharf	Provide direct pedestrian access between Platypus, Kesterton Park, and North Sydney Ferry Wharf	High
		Create a waterfront promenade; including shade and landscaping	High
Improve opportunities for water-based access to the site		Medium	
Kiara Close	Work with adjoining landowners and North Sydney Council to improve access to the site via Kiara Close for pedestrians, cyclists and vehicles	High	
	Investigate a pedestrian link to Adderstone Avenue	Low	
Public Domain Improvements	Entire Site	Identify and secure safe pedestrian and vehicle routes through the site	High
		Provide and/or upgrade services to supply public facilities such as toilets, lighting, water fountains, shade and outdoor seating areas, and barbeque/picnic areas.	High
		Increase public open space - Create landscaped plaza in place of demolished RANTME Office	High
		Increase public open space – Create inviting entry forecourt	High

Public Domain Improvements	Entire Site	Increase public open space – create waterfront promenade	High
		Increase public open space – Demolish part of RANTME Factory to create new foreshore park	High
		Increase public open space – Create landscaped courtyard in place of demolished bays of FIMA Workshop	Medium
		Install directional and interpretive signage throughout the site	Medium
		Provide site information at key entry points to the site	Medium
Heritage Interpretation	Entire Site	Use interpretive materials, such as signage, public art and electronic media, to convey the site’s previous uses and historic artefacts	Medium
		Prepare Interpretation Plan	High
		Create a Submariners Memorial in collaboration with the Submarines Association Australia	High
Works to Enable Use/ Site Activation	Entire Site	Provide and/or upgrade services to individual buildings including toilets, electricity, potable water, gas and telecommunications	High
		Restore and conserve significant buildings across the site for adaptive reuse	Medium
		Construct waste management enclosures	Medium
		Modify or remove intrusive buildings or elements	Medium
	Retort	Undertake base restoration of the Retort House for visitor orientated use	Medium
	Gatehouse	Refurbish the Gatehouse for commercial and/or residential use	Medium
	RANTME Factory	Modify RANTME Factory to provide public access, vantage points, carparking and community/cultural use.	High
		Provide short-term parking and a drop off/pick up area in the Gatehouse entry forecourt	Medium
		Investigate providing additional parking within the RANTME Factory	High
	RANTME Office	Demolish, the RANTME Office Building to create a landscaped plaza	High
	Submarine School	Investigate installing a lift and/or stair within in the tower, to connect to the upper level	High
		Refurbish the Submarine School and adaptively reuse	Medium
	FIMA Workshop	Remove two bays of the buildings and create a landscaped courtyard	Medium
		Interpret periscope tower	Medium
		Refurbish and adapt for reuse	Medium
	Exhauster House	Provide access to middle level via lift and stairs	Low
		Adapt for reuse as heritage displays, or other visitor focused use	Low
	Coal Stores	Adapt for use that improves visitor experience	Low
		Investigate providing usable open space along the cliff top to the harbour side of the Coal Stores	Low
	POL Store/ Guardhouse	Investigate providing a lift and/or stairs in this or other suitable locations	High
Demolish buildings		Medium	



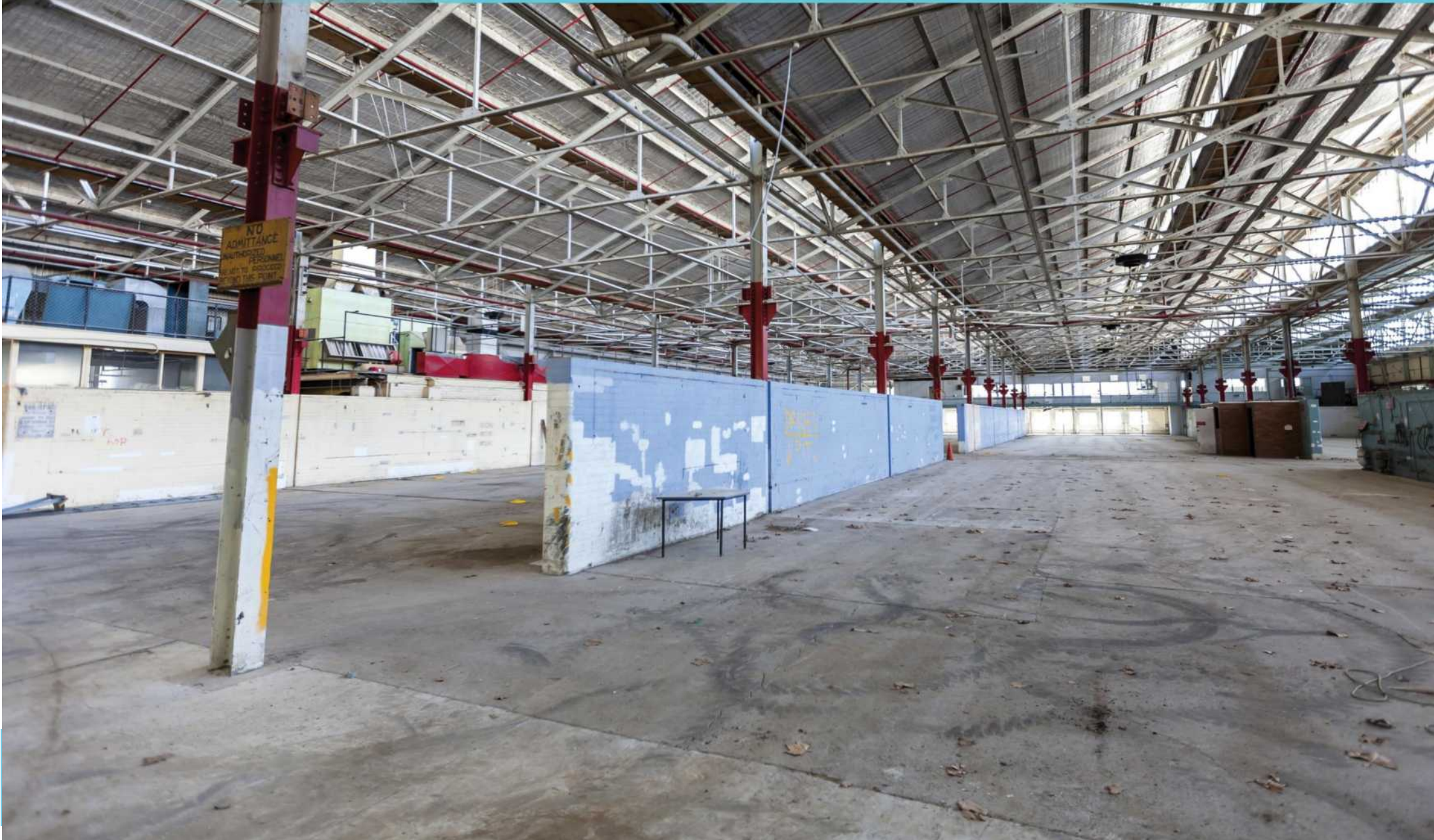
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9. Appendices



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Appendix B: Main Supporting Studies

- ANZECC (2000), Sediment Quality Guidelines Values
- ARUP Pty Ltd (2016), Draft Transport and Access Management Plan
- Benbow Environmental Pty Ltd (2016), Draft Noise Impact Assessment
- Bureau of Meteorology (2016), Annual Rainfall data http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=&p_stn_num=066062
- Clive Lucas, Stapleton and Partners Pty Ltd (2008), Conservation Management Plan, (former) HMAS Platypus
- Department of Defence (1997), An environmental investigation of Neutral Bay sediments
- Eco Logical Australia Pty Ltd (2010), Terrestrial Flora & Fauna Assessment for Stage 1 Works
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- Kerr, Rosemary (2006), HMAS Platypus Aboriginal Site History
- NGH Environmental (2010) Seahorse Relocation Plan
- NGH Environmental (2014) Seahorse Surveys
- NGH Environmental (2016) Aquatic Biodiversity Assessment of Neutral Bay
- NSW State Heritage Register. Gas Works remains, 1 Kiara Close - <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2180037>
- Roads and Traffic Authority (RTA) (2002), Guide to Traffic Generating Developments

Appendix C: Source of Figures

Aerial Photography

Source: Near Map

Front Cover

Figure 12: Retained Wharf Headstocks

Source: Mark Merton Photography

Figure 3: First Retort House and Gas Holder, 1884

Figure 4: Gas Works Expansion, 1902

Source: North Sydney Stanton Library

Figure 5: Coal Stores (Bldg 13), 1924

Source: Museum Victoria Collections

Figures 6a & 6b: Sandstone Cliff at Southern end of the site, c. 1935

Source: Milton Kent Aerial Views, State Library of NSW

Figure 7: Torpedo Assembly in the RANTME Factory

Figure 15: Gatehouse (circa 1942)

Source: Sea Power Centre Australia

Figure 8: Submarine Mooring at Platypus

Source: State Library of NSW

Figure 14: Historical Development

Figure 23: Coal Stores

Source: Clive Lucas, Stapleton & Partners Pty Ltd, CMP 2008

Figures 30: Ferry Wharf (Kesterton Park) and Bus Stop (Clarke Road)

Figures 31: Existing Public Transport to Platypus

Source: ARUP 2016

Section Images

Figure 16: RANTME Factory

Figure 20: Retort House

Figure 21: Submarine Wharf

Figure 25: Sandstone Cliff Face

Figure 35: Former gas works interpreted in park landscaping

Figure 37: FIMA Workshop

Figure 39: View of Platypus from Kesterton Park

Figure 41: RANTME Office

Source: Geoff Magee

