

# Former HMAS Platypus site, Neutral Bay

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## Foreword

This Plan is intended to provide a framework for the remediation, rehabilitation and adaptive re-use of the former HMAS Platypus site to provide a sequence of new public waterfront places. As with its other sites, the approach taken by the Trust in the preparation of this plan is to draw the desired outcome for the future of the site from its intrinsic characteristics.

The former HMAS Platypus site has had an interesting history as a Gas works, a Naval Base providing torpedo maintenance facilities and ultimately as the HMAS Platypus submarine base, but it is the site's relationship to the harbour that makes it particularly significant. Like other Trust sites, HMAS Platypus reflects some of the characteristics that have shaped the development of Sydney in response to the harbour. The mixed uses along the foreshore, the benching of the sandstone peninsula to provide maritime and industrial facilities with deep water access, the connection of each peninsula via a ridge road to the main commercial centres were common patterns around the harbour. These patterns are still evident at HMAS Platypus in Neutral Bay but are vanishing in many other parts of the waterfront that are subject to urban redevelopment.

The scale and quality of the spaces on the harbour foreshores at HMAS Platypus provide great potential to enrich our civic and cultural life. The aim of this plan is to realise that potential and at the same time conserve the site's heritage and make it known to the wider community, while protecting the amenity of the neighbouring community.

## Background

In September 1998, an Interim Sydney Harbour Federation Trust was established by the Commonwealth Government to manage surplus Defence lands on Sydney Harbour foreshores prior to the passage of legislation.

On announcement of the establishment of the Interim Trust, the Prime Minister, the Hon. John Howard MP, reminded Australians that Sydney Harbour is:

*'...probably the world's greatest harbour. It is one of the great natural beauty spots of our nation. It is the cradle of European settlement in Australia and it is one of those parts of our country which gives immense pride and immense pleasure, not only to the residents of Sydney, but also to all Australians because it wins such wide acclaim around the world.'*

Prior to this it had been proposed to sell portions of the sites for redevelopment. This resulted in vigorous community opposition and as a consequence the Government decided to establish the Trust to devise a long-term plan to return the vacated land to the People of Australia, *'...not just to the people of Sydney, not just to the people of the suburbs around Sydney Harbour but to all of the people of Australia.'*

The Trust was established as a statutory body under the *Sydney Harbour Federation Trust Act 2001* to manage the vacated lands with the objectives of maximising public access to the sites, cleaning up contaminated areas and preserving the heritage and environmental values of the sites. It was also required to develop plans for the sites within 2 years of the proclamation of the Act.

The Trust has responsibility for the former Defence lands at Middle Head–Georges Head and Chowder Bay in Mosman; the North Head former School of Artillery; Macquarie Lightstation near South Head; Woolwich Dock and Parklands; Cockatoo and Snapper Islands; and the former Marine Biological Station at Watsons Bay.

## **The Comprehensive Plan**

The Comprehensive Plan for the seven sites was approved by the Minister for the Environment and Heritage in September 2003. Subsequently, management plans have been prepared for the majority of the sites. The implementation of projects and leasing of the sites is well underway. The sites are being opened to the public and integrated into the life of the community.

The former HMAS Platypus site was formally handed over to the Trust on 23 July 2005 and is classified as a *Trust land site* (under the *Sydney Harbour Federation Trust Act 2001*).

*Refer to Figure 1.1 (Amendment 1) - Area to Which the Plan Applies.*

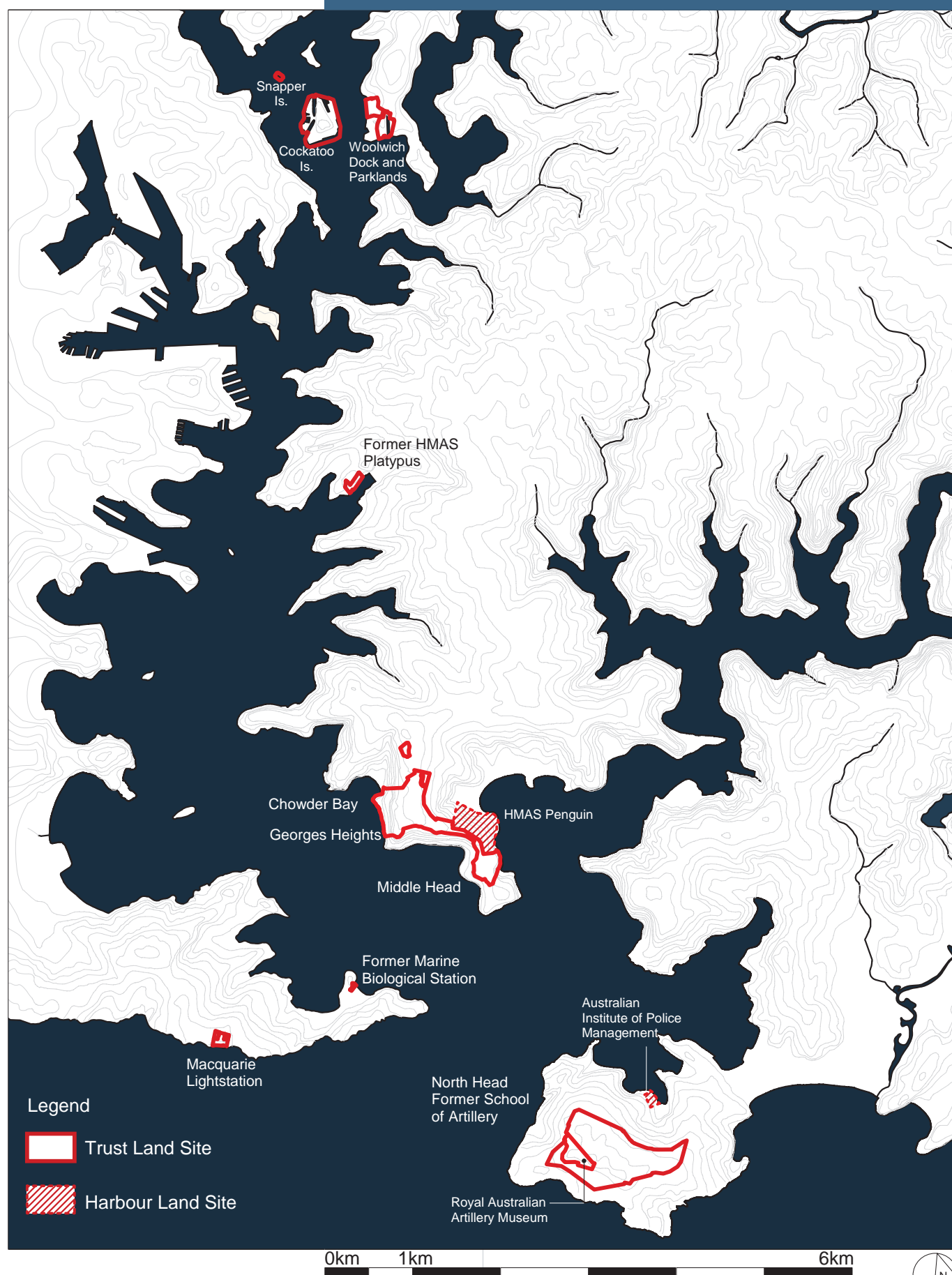
This amendment to the Comprehensive Plan has been prepared in accordance with the *Sydney Harbour Federation Trust Act 2001*. It has been written as a discrete document which is to be read in conjunction with the Comprehensive Plan for all the Trust sites on Sydney Harbour. The Comprehensive Plan is available on the Trust's website [www.harbourtrust.gov.au](http://www.harbourtrust.gov.au)

The Comprehensive Plan is divided into three main Parts:

- Part A of the Comprehensive Plan articulates the whole harbour vision and presents a set of objectives and policies to guide the day to day decisions on the Trust sites and to ensure a consistent approach to implementation for each of the sites. Part A applies equally to all of the *Trust Land Sites* including the former HMAS Platypus site.
- Part B deals with the individual sites. For each site it provides a description of the place including the local planning context, an overview of the cultural and environmental significance of each site, an outline of the outcomes of consultation which has informed the planning process, and a description of the outcomes recommended for each site. **This document is an amendment of Part B to include the former HMAS Platypus site.**
- Part C prescribes a number of implementation processes. These provisions will ensure that the Trust has a clear, consistent and transparent set of processes to guide the implementation of the Plan. Part C applies equally to all of the *Trust Land Sites* including the former HMAS Platypus site. This document amends Part C to include a budget summary for the Platypus site.

Fig. 1.1 (Amendment 1)

Area to which the Plan Applies



## Former HMAS Platypus - The Place

*Refer to Figure 1 Plan Area (Appendix 1 shows building numbers)*

The north shore of Sydney Harbour was thinly populated at the end of the 18<sup>th</sup> 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 the former HMAS Platypus site. 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 former HMAS Platypus site which extends over a large portion of the waterfront.

The former HMAS Platypus site directly adjoins residential areas, including the Iora apartments which are in an elevated position to the west, built upon part of the former gas works site.

The former HMAS Platypus site has an area of approximately 1.8 hectares, and includes 14 buildings (approximately 12,000m<sup>2</sup>), some of which are of heritage significance. The built area adjoins Neutral Bay via a broad 14 metre wide concrete wharf on land leased from NSW Waterways.

The site topography is modified, conforming to the general benching of waterfront peninsulas on the harbour with a low platform, mid and upper level platforms, capable of supporting large working areas and sheds adjacent to deep water, and road access along the ridge.

Today, expansive views are available from much of the site and the site is highly visible from the western shore of Neutral Bay, particularly from the public ferry wharves and open space areas.

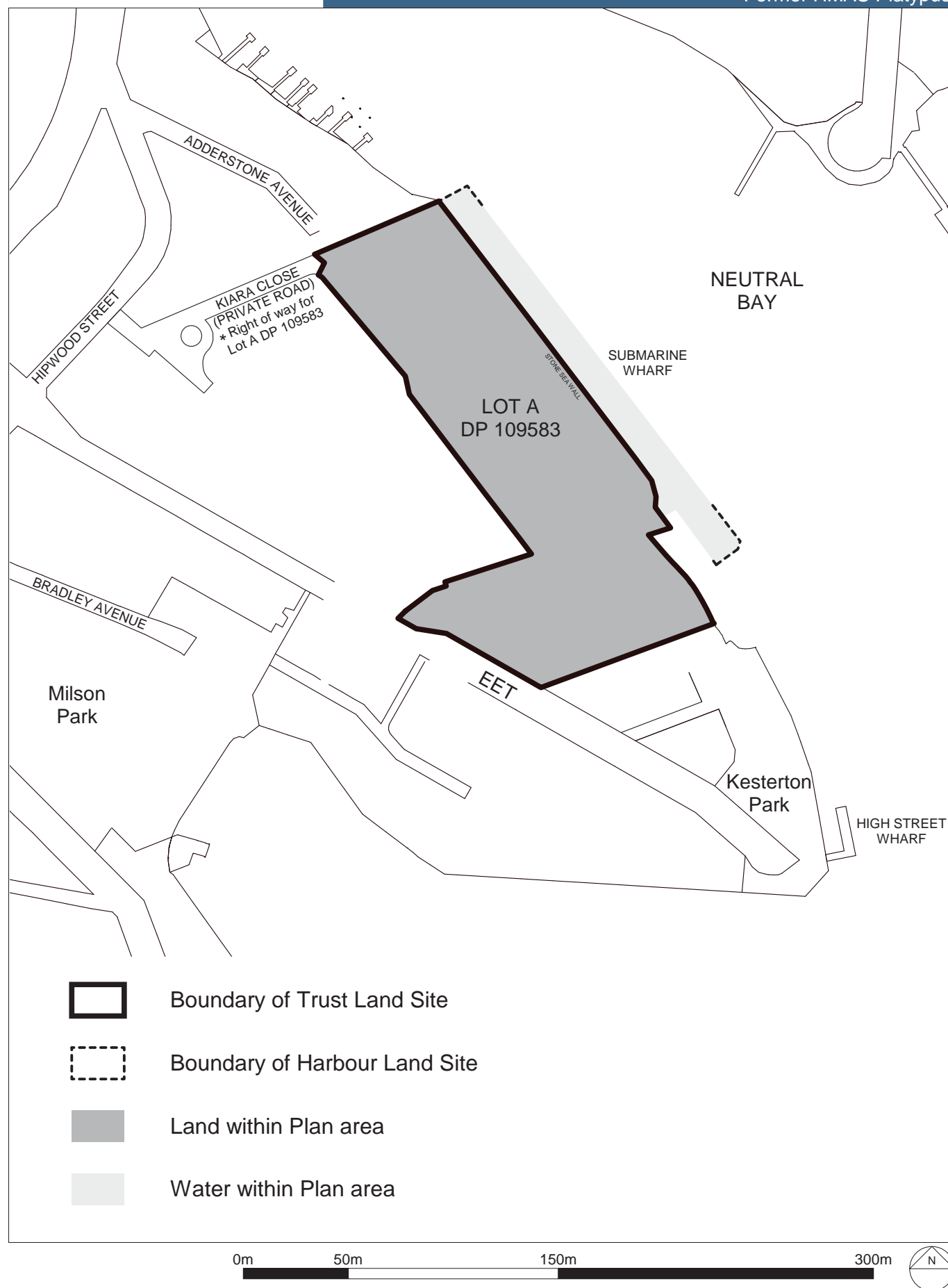
The former HMAS Platypus site typifies some of the patterns that have shaped the harbour. Remaining elements clearly demonstrate the extent and functioning of the gas works in



Fig. 1

Plan Area

Former HMAS Platypus







response to the urban development of the North Shore. The modified cliff line expresses the industrial processes of the former gas works. Early maritime industrial activity is evidenced by the seawall remains, and the former Retort House and reclaimed hardstand area. Sheds and factory buildings of the former submarine base sit by the water below the carved cliff face, in the midst of parklands and residential uses.

The large scale and bulk of most of the buildings on the site dominate the eastern shore of Neutral Bay. The RANTME factory is an imposing presence when viewed from the harbour in particular when viewed from the High Street wharf.

The excavated sandstone rock faces are also strong visual elements on the west side of Neutral Bay.

The moored submarines, up to six at a time, provided an identifying feature of Neutral Bay between the 1960s - 90s.

## ***How the Place Evolved***

*Refer to Figure 2 Phases of Development*

### ***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 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.

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.

### ***Cultural History***

#### ***Pre 1788***

The *Cammeraygal* (now 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 HMAS Platypus, though the actual areas covered by these names was 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 the former HMAS Platypus site.

### *Whaling allotments*

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 on the site.

In 1863 one of the early residents Captain Josiah Miller built a small timber cottage and farm on the foreshore. Neutral Bay was a safe berthing point for friendly foreign ships and Miller sold the ships' occupants fresh provisions.

### *The 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 AGL, went into partnership and purchased land from Wood and Younger fronting Neutral Bay in 1876. Here they established the first gas works on the north side of the harbour. Gas production and supply to consumers commenced in 1877. 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 corner 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 Store 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 House 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 Condensors, Purifiers and a new Governor House were also constructed.

### *Gas works closure*

Increased consumer demand for gas led to the North Shore Gas Company establishing a larger gas works at Oyster Cove, Waverton in 1917. This plant used modern vertical retorts which were more economical than the inclined retorts in use at Neutral Bay. With the onset of the Depression this cost could not be borne and 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 the site until 1983 when it was sold and redeveloped for the residential development 'Iora'.

### *Commonwealth resumption 1942*

After the bombing of Pearl Harbour the Australian Government considered it important to equip 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 1887 Retort House, the Gatehouse on High Street, the Exhauster House and part of the Coal Store.

Two Torpedo Maintenance Workshops were erected on the lower level and the Royal Australian Navy's Torpedo Maintenance Establishment Building (RANTME factory) on the southern side of the access cutting. The maintenance of torpedoes required high precision industrial machining work and sensitive electronic calibration.

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 developed as the location of the main torpedo workshops for Australian, British and US Navies in the South Pacific during World War 2. The swiftness of the demolition and reconstruction on the site reflected the urgency of works undertaken during war time emergency.

### *Establishment of 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 the torpedo maintenance function was transferred to the RANTME factory.

In 1964 a decision was made to establish the Royal Australian Navy's Submarine Service. 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 and 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 i.e. 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.

In the 1990s it was decided to re-equip the Navy with Collins Class submarines. The Platypus site was inappropriate for these vessels. In 1999 HMAS Platypus and the Torpedo workshops were closed 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 plans did not go ahead.

In 2005, the Commonwealth Government announced the handover of the site to the Sydney Harbour Federation Trust.





Fig. 2

# Phases of Development Former HMAS Platypus

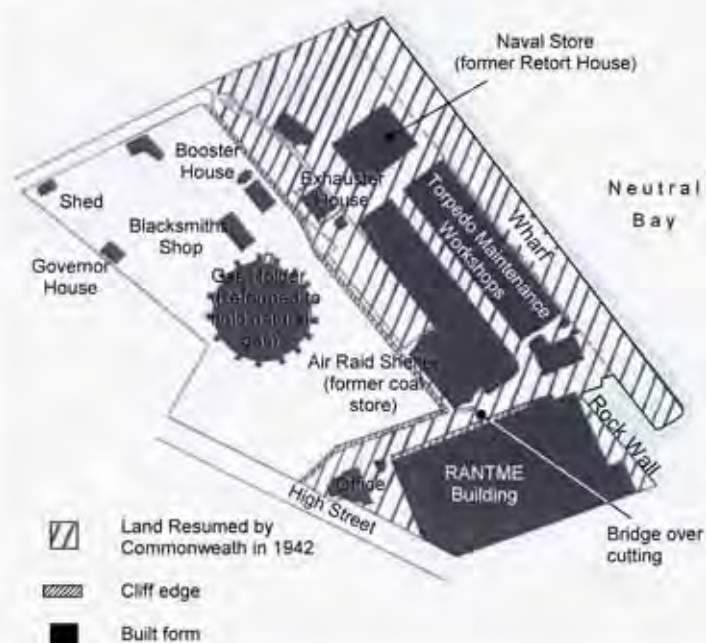
## Whaling Allotments and Land Reclamation up to 1890



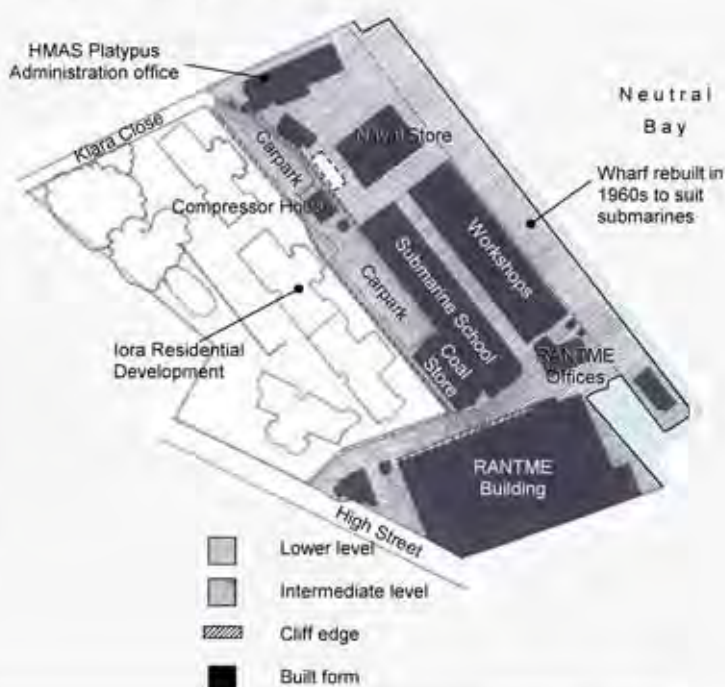
## Last Phase of Gas works 1891-1936



## Commonwealth Resumption 1942



## HMAS Platypus 1967-1999





## Site Conditions Summary

### Flora and Fauna

The HMAS Platypus site and its surrounds retain very few natural values as the natural landscape has been completely modified due to past vegetation clearance, altered topography and hydrology, soil and groundwater contamination and sealing of the land surface with buildings, concrete and bitumen.

The Neutral Bay area once supported plant communities similar to remnant vegetation occurring on the headlands of Sydney Harbour where the shale soils had eroded to expose the underlying Hawkesbury Sandstone. The area would have contained Sydney Sandstone Gully Forest and Ridgetop Woodland plant communities on the upper slopes, Coastal Sandstone Heath around the rocky cliff tops and outcrops, and the Estuarine Complex in the mudflats of Neutral Bay itself. The vegetation would have been similar to remnant vegetation found in the nearby Cremorne Point and Balls Head & Berry Island Reserves. None of this vegetation remains though the man-made cliffs provide important habitat for native fern and fern allies including Batwing Fern (*Histiopteris incisa*), Maidenhair Fern (*Adiantum aethiopicum*) and the primitive Skeleton Fork Fern (*Psilotum nudum*).

A study undertaken in 2003 by NSW Maritime to identify the location of aquatic vegetation in Sydney Harbour identified the presence of a rocky reef and algae community along the eastern part of the seawall fronting the site. Such ecological values of the site should be further investigated and protected through any proposed changes to the site.

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.

There is moderate weed infestation around the site's edges and garden beds including noxious weeds listed under the NSW Noxious Weeds Act that must be controlled. These include Pampas Grass (*Cortaderia selloana*), Lantana (*Lantana camara*), Asthma Weed (*Parietaria judaica*), and Green Cestrum (*Cestrum parqui*).

The site provides limited habitat for native fauna however possums, skinks, geckos and Blue-tongue lizards have been observed in the area. Port Jackson fig trees and other tree

specimens also provide habitat for the Grey-headed Flying-fox (*Pteropus poliocephalus*) that is listed as vulnerable in Schedule 2 of the NSW Threatened Species Conservation Act, 1995.

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*).

Further investigation is required to determine the presence of potential significant native fauna, including the vulnerable Common Bent-wing Bat (*Miniopterus schreibersii*) that may occupy the disused bunker (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.

#### *Buildings and Structures*

The Platypus site is physically divided into three main areas. There is a flat area at the bottom of the cliff, on the northern side of the main access road through the site, which contains the majority of the site's 14 buildings. A narrow strip of land along the top of the cliff contains the asphalt car park, a gatehouse connecting to a lift in the Administration building, storage building and the former Coal Store. The third area is on the south side of the access road and contains the main gatehouse and RANTME building, a large factory building running from High Street to the waterfront and creates the eastern boundary of the site. The buildings range in size and function with the largest being the RANTME factory. The majority of the lower level is covered by a very thick concrete slab suitable for carrying large loads.

Many of the buildings are steel framed and brick constructions with profiled steel cladding. The site contains some buildings from its earliest phase of use including the Exhauster House, a square brick building with a flat concrete roof, the former Coal Store, comprised of ashlar sandstone walls penetrated by tunnels with arched brick ceilings, and the former Retort House, a steel clad iron framed building.

The lower level waterfront area houses larger structures built as part of the Torpedo Maintenance Facility during World War 2. Other buildings on the site served as offices.

The submarine wharf comprises a reinforced concrete deck on concrete piles and incorporates a services duct along its entire length. The face of the wharf incorporates timber piles to act as a buffer for vessels berthed alongside. The top of the deck sits approximately 3.89 metres above mean high water level and

the depth alongside is 8.5 metres. The wharf is located on land owned by NSW Maritime.

The majority of buildings on the site were in serviceable condition requiring some basic maintenance in 1996 when the site was vacated. Since this time no maintenance has been carried out and the buildings are in various states of dilapidation.

## *Services*

### *Water Supply*

The majority of the site 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. The Gatehouse is connected through a smaller, separately metered supply from High Street.

The water service is thought to be in fair condition although most buildings have been isolated with the exception of the RANTME Offices, Administration Office and FIMA Workshops buildings. Some upgrading of the fire hydrant service was carried out by Defence around 2005.

### *Sewer and Drainage*

Sewer and drainage connections are evident in most buildings and it is believed that these connect to a sewer main that is adjacent to the Administration Building. The only exceptions are the buildings at the top of the site (RANTME factory and Gatehouse) which connect directly to the sewer main in High Street.

The site sewer network was reported to be in fair condition in 1990 and no work has been carried out since.

### *Gas Supply*

The gas service through the site was originally supplied from High Street and was reported to be in fair condition in 1996. Since that time the supply has been disconnected and the gas meter which was located adjacent to the Submarine Training School, has been removed.

### *Electrical Supply*

The site is fed by an underground 11kv supply from High Street that runs directly to the Gatehouse building. From here it reticulates through the RANTME factory and waterfront workshop building. This supply line is still live and its condition is unknown.

There is an alternate 11kv supply from Adderstone Avenue which was intended to be used as an emergency back up supply.

All high voltage switchgear and controls were reported to be in fair / poor condition in 1996 and have had minimal maintenance since.

### *Contamination*

Significant environmental investigation of the site was previously carried out for Defence in the period from 1996 to 2002. This work was carried out to characterise contamination at the site and support the development of a Remediation Action Plan (RAP) for their abandoned residential development. In 2006, the Trust engaged consultants Parsons Brinckerhoff (Australia) Pty Ltd, to review existing information, carry out necessary supplementary assessment of the site, and to develop a new RAP for the Trust, taking into account the Trust's proposed land use objectives.

The following information is summarised from these investigations:

- Significant contamination exists at the site that is predominantly related to its former use as a gas works. However, contamination sources are also related to Defence use from 1942 onwards.
- Contamination exists in soils, fill, groundwater, surface waters and soil gases, and can be found in these materials over the entire site.
- A significant portion of the site is situated on land reclaimed from Neutral Bay. The majority of the remainder is cut from the sandstone cliff face. The material used for the reclamation appears to be mainly sandstone from the cliff excavations, but includes gas works wastes and associated contamination.
- Sources of contamination associated with the former gas works are the former gas works structures, particularly the retort houses, tar and liquor tank, coal stores, gas holders, boiler houses and purifiers.
- Waste products generated by the gas works production processes included tars, oils, ammonia sludge and liquors, spent oxides, coke and clinker ash and other materials.
- Contaminants associated with these materials are predominantly poly aromatic hydrocarbons, petroleum hydrocarbons, phenols, mono aromatic hydrocarbons, heavy metals, ammonia, total cyanides and soluble sulphates.
- Sources of contamination associated with the Defence use include at least four underground storage tanks, incinerator compound, building hazardous materials and the use of chemicals and contaminating substances.

- Contamination investigations have identified that the greatest contamination impact exists in the lower northern section of the site, which contained most of the original gas making structures. These structures include two unlined tar pits that remain under Buildings 7 & 8, and which contain tarry waste materials. The larger of these pits is approximately 7.5m deep and extends 10m under Building 8. While the presence of additional tar pits under Building 8 has been speculated in the past, no evidence of these can be found in historical records, nor have any been identified in the substantial drilling investigations carried out to date.
- Historical records indicate that two former gas holders were also located beneath Building 8. While they have been removed, remnants of these structures and associated contamination may exist in these locations.
- Drilling, soil and groundwater investigations in the lower northern portion of the site has indicated that there is substantial 'tar' impact in this region, with free tar observed in fill, rock and in groundwater. The tar pits are likely to be the source for this impact, however the gas holders in this area and the original retort house located in the northeast corner of the site may also be sources.
- Tar staining of the sandstone block sea wall has been noted during recent inspections carried out at low tide. Sampling and analysis of this material has indicated that it is un-degraded and of similar composition to the on-site tarry materials.
- Fill in all other areas of the site is of a gas works nature and contains associated contamination to varying levels. Fill thickness varies from 0.1m beneath the RANTME factory, to over 4m in the northeast corner of the site behind the wharf. Fill materials from behind the sea wall appear to be eroding from the site due to tidal action.
- The former Coal Store on the upper level contains contamination in its building fabric, floor, and a cover layer of fill and bricks used as its roof.
- An offsite source of contamination is associated with an up-gradient area located in between HMAS Platypus and High Street, which once formed part of the original gas works site. It is believed that remnant contamination from this area is migrating onto the site in seepage water, and is responsible for the blue green chemical staining which may be observed on sandstone walls along the cutting that forms the main entrance to the site. This staining is associated with the precipitation of complex iron cyanide compounds, however low levels of other gas works contaminants are present in this water.
- Offsite migration of contamination to the waters of Neutral Bay is likely to be occurring due to the

movement of contamination in groundwater from the site. Lesser, but also important pathways for offsite migration, are the movement of surface water, the likely erosion of fine grain fill from behind the seawall, and potentially sediments from the site drainage system,

The contamination status of the site is on the public record, and the NSW Department of Environment and Conservation (DEC) has declared the site to be a 'Remediation Site', under Section 21 of the *NSW Contaminated Land Management Act 1997*.

In accordance with its policy for management of site contamination, the Trust has engaged a DEC accredited (contaminated land) auditor to review the assessments and the Trust's Remediation Plan.

#### *Hazardous Materials*

A number of audits of hazardous materials associated with buildings and structures have been carried out for the Department of Defence. Hazardous materials identified on the site include:

- asbestos and asbestos containing materials;
- synthetic mineral fibre (SMF);
- lead based paint systems;
- potential polychlorinated biphenyls (PCB) oils in electrical equipment; and
- general dust and sediments which may be of a hazardous nature.

It is understood that Defence have routinely inspected the condition of these materials, and have carried out necessary abatement work to manage risks to Defence personnel and other users of the site. Defence recently updated its register of hazardous materials, and the following summary is drawn from this register:

- Small quantities of friable asbestos materials in the form of insulation gaskets and fire doors remain on-site. These materials would be a priority for removal. Much larger quantities of asbestos fibre cement materials remain on-site, generally in the form of flat fibre cement sheet and boards;
- Quantities of SMF insulation materials can be found in most buildings;
- From the sampling and analysis of selected painted surfaces carried out, it can be concluded that most painted surfaces contain lead concentrations. While many of the samples contained lead levels below 1%, levels also ranged to above 20%. Many of the painted surfaces have localised peeling, with some surfaces showing substantial deterioration.



- All dust samples that have been analysed from the site contain elevated lead levels, and are likely to contain other contaminants;
- While no specific sampling and analysis appears to have been carried out, electrical equipment such as capacitors in light fittings and disused transformers and other electrical equipment that remain on-site may contain PCB oils.

There may also be some very small quantities of dangerous goods, such as refrigerants and chemicals that remain on the site.

#### *Wharf Area and Neutral Bay Sediments*

An environmental investigation of the sediments adjacent to the site in Neutral Bay was carried out by the Department of Defence in 1997. This investigation was a preliminary investigation of contamination in sediments focussing on historical impacts from the site. It included chemical characterisation of sediments through the collection of a number of sediment cores, as well as a hydrographic investigation.

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 the contaminants identified, such as Polycyclic aromatic hydrocarbons (PAHs), decrease in concentration with distance away from the site, and are likely to be related to the former gas works. Other contaminants, such as Tributyltin (TBT) and mercury, are unrelated to gas works, and may be from other historical or contemporary sources of contamination within the bay.

Based on this preliminary investigation, the NSW DEC has declared an area of the bay adjacent to the site and some of the properties off Adderstone Avenue to be an 'investigation area' under the NSW Contaminated Land Management (CLM) Act 1997. This declaration was made on DEC's consideration that contamination in these areas may present a 'significant risk of harm' to humans or the environment.

As required by its policies and relevant legislation, the Trust will evaluate the risks presented by this contamination, in the context of the proposed uses of Platypus and the wharf area. This evaluation will focus on developing appropriate management goals for the sediments, which would include additional environmental assessment as required for these areas. This undertaking is made without making any claims with regard to liability for this contamination.

## Planning Context

*Refer to Figure 3 Planning Context*

The Trust land is located in the municipality of North Sydney. It sits on the southern side of Neutral Bay, on a small peninsula, surrounded by a range of uses that need to be considered in the planning of the area. The site is located in close proximity to North Sydney CBD.

The various State Planning policies and local plans that apply to this locality are summarised in *Figure 3*.

The site is well served by public transport. Milsons Point railway station is approximately an 800m walk from the High Street entrance. High Street wharf, on the Circular Quay-Neutral Bay ferry route, is about 150m from the site. Ferries stop here approximately every 30 minutes on weekdays and every 40 minutes on weekends (from 6am- midnight Monday- Saturday, and 9am- 6pm on Sundays).

High Street wharf is not serviced by a scheduled bus service although route 263 stops in Clark Road (near Hipwood Street) and route 269 stops in Clark Road (near High Street). The 263 route connects Crows Nest, Cammeray and Wynyard, while the 269 route is a loop service connecting McMahon's Point, Kirribilli and North Sydney. During weekdays there are six route 263 buses that travel along Clark Road between 8am – 9am, and during the PM peak (5-6pm) there are 4 buses. Outside peak hours and on Saturdays route 263 operates on about a 45 minute frequency, while on Sundays the service operates on about a 70 minute frequency. The 269 service operates Monday to Friday only with approximately one service an hour.

At present the main pedestrian access point is via the High Street entrance. Opportunities for improving pedestrian access include the construction of a direct access link to Kesterton Park; and a possible through-link to Adderstone Avenue (This will be investigated subject to agreement with the landowner). These improvements would provide a more direct and scenic connection between the Platypus site and Kesterton Park (and High Street ferry wharf) and Anderson Park.

The plan recognises the potential for water-based access and the need for such links to respond to the ferry and bus network, small-scale local tours, boat operators and the public.

The intersection of High Street with Clark Road provides the principal vehicular access into the site. Clark Road and High Street (west of Clark Road) are major roads, carrying substantial through traffic flows. The intersection of these two roads is traffic signal controlled. East of Clark Road, High Street becomes a local road narrowing to 6.8 metres. This section of road has a 15 tonne truck limit. At its eastern end, High Street



Fig. 3



**Land Zonings Under North Sydney  
LEP 2001**

- Residential
- Open Space
- Waterfront Commercial
- Special Uses
- Residential/Neighbourhood Business

**Harbour Zonings Under Sydney Harbour  
Catchment SREP 2005**

- Foreshore Building Line
- Zone W1 Maritime Waters
- Zone W6 Scenic Waters Active Use
- Zone W8 Scenic Waters Passive Use

- Former HMAS Platypus
- Occupied NSW Maritime Land
- Aquatic Vegetation Rocky Reef / Algae
- Pedestrian Access
- Vehicle Access
- Proposed Pedestrian Link

0m 50m 150m 300m



terminates at the High Street Ferry Wharf, located adjacent to Kesterton Park.

The site can be accessed by vehicles from two main entry points: directly off High Street; and indirectly off High Street via Kiara Close (from Hipwood Street). These two entry points provide access to the separate levels of the site. The majority of the site and its buildings can be accessed directly from High Street, via an access road which runs down to the lower level. There is also a service entry to the RANTME factory directly from High Street. The carpark on the upper level can be accessed via Kiara Close.

A legal right-of-way permits access through Kiara Close to the former HMAS Platypus site. In June 2007 specialist traffic consulting firm Urbanhorizon Pty Ltd was engaged by the Trust to investigate the site's parking and access requirements. The draft consultant report recommends that the revitalisation of the former HMAS Platypus site will need to be matched with improvements to Kiara Close such as new signage and paving, and the removal of parking along the northern kerb.

Under Defence occupation the upper level car park accommodated 40 cars, and space for car parking was also provided on the lower levels of the site.

At its peak, in the 1980s, up to 880 personnel commuted to the Platypus site 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. Both Hipwood and High Streets (east) are Local Streets, and the RTA 'environmental goal' is 200 vehicles per hour. In 1997, the peak hour flows were generally measured as no more than 100 vehicles per hour, and therefore not considered critical in terms of RTA guidelines.

North Sydney DCP 2002 (Carparking) identifies the standards for parking in the Council area. The objective for non-residential uses is to reduce on-site carparking and traffic congestion due to the proximity of public transport, and to encourage the use of public transport, walking, and cycling. Urbanhorizon Pty Ltd analysed a range of potential use scenarios being considered by the Trust. The analysis showed that using North Sydney DCP requirements, the maximum number of car spaces generated by the most intensive combination of uses is 80. Other use permutations were found to generate a lesser total on-site parking requirement.

State and Council plans highlight the potential of the former HMAS Platypus site for open space, linkages to existing open space areas and water access. This potential needs to be explored with the closely located Kesterton Park, Milson Park

and Anderson Park and the existing foreshore walking network in close proximity to the site.

### ***Consultation Outcomes Summary***

The Trust undertook various public consultation activities as part of the preparation of the Draft Plan amendment. Prior to the exhibition of the Draft Plan the Trust met with the HMAS Platypus Community Advisory Committee and held community workshops. During the exhibition of the Draft Plan the Trust held public open days and gave presentations to the Platypus Community Advisory Committee, North Sydney precinct committees, the Platypus Community Action Group and residents of the adjoining Iora apartment complex. Following consideration of submissions resulting from the public exhibition of the Draft Plan, a revised Plan was prepared and re-exhibited for further public comment.

The main ideas proposed for the site's future were to: provide public access to the site and the waterfront; provide pedestrian access links with Kesterton Park and Adderstone Avenue; activate the waterfront; interpret the various phases of history of the site; retain and re-use buildings especially those of historical significance; and provide foreshore parklands and gardens for passive recreational use.

The main issues raised related to: opposition to new buildings; a desire for the RANTME building to be demolished; potential impacts on local amenity; traffic and parking generation; access through Kiara Close; a desire for additional open space; and the management of contamination.

Additional issues highlighted for consideration included potential for links with the surrounding foreshore pedestrian paths, provision of water access to / from the site, and opportunities for interpretation of past uses on the site.

Potential future uses that were suggested included removal of buildings and expansion of 'parkland'; adaptive re-use of buildings for a theatre, museums, studios, a meeting place for ex-submariners and commercial activities such as restaurants, cafes, offices and sporting uses. The potential for waterfront uses was also highlighted.

There was significant opposition to the sale of land for private housing and this reflected the history of the local community fighting to protect HMAS Platypus from previously proposed residential development.

## **Qualities and Considerations**

The former HMAS Platypus site displays many characteristics common to waterfront industrial sites interspersed between housing and areas of remnant vegetation or parkland. The particular qualities of the former HMAS Platypus site include:

- The industrial structures and work areas were benched into the stone hillside providing a succession of vantage points along terraces stepping down to the water's edge
- The combination of the benching and the grouping of the buildings provide an opportunity to create a variety of 'human scale' spaces culminating in a park at the northern end of the site
- The cohesive grouping of buildings provides a distinctive identity as a precinct that has been isolated, closed off from the public and is evocative of its military/industrial heritage
- The sequence of arrival and progression through the site via the narrow entry along the cut sandstone wall and the turn into the street enclosed by the industrial buildings adds to the sense of mystery and surprise
- The containment of the spaces by the cut sandstone cliff faces and the buildings helps to reinforce the feeling of being in "another world" turning its back on the immediate surroundings and opening out towards the bay and the harbour
- The waterfront plaza and wharf provide opportunities for land – water access, and limited maritime uses for the hardstand areas and sheds
- It is an urban waterfront in close proximity to North Sydney's commercial centre and benefits from good pedestrian linkages to existing public transport, including ferries and the potential for access by charter boats and a range of private vessels.
- On the other hand, private vehicular access is constrained. It is via a right of way shared by neighbouring residences and via High street. Access therefore requires careful management to minimise disturbance and provide pedestrian safety and amenity. Uses need to be selected and balanced with the limitation of available parking space and the availability of other transport options.
- Many in the local community and former personnel have strong associations with the site.
- The site is located on a steep hillside surrounded by dense residential development along the shores of a relatively narrow bay. The visibility, noise, lighting and access need careful consideration and management to minimise adverse impacts on residents around the bay.

## Significant Values and Considerations

*Refer to Figures 4 Heritage Values and 5 Natural and Cultural Values*

### Natural Values

- Location on Sydney Harbour, calm waters in close proximity to the Sydney colony provided refuge for visiting 'neutral' ships.
- Natural rock ledges by the water protecting pockets of rocky reef and other aquatic vegetation in a densely built-up area.

### Cultural Values

- The site is integral to the cultural and maritime heritage of Neutral Bay and more broadly the evolution of Sydney;
- The site shows the adaptation of sloping topography to industrial needs through cut and fill and substantial sandstone retaining walls;
- The site is part of a mixture of maritime, industrial and residential uses – the Customs Marine Centre; Captain Cook Cruises facility; public ferry wharves and waterfront dwellings which contribute to the special character of Neutral Bay;
- The form and scale of the remaining buildings provide a strong visual reminder of the increasingly rare maritime industrial activity on Sydney Harbour;
- The current and previous wharves on the site have been used for over a century for industrial / defence purposes showing the importance of sheltered, deep water anchorage;
- Strong industrial character of the site records successions of industrial uses; with tangible evidence of the former Gas works, Torpedo maintenance works and Submarine related uses;
- The site was the third gas works in Sydney and the first gas works on the North Shore in 1876. It demonstrates late 19<sup>th</sup> century development on the North Shore;
- The pre-fabricated former Retort House is the only extant building relating to the 19<sup>th</sup> century phase of gas working on the site and is rare and potentially aesthetically significant;
- The former Exhauster House, and former Coal Store are of moderate heritage value as evidence of the former gas works;
- The site is associated with many achievements in engineering and defence works including the 1942 Torpedo maintenance factory which is an important example of essential support infrastructure related to the emergency period of World War 2;

Fig. 4

# Heritage Values

## Former HMAS Platypus





- Buildings remaining on the site provide evidence of specialised work of torpedo maintenance and testing and support role for submariners and their submarines;
- The establishment of HMAS Platypus as the first national Submarine base in 1967 is evidence of Australian defence self-sufficiency;
- The site has historic linkages to other Harbour sites (Cockatoo Island), Gas works (Oyster Cove) and defence (Torpedo test firing range in Pittwater) facilities in Sydney;
- The site has been the focus of community action for it to be retained in public ownership; and
- Community involvement in fighting to protect the site's natural, cultural and aesthetic qualities and recreational potential from residential development and sale of the land.

*Figure 4 Heritage Values* shows the ranking of buildings resulting from the Draft HMAS Platypus Conservation Management Plan, carried out by Clive Lucas Stapleton & Partners Pty Ltd, April 2007. The surrounding heritage items are listed in North Sydney Council LEP 2001.

## Outcomes

*Refer to Figures 6 Outcomes and 7, 8, 9, 10, 11 and 12  
Concept Sketches*

### ***Vision for the site***

The Former HMAS Platypus site 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 an urban park that will provide greenery and 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 will be provided via terraces stepping down the hillside to the waterfront. Links between the terraces will be improved and new ones 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 vehicular access. The right of way via Kiara Close will be retained for access to the top terrace car park with a controlled access point at the entry to the former Platypus site.

The site will become a part of the network of public spaces along the foreshore in Neutral Bay. New foreshore pedestrian links are proposed to Kesterton Park.

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 the former uses of the site.

The totality of the heritage of the site 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 or structures, such as the former Coal Store, the Exhauster House, the Periscope tower, and the entrance to the



Figure. 5

# Natural and Cultural Values Former HMAS Platypus

View eastwards to Kesterton Park



Personnel in Torpedo Factory testing re-conditioned torpedo, 1965



Arrival of HMAS Oxley 1967



Neutral Bay Gas works, c.1900



View north between workshop buildings

RANTME building will provide focal points in the interpretation of the site's heritage.

A diversity of uses will be provided. The site could be used for a range of cultural, recreational, community and commercial uses. Buildings and spaces will be adapted for cafes/dining, training/education, performances/events, offices/studios, conference/function/ meeting places and small scale maritime-industrial uses.

ESD principles are fundamental to the Trust's vision for the site. The re-use of existing buildings is a sustainable use of materials and their embodied energy. Remediation of the site will improve environmental conditions. The refurbishment of buildings will include the installation of energy and water saving measures, while uses will be selected that are compatible with managing transport demand. Subsequent plans, construction and lease agreements will identify how ESD objectives will be achieved on the site.

### ***Network of Open Space***

The site will provide a series of new landscaped, open spaces; each with a distinct character and outlook. They are: the urban park at the northern end of the site; the courtyards cut through the waterfront workshop buildings; the square on the waterfront that frames the view down the cutting from High Street; and the terrace/verandah around the RANTME building. The internal street, the wharf, and the upper level terrace will link these spaces to each other and to the network of walks in the neighbourhood.

#### ***The urban park***

The northern end of the site requires extensive excavation for the removal of contaminated material; necessitating the demolition of all of the buildings in this area. The prefabricated Retort House, dating from the early gas works use of the site, will be dismantled and re-erected.

The administration building along the northern boundary of the site will be demolished. This will include the existing lift. The removal of this and other buildings in this area provides an opportunity to create a park with deep soil planting and open up the northern end of the site to views from Anderson Park. The landscape treatment such as the paving, location and shape of planter beds, shade structures and material finishes will be in keeping with the urban character of the site and designed to help tell the story of the site's former uses including the gas works.

A new lift and stairs will be provided between the upper terrace car park and the waterfront plaza level. This will enable an accessible means of moving between the different levels of the

site. Subject to the Adderstone Avenue link being made possible, an elevated walkway along the cliff edge will be provided to the new lift and stairs. This would help to improve the link between Kesterton Park and Anderson Park. Access to this walkway from Adderstone Avenue would be managed by a gate. The walkway would continue to the Exhauster House building set within the rock cutting. The lift and stair structure will be designed to interpret the former gas holder structure that was located there.

### *The street*

The constricted access through the site and the change from Naval use to a public precinct will require that the site be carefully managed to create safe and pleasant spaces for pedestrians. The narrow High Street entry road along the cutting and its continuation between the sawtooth roofed buildings provides one of the site's unusual urban places. The internal street system will be managed as a shared zone, with priority for pedestrians while allowing access for parking and service vehicles. The streetscape character given by the cohesive material finishes and scale and the repetitive modules of the buildings will be retained. Unsympathetic service infrastructure and other added accretions along the cut sandstone wall will be relocated to less intrusive positions.

### *RANTME Square*

The former RANTME office building opposite the entry road from High Street will be demolished, opening up views towards the bay as one enters the site. The new waterfront square will be designed to provide more landscaped open space and improve access between the High Street entry and the wharf. It will also provide a focus for the pedestrian access along the waterfront side of the RANTME building and the possible link to Kesterton Park.

### *Waterfront courtyards*

The site remediation works require access into the Submarine workshop building along the waterfront edge. These areas will be made into landscaped courtyards. This will improve the visual and pedestrian links between the street and the wharf, provide some greening to the site and break down the bulk of the building while retaining the overall cohesiveness of the street and the buildings. The exact size and location of these courtyards will be determined by the remediation requirements.

### *The wharf*

The wharf will be repaired and retained. It provides an opportunity for large ships, such as submarines to be moored at the site providing an occasional attraction relevant to the site's history. Public water-based access to the site will be facilitated by the construction of a pontoon suitable for charter boats and other smaller vessels. This will be towards the southern end of the wharf, in close proximity to the access from

Fig. 6



## LEGEND

Existing vegetation

Proposed planting

Grassed area

Adjacent vegetation

Existing building

Building to be removed

SHFT boundary

0m 50m 150m 300m





High Street and more distant from neighbouring residential properties.

A pedestrian link is proposed from Kesterton Park to the site. The preferred means is via a bridge and pontoon structure linking with the southern end of the wharf. This proposal would be designed in such a way to also allow small boats, kayaks and canoes to use the sheltered basin between the wharf and the natural rocky shoreline. An alternative route for the link is above the rock ledge to the terrace in front of the RANTME building.

The exposure of the wharf to sun and wind requires consideration. Shade structures will be provided that are designed to be compatible with the scale and character of the buildings. Shade structures that evoke former industrial fixtures will be investigated.

The wharf is outside of Commonwealth land and the proposals above will require NSW Maritime approval.

#### *Open spaces around the RANTME Building*

The RANTME building will be set-back on all four sides providing landscaped terraces and verandahs around the upper level/s of the building. These spaces will have a different function and character on each side of the building.

The set-back of the building from High Street will provide an improved entry forecourt and additional parking area.

The set-back from the southern boundary of the factory hall will provide a landscaped buffer and reduce the visual impact of the building on its southern neighbours.

Along the northern edge, above the cutting, the setback will provide an alternative, higher level walkway into the site and open up views along the entry towards the bay. This walk will culminate in a generous terrace along the waterfront edge of the building.

#### *The upper terrace and carpark*

There will be a walkway along the cliff edge on the upper terrace. Pedestrian access to the terrace will be provided via the new lift from the waterfront, via Kiara Close from the neighbourhood and through the remains of the former Coal Store to the south. The Coal Store will be decontaminated and include displays and exhibitions that will help to explain the site to visitors. The bridge link from the upper terrace to the walkway above the cutting will be retained and a new set of stairs will provide more direct access to the waterfront.

The use of the area as a car park will be retained but it will be controlled and managed at the entry point from the right of way along Kiara Close. Its design treatment will include landscaping to soften its appearance and provide some shade.

## ***Adaptive Re-use of Buildings***

### *The former RANTME building*

The top level – the former torpedo factory, will be set back on all four sides and opened up. The light weight framing and cladding of the building's upper level will be removed. A new roof around the set-back edge of the building will provide a verandah and help to reduce the bulk of the building. There are further opportunities to open up the building by providing additional and larger openings and recessed balconies within the brick walls.

The large volume space with south lighting and partial partitioning would suit a range of cultural and community uses. These uses may include studio/workshop/offices with a central exhibition space, rehearsal and performance spaces, or health and fitness facilities.

The former Officers' Mess and club, on the lower level, would suit restaurant/function uses. The openings towards the water will be enlarged. The provision of car parking in the lower levels of the RANTME building will be investigated in the generous service areas on the lower two levels of the building.

The guardhouse will be retained as a dwelling or as an office. It will also provide visitor information about the site and its heritage. The garage/carport will be demolished and the area included as part of the entry forecourt and parking.

### *The Saw Tooth Roofed Workshops*

The courtyards cut into the bays and increased openings will make the sawtooth roofed workshops more attractive to a broader mix of uses, including studio/workshops, offices or maritime uses.

The former Submarine School would suit workshop/studio spaces, corporate and/or out-of-school training facilities, sport and fitness uses, and/or rehearsal studios.

### *The former Retort House*

The Naval Stores building, which was the Retort House during the Gas works phase, will be dismantled to enable the remediation of contamination in this area. The prefabricated cast iron structure will be re-erected and it will be re-clad to more closely reflect the original building cladding. The lean-to additions at the northern and eastern sides of the building will



Fig. 7

View from wharf



Proposed

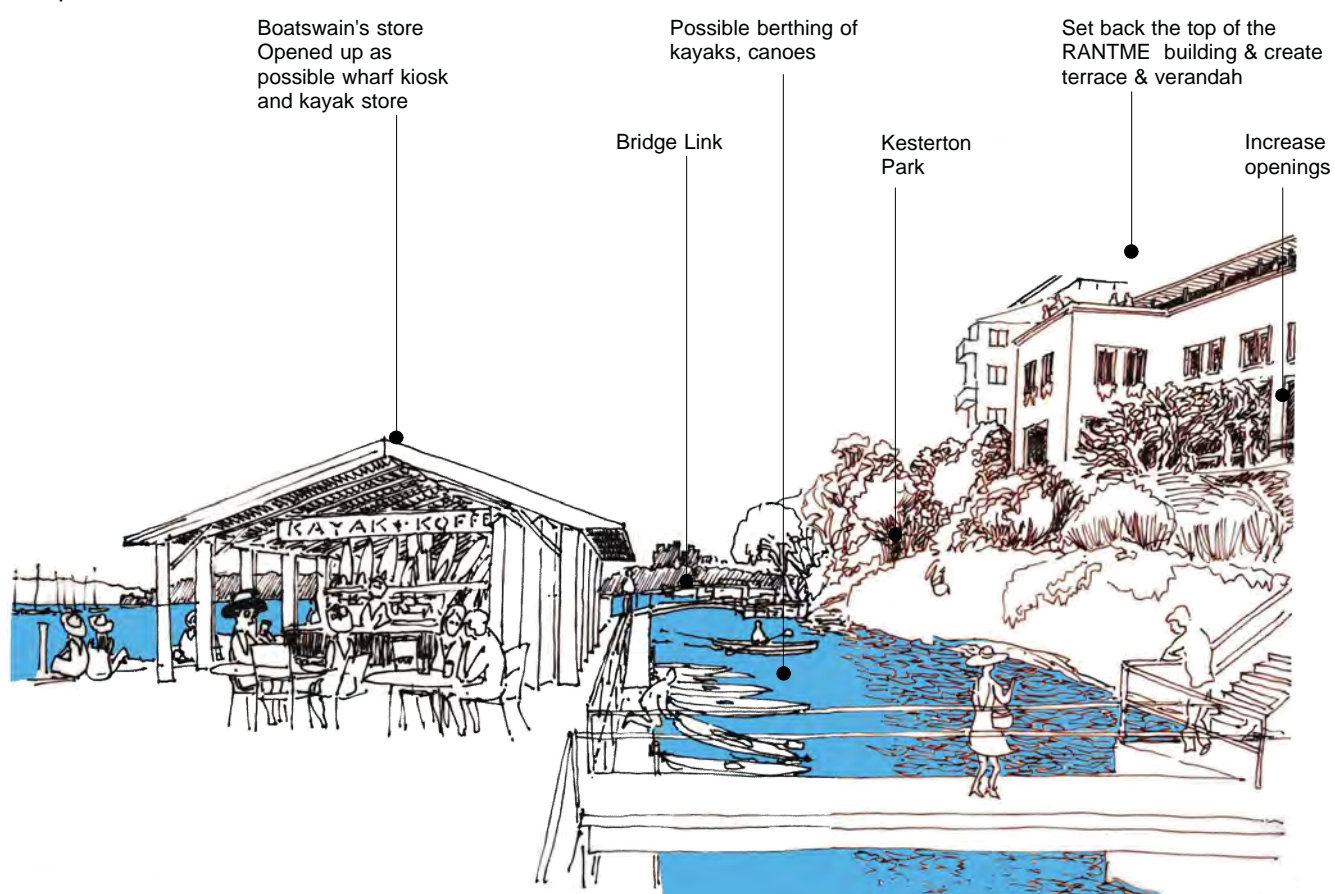


Fig. 8

# Plaza Views

## Former HMAS Platypus

View from wharf

Naval Store / former Retort House  
to be dismantled

Administration building to  
be demolished



Proposed

Open up workshops

Re-erect and re-clad former  
Retort House

Landscaped area interprets  
site's heritage

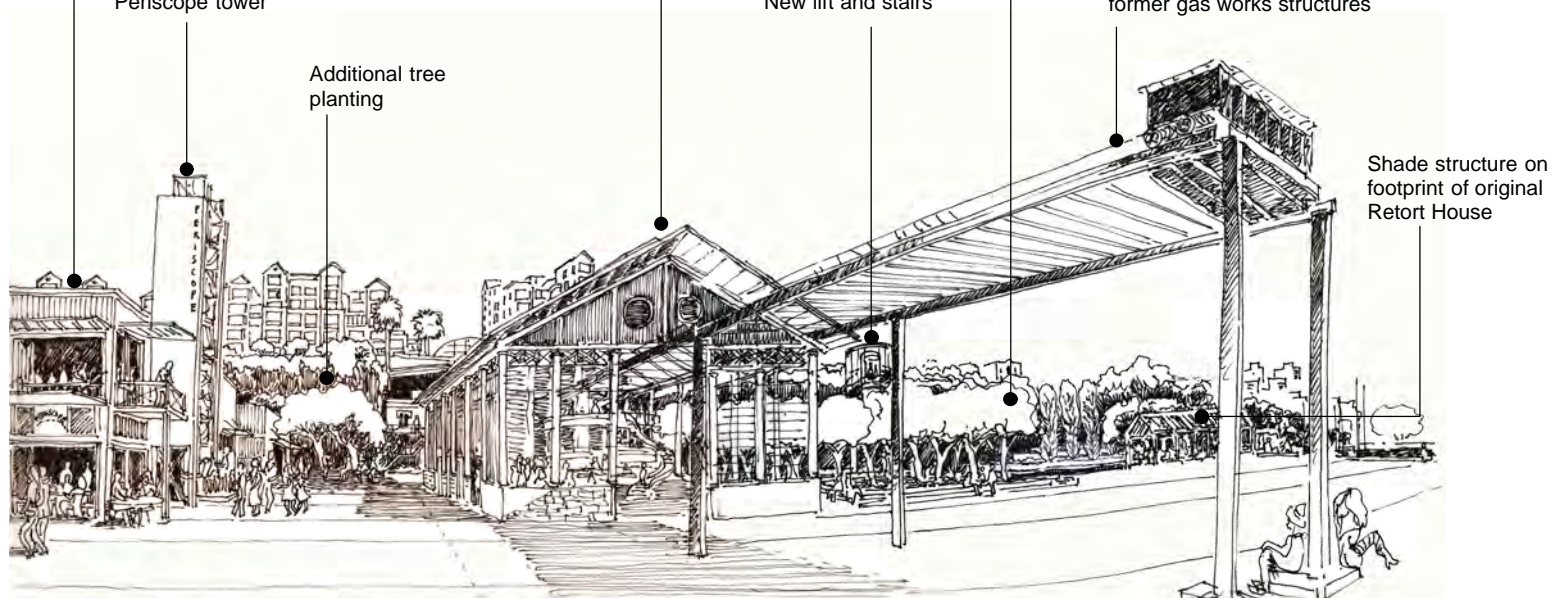
Periscope tower

New lift and stairs

Shade structure based on  
former gas works structures

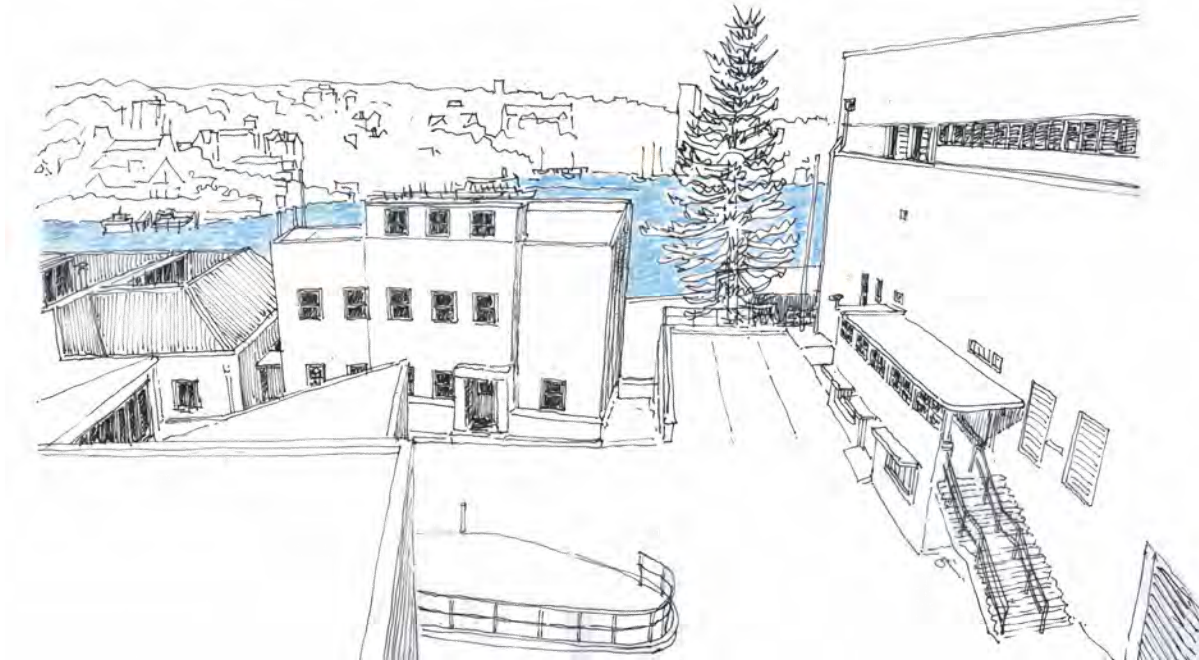
Additional tree  
planting

Shade structure on  
footprint of original  
Retort House





Existing



Proposed

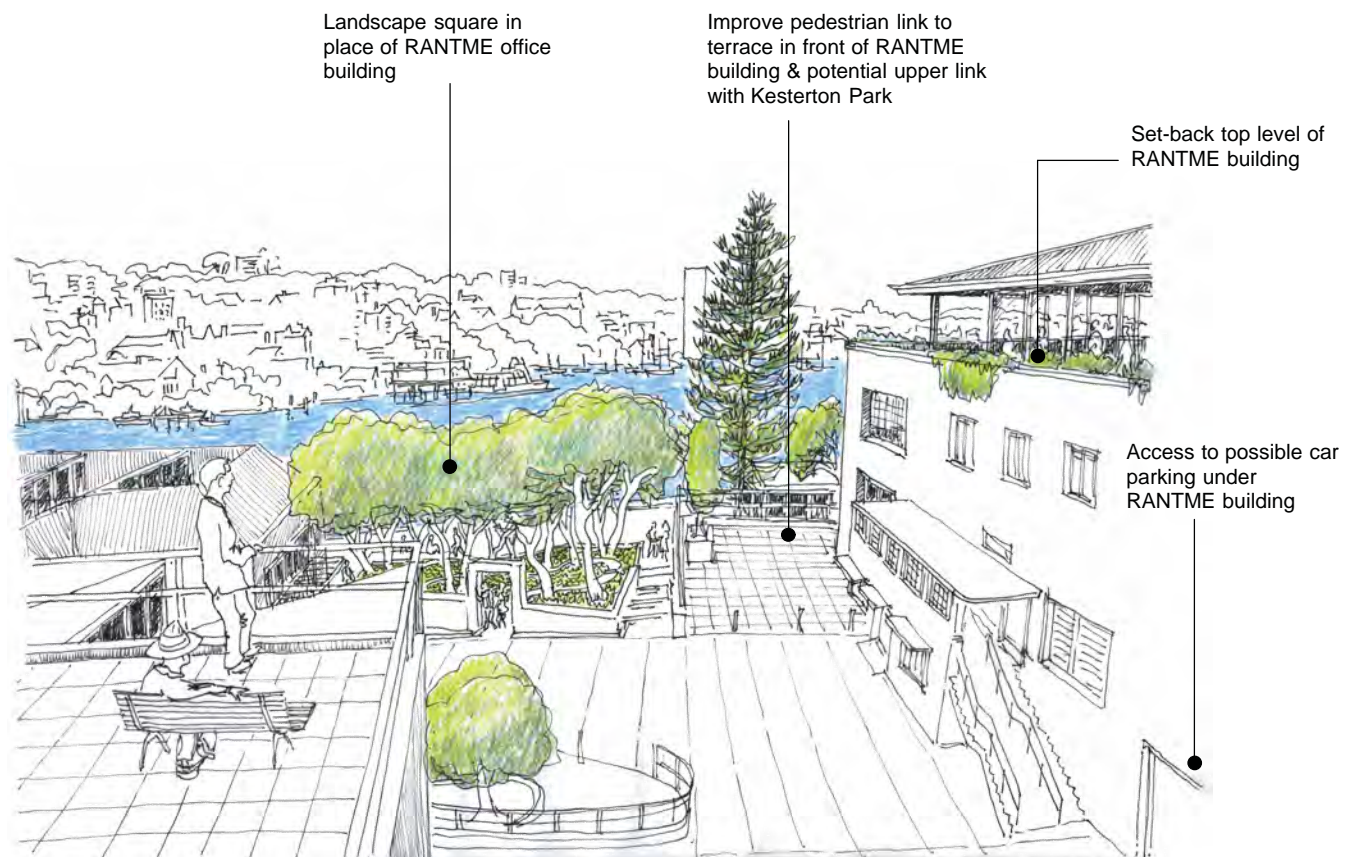




Fig. 10

View of RANTME building and site entry from High Street  
Former HMAS Platypus

Existing



Proposed

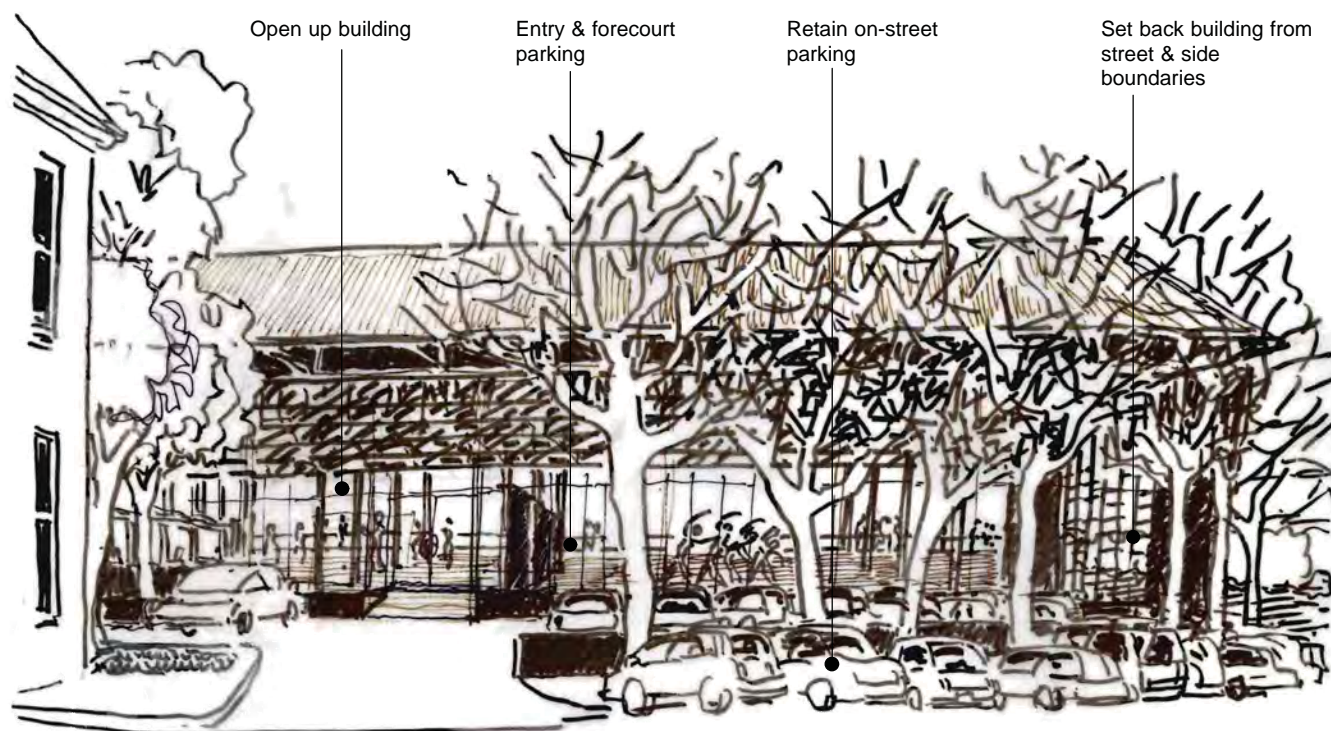


Fig. 11

View from water  
Former HMAS Platypus

Existing



Proposed

Set back top level of  
RANTME building

Landsaped square to  
replace RANTME office  
building

Re-erect former  
Retort House

Landscape to replace  
demolished Admin  
building

Increase and enlarge  
openings in RANTME  
building

Landscape courtyards  
through foreshore  
saw-tooth roofed  
building

New lifts and  
stairs

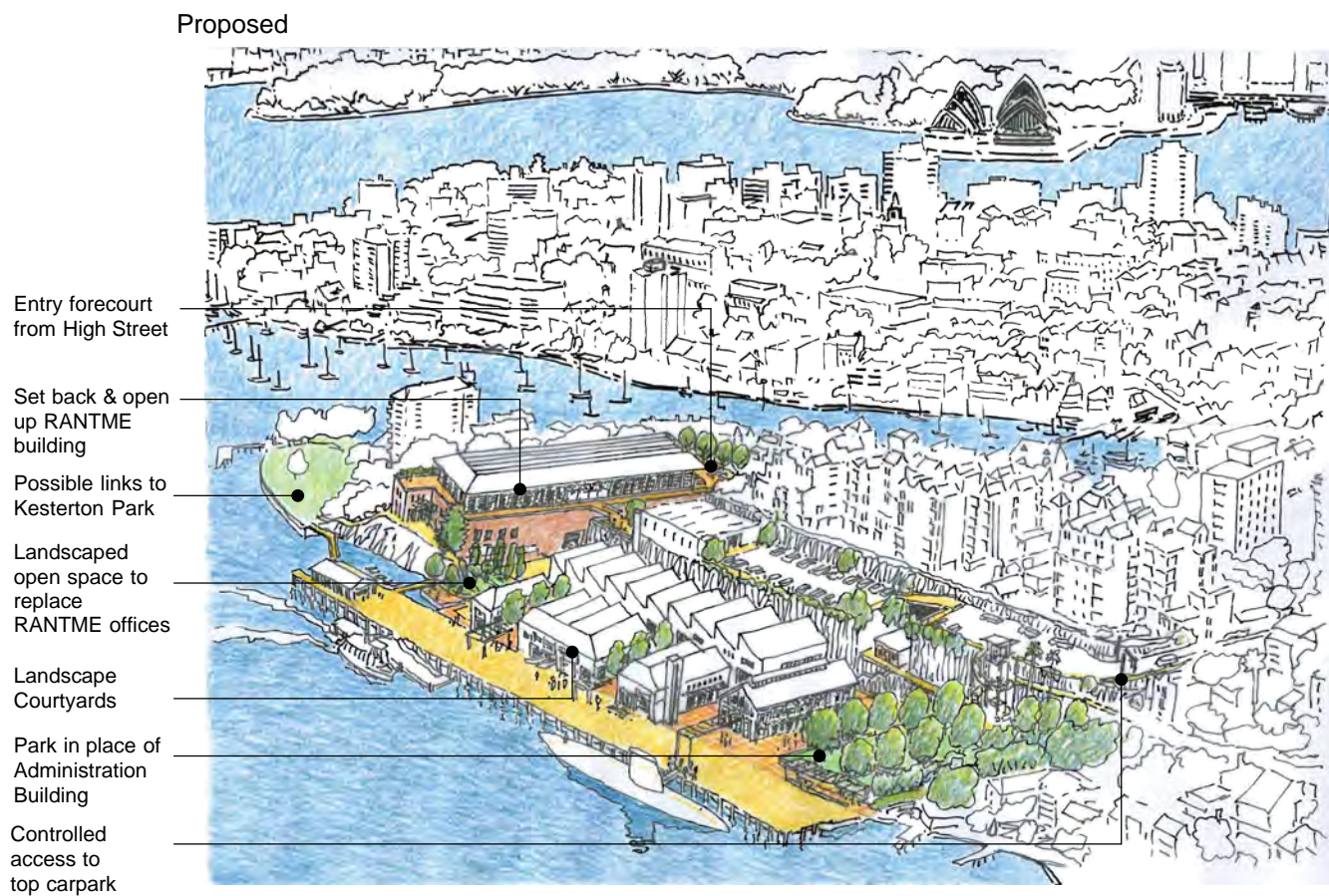
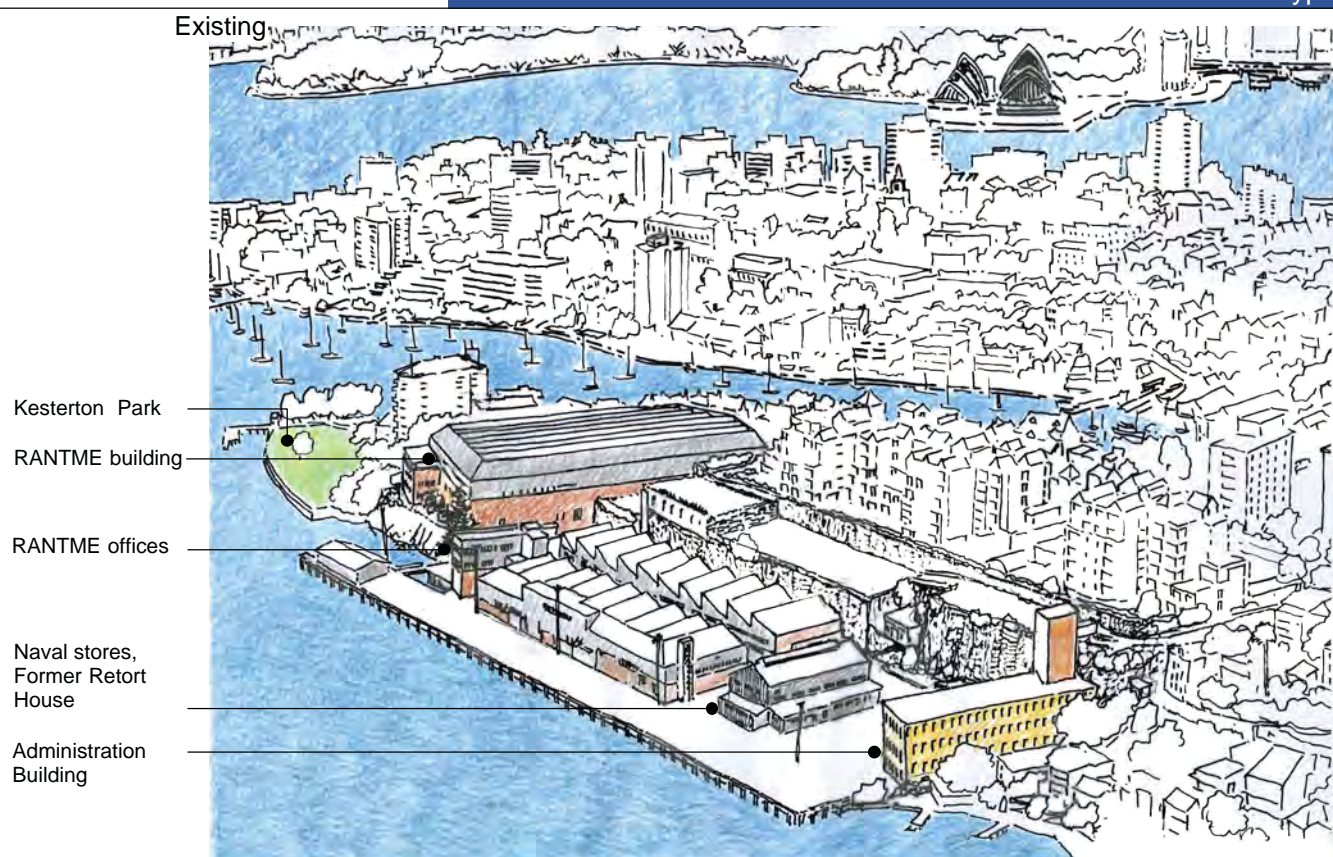




Fig. 12

## The Empty HMAS Platypus site on the western shores of Neutral Bay

Former HMAS Platypus





not be re-erected. An alternative option is to relocate the Retort House closer to the northern end of the site, forming an edge to the urban park.

The re-erected Retort House will become the centre-piece of the waterfront promenade along the wharf and the urban park. It will be used either as a pavilion for occasional performance and events, or as a restaurant or a similar function that would create interest within the site at the waterfront.

### *The Wharf Shed*

The Boatswains' Store at the southern end of the wharf will be opened up. It is well located to become a kiosk/café providing refreshments for passers by along the foreshore walk. It may also be used for a maritime-related use such as kayak storage and hire.

### **Site Remediation**

Environmental assessment of the former HMAS Platypus has demonstrated that the site is affected by a wide range of contaminants principally relating to the former use of this land as a gas works. Gas works related contaminants may be found in wastes and fill over the whole site, and in some locations also affect the underlying rock. With the site in its current form, there is limited opportunity for site users to be exposed to these materials, however they present an impediment to site or land use changes that would be associated with facilitating public access.

Of particular consequence is the presence of waste liquid tar and its constituent chemicals in site groundwater, which moves offsite to the waters of Neutral Bay. Concentrations of these chemicals in groundwater have been shown to be at levels that may present a significant risk of harm to the aquatic environment, and potentially to humans who use this environment. As a consequence, remediation is required to remove these risks, meet the Trust's objectives and extinguish the legacy provided by contamination.

The Trust has developed a remediation strategy to address this site contamination. Detailed planning for the remediation project will include the development of Remediation Action Plan (RAP), which will be subject to further community consultation, auditor and stakeholder review.

Development of the strategy was largely informed by supplementary assessment work carried out for the Trust by Parsons Brinckerhoff (Australia) Pty Ltd in 2006. An outline of the strategy is described below, but in essence it is a combination of two broad approaches:

- Removal of contaminated soil, fill and rock that is providing a continuing source of contamination to ground and surface waters, and ultimately the receiving waters of Neutral Bay, as well as removal of contaminated materials that are volatile or may otherwise provide a health risk under the land use outcomes being considered by the Trust; and
- In-situ containment and ongoing management of retained contaminated materials – where this is appropriate and meets the combined objectives of protecting human health and the environment.

Both of these methods are acceptable under Commonwealth and State guidelines for the remediation of contaminated land. Their application provides a necessary balance between achieving the remediation objectives while minimising local project impacts, resources use and costs.

It should be noted that the successful implementation of this strategy will require the removal of some buildings (as described below).

In May 2007 the Trust's auditor advised that the overall strategy for remediation of the site- disposal of contaminated soil from the northern section and containment and management of the remainder- is an acceptable approach and consistent with the investigation results obtained for soil and groundwater.

The priorities for the remediation strategy are as follows (refer Figures 13, 14 & 15):

#### *Source Removal*

This will primarily involve the removal of the tars, tarry materials and highly impacted fill and rock associated with the tar pits in the lower northeast portion of the site. The objective of this action will be to remove the primary source of groundwater impact and offsite migration of contamination from the site. Other 'source removal' would include the removal and remediation of the underground storage tanks, hazardous materials in buildings and sediments in the site stormwater system.

Remediation of the tar pit area will require the removal of the Administration building (Building 8), the flammable liquids store (Building 7), and the dismantling of the former Retort House (Building 11). Due to its heritage significance the Retort House will be dismantled in a manner that will allow it to be re-erected.

The tar pit area remediation will require the implementation of strict environmental controls, which may include:

- Erection of a controlled atmosphere enclosure over the tar pit excavation area, to control odour and noise;
- Detention and treatment of contaminated water from the excavation areas;
- Siltation curtains and oil containment booms adjacent to the sea wall; and
- Implementation of a comprehensive project environmental management plan.

The tar pit area remediation and other source removal will generate significant quantities of liquid and solid contaminated wastes, including tars, contaminated waters, high strength tarry solids and other contaminated soils. It is envisaged that some of these materials will require treatment offsite, with ultimate disposal of solid wastes to licensed landfill. However, some onsite treatment may be considered, particularly for low to moderately contaminated materials where treatment may allow their re-use onsite.

### *Containment and Management*

A containment and management strategy is to be implemented for all remaining areas of the site. The elements of this strategy are:

- Repair, stabilisation and ongoing maintenance of the sea wall to meet both geotechnical and environmental objectives;
- Maintenance of an effective pavement cap over the remainder of the site; and
- Preparation of a Site Environmental Management Plan, providing requirements and procedures for managing retained soil contamination on the site. The Trust will be responsible for implementing this plan.

However, a small amount of contaminated soil removal/ clean fill replacement may be carried out to allow for some minor areas to be planted or landscaped.

The Trust will need to investigate required remediation to enable public access to be made to the former Coal Store.

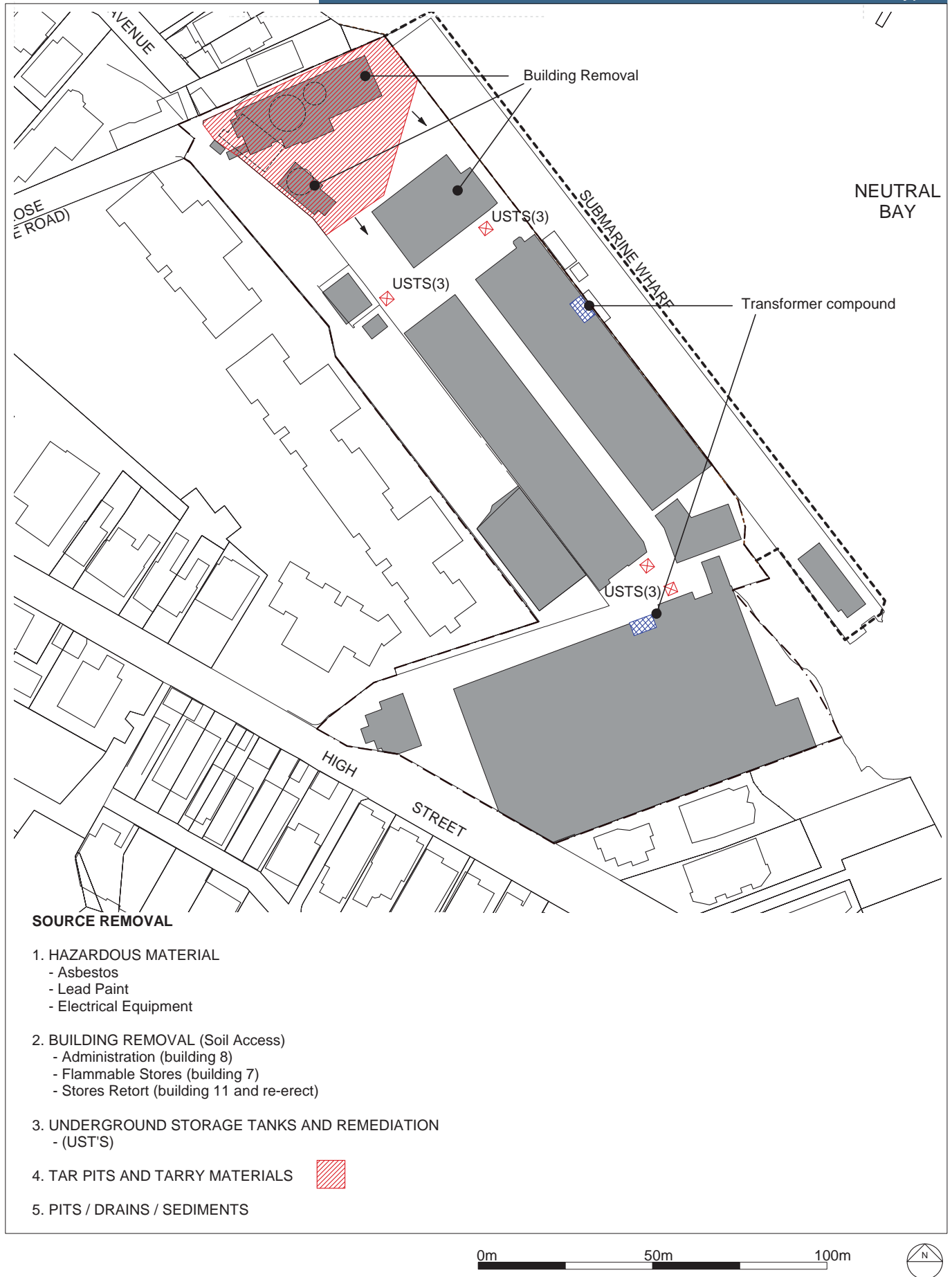
### *Groundwater monitoring and contingency works*

The Trust considers that some additional measures may be required to manage groundwater contamination, subject to the effectiveness of the remediation program. These may include:

- A requirement to install collection wells to intercept upgradient contaminated seepage water passing onto the site. Collected water may be retained for treatment, if required, and disposal to sewer.
- Enhanced natural attenuation and on-going monitoring.



Fig.13







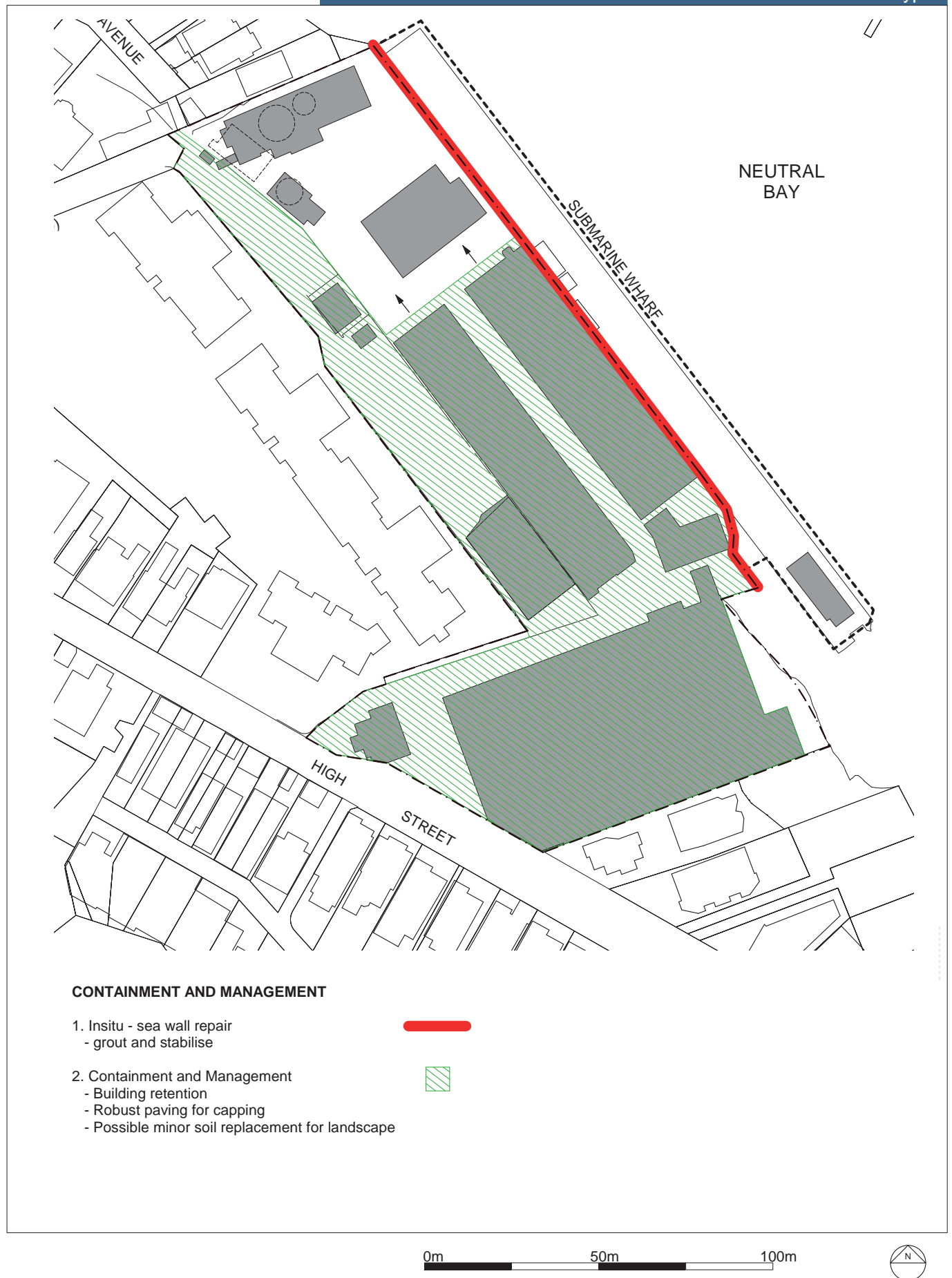
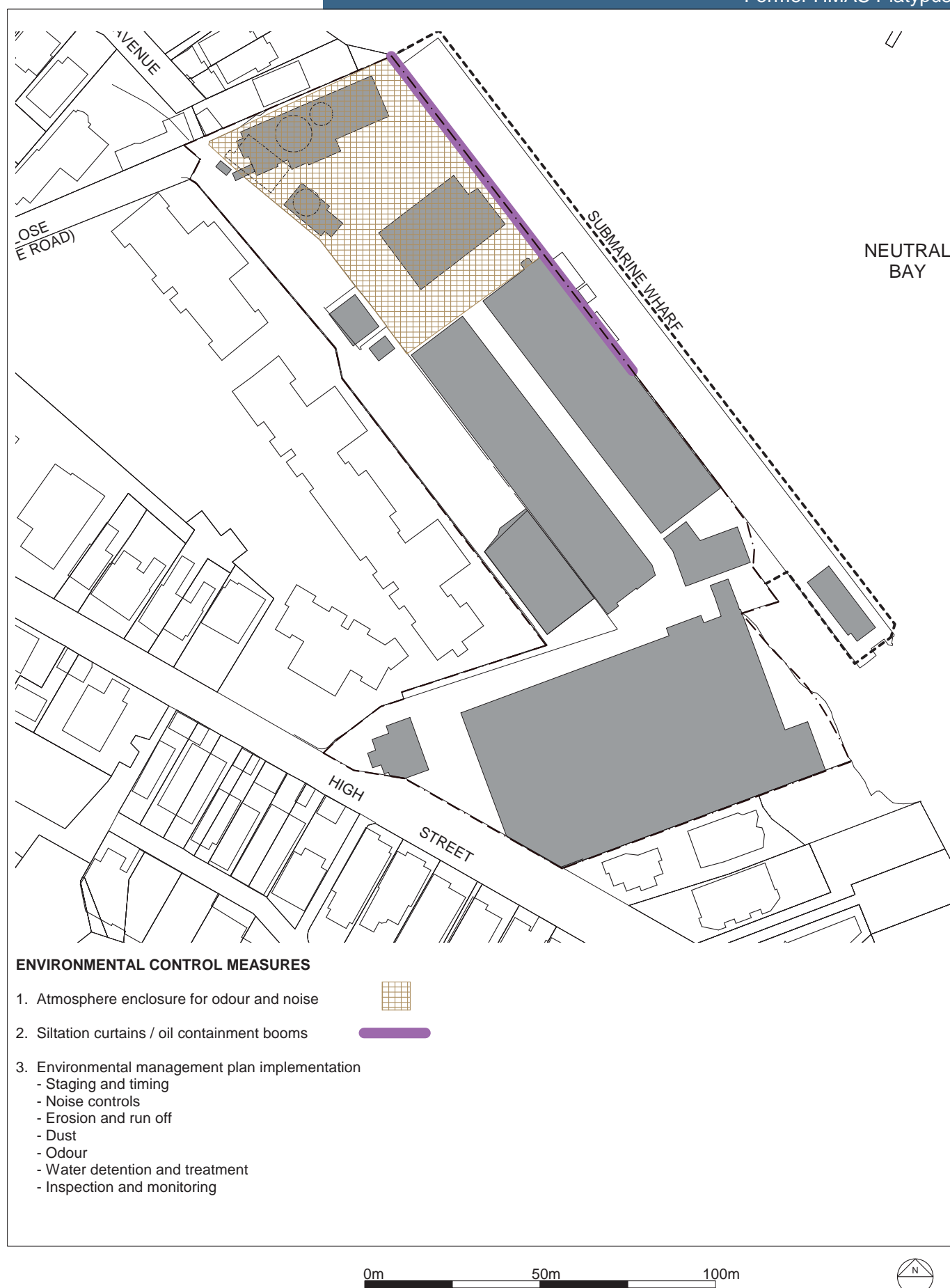




Fig.15

# Environmental Control Measures Former HMAS Platypus





- Potential installation of further engineering measures to mitigate the impact of any residual groundwater contamination on Neutral Bay receiving waters.

### *Hazardous Materials*

An important aspect of the remediation from a health point of view will be the removal and abatement (where necessary) of hazardous material such as asbestos, lead paint and electrical equipment remaining on-site.

### ***Operational Management***

The remediation and construction phases and the subsequent use of the site will be managed so as to minimise potential impacts on surrounding areas (such as through the generation of dust, noise and light spillage, as well as increased traffic and parking demand).

### *Remediation*

The Trust will continue public consultation in the lead up to and throughout the remediation process. During the remediation stage, the potential for dust generation will be managed by a range of methods as discussed in the previous section. Traffic movements on local streets will be minimised by transporting the bulk of excavated material from the site by barge.

### *Noise*

Noise emissions will be required to comply with the relevant standards of the NSW Environment Protection Authority (now under the NSW Department of Environment and Climate Change). As part of the Trust's preparation of more detailed plans for the site in consultation with the community, the Trust will engage specialist acoustic consultants to undertake a Noise Impact Assessment. This will analyse likely noise sources and recommend measures to ensure that noise levels comply with EPA standards and do not impact unreasonably upon local amenity. The measures will include appropriate acoustic treatments of buildings as necessary, operating hours and other restrictions on use. These measures will be included in building design/ fit out and lease and licencing agreements with site tenants and users.

### *Lighting*

Lighting will meet appropriate safety standards, provide security and enhance the visual qualities of the newly created public domain. The design, selection of and installation of lighting systems are to 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 regional and harbour views of the site. Lighting employed on buildings

will maximise opportunities for incidental use in pedestrian spaces relative to the applicable lighting level for the level of access. Lighting shall be selected and located to achieve the desired lighting effect, to minimise glare both within and external to the site and minimise light spill to the sky.

### *Selection of uses*

The Trust's selection of uses is a fundamental tool for minimising operational impacts. Specific uses and tenancies will be selected by the Trust when the site remediation and rehabilitation works are well underway and nearing completion. This may be up to 18 months away. The selection will be through a public process. The Trust will invite proposals publicly through an Expression of Interest and/or Request for Proposals process.

The general principles that underlie the selection of uses include:

- consistency with the plan;
- uses that make a positive contribution to the enjoyment and understanding of the place and its heritage;
- uses that provide diversity and suit the character and heritage values of the buildings and the site (such as the uses proposed in the Adaptive Re-use section).
- uses that are compatible with managing transport demand; and
- uses that are compatible with environmental and amenity constraints.

### *Traffic/Parking*

Although the site is in close proximity to public transport and to North Sydney, it is also within a dense residential precinct where on and off street parking is very limited.

Based on North Sydney Council's DCP the potential mix of uses requires up to 80 car parking spaces. These can be accommodated on site. Up to 40 car spaces are available on the upper terrace. The access to this car park via Kiara Close will be managed for use by employees, regular visitors or by prior arrangement. The additional spaces are provided in the entry forecourt of High Street in the proposed set back of the RANTME building, and under the RANTME building. Up to 10 spaces are also possible within the site's internal street, the loading bays of the workshops and the base of the cliffs near the submarine workshop.

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.

As part of the preparation of more detailed plans for the site the Trust will engage a specialist consultant to undertake a



Transport Management Plan (TMP). The TMP will provide a comprehensive analysis of the constraints and opportunities of the site and surrounding area in terms of road access, parking, traffic safety, public transport, proposed uses and trip generation.

The TMP would examine a range of measures to manage the site's transport needs such as incentives for encouraging sustainable travel behaviour, as well as infrastructural and operational means of improving access and parking to/within the site.

## Implementation

The Trust has the dual responsibility of preparing plans that guide the future development of its lands as well as implementing these plans.

Part C of the Comprehensive Plan summarises the approach and process to implementation adopted by the Trust for all of its sites.

These processes apply to the former HMAS Platypus as well as to its other sites, and this plan amendment therefore needs to be read in conjunction with Part C of the Comprehensive Plan.

The Trust Act also requires that the Plan include *“detailed estimates of costs which may be incurred in respect of the area, including costs of remediation, rehabilitation, and conservation of the area.”*

These estimates were also included in Part C of the Comprehensive Plan. The estimates as they relate to the former HMAS Platypus are detailed below.

The site has an area of approximately 18,350m<sup>2</sup> (1.8 hectares) and 14 buildings (approximately 12,000m<sup>2</sup>), some of which are of heritage significance. The concrete wharf is approximately 3385m<sup>2</sup>.

The conservation and rehabilitation of the site to make it usable by the public will involve significant costs over the implementation period of the Plan.

In arriving at these costs, consideration has to be given to the past use of the land. The site has been in industrial and military use for over 100 years. During this time public access has been restricted and the way in which the site has been developed reflects the needs of the gas works industry and the Royal Australian Navy.

Some of the cost implications arising from these historical uses include:

- The buildings were designed for industrial and military use and some are non-compliant with the Building Code of Australia for matters such as disabled access, fire protection and emergency egress;
- The past uses have left the site contaminated and significant remediation work is required;
- Since the site was vacated in 1999 regular maintenance has not been carried out. The condition of services and infrastructure has not been assessed for a decade and upgrades are likely to be necessary; and

- Some of the buildings on the site are of heritage significance and their restoration and conservation may be both costly and time consuming with the potential for significant unknown factors to arise when work is being undertaken

### ***Detailed Cost Estimates***

Cost estimates have been compiled for remediation, rehabilitation of buildings, conservation works, the provision of public access, the provision of public amenities, and associated operational costs.

These cost estimates were prepared by an independent quantity surveyor for building related works and by environmental consultants in relation to remediation costs.

A number of principles were established and assumptions made in preparing these estimates. These include:

- All estimates are based on costs prevailing as at June 2007, and do not take into account the effect of inflation.
- The estimates for remediation costs were based on previous studies, other information provided by Defence Estate and additional investigations carried out on behalf of the Trust by its environmental consultants. The assumed standard for remediation is in accordance with the guiding principles contained in the Comprehensive Plan. These standards require compliance with the appropriate Commonwealth and State legislation and policy. It should be noted that this legislation and policy may change in the future resulting in an increase in cost.
- The estimates relate to work to be carried out on the existing buildings and lands. The estimates include provisions for the demolition of some buildings, and for the rehabilitation of buildings suitable for adaptive reuse, as described in the outcomes section of the Plan.
- The estimates are summarised into the cost categories outlined in the Trust's legislation.
- The cost estimates assume the works are carried out in a programmed and efficient order.

Accordingly the detailed costs provided are in accordance with the Trust's Act, but must be regarded as provisional and subject to revision. It is likely that the costs will be revised upwards over time. The Trust will report annually to the Minister on the revision of cost estimates.

## ***Project Cost Details***

The estimated cost of implementing the plan is \$72.981 million for capital works and \$15.860 million for Trust administration, project management, operation and maintenance over 4 years.

The capital works component of the cost is made up of the following:

### ***Remediation***

The remediation cost estimate is up to \$46 million. This includes:

- Site establishment, project planning and management
- Demolition and hazardous material removal
- Tar pit and other contaminant removal
- Containment & on-site management of contaminated fill
- Ground water control measures
- Off shore sediment assessment
- Transport

The above cost estimate for the decontamination is the upper end of a range affected by the following:

- the exact amount of material to be removed will only be able to be determined once the excavation is well advanced
- the method of treatment of the contaminated material may vary
- the need for the additional groundwater control measures will depend on an assessment of the remaining site conditions
- transport constraints due to the 15 tonne limit on truck movements on the adjacent road, constrained site access and the potential use of barges

### ***Rehabilitation and Conservation***

The cost estimate of \$26.981 million includes:

- Project planning and management
- Rehabilitation of infrastructure
- Conservation of heritage items
- Rehabilitation and conversion of buildings
- Landscaping
- Wharf repair and maintenance

## ***Site Program Costs***

In addition to the cost of remediation, rehabilitation and conservation, there will be costs associated with the Trust's ongoing responsibilities to undertake detailed design and planning of the former HMAS Platypus site, to insure it, to provide security to the site and buildings, to undertake routine maintenance and to enable the site and the buildings to meet health and safety requirements for use by the public.

The following assumptions were made in estimating these costs:

- All estimates are based on costs prevailing as at June 2007 and do not take into account changes in legislation such as the Building Code of Australia. Inflation will need to be applied to these costs;
- The estimates assume a four year program, commencing in 2008, to complete all of the required project and planning works; and
- The estimates assume a programmed development of the site enabling efficient use of Trust staff and resources.

Some of these costs are inherently volatile, for example, insurance. Accordingly the costs provided must be regarded as provisional and subject to revision as more knowledge of these costs is obtained in the future.

### *Site program cost details*

These costs are made up as follows:

- Site Security
- Public Health and safety works
- Repairs and Maintenance
- Community liaison and education
- Design, planning and consultation
- Project management
- Estate Management
- Wharf leasing and maintenance
- Insurance
- Public and Interpretive programs

Total Cost over 4 years during the implementation of the plan  
**\$15.860 million**

### ***The Potential for the Trust to Generate Income***

There is the potential to offset the ongoing costs of managing the site by the leasing of the buildings.

There is a direct relationship between the potential rental income and the extent of building rehabilitation undertaken. Full rehabilitation to a standard that enables a user to occupy a building with little further expenditure will provide the highest gross rental.

The estimates assume normal commercial leases for the buildings and are prepared on a net of outgoings basis. The rental estimates contain a range, depending on the likely use of individual buildings.

These estimates indicate that the Trust can expect a net annual revenue of approximately \$2 million to \$2.5 million per annum once the remediation and rehabilitation works are completed.



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## Effect of the Draft Plan

Once the Draft Plan is approved by the Minister in accordance with the provisions of the Act, the Trust must, by notice published in the Gazette:

- State that the Plan has been prepared
- Specify the day on which the Plan takes effect; and
- State where the Plan can be made available to the public.

The Plan takes effect from the beginning of the day specified in the notice. The Trust must begin to implement the Plan as soon as practicable after it has taken effect. The implementation of the Plan will not interfere with the operations of any existing lease or fixed-term licence that was in force prior to the Plan taking effect.

The Trust and all other Commonwealth bodies must act in accordance with the approved plan.

## Main Supporting Studies

*Asset Service, 1995/1996, RAN Facilities Appraisal for HMAS Platypus*

*Broomham, Rosemary, September 1984, Report on the History of the Gas Works Site, High Street, Neutral Bay, Volumes 1 & 2*

*Christopher Hallam and Associates, November 2001, Construction Traffic Management Plan for Neutral Bay Defence Site, Remediation, (Former HMAS Platypus) High Street North Sydney*

*Clive Lucas, Stapleton and Partners Pty Ltd, April 2007  
Draft Conservation Management Plan, (former) HMAS Platypus High Street, North Sydney*

*CMPS&F Environmental, Hazardous Material Audit, May 1997, HMAS Platypus Site Neutral Bay*

*Coffey Environments Pty Ltd, August 2006, Draft Register of Hazardous Materials Report – HMAS Platypus, High Street, Kirribilli*

*Conybeare Morrison and Partners, December 1997, Urban Design Report and Development Proposal*

*Dames and Moore, November 1999, Summary Site Audit Report HMAS Platypus and RANTME Naval Facilities, Kirribilli*

*Egis Consulting, July 2001, Remedial Action Plan, Former Platypus Site, Neutral Bay, North Sydney*

*Environ, May 2007, Comment on Broad Remedial Strategy, Former HMAS Platypus site, Neutral Bay*

*Egis Consulting, July 2001, Hazardous Materials Audit Neutral Bay Defence Site, Neutral Bay, Sydney*

*Godden Mackay Heritage Consultants, February 1997, Heritage Significance Assessment*

*Godden Mackay Heritage Consultants, February 1998, HMAS Platypus Proposed Site (Post Remediation) Conservation Plan and Heritage Impact Assessment*

*Kerr, Rosemary, December 2006, HMAS Platypus Aboriginal Site History*

*North Sydney Council, 1996, Naming North Sydney (2<sup>nd</sup> Edition), compiled by North Sydney Council's Historical Services Department*

*Parsons Brinckerhoff, October 2006, Sampling, Analysis and Quality Plan, HMAS Platypus, Neutral Bay, NSW*

*Parsons Brinckerhoff, November 2006, Draft HMAS Platypus Supplementary Environmental Assessment, High St, Kirribilli*

*Parsons Brinckerhoff, November 2006, Draft HMAS Platypus Remediation Action Plan*

*Patterson Britton and Partners Pty Ltd, January 1998 and May 1997 Wharf and Seawall Dilapidation Report Volumes 1, 2, 3*

*PPK Environment and Infrastructure Pty Ltd, September 1997, Sediment Investigation, HMAS Platypus and RANTME Naval Facilities, Kirribilli, NSW*

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*PPK Environment and Infrastructure Pty Ltd, October 1997, HMAS Platypus and RANTME Facilities, Kirribilli, NSW- Remedial Options Paper*

*PPK Environment and Infrastructure Pty Ltd, April 1999, Environmental Characterisation and Summary of Issues, HMAS Platypus, Kirribilli NSW*

*PPK Environment and Infrastructure Pty Ltd, December 1997, Stage 2 Environmental Contamination Assessment HMAS Platypus and RANTME Naval Facilities, Kirribilli, NSW, Volume 1 +2*

*Rust PPK Pty Ltd, May 1996, Environmental Contamination Assessment HMAS Platypus & RANTME Naval Facilities, Kirribilli, NSW Volume 1*

*Rust PPK Ltd, August 1996, HMAS Platypus Air Monitoring Investigations*

*Shelmerdine and Partners Engineering Pty Ltd, September 2003, Site Maintenance Report on Electrical services at HMAS Platypus, Neutral Bay Defence site, High Street, Neutral Bay*

*Urbanhorizon Pty Ltd, December 2006, HMAS Platypus – Transport and Access Review*

*Urbanhorizon Pty Ltd, September 2007, Former HMAS Platypus, Car Parking Scenarios Review & Kiara Close Traffic Management*

*Whipps-Wood Consulting, October 2003, HMAS Platypus Site Maintenance report*

#### *Acknowledgements: cover images*

*Main image: View of HMAS Platypus from the water, digital manipulation*

*Source: Sydney Harbour Federation Trust*

*Thumbnail images, from left to right*

*1. Exterior of FIMA Workshop buildings under construction, c. 1942*

*Source: Australian War Memorial Image no. 305999*

*2. HMAS Platypus handover and open day, 2005*

*Source: Sydney Harbour Federation Trust*

*3. Personnel in the Torpedo factory at Neutral Bay giving final tests to a re-conditioned torpedo, 1945.*

*Source: Australian War Memorial Image no. 011134*

*4. Submarines alongside HMAS Platypus wharf, 1982*

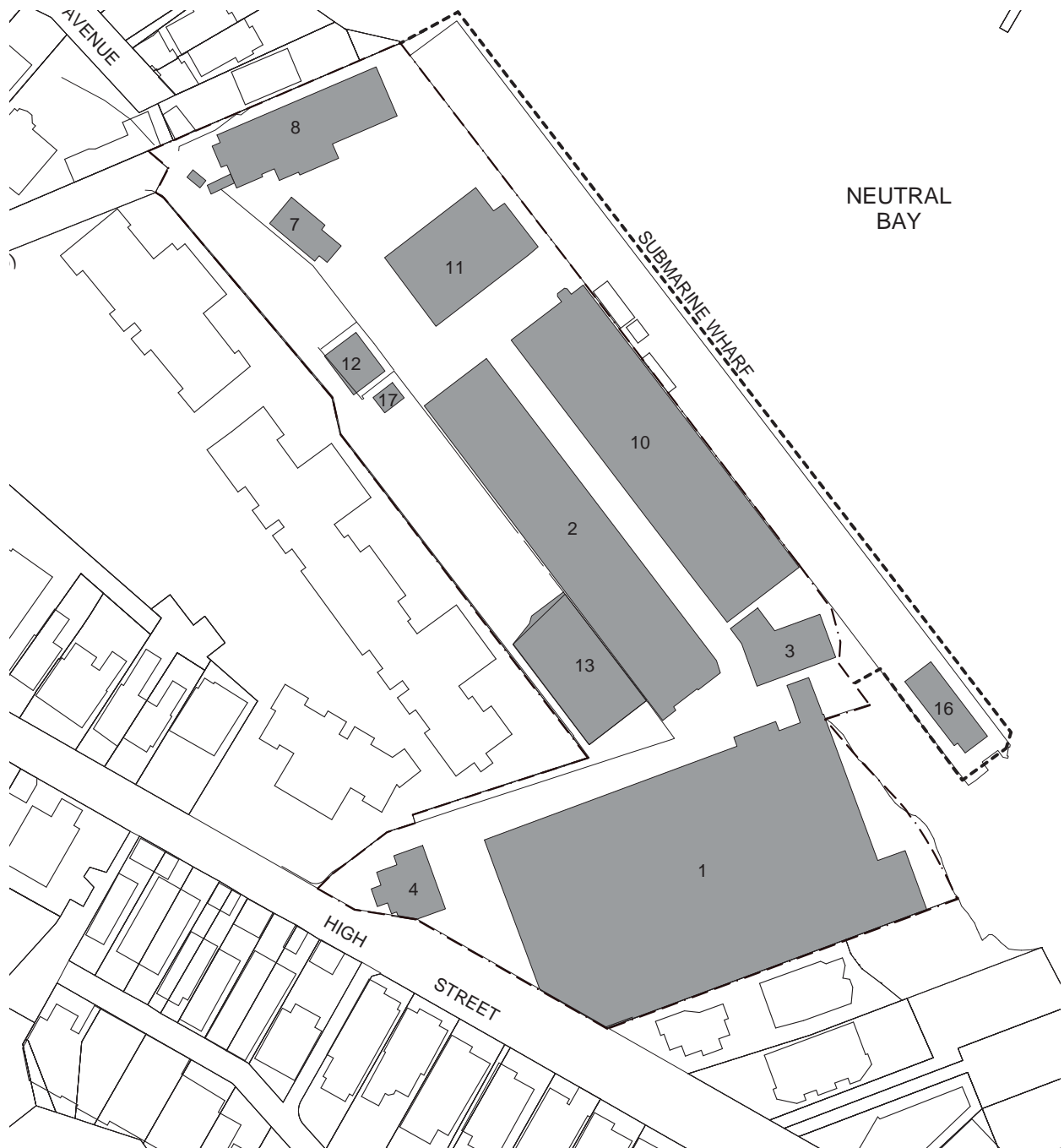
*Source: National Archives of Australia Image no. 11736704*

*5. North Shore Gas Works, Neutral Bay, 1902*

*Source: Stanton Library*

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- | No. | Name                                      |
|-----|---|
| 1.  | RANTME Factory                            |
| 2.  | Submarine School                          |
| 3.  | RANTME Office                             |
| 4.  | Gatehouse                                 |
| 7.  | Flammable Store                           |
| 8.  | Administration Building                   |
| 10. | Workshop Building                         |
| 11. | Former Retort House                       |
| 12. | Former Exhauster House (Compressor House) |
| 13. | Former Coal Store                         |
| 16. | Boatswain's Store                         |
| 17. | POL store                                 |

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