DESIGN 5

A R C H I T E C T S

BAYS WEST STAGE 1 -

WHITE BAY POWER STATION (AND METRO)

HERITAGE IMPACT ASSESSMENT

Prepared for
Department of Planning and the Environment (DPE)

4 August 2022
FINAL

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1 EXECUTIVE SUMMARY

1.1 General

Design 5 – Architects have been engaged by the Department of Planning and the Environment (DPE), to prepare a Heritage Impact Assessment (HIA) for the Master Plan and Rezoning of the *White Bay Power Station (and Metro) Precinct* (subject site).

The area known as Bays West, encompassing the former and current industrial sites in Rozelle Bay, Glebe Island and White Bay comprises a vast area and has played a substantial and crucial role in the development of Sydney's industrial and maritime past. The area retains strong historic and social values that are of exceptional significance to the growth of the city and of New South Wales more broadly. The area of Bays West has helped to shape the growth, development and evolution of neighbouring suburbs and retains a high level of social significance and attachment for local residences and former workers (White Bay Power Station, wharfage and rails uses). The precinct contains structures and landscapes of exceptional significance and intactness that embody Sydney's once thriving industrial and working harbour past.

The unique character of the Bays is a legacy of the vast area of largely intact pre-industrial structures and landscapes that exist there. Despite the diverse uses, each part of the Bays West precinct was inextricably reliant on each other for their siting, function and development, and together played a major role in the industrial growth of Sydney from the late 19th up to the late 20th century. The place contains structures and landscapes of exceptional significance and intactness that embody industry, power generation, working harbour and goods transportation. Today, this is represented through a rich and diverse variety of listed heritage items, ranging from large landmark status items such as the White Bay Power Station and the Glebe Island Grain Silos, to hard industrial wharf landscapes and other much smaller and more discreet elements.

The White Bay Power Station is landmark and destination within the precinct and the surrounding community. The White Bay Power Station anchors the precinct and is one of the most unique and celebrated assets at Bays West. The Master Plan ensures the place is appropriately adapted and reused as a focal point of the precinct and one that will ensure community access. Future reuse of the Power Station will be inspired by the Power Station itself, align with the Statement of Significance and Conservation Policy detailed in the CMP.

1.2 Heritage Items

The study area includes a number of significant heritage items associated with the early industry including maritime industrial operations on the site. The western edge of the study area is dominated by the White Bay Power Station complex which is listed on the State Heritage Register (*SHR, item #01015*) and Section 170 register. A Conservation Management Plan (CMP) is prepared for the White Bay Power Station complex and is referenced throughout this report. Other listed heritage items within the site include the White Bay Power Station (Inlet) Canal which is part of the water coolant for the Power Station. The Beattie Street Stormwater channel an underground active stormwater channel located along Robert Street and is listed as a heritage item on the Section 170 Register (*Sydney Water #001489*). While not listed, the site also contains the southern penstock which is also related to the water coolant canal.

Several heritage items and Heritage Conservation Areas are located adjacent to the site including the former Glebe Island Wheat Silos, The Anzac Bridge and Sewage Pumping Station on Robert Street. Local Heritage Conservation Areas include the Valley Heritage Conservation Area and the Hornsey Street Conservation Area.

1.3 Master plan

The proposal includes the finalisation of Bays West Stage 1 Master Plan which has informed the rezoning proposals for the precinct. References to the Bays West Stage 1 Master Plan (or Master Plan) relate to the Draft Urban Design Framework and Public Domain Concept Plan. The Bays West Stage 1 draft Master Plan was exhibited for public comment from 4 May to 31 May 2022.

The following rezoning controls are proposed and defined in the following maps:

- Identification of key sites
- Use Zones
- Floor Space Ratios
- Height of Buildings
- Heritage Items and Conservation Area
- Proposed Solar Access to Public Open Space

This report discusses the potential for heritage impact by the Master Plan and heritage benefit and where required make appropriate recommendations. Assessment of Heritage Impact are based predominantly on conservation policy set out in the Conservation Management Plan and Performance Considerations set out in the Bays West Place Strategy. Other assessment criteria are used where relevant. There are a number of heritage items inside the study area and immediately adjacent. A summary of the potential impacts of the Master Plan and rezoning may have on these items are discussed. Assessment of Heritage Impacts are discussed in Section 8 of this report and include assessment against:

- The White Bay Power Station Statement of Significance.
- Land Use Zoning
- Setting and Viewsheds
- Views within the Precinct
- Landscape
- Public Access
- Rail Corridors
- Impact to Heritage Items
- White Bay Power Station Complex
- Interpretation
- Better Placed Design Guide – Heritage

This report recognises the heritage benefit that implementation of the planning controls and the proposed Master Plan will have on the Cultural Significance of the place and the ability to communicate and interpret Cultural Significance to the future user.

2 INTRODUCTION

2.1 Acknowledgement of Country

Design 5 – Architects would like to acknowledge the First Nation's Wangal and Gadigal peoples of the Eora Nation who are the traditional custodians of the land which this report covers. We acknowledge their connection to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal peoples associated with this Country.

2.2 Purpose of this report.

The purpose of this report is to assess the heritage related impacts of the masterplan and rezoning particularly to heritage state and locally significant heritage items. This includes:

- Identification of listed heritage items and potential for listed heritage items within the study area. This will also include the identification of listed heritage items in the vicinity of the subject site.
- Assess the heritage impacts of the masterplan and rezoning works on the identified heritage items within the site area and in the vicinity. The assessment will include conservation policies particularly those contained in the Conservation Management Plan for the White Bay Power Station.
- Where relevant, provide recommendations to minimise heritage impact.

2.3 Background to this Report

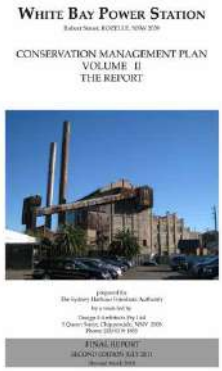
Design 5 – Architects have been engaged by the Department of Planning and the Environment (DPE), to prepare a Heritage Impact Assessment (HIA) for the Master Plan and Rezoning of the *White Bay Power Station (and Metro) Precinct* (subject site).

In 2015, the Bays Precinct Sydney Transformation Plan was released by the NSW Government. It established a strategy for the urban renewal of the Bays Precinct and outlined how its transformation can build on its heritage; support local communities; optimise maritime uses and support the growth of Sydney as an internationally competitive and globally relevant city.

Responsibility for delivery of the master planning process was previously given to Urban Growth NSW Development Corporation (now INSW) in 2015, including the preparation of a program strategic business case for the Bays West Master Plan (Bays West comprises Glebe Island, White Bay, White Bay Power Station and Rozelle Bay). This work was ceased by Government, and in 2020, the Department of Planning, Industry and Environment was given the lead responsibility for preparing a Place Strategy for Bays West, as well as developing the master plan for the precinct around the future Bays Metro Station which is referred to as the "White Bay Power Station (and Metro Station) sub-precinct" located at the head of White Bay.

The *Bays West Place Strategy,* was exhibited during Q1 2021 and finalised on 15 November 2021. The Bays West Place Strategy builds upon previous urban renewal work in the wider Bays Precinct and creates a long-term vision for Bays West to be delivered over time. This is a vision for a connected and vibrant precinct that is an innovative and sustainable new place for living, working and recreation. The Bays West Place Strategy is accompanied by technical documents including the the *Strategic Place Framework* and *Urban Design Framework.*

The *White Bay Power Station Conservation Management Plan* (CMP) prepared by Design 5 – Architects is also referenced within this report. The CMP identifies and describes why a place is important (cultural significance) and then proposes an action plan, policy or strategy to keep that importance (conservation policy) and manage it into the future.



The White Bay Power Station Conservation Management Plan (CMP) prepared by Design 5 – Architects, dated March 2013

Bays West Place Strategy, March 2021

Bays West Urban Design Framework, prepared by Terroir and collaborators (including Design 5 - Architects). Final Exhibited Draft 19 March 2021

Bays West Strategic Place Framework, prepared by Terroir and collaborators (including Design 5 - Architects). Final Exhibited Draft 19 March 2021

2.3.1 Bays West Place Strategy

The Bays West Place Strategy and its supporting documents set the strategic and policy context for the White Bay Power Station (and Metro) Sub-precincts Master Plan.

> *The Bays West Structure Plan sets out an overarching and integrated system framework for the future of Bays West. It articulates the primary land use, open space, and connectivity network structures that have been developed for the precinct to capitalise on its place character and support its long-term renewal.*
>
> *The structure plan is informed by the vision and directions established for the precinct. It identifies the key strategic elements that will drive the transformation of Bays West, while allowing a staged delivery. The structure plan demonstrates how the precinct could achieve its potential.*
>
> *The structure plan connects the precinct with its adjacent neighbourhoods and will facilitate access to water and travel through the precinct. The plan encourages a diversity of land use, high public amenity, and embedded infrastructure to support adjacent and future communities.*
>
> *The structure plan is presented as an aspirational end-state representation of the precinct's urban renewal. It is a broader framework for the precinct on which further, more detailed investigations, into for example, optimal land uses and urban form, will be based.* (Bays West Place Strategy, November 2021, page 55).

The Bays West Place Strategy identifies eleven sub-precincts, and the study area falls within one of these precincts - White Bay Power Station (and Metro) Precinct (**Figures 2.3.1 and 2.3.2**). As detailed in the Bays West Place Strategy, the potential for precinct is detailed below:

> ***1 White Bay Power Station (and Metro)***
>
> *This area is central to the renewal of the precinct holding both the White Bay Power Station and the Metro Station. This zone will be a key activity centre for the precinct, providing events, services, and infrastructure for existing and new communities. It will be a nexus of connection between other sub-precincts and the*

adjacent suburbs, while providing a new regional open space connecting White Bay Power Station and the head of White Bay. . (Bays West Place Strategy, November 2021, page 59).

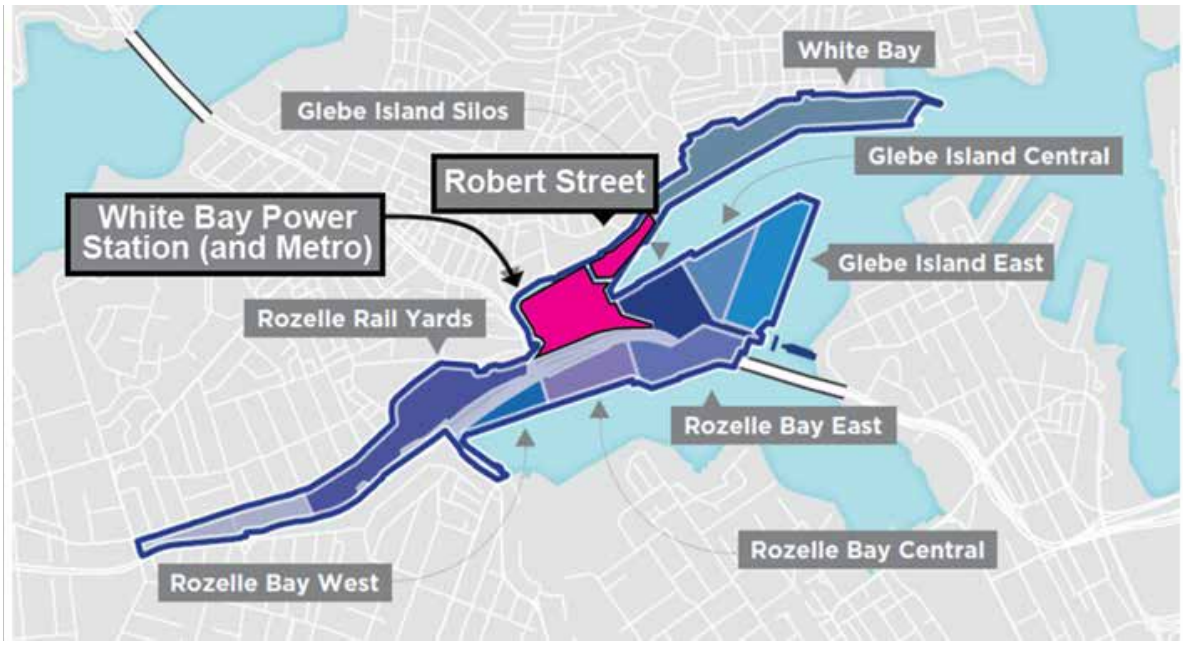


Figure 2.3.1: Place Strategy White Bay and Robert Street Sub-Precincts context. Sub-Precincts boundaries are from the Place Strategy (November 2021) and are subject to changes as detailed planning and design work is undertaken as sub-precincts are master planned. (Courtesy DPIE).

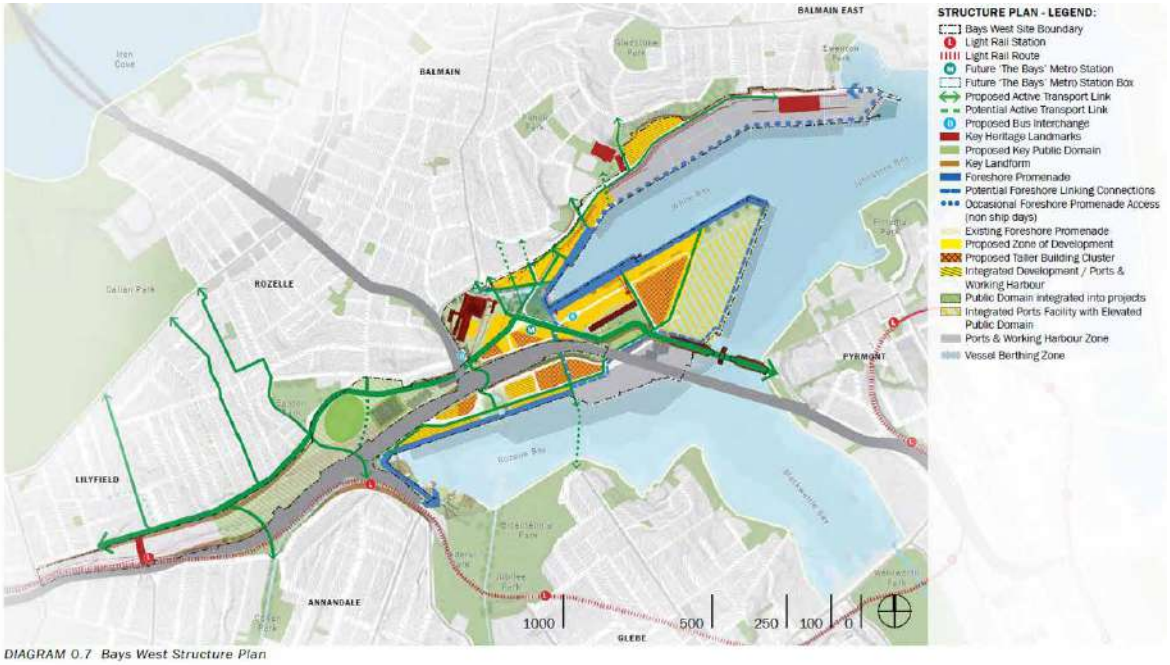


Figure 2.3.2: Bays West Strategic Place Framework. Executive Summary Bays West Structure Plan, Diagram 0.7, page 6. (Courtesy DPIE, Terroir and collaborators).

2.4 Summary Proposal

The Bays West Stage 1 draft Master Plan was exhibited for public comment from 4 May - 31 May 2022. The Draft Master Plan and Urban Design Framework, sets out the vision and scope for the precinct which includes:

> *The Bays West Place Strategy sets out a vision for a connected, vibrant and activated precinct – a new kind of Sydney urbanism that respects and celebrates Country, drawing on natural, cultural, maritime and industrial stories to shape an innovative and sustainable new place for living, recreation and working.*
>
> *The delivery of the Metro Station by 2030 will be the first step in the renewal of the precinct. To support the delivery of the Metro Station, Cox Architecture and Turf Design Studio have been engaged by the Department of Planning and Environment to prepare the Bays West Stage 1 Draft Master Plan and Urban Design Framework for the White Bay Power Station (and Metro) and Robert Street Sub-precincts. This Master Plan will inform the future rezoning which will unlock the future for White Bay Power Station and the land around the new Bays Metro Station (The Bays station).*
>
> *Sydney Metro is currently progressing an Environmental Impact Statement for the Metro West line. Government will continue to work towards ensuring these processes are aligned to realise the future of Bays West.*

Detailed description of the proposal is provided in **Section 7** of this report.

Since exhibition of the Draft Master Plan, the Robert Street sub-precinct does not form part of the current rezoning. The current rezoning application will only include the White Bay Power Station (and Metro) sub-precinct.

2.5 Heritage Listings

The study area includes several significant heritage items associated with the early industry including maritime industrial operations on the site. The western edge of the study area is dominated by the White Bay Power Station complex which is listed on the State Heritage Register (*SHR, item #01015*) and Section 170 register. A Conservation Management Plan (CMP) is prepared for the White Bay Power Station complex and is referenced throughout this report. Other listed heritage items within the site include the White Bay Power Station (Inlet) Canal which is part of the water coolant canal that connects underground. The Beattie Street Stormwater channel an underground active stormwater channel located along the northern edge of the site, roughly in alignment with Robert Street. The channel is listed as a heritage item on the Section 170 Register (*Sydney Water #001489*) and is responsible for a significant portion of stormwater from Rozelle. While not listed, the site also contains the southern penstock which is also related to the water coolant canal.

2.6 Methodology

The study methodology follows the terminology and philosophy of The Burra Charter *(The Australia ICOMOS Charter for Places of Cultural Significance)* and its guidelines. The Burra Charter embodies the principles and practices adopted by conservation professionals and practitioners throughout Australia. As the question of why to conserve, The Burra Charter states that:

> Places *of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.*
>
> *These places of cultural significance must be conserved for present and future generations in accordance with the principle of inter-generational equity.*
>
> *The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.*

The historical record of our towns and cities, their growth and evolution are documented in the built environment. For much of the Bays precinct, the early land history and use followed by the industrial development is clearly evident in the landscape and retained buildings and structures while others are removed. In conserving heritage, future generations will be able to understand the past through the physical evidence of important buildings, landscapes and topography.

2.7 Author Identification

This report was written by Robert Gasparini of Design 5 – Architects with assistance from Lian Wong and Gilberto Polla of Design 5 – Architects.

All photographs used in this report are taken by Design 5 – Architects unless noted otherwise.

2.8 Acknowledgements

The assistance of several people in the preparation of this report is appreciated including staff at DPIE, Cox Architecture and Turf Design.

Reference is made to the White Bay Power Station Conservation Management Plan (CMP) prepared by Design 5 – Architects and dated March 2013 (referred to as the CMP). The CMP sets out detailed policies to guide conservation and reuse for the building and surrounding land. In relation to redevelopment of the Power Station and immediate vicinity, reference is made to policies relating to:

- Curtilage and setting.
- Significant building elements, structure, and machinery.
- Landscape.
- Guidelines for new structures in the vicinity of the White Bay Power Station.

Further reference is made to the Bays West Place Strategy which broadens the scope of the original CMP by extending the study area to include Bays West as an integrated redevelopment. It also clarifies significant view-sheds to and from the site, public access and open space.

Design 5 will also acknowledge the work of other study reports referred to in this report and are acknowledged throughout the text of the report.

2.9 Limitations

This Heritage Impact Assessment is limited to the subject precinct and the structures within it.

Archaeological assessments do not form part of the scope of this report and are undertaken separately.

Access to parts of the site currently occupied by the Metro West project have been limited. Extensive site investigations and visits to the Metro West site were undertaken prior to the current works by Metro West which are considered sufficient for the purposes of this report.

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2.10 Definitions

The terminology in this report follows definitions detailed in The Burra Charter and include the following:

- **Place** means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

- **Cultural significance** means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.
- **Fabric** means all the physical material of the place including components, fixtures, contents, and objects.
- **Conservation** means all the processes of looking after a place so to retain its cultural significance.
- **Maintenance** means the continuous protective care of the fabric and setting of a place and is to be distinguished from repair. Repair involves restoration or reconstruction.
- **Preservation** means maintaining the fabric of a place in its existing state and retarding deterioration.
- **Restoration** means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.
- **Reconstruction** means returning the place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric.
- **Adaptation** means modifying a place to suit the existing use or a proposed use. Use means the functions of a place, as well as the activities and practices that may occur at the place.
- **Compatible use** means a use that respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.
- **Setting** means the area around a place, which may include the visual catchment.
- **Related place** means a place that contributes to the cultural significance of another place.

3 DESCRIPTION OF THE PLACE

3.1 General Description

The *White Bay Power Station (and Metro) Precinct* (subject site) is located at the head of White Bay in the suburb of Rozelle and lies approximately 3.5km from Central Station and 2.5km from the Sydney CBD (Refer to **Figure 3.1.1 and 3.1.2** for location). The site is irregular in shape and has an area of approximately 93,000 square metres. It is bounded on the north by Robert Street and the intersection of Mullins Street and the north, Victoria Road to the west, City West Link to the south and Glebe Island to the east. The site falls within the Local Government Area of Inner West Council. In the broadest sense, the site is located centrally to several inner-city suburb areas including Rozelle, Balmain, Lilyfield, Annandale, Glebe and Pyrmont.

The topography of the site is flat with sandstone cutting along the southern edge adjacent to Victoria Road. Most of the study area is on reclaimed land created by filling in the head of White Bay and the former isthmus connecting with Glebe Island. As a result, the site has very little elevation above the water line of White Bay including area around the White Bay Power Station that sits at two to three metres above mean high water level and is subject to local overland flooding related to Beattie Street stormwater channel.

Figure 3.1.1: Location of White Bay *(source: SIX Maps)*.

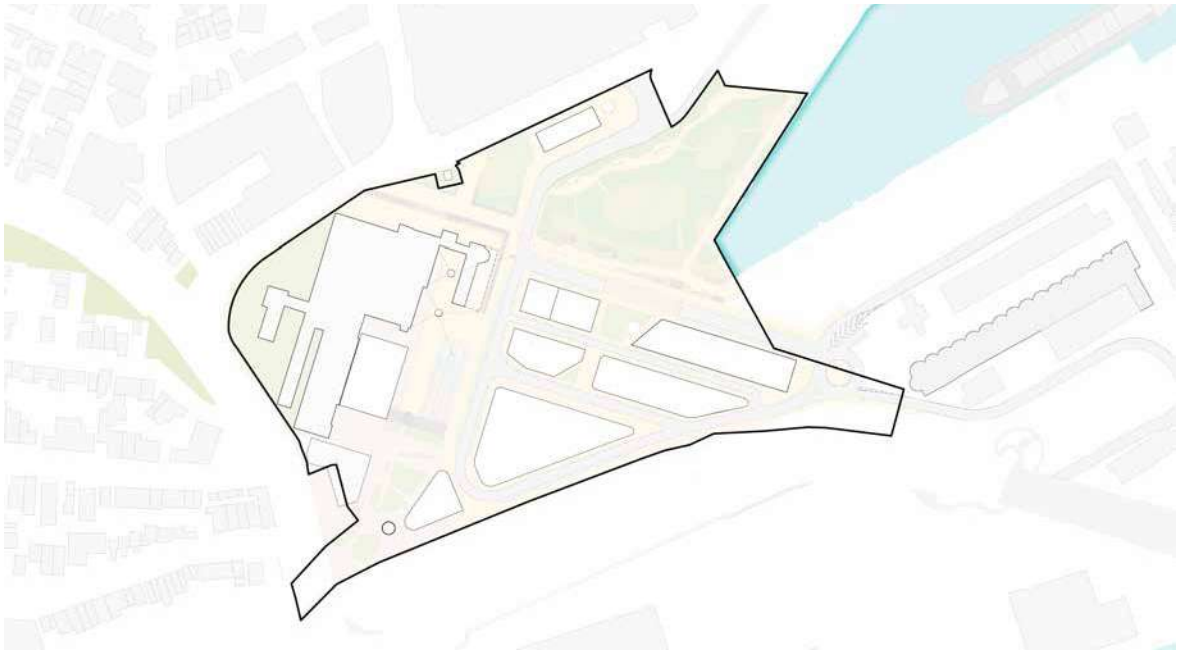


Figure 3.1.2: Land Application Map *(source: Cox)*.

With removal of previous built on areas, and notwithstanding current construction by Sydney Metro West and Westconnex, the landform is predominantly concrete hardstand which was formerly used for rail and transport, industrial, and land/water interface of ports and maritime operators. Any vegetation within the precinct is largely restricted to tree canopy in the west forecourt of the White Bay Power Station.

A photographic survey was made from both the water and from the land prior to and during the construction of the Sydney Metro West and a selection of these images are included here. While the site has a major landmark in the form of the White Bay Power Station, the remainder of the site also contains rich evidence of former structures and elements related to former uses. Considerable evidence was found relating to the following:

- Evidence of original landform and the cut and fill of later developments.
- Evidence of tooling and cutting of stone face of the stone face escarpment at the site of the former White Bay Hotel reflecting the technology and pattern of development.
- Evidence of rail network including rail turntable (currently recorded and partially removed as part of the Sydney Metro West station development).
- Evidence of water coolant canals including outlet at White Bay and circular penstocks at the north and south end of the site.
- Evidence of former removed structures.
- Circa 1903 sewage pumping station survives on Robert Street.
- Evolution of other industry adjacent to the site, particularly that fronting Robert Street.
- Evolution of worker housing in neighbouring suburbs including Rozelle and Balmain.
- In ground evidence of cable tunnels and other infrastructure.
- Potential archaeological significance in the form of early piling and land reclamation which is clear in the documentary record.

Figure 3.1.3: View looking east from the construction scaffold of White Bay Power Station looking over the construction of Sydney Metro West and beyond to White Bay and Glebe Island *(Design 5, July 2022).*

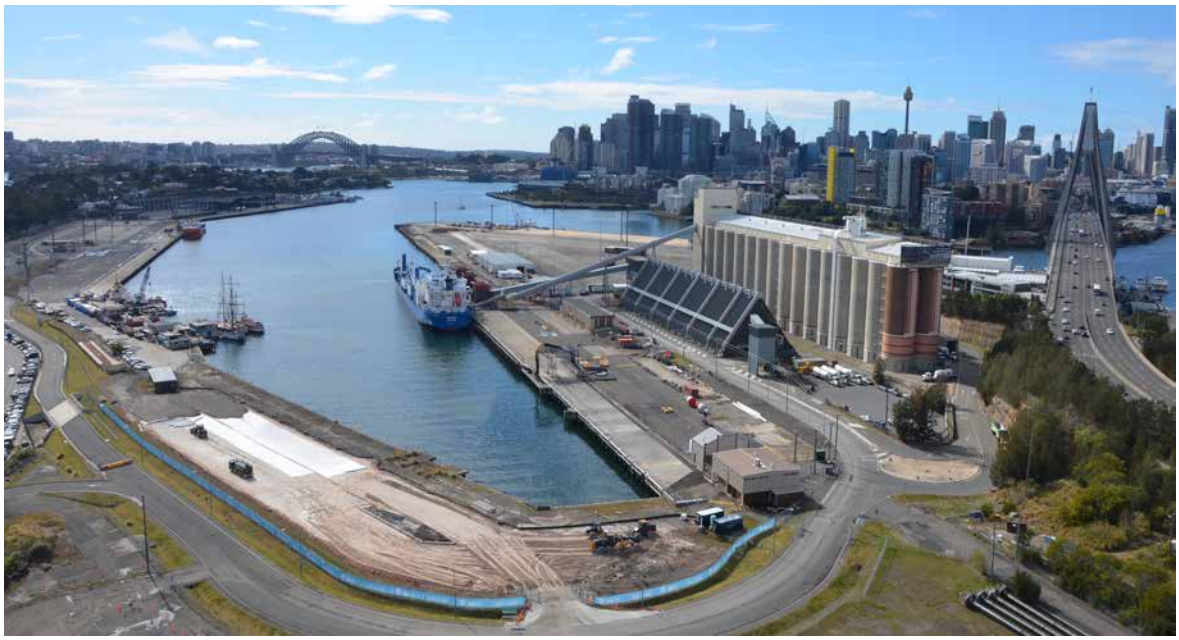


Figure 3.1.4: View looking northeast toward White Bay and Glebe Island from the subject precinct. *(Design 5, Sept. 2018).*

Figure 3.1.5: View along the rail corridor toward White Bay prior to Sydney Metro West construction *(Design 5, February 2018).*

Figure 3.1.6: View looking northwest toward the White Bay Power Station from an aerial drone. *(Source Evolving Photo – Chris Bennett, May 2022).*

Figure 3.1.7: View looking toward the White Bay Power Station from the head of White Bay prior to the Sydney Metro West construction (Design 5, February 2018).

Figure 3.1.8: View looking along the rail corridor looking south prior to Sydney Metro West and Westconnex construction *(Design 5, February 2018).*

3.2 White Bay Power Station

White Bay Power Station is situated on a roughly triangular area of generally flat land at the head of White Bay in Rozelle. The site is bordered to the north by Robert Street, to the east by open port land and associated rail tracks and yards next to the shore of White Bay, and to the west by Victoria Road.

The precinct includes a number of structures and elements. Principal buildings on the site include:

- **The Coal Handling Plant** is an assemblage of corrugated iron clad sheds, elevators & conveyors. It consists of a rail serviced coal dumping shed east of the two tall steel stacks with a tall elevator shaft with motor room, and an inclined and enclosed conveyor shaft sheathed in corrugated iron which runs at a high level up to the north side of the boiler house. The two steel chimney stacks, though not part of the coal handling plant, are often identified with it.
- **The Boiler House** is a massive brick and reinforced concrete structure built in two stages 1953 & 1958. It is the third boiler house at the station and stands on the site of the first. The second one, formerly to the south, has been demolished. Adjacent to the Boiler House is a lower steel and concrete tower structure for handling the waste ash.
- **The Turbine Hall** and its adjacent **Pump House** was built in two stages as demand for power increased. The massive brick (1917) and reinforced concrete (1927) building housed not only the generating equipment but also the extensive administrative offices and the

laboratory in the southern end. The electrical and mechanical workshops and some of the circuit breakers were located here.

- **The 1912-1927 Switch House** lies to the west of, and parallel to, the Turbine Hall and was also built in two stages (1912-1917 and 1917-1927). The architecture and construction of the switch house is similar to the turbine hall with its steel framed windows and brick and reinforced concrete walls. It contains the original 1917 control room which links to and overlooks the Turbine Hall.
- **1948 Switch House and Control Room** is a brick annex to the west of the Power Station and contains the Control Room and associated cable rooms, switch gear and other ancillary equipment required for the reticulation of the generated power.

The White Bay Power Station is currently undergoing major conservation and restoration works with the objective of providing minimal standards of maintenance and repair under the Heritage Act 1977 and the Heritage Regulation 2012. Broadly speaking, the works focus on the following areas and will is due to be complete by mid to late 2023:

- Weatherproofing of roofs and repair of roof drainage system.
- Waterproofing and bird proofing all openings.
- Decontamination of hazardous materials which mainly include the removal of lead dust, friable asbestos and the removal or encapsulation of lead paint.
- Structural remediation and repairs and façade remediation.
- Make safe works including from slips, trips and falls, repair balustrades and walkways, install lighting and remove dangers posed by potential falling objects.
- Upgrade of site security and fire protection. This includes fire detection and review of suppression and control if fire were to occur.

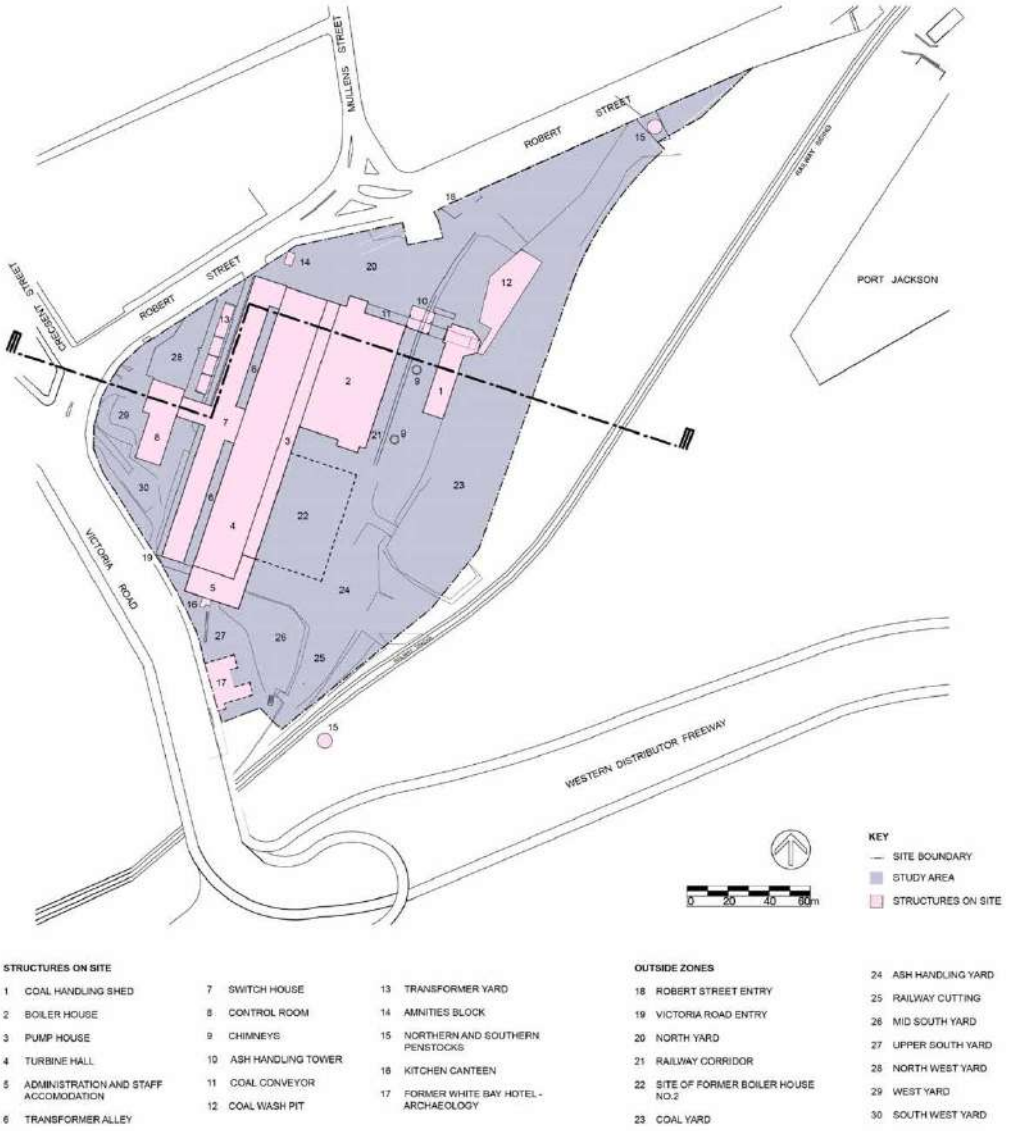


Figure 3.2.1: Extract of Figure 1.2.2 from the Conservation Management Plan showing the plan and building and area naming for the White Bay Power Station

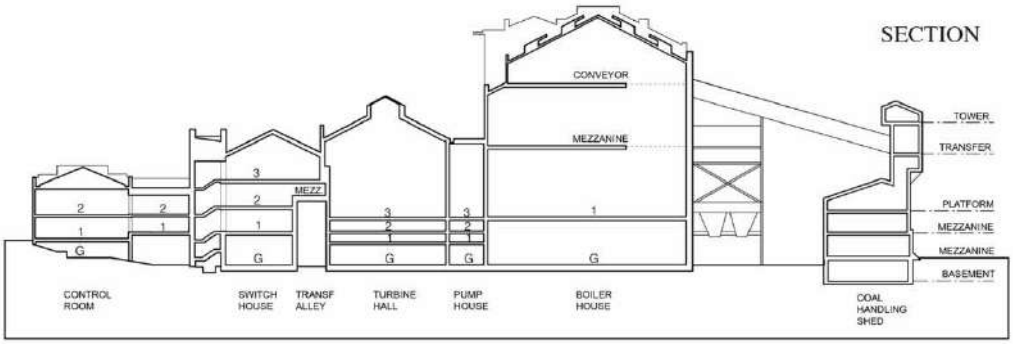
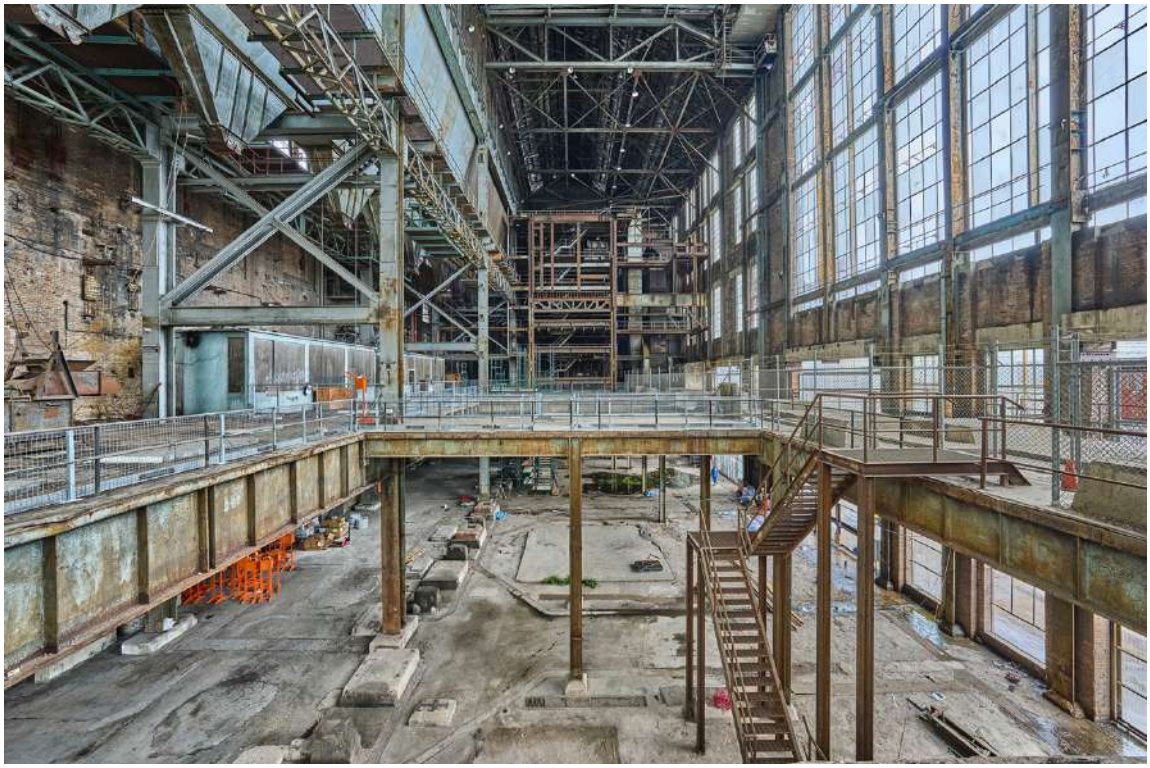


Figure 3.2.2: Extract from the Conservation Management Plan showing the section through the main buildings.

Fgure 3.2.3: Figure x: View looking south toward the White Bay Power Station from an aerial drone positioned roughly above Robert Street. *(Source Evolving Photo – Chris Bennett, May 2022).*

Fgure 3.2.4: Control Room of the White Bay Power Station *(Design 5, July 2022).*

Fgure 3.2.5: Turbine Hall looking south from an aerial drone. *(Source Evolving Photo – Chris Bennett, May 2022).*



Fgure 3.2.6: Boiler House looking north *(Source Evolving Photo – Chris Bennett, May 2022).*

3.3 Sydney Metro West

East of the White Bay Power Station and adjacent to the White Bay foreshore, the site is currently undergoing construction for the Sydney Metro West station box and later boring for underground tunnels. The Sydney Metro West is a new 24 kilometre metro line that will connect Westmead and Parramatta with the Sydney CBD. The line is fully underground and include stations at Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Sydney CDB.

The objectives of the Sydney Metro West are quoted below and includes support urban renewal in the Bays. The relevant section is underlined:

The Sydney Metro West Greater Parramatta to Sydney CBD corridor objectives are:

- *Contribute towards the vision for a three cities metropolis established by the Greater Sydney Commission including the '30-minute city' concept*
- *Support additional housing supply and employment growth opportunities and support urban renewal initiatives within the Greater Parramatta to Sydney CBD corridor including key government precincts such as the Greater Parramatta and Olympic Peninsula and The Bays*
- *Achieve customer outcomes including relieving congestion on the busy T1 Western Line and T2 Inner West and Leppington Line, increased rail patronage and mode shift, reduced travel times between key destinations, providing new access to mass transit rail and relieving bus and road congestion in the western corridor.*

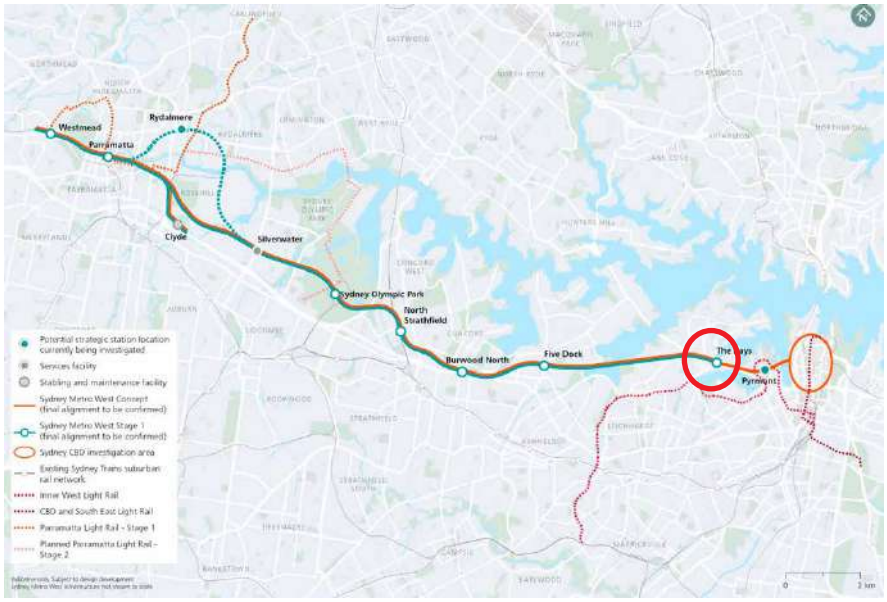


Figure 3.3.1: Map of Sydney Metro West with The Bays circled red.[1]

3.4 Westconnex Rozelle Interchange Project

At the south end of the site is partially occupied with the construction of the Westconnex Rozelle Interchange project. The Westconnex is Australia's largest road infrastructure project which includes 33km motorway network. The project includes four major stages with the construction of the Rozelle Interchange and Iron cove Link representing Stage two of the project. The Rozelle Interchange connects the M4-M5 Link to the Anzac and Iron Cove bridges, and the future Western Harbour Tunnel and Beaches Link. The Rozelle Interchange, currently in construction, is mostly underground located at the site of the old Rozelle Rail Yards, which is south of the subject site, and will include a 10ha regional park. As part of the construction, a temporary slip road connecting

[1] Sydney Metro West Environmental Impact Assessment: Westmead to the Bays and Sydney CBD. Executive Summary, page iv

Victoria Road to the ANZAC bridge occupies the south wedge and completely covers the southern penstock.

Figure 3.3.2: Rozelle Railyards Regional Open space.[2]

3.5 Archaeology

The archaeological potential for the area of the Sydney Metro West has been prepared by others and is referenced throughout this report. The subject site contains a number of low and moderate potential archaeological remains of local significance throughout the site. The site of White Bay Power Station may also contain potential for archaeological.

3.6 Current Use

At present, the site has no public use but is undergoing rapid transformation with the construction of the aforementioned Sydney Metro West tunnels and station box and the Westconnex Rozelle Interchange. In addition to this work the White Bay Power Station is currently undergoing significant conservation and restoration aimed at structural stabilisation, decontamination and hazardous materials remediation, weatherproofing, fire detection and conservation. The works for White Bay Power Station will enable safe and viable reuse for the Power Station compatible to the significance of the place as set out in the Conservation Management Plan 2013.

3.7 Character

It was clear during this analysis that of the precinct that it has a distinctive character which goes beyond the analysis of physical evidence or aesthetic qualities but is nevertheless crucial to an understanding of its values and importance to the broad area and the city. Elements of this character can be summarised as follows:

- Dramatic scale of the White Bay Power Station that still dominates the surrounding areas and lower scale dwellings.
- The tactile and material qualities of the White Bay Power Station as a former and disused industrial edifice that still dominates the surrounding area.
- Nearby small-scale working-class housing form the mid and late 19th century to the early 20th Century in Rozelle and Lindfield.
- Large flat areas of cleared former industrial uses and concreted areas.

[2] Draft Bays West Stage 1 Master Plan. 24-25

- Visual connections to landmarks including the White Bay Power Station, The Glebe Island Silos and the Anzac Bridge.
- Clear visual linkages beyond the precinct of the site including to the Harbour Bridge along White Bay and to the City.

4 HERITAGE PLANNING

4.1 Generally

The protection of environmental heritage in the Bays Precinct is the responsibility of all three levels of government, Local, State and Federal. Heritage conservation and environmental measures are contained in a range of statutes that vary in the degree of protection afforded to the items covered. This section provides an overview of key legislation most relevant to the sub-precincts.

4.2 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Federal Government's key piece of environmental legislation. The Australian Government Department of the Environment (the Department) administers the EPBC Act.

The EPBC Act focuses Australian Government interests on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of state and local significance. It provides legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. In January 2004, the national heritage system was established under the EPBC Act and has led to the National Heritage List. The National Heritage List recognises and protects places of outstanding heritage to the nation. The Act also includes provisions for the protection of properties listed on the World Heritage List.

The EPBC Act is triggered where any development or actions will likely have a significant impact on matters of national environmental significance. Approval for any actions covered by the EPBC Act is issued by the Commonwealth Minister, Environment and Heritage[3].

For the Bays Precinct, there are no known triggers that will prompt referral to the Commonwealth Minister.

4.3 Heritage Act 1977 (NSW)

The White Bay Power Station is listed on the State Heritage Register (SHR) and is therefore subject to the provisions of the Heritage Act 1977 (NSW)[4].

The *Heritage Act 1977* (NSW) aims to conserve the environmental heritage of New South Wales. The objectives of the Act as stated in Part 1, Clause (3) of the Act are as follows:

> *(a) to promote an understanding of the State's heritage,*
>
> *(b) to encourage the conservation of the State's heritage,*
>
> *(c) to provide for the identification and registration of items of State heritage significance,*
>
> *(d) to provide for the interim protection of items of State heritage significance,*
>
> *(e) to encourage the adaptive reuse of items of State heritage significance,*
>
> *(f) to constitute the Heritage Council of New South Wales and confer on it functions relating to the State's heritage,*
>
> *(g) to assist owners with the conservation of items of State heritage significance.*

The Act is administered by the Heritage NSW and is to ensure the cultural heritage in NSW is adequately identified and conserved.

[3] The full Act can be found online at: http://www.environment.gov.au/epbc/about
[4] The full Heritage Act 1977 can be found online at: https://www.legislation.nsw.gov.au/#/

4.3.1 State Heritage Register (SHR)

Items of significance to the state are listed on the NSW State Heritage Register (SHR). Any work or impact to an item listed on the SHR or within the identified curtilage of an SHR area requires approval from the Heritage Council of NSW under Section 60 of the Act, unless those works fall under the 'standard exemptions' from approval.

4.3.2 Archaeology

Historical relics are protected under the Heritage Act throughout all areas of NSW. Consent is required from the Heritage Council for the disturbance or excavation of relics.

Regardless of whether or not the place is listed on the SHR, all archaeological deposits are subject to the Heritage Act and must be managed and dealt with in accordance with its provisions

4.3.3 Section 170 Heritage and Conservation Register.

Under Section 170 of the act, all state government agencies are required to identify and administer a database of heritage assets in their ownership or under their control called *the Heritage and Conservation Register.* Heritage Assets listed on the register must be maintained in accordance with the *State-Owned Heritage Management Principles* contained in the State Agency Heritage Guide.

A number of items in and around the precinct are listed on various State Agency Heritage Registers.

4.4 National Parks and Wildlife Act 1974

The NSW Parks and Wildlife Act 1974 (NPW Act), is the primary legislation that provides statutory protection for all 'Aboriginal objects' (and 'Aboriginal places') within NSW[5]. An Aboriginal object is defined through the NPW Act as:

> *"any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains."*

The NPW Act also establishes penalties for 'harm' to Aboriginal objects and declared Aboriginal places, as well as defences and exemptions for harm. One of the main defences against the harming of Aboriginal objects and cultural material is to seek an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the NPW Act, under which disturbance to Aboriginal objects could be undertaken, in accordance with the requirements of an approved AHIP.

Under section 89A of the Act, if Aboriginal objects and places are found, the National Parks and Wildlife Services must be informed.

4.5 The Environment Protection and Assessment Act 1979 (EPA Act)

The Environmental Planning and Assessment Act 1979 (EPA Act) governs planning and development assessment processes undertaken by State and Local Government in NSW. There are different categories of development defined by the legislation, including:

- Exempt Development,
- Development requiring development consent includes the following:
    - Complying Development,
    - Local Development,
    - Regionally Significant Development,
    - State Significant Development,

[5] The full Act can be found online at: https://legislation.nsw.gov.au/view/html/inforce/current/act-1974-080

- Designated development,
- Integrated development,

- Development that requires approval under environmental assessment
- State significant infrastructure

Approval under this Act is required for work to any item listed in the heritage schedule of a Local Environmental Plan (LEP).

4.6 State Environmental Planning Policy (Planning Systems (2021)

The Bays Precinct Site is on Schedule 2, item 2(a) of the plan.

The SEPP applies to capital investment value of more than $10million and on land identified on the *State Significant Development Site Map* which the subject site is within. The aims of the SEPP are to:

> *The aims of this Chapter are as follows—*
>
> *(a) to identify development that is State significant development,*
>
> *(b) to identify development that is State significant infrastructure and critical State significant infrastructure,*
>
> *(c) to identify development that is regionally significant development.*

4.7 State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021

The White Bay Power Station and the adjacent Sewerage Pumping Station are listed on Schedule 4, Part 3 on the SEPP[6]. The aim of the SEPP is detailed in Clause 2.1:

> *2.1 Aims of Chapter*
>
> *The aims of this Chapter are as follows—*
>
> *(a) to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State,*
>
> *(b) to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes.*

Chapter 4 of the SEPP details City West with the aims detailed in Section 4.3:

> *4.3 Aims of this Chapter*
>
> *The aims of this Chapter are—*
>
> - *to establish planning principles of regional significance for City West as a whole with which development in City West should be consistent, and*
> - *to establish planning principles and development controls of regional significance for development in each Precinct created within City West by this Chapter and by subsequent amendment of this Chapter, and*
> - *to promote the orderly and economic use and development of land within City West.*

Part 4.2 sets out the planning principles of regional significance of City West and considerations that a development application will need to make. This includes Regional Role, Land Use Activities, Mixed Living and Working Environment, Education, Leisure and Recreation, Port Functions, Social issues, Environmental Issues, urban Design and Public Domain, Heritage, Movement and Parking and Implementation and Phasing. The Heritage considerations are quoted for reference:

[6] The full Act can be found online at: https://legislation.nsw.gov.au/view/html/inforce/current/epi-2021-0724

Heritage

The items and areas of heritage significance in City West are to be conserved and enhanced. New development is to respect the character of heritage items and conservation areas. The re-use of heritage buildings through adaptation and modification is to be encouraged.

Part 4.3 details planning principles for precincts with Bays Precinct detailed in Part 3. Amongst other things, the relevant principles that relate to heritage that need to be considered before granting consent to a development application to land in the Precinct is quoted below (reference to the Act for full list of considerations[7]):

Role and land use activities

Development is to encourage the conservation of and adaptation for re-use of existing heritage items and structures for uses compatible with new development.

Urban design

Development along the Precinct boundary should relate to and not adversely affect the adjoining street systems and built forms.

The siting and form of development in all areas must consider impacts on views from within the Precinct and to and across the Precinct from surrounding areas.

Public domain

The siting and form of development must consider creating, retaining and enhancing views and vistas from the water and public domain.

Development should help to create a high quality public domain in the Precinct.

Division 5 of the Act provides the following guidance for height of buildings adjacent to heritage items.

4.29 Graduated building heights adjacent to heritage items and conservation areas

The height of any building adjacent to a heritage item or conservation area must be such as to provide an appropriate transition in height between the building and either the heritage item or the buildings within the conservation area.

Division 6 of the plan refer to heritage conservation guidelines including archaeological sites. The full section of the Act is quoted below:

Division 6 Heritage conservation

4.36 Heritage items and conservation areas

Heritage items are identified on Map 4 and described in Schedule 4.

Conservation areas are identified on Map 4.

4.37 General considerations

Development of or including a heritage item, in the vicinity of a heritage item, or within a conservation area, must be compatible with the conservation of the heritage significance of the item or the character of the conservation area.

4.38 Duty of consent authority

Before granting consent to any such development, the consent authority must consider—

- *the heritage significance of the heritage item or conservation area, and*
- *the impact that the proposed development will have on the heritage significance of the heritage item and its setting or the conservation area, and*
- *the measures proposed to conserve the heritage significance of the heritage item and its setting or the conservation area, and*

[7] State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021
https://legislation.nsw.gov.au/view/html/inforce/current/epi-2021-0726#ch.4-pt.4.3

- *whether any archaeological site or potential archaeological site would be adversely affected.*

4.39 Conservation management plans and heritage impact statements

The consent authority must decline to grant consent for development relating to a heritage item or conservation area unless it has taken into consideration a conservation management plan or heritage impact statement which includes an assessment of the matters listed in section 4.38.

4.40 Demolition of heritage items

The consent authority must not grant consent for development which will result in the complete or substantial demolition of a heritage item unless it is satisfied that the item, or so much of the item as is proposed to be demolished, does not have such heritage significance as would warrant its retention.

Before granting such a consent, the consent authority must also be satisfied that, after the demolition work has been carried out, redevelopment will be carried out that will—

- *result in buildings of a higher architectural and urban design quality (in terms of the principles and other provisions of this Chapter and of any Master Plan or urban development plan applying to the site) than were exhibited by the heritage item before the work was carried out, and*
- *make a positive contribution to the streetscape, and*
- *in the case of partial demolition, enhance the adaptive re-use of the residual part of the heritage item.*

Note—

The website of the Heritage Branch of the Department of Planning has publications that provide guidance on assessing the impact of proposed development on the heritage significance of items (for example, Statements of Heritage Impact).

4.41 Potential archaeological sites

Before determining an application for consent to development on land identified in an urban development plan as a potential archaeological site, the consent authority may request a report on the likely impact of the development on any archaeological material.

4.8 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The SEPP commended on 1 March 2022 and is mainly concerned with the clearing and management of habitats, native vegetation, koala habitats and biodiversity. The aim of the SEPP is detailed in Clause 2.1:

The aims of this Chapter are—

(a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and

(b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.

Chapter 10 deals with Sydney Harbour Catchment and list of aims in respect to Sydney Harbour which relate to healty, sustainable environment, quality of water, ecology, vegetation, transport, public accessibility and to encourage a culturally rich and vibrant space for people (refer to the full list of aims in the full Act[8]).

Schedule 11, deals with heritage items for which non are listed in the subject site.

4.9 Sydney Regional Environmental Plan (SREP) (Sydney Harbour Catchment) 2005

The Bays precinct is within an area identified by the SREP. The aims of the SREP are to

Aims of plan

(1) This plan has the following aims with respect to the Sydney Harbour Catchment—

[8] State Environmental Planning Policy (Biodiversity and Conservation) 2021
https://legislation.nsw.gov.au/view/html/inforce/current/epi-2021-0722#sec.2.1

(a) *to ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected, enhanced and maintained—*

(i) *as an outstanding natural asset, and*

(ii) *as a public asset of national and heritage significance, for existing and future generations,*

(b) *to ensure a healthy, sustainable environment on land and water,*

(c) *to achieve a high quality and ecologically sustainable urban environment,*

(d) *to ensure a prosperous working harbour and an effective transport corridor,*

(e) *to encourage a culturally rich and vibrant place for people,*

(f) *to ensure accessibility to and along Sydney Harbour and its foreshores,*

(g) *to ensure the protection, maintenance and rehabilitation of watercourses, wetlands, riparian lands, remnant vegetation and ecological connectivity,*

(h) *to provide a consolidated, simplified and updated legislative framework for future planning.*

(2) *For the purpose of enabling these aims to be achieved in relation to the Foreshores and Waterways Area, this plan adopts the following principles—*

(a) *Sydney Harbour is to be recognised as a public resource, owned by the public, to be protected for the public good,*

(b) *the public good has precedence over the private good whenever and whatever change is proposed for Sydney Harbour or its foreshores,*

(c) *protection of the natural assets of Sydney Harbour has precedence over all other interests.*

4.10 Local Environmental Plans (LEP)

The LEP is the principal legal document for controlling development and guiding planning decisions made by the Local Council. The Bays Precinct is not subject to the Local Environmental Plan but directly borders Inner West Council in which the Leichhardt Local Environment Plan 2013 has jurisdiction. Schedule 5 of the LEP provides a list of identified Heritage Items and Heritage Conservation Areas and these are detailed in the earlier section of this report.

Clause 5.10 of the instrument lists several objectives for "*Heritage Conservation*":

(1) *The objectives of clause 5.10 are:*

(a) *to conserve the environmental heritage of Leichhardt,*

(b) *to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*

(c) *to conserve archaeological sites,*

(d) *to conserve Aboriginal objects and Aboriginal places of heritage significance.*

The proposed development in the Bays should consider the impact to local heritage items and Heritage Conservation Areas (HCAs) identified on the Leichhardt LEP.

It should be noted that as of 23 June 2020, Inner West Council endorsed the planning proposal to facilitate the draft Inner West Local Environmental Plan (LEP). The revised LEP will consolidate the provisions of the three former Council LEPs into a single new LEP including the controls of the Leichhardt LEP. While the date for gazettal is not currently known, it is anticipated to be in 2022.

4.11 Non- Statutory Listings

4.11.1 National Trust of Australia

White Bay Power Station was classified by the National Trust of Australia (New South Wales) on 26 March 1994. While the National Trust is a non-statutory body, its listings are highly regarded by government and other authorities. It is certain that the National Trust would be asked to comment

on any development of the place, and their comments and recommendations will need to be addressed.

The Trust does not advocate rigid and unnecessarily restrictive development controls, with regard to listed items or places, but recommends that their significance - as part of the national, state, regional or local heritage - should be conserved through controls that allow, where necessary, for new and compatible development and associated works, which respect the character of the place or item through enhancement rather than conflict.

4.11.2 Register of National Estate

White Bay Power Station is entered on the Register of the National Estate Number 019512. The Register was administered by the Australian Heritage Commission, a Commonwealth statutory body and ceased being statutory in 2012 and is now maintained as a non-statutory register.

Listing on heritage registers is generally regarded as an indication of an item's heritage or cultural significance.

5 HISTORICAL DEVELOPMENT

5.1 Brief Historical Overview

Much of the study area encompasses land that has been created by reclamation, or that has been heavily modified from the natural environment and topography. The destination defined as White Bay, including land around White Bay Power Station, and the eastern portion of Rozelle Bay and stretching up to the White Bay Cruise Terminal, is mainly composed of reclaimed land dating from the mid-19th to the early and mid-20th century. The historic evolution of the place may be defined in five phases:

- Pre-1788
- 1800 Land Grants and Early Noxious Industry
- Early 20th Century Maritime Industrial
- Mid to late 20th Century
- Modern Post-Industrial

5.2 Pre-1788 Contact

Prior to 1788, the area was wooded and rocky with small bays at the edge of the flooded river valleys. The place was inhabited by First Nation's Gadigal and Wangal people of the Eora Nation. The place is saltwater country and abundant resources where ceremony and culture have long been enacted.

Governor Phillip was only able to give a rough estimate to Lord Sydney in May 1788 and he thought that there could be less than 1500 in the immediate area. However, later estimates place this figure much higher. Whatever the number of local Aboriginal population prior to 1788, it was decimated by the outbreak of smallpox in 1789, an epidemic that spread throughout the population.

Figure 5.2.1: Watercolour drawing entitled 'Slaughterhouses. Glebe Island. H.G. Lloyd 1863.' The White Bay Power Station site would be to the left of the road leading towards Glebe Island.[9]

[9] Mitchell Library Small Picture File

5.3 Land Grants and Noxious Industry

Prior to 1800, there was little evidence of any substantial development in the area. In 1800, Governor John Hunter granted 550 acres to William Balmain giving the name to the area (refer to **Figure 5.3.1**). The land was transferred to John Gilchrist the following year for five shillings. Subdivisions were slow to develop in most of Balmain due to land and title disputes.

In the early 1830s, noxious industries were forced out of Sydney to locate in the area including tanneries, copper smelting, pig yards and tobacco works. The most significant was the Glebe Island Abattoirs in 1850s which further attracted industries such as soap factories and candle makers. The Government Abattoirs were a heavy source of pollution within the Bays and by the 1870s, local protests led to a Commission of Inquiry for its closure.

Figure 5.3.1: Part of map dated circa 1834. Site of White Bay Power Station circled.[10]

The shoreline of White Bay and Johnson Bay originally extended much further south forming a narrow connection with Glebe Island which was covered at high water. Documentary evidence of foreshore reclamation and the flattening of Glebe Island exists from as early as the 1840s with construction of the causeway connecting the mud flats to Balmain; but extensive work to flatten the island to its modern form took place in the early 20th century. Similarly, other parts of the Bays including Harold Park, Jubilee Park and Wentworth Park were created and former creeks channelled.

With the spread of industry along the shoreline in the mid 19th century, there was considerable pressure to subdivide the land for housing to accommodate workers that served the local industries. By 1855 subdivision was well established at the head of White Bay which was still a mud flat. Around 1890, the mud flat to Glebe Island was reclaimed and the land at the head of the bay set aside for a public reserve (**Figure 5.3.2 and 5.3.3**). Land reclamation also created deeper water berths replacing early jetties such as those in White Bay and Rozelle Bay.

[10] Department of Lands and Property Information. Sourced CMP).

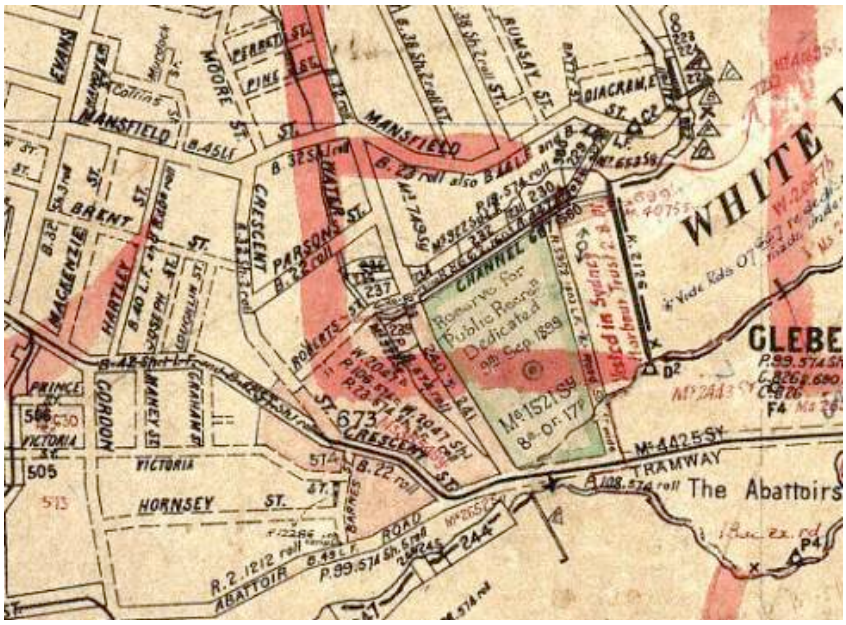


Figure 5.3.2: Detail from the 1886 Parish of Petersham Metropolitan Land district map of Balmain showing reclaimed land at the head of White Bay which was set aside as a Reserve for Public Recreation Dedicated 9th Sep. 1899. Mullens Street has been extended across the site.[11]

Figure 5.3.3: 1883 Map of the Municipality of Balmain showing White Bay with sand flats, creek and reclaimed land. The White Bay Power station is overlaid by Design 5[12].

5.4 Early 20th Century

The late-19th century up to the mid-20th century is considered the peak period for maritime industrial land use activity within Sydney Harbour; a period where there was the need for wharfage and related industrial activity close to the city. Some industrial uses, including the abattoirs on Glebe Island, and timber joinery works and later the Unilever plant along Balmain East, predate this period.

[11] Department of Lands scanned map number 14010902.
[12] CMP: Higinbotham, Robinson & Harrison's 1883 map. WBPS CMP 2013. p.27.

The Unilever Brothers Factory operated further north along White Bay from 1885 to 1988 and occupied a large part of the White Bay foreshore. In 1900, the Unilever Factory produced the first cake of Sunlight soap in Australia and was a major employer in Balmain. These earlier industrial uses have largely been removed for residential development while some buildings remain.

The Rozelle Rail Marshalling Yards occupy reclaimed land that was once part of the estuary to Rozelle Bay and cutting back the nearby escarpment. The rail lines were approved in 1914 to solve the congestion of the freight train network particularly at Darling Harbour so they could move independently of passenger trains.

The marshalling yards were crucial for connecting the State's freight rail network with Sydney Harbour ports and international shipping. The Rozelle Rail Yards are associated with the freight line that connected Dulwich Hill on the Bankstown line to Rozelle and Darling Harbour Yard, finishing at Sydney Yard (Central). The extension of the rail yards to Glebe Island and White Bay were the stimulus for industrial development including the export wheat trade and power generation with the development of White Bay Power Station. Industrial development was further supported by the opening of the Glebe Island Bridge in 1903 (**Figure 5.4.1 and Figure 5.4.2**).

Figure 5.4.1: Glebe Island Bridge in 1910 – image cropped.[13]

Figure 5.4.2: Quarrying at Glebe Island for Wheat Silos. White Bay completed to Stage 1 visible in the background together with the steel mill and locomotive shed.[14]

[13] NLA. Accessed 11/11/21: http://nla.gov.au/nla.obj-138926580
[14] undated but likely 1919. SLNSW

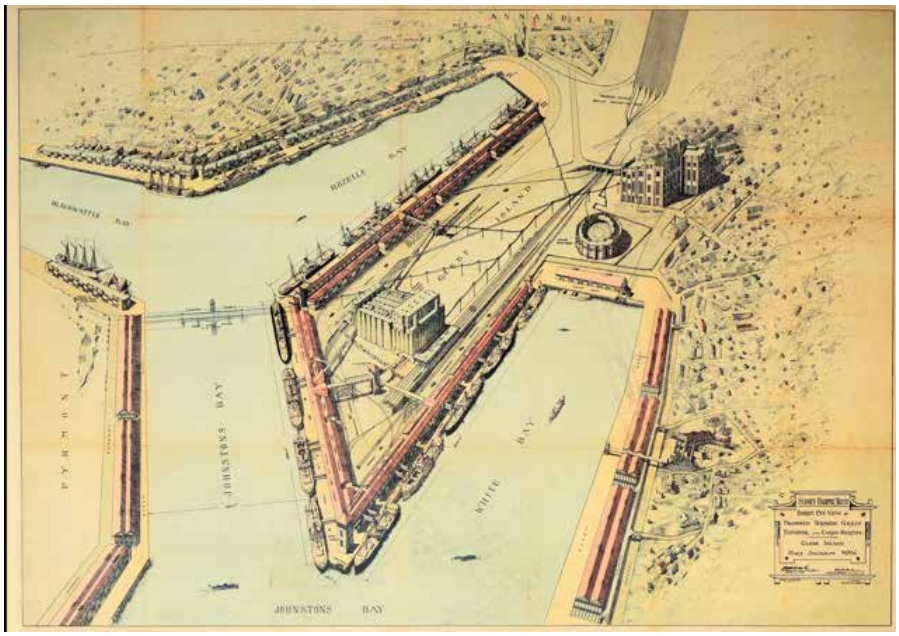


Figure 5.4.3: Sketch by William Henry Withers showing White Bay in c1919.[15]

The Glebe Island grain terminal was established in 1917. In 1926, extensive wharfage for timber shipment with rail connections were built by the Sydney Harbour Trust (**Figure 5.4.3** shows proposal for wharfage at Johntons Bay and White Bay). Glebe Island was used for grain storage, maritime warehousing, port and a container terminal in the later 20th century. The current silos were constructed in the early 1970s with demolition of the original 1917 silos in c.2000.

The White Bay Power Station (WBPS) was constructed for the Department of Railways (prior to the Electricity Commission of NSW) and was operational between 1917-1983 (**Figure 5.4.4** shows construction of White Bay Power Station in 1912). The WBPS was initially built in two stages dating from 1917 for the northern half and 1928 for the southern half. The initial phase included realignment of Victoria Road and rail connections under the then newly built Victoria Road bridge, c1913 and subterranean water coolant channel which extends through the WBPS and connects White Bay and Rozelle Bay.

Figure 5.4.4: c1912 photograph of work commencing on the site of the White Bay Power Station.[16]

[15] Sydney Harbour Trust "*Bird's Eye View of Terminal Grain Elevator and Proposed Cargo Berths*". Glebe. Image source: https://antiqueprintmaproom.com/product/sydney-harbour-trust-birds-eye-view-of-terminal-g-william-henry-withers/

[16] Courtesy of PowerHouse Museum archive

The next phase for White Bay Power Station was renewal of machinery and some buildings, which was also undertaken in two phases: 1953 and 1958. The 1950s works replaced the northern Boiler House and construction of new buildings including the Coal loader and Control Room. Internal modifications were made to existing buildings for new equipment. The WBPS continued to produce electricity until its closure in 1983 and later listed on the State Heritage Register. (Refer to **Figure 5.4.5** for evolution of the White Bay Power Station).

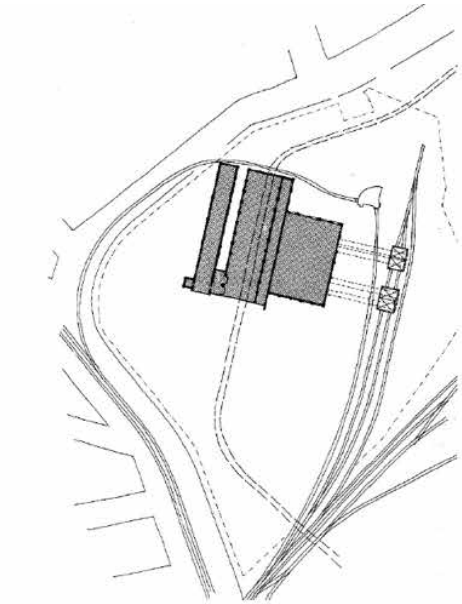


Figure 2.6.8.1
White Bay Power Station – Phase 1
as completed in 1917

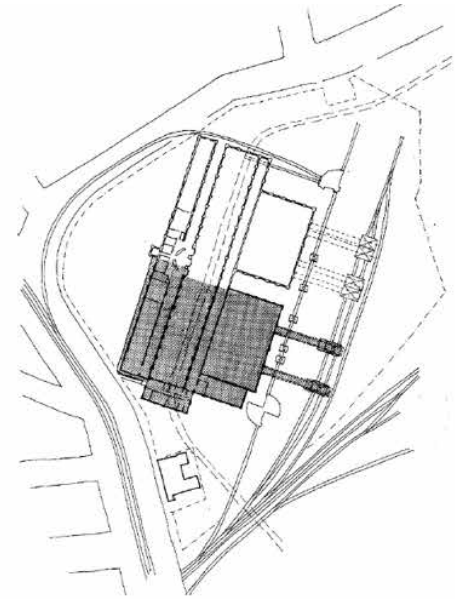


Figure 2.6.8.2
White Bay Power Station – Phase 2
as completed in 1928

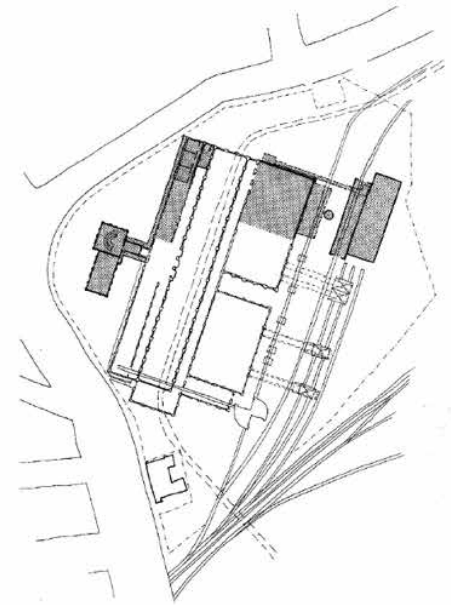


Figure 2.6.8.3
White Bay Power Station – Phase 3
as completed in 1953

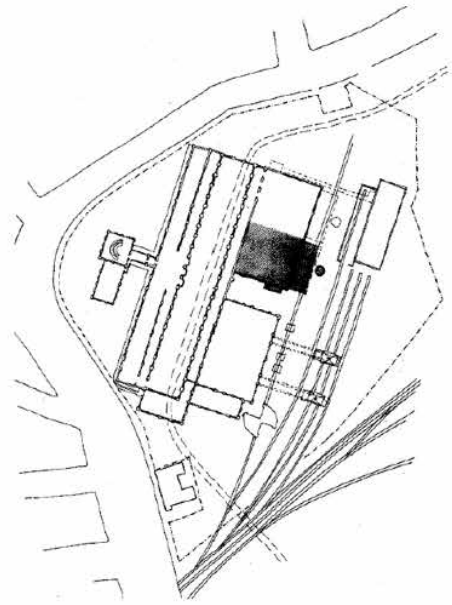


Figure 2.6.8.4
White Bay Power Station – Phase 4
as completed in 1958

Figure 5.4.5: Phases of construction of the White Bay Power Station.[17]

[17] Design 5 – Architects. *White Bay Power Station Conservation Management Plan*. Section 2.6.8 Evolution of White Bay Power Station. Page 39

Figure 5.4.6: White Bay looking east taken from the WBPS. c.1920s. Image show White Bay Steel Works on the left and the grain silos in at Glebe Island.[18]

Figure 5.4.7: View from Glebe Island (likely form grain silos) toward White Bay.[19]

[18] NSW State Archives
[19] NSW State Archives

Figure 5.4.8: Aerial view of head of White Bay showing White Bay Power station in the foreground circa 1930s.[20]

Figure 5.4.9: White Bay Power Station and White Bay Hotel (left) from the top of Glebe Island Wheat Silos, c. late 1950s.[21]

In the 1950s, a coal loading wharf was established at White Bay and consisted of large area for the storage and handling of coal including large conveyors and overhead gantries (**Figure 5.4.9 and 5.4.10**). The coal loading facilities were for coal export. These structures are large and impressive and make a striking appearance on the landscape. Coal exports from White Bay continued until the 1980s when the development of new terminals at Port Kembla led to the transfer of coal away from Sydney Harbour.

[20] City of Sydney Archives SRC352 source White Bay Power Station CMP.
[21] Pacific Power. Source CMP.

Figure 5.4.10: Coal being loaded onto a ship at White Bay. [22]

5.5 Mid to late 20th Century

In 1948 the County of Cumberland Planning Scheme highlighted problems for Rozelle Bay with the continued presence of this industry and the planning documents of the 1950s and 1960s highlighted wider problems of inadequate port facilities and road networks.

Containerisation was introduced in the 1960s and pressure arose to develop Port Botany for container trade due to capacity problems for established ports in Sydney Harbour. The increasing trade at Port Botany resulted in wharf closures. Inevitably, by the 1970s, an increasing residential and middle-class population was established in the inner-city areas close to the industrial sites and around the bays, conflicts of interest and tension would arise. As early as 1966/67 public protests were being made at the continuing industrialisation of the area. The Balmain Association took a leading role in opposing the establishment of the White Bay container terminal.[23] In the 1980's the development of new terminals at Port Kembla also led to the transfer of coal and grain exports away from Sydney Harbour.

In regard to the White Bay Power Station, the decline was contributed to other factors not only relating to pollution but also to technological advances. In 1954, Sydney was self-sufficient in electricity in that outward and inward energy flows balanced over the cycle of the year. In 1958, Sydney based power stations were still generating 75 per cent of its requirements, but by 1962 only 32 per cent, and by 1965 only 10 per cent. The combined output of the Sydney power stations in that year was barely one-fifth that of Vales Point, the ECNSW's newest and largest power station. With the progressive completion of four more coalfields power stations by 1987, the metropolitan stations contributed insignificant amounts of energy to the system, although they were retained as emergency plant until retired.[24]

Increasing public concern over the pollution caused by metropolitan power stations added considerable pressure to close them. Pyrmont and White Bay were the last of the five large stations to be decommissioned, in 1983. White Bay was the longest serving power station in Sydney. It had

[22] State Library of NSW. "Loading coal, Balmain Mind". File number FL1358701.
[23] Thorp, Wendy. Thematic History White Bay, Glebe Island, Central Railway to Eveleigh heritage Study. Pg.12.
[24] White Bay Power Station, Conservation Management Plan. Pag 30.

70 years of continuous generation within the one building (albeit extended and with new boiler houses) compared with 64 years at Ultimo and 60 years at Balmain A. Although the Pyrmont site was in longer service, from 1904 to 1983, the original power station building was completely superseded and replaced. Following the closure of White Bay, the power station has been retained but dormant.

5.6 Post Industrial phase

The Rozelle rail line operated up until the redevelopment of Darling Harbour in the mid-1980s as commercial and tourist area, when the section of Balmain to Sydney Yard was closed.

In 2011, construction began on the for a new passenger cruise terminal at the northern end of White Bay and was opened in April 2013. As part of this work, an access road through the site was improved which connected James Craig Road and Glebe Island with the passenger terminal. This road is still in use today but has been modified by the construction of the Metro West development. In 2013, the interim Sydney Exhibition Centre was established on Glebe Island which occupied the site from February 2014 and decommissioned in 2017 following the redevelopment of the Sydney Convention and Exhibition Centre at Darling Harbour.

In 2011-12, Sydney Ports submission to the NSW Government's Bays Precinct Taskforce regarding the submission regarding the future development of the port precinct noted Glebe Island and White Bay as providing the "last remaining deep water berths with backup land in Sydney Harbour".[25] By 2011, Ports Corporation had become the Port Authority of NSW and reported close to 600 common user berth movements during the financial year of 2014-15 at the Glebe Island and White Bay port precinct.[26]

5.6.1 White Bay Power Station

The White Bay Power Station was last operated extensively in 1982 and was finally decommissioned in 1983. The power station was stripped most of its machinery except those elements specifically identified for heritage conservation. The Sydney Harbour Foreshore Authority purchased White Bay Power Station from Pacific Power in June 2000 and is currently managed by Place Management NSW under DPIE. A Conservation Management Plan (CMP) was prepared for the place in 2004 and updated in 2013.

Since the decommissioning of the White Bay Power Station, the place has been under the care and management of the State Government who, within this time, have undertaken a number of programs of maintenance and remedial work. As the site is unoccupied, past remedial works have not had the same level of alteration and change as an occupied building would have had and have focussed on preservation of existing fabric and materials and minimum standards of maintenance and repair. This includes:

- Structural repairs crucial for structural stability
- Roof replacement of Turbine Hall, Switch House, boiler House and Control Room.
- Structural strengthening of chimneys and internal bracing. Emergency work included removal of ladders
- Some limited decontamination works, security upgrades, bird proofing, window barriers and safety barriers.

Several open days have been held in at White Bay Power Station over the past two decades which has drawn large interest from locals, former workers and other interested groups. In February

[25] Sydney Ports Corporation, Annual Report 2011-12. 20. Sourced: Artefact, Metro West – The Bays. Final Revised Archaeological Research Design and Excavation Methodology. November 2021. P130.
[26] Port Authority of NSW, Annual Report 2015-16. 41. Sourced: Artefact, Metro West – The Bays. Final Revised Archaeological Research Design and Excavation Methodology. November 2021. P131.

2011 Sydney Harbour Foreshore Authority held an open day which allowed access to the site for people to gain a greater understanding of the building, its spaces and its importance in the development of Sydney. This open day proved popular with tours being conducted of the coal handling shed, boiler house and turbine hall booking out in advance. Additional spaces including the Entertainment Hall and Administration Building were also open for the public to view. The Authority collected in excess of 800 names for notification of future open days at the site.

Given the success of the February open day, two further open days were held over a weekend in May 2011. The Saturday consisted of a talk and tours day where the public could access the boiler houses, coal handling shed, administration building and entertainment hall and hear talks by heritage experts. Access to the turbine hall was provided by guided tour and in excess of 1,000 people took part. The Sunday was aimed towards photographers and provided access within the building for people to spend time taking pictures of the machinery and spaces.

The Authority received a great amount of positive feedback from the public, who expressed deep enthusiasm for retention of the building. A number of people were keen to see the power station adapted for future use that would ensure its longevity whilst maintaining a level of public access to the structure.

In 2015, the State Government sort to redevelop the White Bay Power Station as a technology hub together with the precinct which included parts of White Bay. The proposal attracted proposals from thirteen consortiums for the redevelopment which included Google together with Lendlease. Negotiations extended to 2017 when Googles interest in the redevelopment was withdrawn in early 2017[27].

The prospect for redevelopment did influence the planning for maintenance work in anticipation that a reuse would be forthcoming. In the current environment of construction of Metro West Bays Precinct Transformation Plan, there is a further expectation that the Power Station will be subject to an adaptive reuse soon as part of the revitalisation of Bays West. At present, substantial conservation and maintenance works are underway on the Power Station lead by Place Management and carried out by the head contractor, FDC Constructions. The current works anticipate a five-to-ten-year maintenance cycle to preserve and maintain the power station intact until a holistic approach to reuse and building fabric can be made

Figure 5.5.1: View of White Bay Power Station looking south from Robert Street showing the conservation works currently underway by head Contractor, FDC Constructions at White Bay Power Station (photo 25 June 2022).

[27] Paris Cowen (12 April 2017). *Google pulls out of White Bay redevelopment*" Sydney: Itnews. Accessed online: https://www.itnews.com.au/news/google-pulls-out-of-white-bay-redevelopment-458099

5.7 Chronological History

Detailed historical development of the area is provided in the Conservation Management Plan and the Bays West Strategic Place Framework. The following chronology is intended as a brief historic overview of the main historic phases.

	Pre-European occupation
Pre-1788	Place inhabited by First Nation's Gadigal and Wangal people of the Eora Nation. Saltwater country with abundant resources where ceremony and culture have long been enacted. The area was wooded and rocky with small bays at the edge of the harbour.

Figure 5.7.1: Original 1788 foreshore line in blue overlaid with current map. (Source: Design 5 and Bays West Strategic Place Framework).

	Land Grants and Noxious Industry
1800	Original grant by Governor John Hunter to William Balmain of 550 acres. Subdivision slow to develop in most of Balmain due to land disputes.
1830s	Noxious industries moved from Sydney to the area, including tanneries, copper smelting, pig yards and tobacco works.
1840s	Earliest documentary evidence of foreshore reclamation and the flattening of Glebe Island, with construction of causeway connecting the mud flats to Balmain. Further works to flatten the island to its modern form took place in the early 20th century.
1855	Subdivision was well established around the head of White Bay which was still a mud flat.
1860s	The Governments Abattoirs are officially opened. Their opening encourages more industry on the island, including timber merchants, ship builders and tanneries that used the harbour for their effluent. Toll bridge connecting Pyrmont and Glebe Island opened in 1861. The bridge was built of blackbutt timber and named 'Blackbutt Bridge.' The future site of White Bay Power Station was subdivided for housing with dwellings remaining in place until the power station development in the early twentieth Century.
1880s	Balmain dominated by working class residences located close to industry.
1890s	Lever Brothers Soap Factory and the Sunlight Oil Works along White Bay.

Most of Balmain built as housing.

Figure 5.7.2: Evolution diagram of the precinct in 1840s to 1890s with foreshore lines overlaid with the current map. (Source: Design 5 and Bays West Strategic Place Framework).

1895 Some reclamation of east shoreline of Balmain for Lever Brothers industrial facilities producing Sunlight Soap.

1899 Reclaimed land at the head of White Bay set aside as a reserve for public recreation.

Early 20th Century

1903 Glebe Island Bridge opened, replacing the earlier Blackbutt Bridge.

Figure 5.7.3: Evolution diagram of the precinct in 1900 to 1920 with foreshore lines overlaid with the current map. (Source: Design 5 and Bays West Strategic Place Framework).

1911 Construction begins on the first phase of White Bay Power Station.

1912 The Sydney Harbour Trust (later Maritime Services Board) planned broadside wharfage which included Glebe Island.

Metropolitan Meat Industry resolve to relocate abattoirs to Homebush.

1915 Quarrying commenced at Glebe Island.

1916 Opening of rail line connecting Dulwich Hill to Rozelle and Glebe Island, including establishment and opening of the Rozelle Marshalling Yard.

	Construction of the Victoria Road Bridge.
1917	First phase of White Bay Power Station completed, supplying power to Sydney's tram and railway.
1919	Rail tracks extended through Rozelle linking Pyrmont and Darling Harbour.
1917-21	Abattoirs at Glebe Island demolished. Grain silos built at Glebe Island. A total of 143 reinforced concrete silos were erected, plus a working house, power control station and improved wharfage.
1920s	Coal handling infrastructure established at White Bay. Viaduct built at head of Rozelle Bay for goods railway.

Figure 5.7.4: Evolution diagram of the precinct in 1920 to 1943 with foreshore lines overlaid with the current map. (Source: Design 5 and Bays West Strategic Place Framework).

1922	Second rail line connecting Darling Harbour with Rozelle through Glebe and Pyrmont opened.
1925	Grain silos complex expanded including rails and road links.
1928	Completion of the second Stage of White Bay Power Station.
1930s	Wharves 2 and 3 of White Bay developed for specialist bulk chemical shipping. The Great Depression slows development.
1939-45	Glebe Island becomes the main US Army depot in Sydney for disembarking and reembarking troops and handling supplies during WWII.

Figure 5.7.5: Evolution diagram of the precinct in 1943 to 1965 with foreshore lines overlaid with the current map. (Source: Design 5 and Bays West Strategic Place Framework).

Figure 5.7.6: 1943 aerial of the White Bay Precinct showing dense industrial development and railway connections. White Bay reclaimed by this date. (Source: Six maps)

1950s	Establishment of export coal and coal loading facilities at the head of White Bay.
1953	First stage of White Bay Power Station modernisation complete.
1956	Ownership of White Bay Power Station transfers to the Electricity Commission of NSW.
1958	Second stage of White Bay Power Station modernisation complete.
1950-60s	Container shipping introduced brings about significant changes to wharfage and facilities. Container shipping is established at Botany Bay reducing wharfage in Sydney Harbour.
1960s	Development of Botany Bay as a container terminal reduced the need for wharfage in Sydney.

Figure 5.7.7: Evolution diagram of the precinct in 1965 to 2917 with foreshore lines overlaid with the current map. (Source: Design 5 and Bays West Strategic Place Framework).

1967	Construction of wharves 4, 5 and 6 at White Bay by Maritime Services Board. Includes approximately 8 acres of reclamation and cutting back of the escarpment and dredging.
1970s	Changes to wharfage for containerisation.
1974	30 tall cylindrical concrete silos complete (current silos on Glebe Island).
	Post Industrial Phase
1983	White Bay Power Station decommissioned.
1984	Grain storage at Glebe Island ceased in favour of new facility at Port Kembla.
Mid-1980s	Darling Harbour redeveloped as commercial and tourist area; Rozelle to Sydney Yard (Central) rail line closed.
1988	Unilever relocated industrial operations away from Balmain foreshore.
1995	Anzac Bridge is opened providing a link between Sydney City and the suburbs to the west. Glebe Island bridge no longer used.
1999	White Bay Power Station added to NSW Heritage Register Original disused silos at Glebe Island Demolished.
2004	White Bay ceased operation as container terminal.
2008	Fire destroys White Bay Hotel (located on Victoria Road).
2013	White Bay Cruise Terminal opens.
2015	Bays Transformation Plan.
2021	Bays West Place Strategy public consultation.

6 HERITAGE STATUS AND SIGNIFICANCE

6.1 Identification of Heritage Items

It is generally accepted that the Australia ICOMOS Charter for Places of Cultural Significance 2013, commonly known as the Burra Charter, sets a standard practice for those who provide advice, make decisions about, or undertake works to places of heritage significance, including owners, managers and custodians.

Heritage significance or 'cultural significance' is defined in the Burra Charter as meaning the *aesthetic, historic, scientific, social or spiritual value for past, present or future generations.* These values are used as the basis for the following assessment of the heritage significance of the place. The Charter further clarifies that *cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.*

The following map shows heritage items in the area and are listed in the following table:

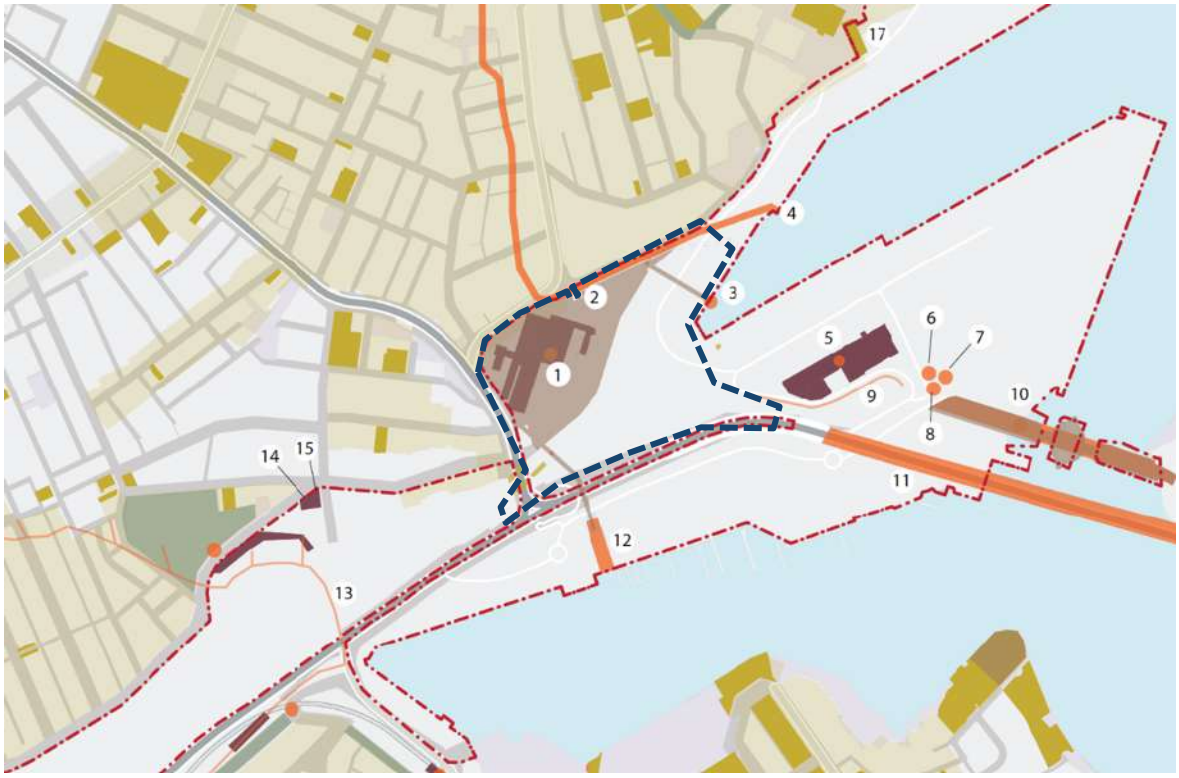


Figure 6.1.1: Heritage items in the precinct and adjacent to the precinct. (Source: Bays West Strategic Framework and Design 5).

Fig. Ref	Name
Inside the Study Area	
1	White Bay Power Station
3	White Bay Power Station (inlet) Canal
4	Beattie Street Stormwater Channel no. 15
Outside the Study Area	
2	Sewage Pumping Station no.7

Fig. Ref	Name
5	Glebe Island Wheat Silos
6	Glebe Island Plaque- Opening of Container Terminal
7	Glebe Island Sandstone Quarry Sample
8	Glebe Island World War II Monument
9	Glebe Island Dyke Exposure
10	Glebe Island Bridge
11	Anzac Bridge
12	White Bay Power Station (Outlet) Canal
Yellow shaded area	The Valley Heritage Conservation Area 'C7'
Yellow shaded area	Hornsey Street Heritage conservation Area

6.2 Heritage Items Inside the Study Area

6.2.1 White Bay Power Station

The White Bay Power Station Is listed on the following registers

Item Name	Address (as noted on the listing)	Significance	Listing	Item no.
White Bay Power Station	Victoria Road, Rozelle, NSW 2039 Lot 2, DP1063454 Lot 3, DP1063454 Lot4, DP1063454 Lot 6, DP 1063454 Lot 10, DP791553	State	State Heritage Register (SHR)	01015
			State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021	Sch.4, Part 3, Item #11
			NSW State agency heritage register, (Heritage Act s.170). Pacific Power	74

As discussed in the description section, The White Bay Power Station is situated on a roughly triangular area of generally flat land at the head of White Bay in Rozelle and is by Robert Street to the west, Victoria Road to the south and former open port land to the east. The extent of listing on the State Heritage Register is shown in **Figure 6.2.1**.

It is noted that while the White Bay Power Station and complex of buildings are within the listing which stretches north to include the northern penstock. It is noted that the listed area does not include the southern penstock or the underground cooling canal that connects White Bay and Rozelle Bay and is integral to the power generation process.

Figure 6.2.1.1: State Heritage Listing Boundaries for White Bay Power Station

The Statement of Significance for the White Bay Power Station is quoted from page 103 of the White Bay Power Station CMP, 2013:

> *White Bay Power Station was the longest serving power station in metropolitan Sydney, generating electricity continuously for more than seventy years. Its extant buildings, structures and machinery provide important and rare tangible evidence of the first phase of large-scale power generation in New South Wales. It made a major contribution to the expansion of Sydney's electric tram and rail network and to the daily lives of millions.*
>
> *It is the only surviving power station in New South Wales from the early and mid-twentieth century to retain a substantially intact and representative set of buildings, structures and in-situ machinery that demonstrate the complete operating systems and processes of coal fired power generation and supply. Its extant machinery elements and associated structures are, both individually and collectively, of exceptional historic, technical and aesthetic significance and include a representative sample of the coal, ash and smoke handling systems, boilers and feed water systems, circulating cooling water, turbines and generators, electrical switch gear, and control systems.*
>
> *White Bay Power Station contains buildings structures, and internal and external spaces of exceptional historic, aesthetic, technical and social significance. They include raw industrial spaces of a scale, quality and configuration which are increasingly rare and which inspire visitors and users alike. The significance of these structures and spaces is greatly enhanced by, and in most cases dependent on their associated, extant, in-situ machinery elements.*
>
> *White Bay Power Station is of exceptional aesthetic and social significance to Sydney residents as a prominent and widely recognised harbourside industrial landmark, signalling the entry point to the Balmain peninsular from the south and east, and is highly visible from major approach roads, streets and surrounding areas. The form and arrangement of the buildings, and in particular the two chimney stacks, are visible from many parts of the inner west and are a constant reference point. The power station, including the site of the former White Bay Hotel, defines a major entry point to the city from the west. It also forms part of a closely related group of industrial and large-scale structures and spaces on this western edge of the city (former White Bay container terminal, Glebe Island silos and the former container terminal, and the Anzac Bridge).*
>
> *White Bay Power Station is of exceptional social significance for both local residents and former employees as an important landmark, one of few surviving industrial structures that were once the signature of this locality. It is a potent symbol of the area's industrial origins and working traditions which have influenced domestic and community life, and is associated with a 'working class' character. It is of exceptional social significance for those who worked in the power station for its ability to demonstrate technological systems and processes that were a feature of their working lives in this era of power stations and that create for them an important and highly valued connection between the past and the present.*
>
> *The body of archives, reports and oral history recordings associated with the White Bay Power Station, provides evidence for the development of technology and work practices at the station and are an integral part of the exceptional significance of the place.*
>
> *The former White Bay Hotel had strong associations with the recreation activities and the workers at White Bay Power Station and was an important part of the Station's public identity. Its location and elevation made it a prominent landmark in the western approach to the city.*
>
> *The Hotel was built in 1916, replacing an earlier hotel of the same name, located approximately 100m further south and built in the 1860s. Following its destruction by fire, the remaining fabric of the White Bay Hotel contains little significance.*

The White Bay Power Station contains internal spaces, structures and elements of varying cultural significance within the overall significance. These gradings are shown below in the Figure XX. For detailed information of on each of the gradings, references is made to the CMP.

> *Grade 1:* ***Spaces/structures/elements of Exceptional significance***
>
> *These spaces, structures or elements are of exceptional cultural significance for at least three of the four categories of historical, technical, aesthetic or social values or they contain significant machinery/plant. They play a crucial role in supporting the significance of the place.*
>
> ***Grade 2: Spaces/structures/elements of High significance***

These spaces, structures or elements are of high cultural significance but slightly less than those in grade 1. They retain exceptional level rankings (1) for no more than two of the four categories of historical, technical, aesthetic or social values or have high level rankings (2) for at least two of these categories. They may also retain significant machinery elements. They play an important role in strengthening and supporting the significance of the place, but less than that for grade 1.

Grade 3: Spaces/structures/elements of Moderate significance

These spaces, structures or elements retain a moderate level of cultural significance. They retain moderate level rankings (3) for at least three of the four categories of historical, technical, aesthetic or social values. They play a moderate role in supporting the significance of the place.

Grade 4: Spaces/structures/elements of Minor significance

These spaces, structures or elements are of minor cultural significance. They retain minor level rankings (4) for at least three of the four categories of historical, technical, aesthetic or social values. They play a minor role in supporting the significance of the place.

Grade 5: Spaces/structures/elements of No significance/Intrusive

These spaces, structures or elements retain level 5 rankings for at least three of the four categories of historical, technical, aesthetic or social values and may in fact be intrusive or damaging to the cultural significance of the place. They are of no significant value and may obscure rather than support the significance of the place.

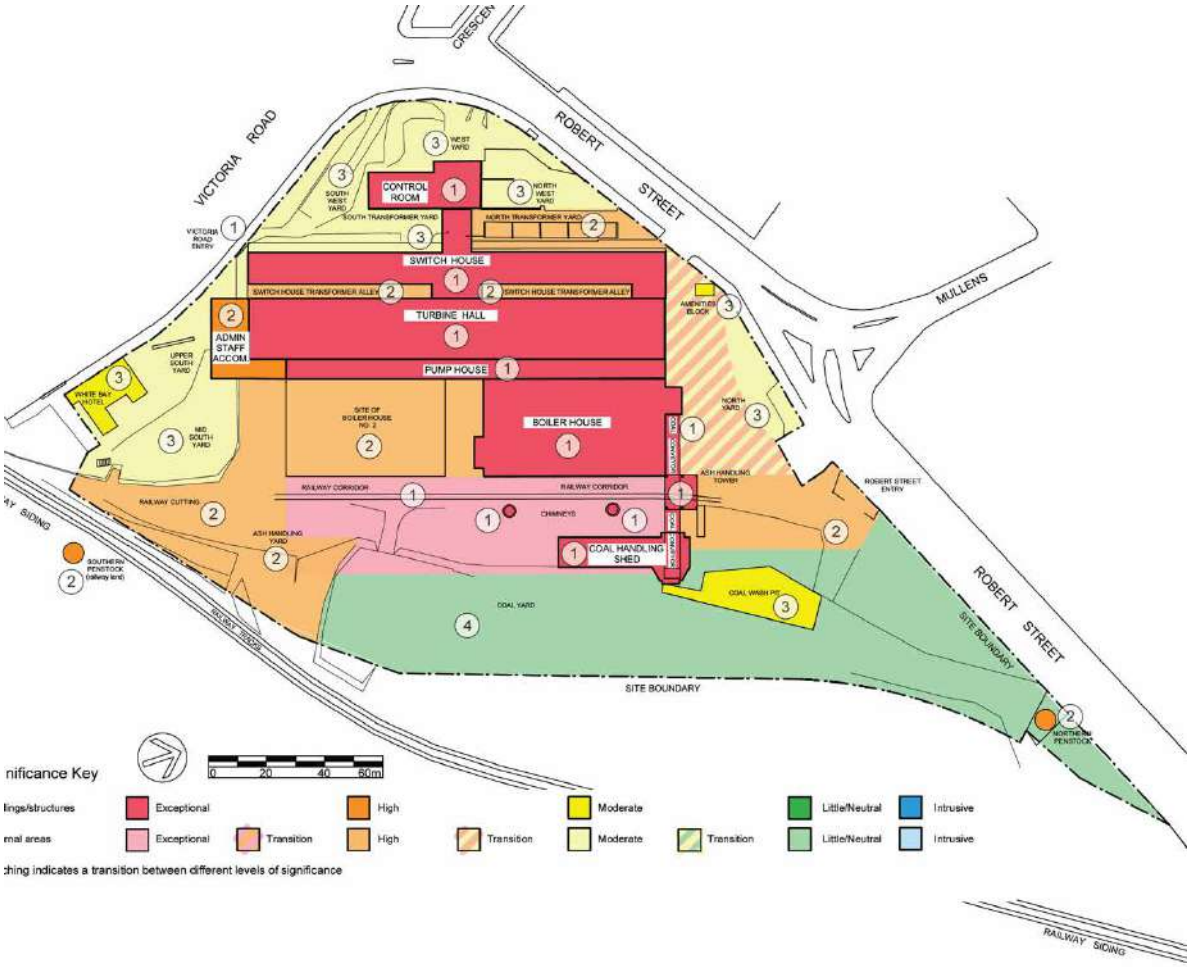


Figure 6.2.1.2: Site Plan of White Bay Power Station (Conservation Management Plan).

6.2.1.1 North and South Penstocks

Associated to the White Bay Power Station are the north and south penstocks (refer to **Figure 6.2.3 and 6.2.4**). The northern Penstock is inside the SHR listing for the White Bay Power Station, but the southern penstock is outside of any heritage listing. The northern penstock was surveyed by Godden Mackay Logan (GML) as part of the White Bay Power Station Conservation Management Plan in 2004. They provide the following description on page 33 of Volume V o the CMP:

Power stations have two distinct water systems: Circulating (cooling) water and Feedwater. Steam exhausted from the Turbines is cooled in pipes within the Condenser by water which flows around the Pipes. The steam is converted to liquid water (Condensate) and, after treatment, is sent back into the Boilers by the Feed-water System. The Circulating Water System circulates cooling water thorough the condensers. The Circulating water system consists of

- *Sluice gates and motors*
- *Circulating water pumps*
- *Condensers*
- *Circulation water Penstocks*

The penstocks comprise a pair of motor-driven lock gates, with one set installed into each of the circulating water canals on the northern side of the power station. The gates are of steel, travelling vertically in steel channels on the sides of the canals and are actuated by the screw effect of threated shafts turned by small unitary electrical motors mounted above the gates on a frame of RSJs.

The statement of significance for the Penstocks is quoted from volume V of the CMP:

The Penstocks were components of the Circulating Water system and were important to the overall operation of the power station. They are representative examples of small motor-driven lock-gates of the mid-twentieth century.

Recommendations for penstocks are discussed in **Section 8** of this report.

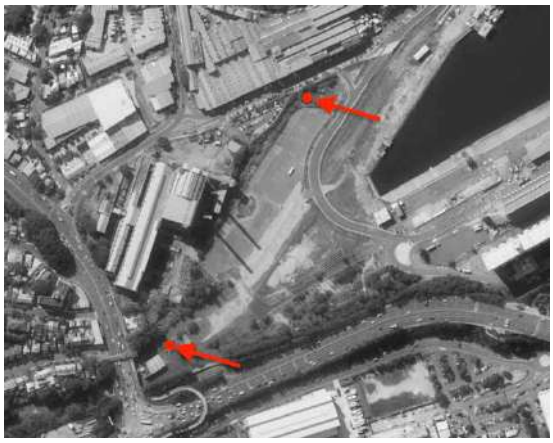


Figure 6.2.1.3: Lcoaation of the north and south Penstocks. Note the south penstock is outside of the heritage listing of the White Bay Power Station.

Figure 6.2.1.4: South water circulating penstock in 2015 (outside of listed area). The Penstock is curently covered by the temporary west-connex slip ramp,

6.2.2 White Bay Power Station (Inlet) Canal

The White Bay Power Station (Inlet) Canal is listed on the following heritage register:

Item Name	Address (as noted on the listing)	Significance	Listing	Item no.
White Bay Power Station (inlet) Canal	"Robert Street"	State	Port Authority of NSW s170 Heritage Inventory Register SHI.	4560062

While the listing is for the "Inlet" canal at White Bay, this was actually the outlet canal while the inlet was at Rozelle Bay. This is detailed in Volume V of the CMP (quoted below) and other reports prepared for the Bays West precinct and accords with the recount of Dawn Fraser swimming against the current of the outlet which was "130 yards long"[28] in its original configuration pre- late 1950s (refer to **Figure 6.2.2.4**).

The White Bay Power Station outlet Canal ("inlet" as per the listing) is located at the head of White Bay and shown on **Figure 6.2.2.1**.

Figure 6.2.2.1: Aerial View showing the location of the White Bay Inlet Canal. (*Source: Cox (base image) with Design 5 overlay).*

The White Bay Power Station has two distinct water systems: circulating (cooling) water and feedwater. For White Bay Power Station, saltwater from White Bay was circulated in twin water conduits that connect White Bay with Rozelle Bay, passing underneath the White Bay Power Station and the Turbine Hall. Volume V of the White Bay Power Station CMP describes the conduits as follows:

[28] Fraser, 2002. Page 32-33. Refer to aerial image from 1950 (**Figure 6.2.2.4**) showing the outlet approximately 130yards in length.

"The paired conduits are each 1.9m (6ft) reinforced concrete box sections running 221.5m metres (720ft) from Rozelle Bay screens and 190.8 metres (620ft) towards White Bay with the final 111.7 metres (363ft) to White Bay open channel. Beneath the Turbine Hall, the conduits are 5.4 metres by 2.2 metres (17ft 7 inches by 7ft)."

Water entered the inlet conduit through a fixed grill screen, to exclude large trash, then through asset of revolving screens to eliminate any other material. The conduits include silt wells and control valves. In the Turbine Hall, a Circulating Water Pump for each condenser drew water from the individual pump suction wells fed from the Inlet Conduit and pumped it through the body of the condenser, the outflow dropping into the Outlet Conduit. Sluice gages of mild steel and timber could exclude water from passing into the suction wells for maintenance of the well or the pump.[29]

The original location for the inlet canal was further north as illustrated by the red shading (**Figure 6.2.2.2**) showing the original outlet in red and the new outlet shown blue). The outlet for the canal was realigned in the late 1950s (likely 1958)[30]. The cause for the relocation for the Beattie Street stormwater was the development of Balmain no. 1 wharf for mechanical loading.[31]

The significance of the canal is derived from the significance of the White Bay Power Station complex and is an integral part of the White Bay Power Station and its cooling system. The plans suggest that the original inlet canal (in red) was filled in. We are not aware of any detailed investigations for the original outlet canal and if this survives in any way underground. We understand that the realigned outlet does survive underneath the site.

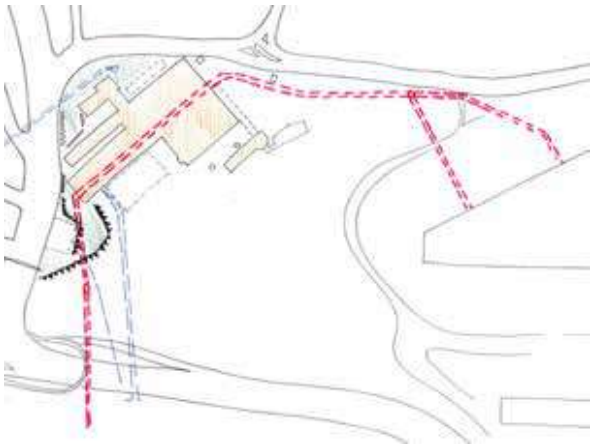


Figure 6.2.2.2: Inlet canal is part of the coolant water system shown red on the plan above (Design 5).

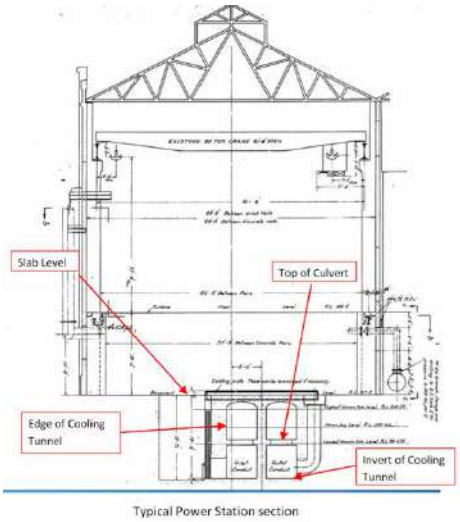


Figure 6.2.2.3: Section through the Turbine Hall showing the coolant canal underneath.

Figure 6.2.2.4: Extract of 1951 plan of Coal Loader with the old outlet and the 1951 shown blue connecting to the northern penstock.

[29] White Bay Power Station, Conservation Manag ement Plan, Volume V. page 32.
[30] 1955 aerial shows the canal still in the old alignment. 1958 is noted as the likely date as it was the period of major refurbishment for the power station. However, an earlier date could be possible.
[31] Artefact "*Metro West – The Bays. Final Revised Archaeological Research Design and Excavation Methodology*". November 2021. page 140.

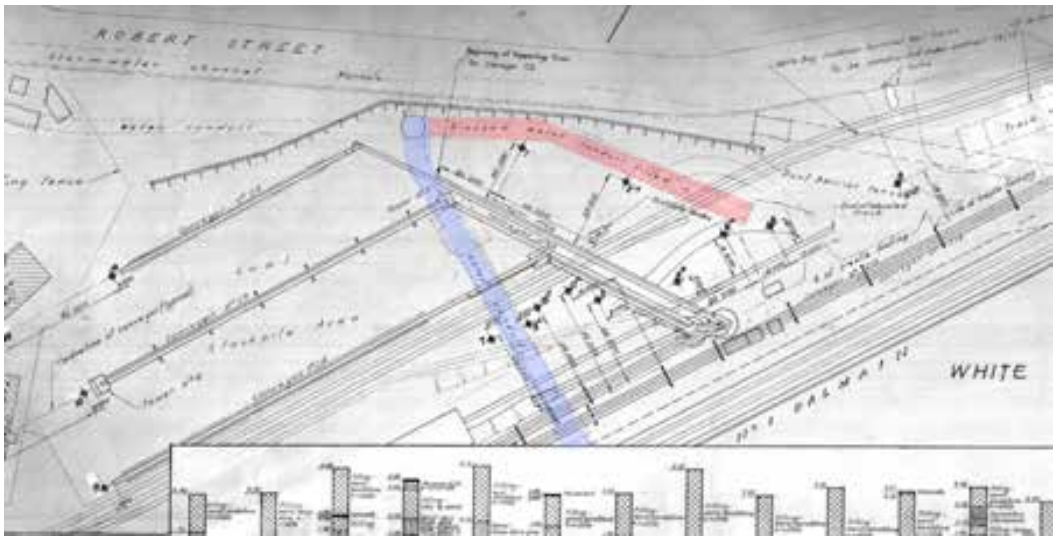


Figure 6.2.2.5: Extract of 1951 plan of Coal Loader with the old inlet canal shown red and the 1951 shown blue connecting to the northern penstock.

Figure 6.2.2.6: View toward White Bay Power Station from White Bay. The arrow indicates the location of the inlet canal.

Figure 6.2.2.7: View of the "inlet" canal retaining some machinery on the surface.

Figure 6.2.2.8: View of the "inlet" canal from the foreshore.

6.2.3 Beattie Street Stormwater Channel no. 15

The Beattie Street Stormwater Channel no. 15 is listed on the following heritage register:

Item Name	Address (as noted on the listing)	Significance	Listing	Item no.
Beattie Street Stormwater Channel no. 15	Robert Street to Beattie Street, Rozelle/Balmain, NSW	State	Sydney Water S170 heritage inventory register	001489

The Beattie Street stormwater Channel is predominantly underground water channel located along the north boundary of the study area following the alignment of Robert Street. The channel is responsible from drainage of water from much of Rozelle and replaces a former natural creek that stretched from Beattie Street and White Bay. A small section of the channel is open between Roberts Road and Parson Street, immediately west of the current Bunnings construction site.

Figure 6.2.3.1: Aerial View showing the location of the Beattie Street Stormwater Channel no. 15. (*Source: Cox with Design 5 markups).*

The visual curtilage of the channel will vary along the channel length depending on surrounding land uses. The visual curtilage is limited by the fact that the stormwater channel is located predominantly below ground. The open section of the channel can only be observed from the roadway and is flanked by industrial buildings. The SWC still functions and provides vital stormwater drainage for a significant portion of Rozelle.

The following historical notes are quoted from the Sydney Water S.170 listing[32]:

> *Prior to 1890 the watercourses which served to carry stormwaters were almost entirely in their natural state. The extremely unhealthy conditions prevailing during this time led the Secretary (i.e. Minister) of Public Works of the time, the Hon. Bruce Smith MLA., to propose a separate system of stormwater channels to be built*

[32] Sydney Water. Beattie St Stormwater Channel No.15 https://www.sydneywater.com.au/water-the-environment/what-we-are-doing/heritage-conservation/heritage-search.html

in order to achieve sanitary conditions. He believed a stormwater system would in part relieve the dreadful state and would be able to be constructed much faster than a separate foul water sewer system. By 1897 nine stormwater drains had been built in accordance with this proposal. These were Beattie Street SWC, Dobroyd SWC, Rushcutters Bay SWC, Hawthorne Canal, Homebush Creek SWC, North Sydney SWC, Wentworth Park SWC, Munni Street Erskineville SWC and Iron Cove Creek extension. The Beattie Street stormwater system was constructed in 1893 and then transferred from the Public Works Department (PWD) to the Board in 1898. In 1935 the system was amplified after a series of flooding events within the catchment. The amplification section was upstream of Parsons Street and was carried out by the PWD under the 'Depression Make Work Scheme'. In 1954 the channel outlet was extended downstream by the Maritime Services Board as part of the redevelopment of wharves in the White Bay area.

The following Statement of Significance is quoted from the Sydney Water S.170 listing:

Beattie Street SWC is one of a group of the first nine purpose built stormwater drains to be constructed in Sydney in the 1890's. Prior to this period the water courses which served to carry stormwater were entirely in their natural state and were receptacles of sewage from the large population which had settled in the suburbs. In 1890 the then secretary (minister) for Public Works, the Hon. Bruce Smith, MLA., appalled at the extremely unhealthy conditions prevailing at the time, proposed a separate system of stormwater drains be built to help alleviate the problem. By 1897 nine had been built, including Beattie Street, which was completed in 1893.

Beattie Street SWC is of heritage significance because it is a good example of one of the earliest stormwater channels and additionally it helped improve public health in the 1900's.

The operational curtilage of Beattie Street SWC includes the channel bed, walls & coping. The visual curtilage of the channel will vary along the channel length depending on surrounding land uses. The visual curtilage is limited by the fact that the stormwater channel is located predominantly below ground. A small section of the channel is open between Roberts Road [sic] and Parson Street. The open section of the channel can only be observed from the roadway and is flanked by industrial properties.

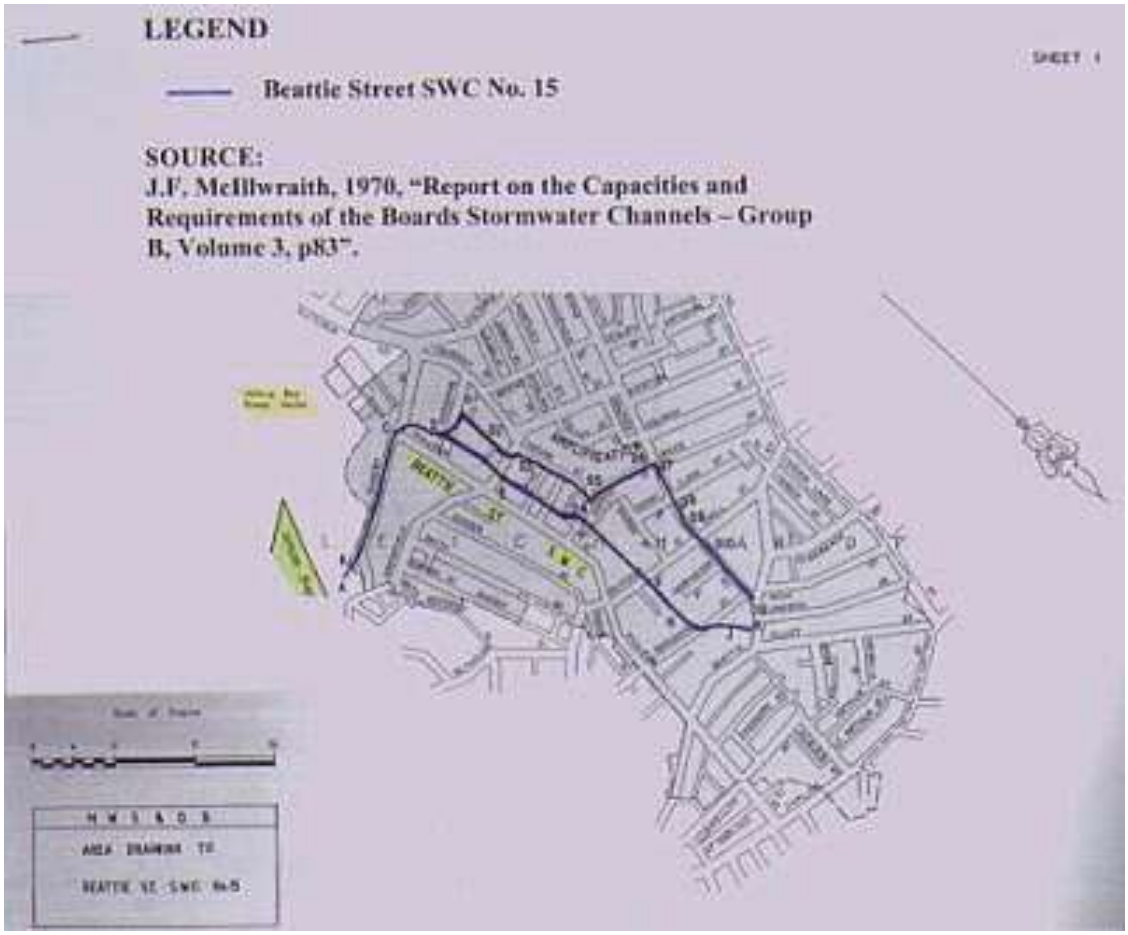


Figure 6.2.3.2: Map showing the extent of the water channel. (Heritage Division database).

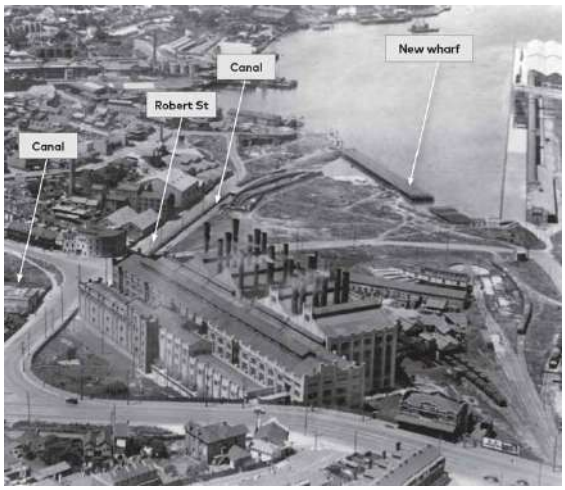


Figure 6.2.3.3: Aerial view of head of White Bay showing White Bay Power station in the foreground. circa 1930s. Arrow shows the water channel along Robert Street.[33]

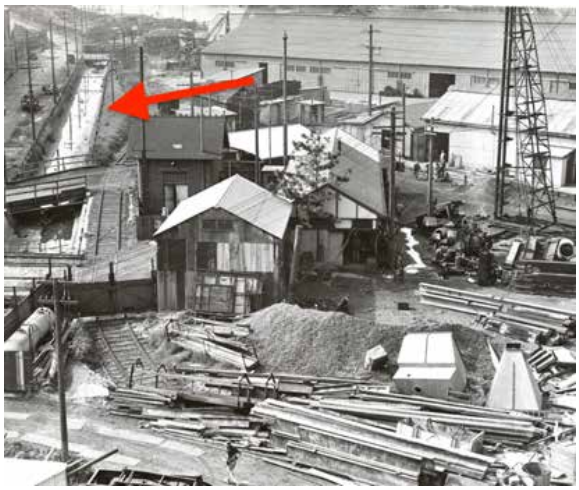


Figure 6.2.3.4: View Looking north from White Bay Power Station along Robert Street showing the Beattie Street stormwater channel.[34].

Figure 6.2.3.5: View of the stormwater channel north of Robert Street looking south toward the White Bay Power Station.[35]

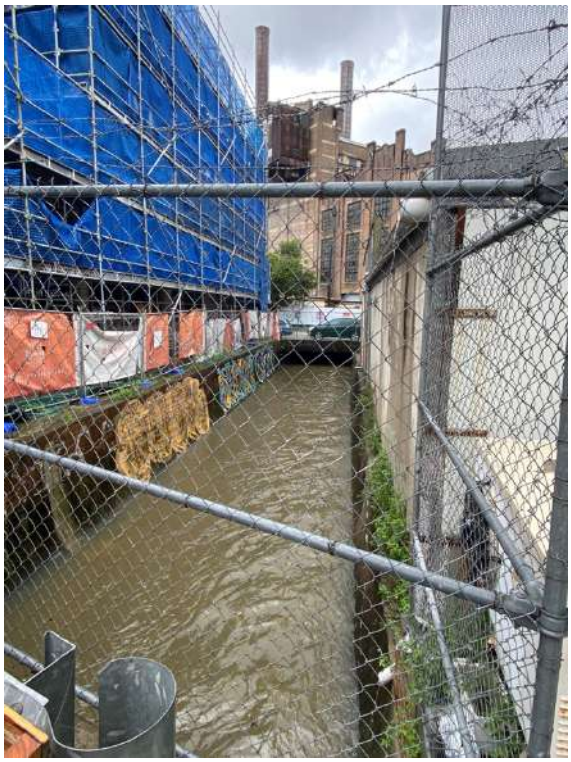


Figure 6.2.3.6: Photo looking south along the open stormwater channel toward the Power Station (Design 5, March 2022).

[33] Bays West Stage 1 Draft Master Plan and Urban Design Framework. Original image City of Sydney Archives SRC352.
[34] Leichhardt Heritage collection
[35] Heritage Office database. Date unknown but likely around 2001

6.3 Heritage Items Outside of the Precinct

6.3.1 Sewage Pumping Station No. 7

The Sewage Pumping Station No.7 is listed on the following heritage registers:

Item Name	**Address** (as noted on the listing)	**Signif-icance**	**Listing**	**Item no.**	**Relationship to the site area**
Sewage Pumping Station no.7	Robert Street, Rozelle, NSW	State	Sydney Water S170 heritage inventory register	#4570329	Northern forecourt of White Bay Power Station. 
			SEPP (Precincts—Eastern Harbour City) 2021	Sch.4, Part 3, Item #4	

The Statement of Significance is quoted from the NSW Heritage Database:

> *SP0007 is of historic, aesthetic and technical/research significance. Historically it was part of an original network of twenty low level sewage pumping stations constructed at the end of the 19th century to serve Sydney. The station along with the construction of the Bondi Ocean Outfall Sewer (ten years earlier) formed a part of the major advance in the protection of the public health of Sydney by ending the discharge of sewage into the Harbour. They were built as a direct response to the outbreaks of Enteric Fever (Typhoid) which plagued Sydney from the 1870s to 1890s and the recommendations of the Sydney City and Suburban Health Board (which was established by the NSW Government in 1875 to report on the best means of sewage disposal) which proposed the establishment of outfall sewers. Aesthetically it is a good example of a small-scale industrial building designed in the Federation Queen Anne style. In its surviving fabric SP0007 reflects the importance of Federation Period public utilities, which is evident in the technical excellence of the overall design, traditional construction techniques and craftsmanship such as the stone dressings and tuckpointed brickwork. Due to its prominent position in Roberts [sic] Street, the station contributes to the local cultural landscape. The pumping station is also technically significant for its continual use nearly a century after its introduction as a low level sewage pumping station as originally designed and constructed, apart from mechanical and electrical modifications. It has educational and interpretation potential to reveal information about sewage pumping engineering and in architectural taste in a period when utilitarian buildings were given as much careful attention as public buildings. Due to its highly prominent location in Roberts Road [sic], the station makes a valuable contribution to the townscape and cultural landscape of Rozelle. Its aesthetic significance could be enhanced by reconstructing the slate roof.*[36]

[36] State Heritage Inventory. Sewage Pumping Station no. 7 (SP0007). Accessed online 14/7/2022: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=4571705

6.3.2 White Bay Power Station Outlet Canal

The White Bay Power Station Outlet Canal is listed on the following heritage registers:

Item Name	**Address** (as noted on the listing)	**Signif-icance**	**Listing**	**Item no.**	**Relationship to the site area**
White Bay Power Station (Outlet) Canal	Victoria Road, Leichhardt	State	Port Authority of NSW s170 heritage inventory register	#4560062	South of the subject site on Rozelle Bay. The underground canal connects with White Bay Power Station. 

The listing for the "outlet" canal refers to the southern opening to Rozelle Bay whereas in fact this was the inlet canal. The inlet canal is located to the south of the study area, but it extends from Rozelle Bay in the south, through the Turbine Hall of White Bay Power Station and exits to the outlet canal (listed as inlet canal) to the north at White Bay. In the process, the canal passes under the northern and southern penstocks which are used to control the flow of cooling water through the system.

The inlet canal is partially exposed while the connection to Rozelle Bay is covered using timber piles supporting a timber wharf structure and concrete road deck. Sections of the road deck and piers appear to have been removed (when compared to early aerials), exposing the canal adjacent to James Craig Road. It is presumed that exposure of the canal is due to poor condition and maintenance of the timber work requiring partial dismantling.

The inlet canal dates from 1913 and is related to the underground water canal of White Bay Power Station cooling water system. The following Statement of Significance is provided on the NSW Office of Environment and Heritage Database for this item:

> *The significance of the canal is derived from the significance of the White Bay Power Station complex. The canal is an integral part of the White Bay Power Station and its cooling system. The canal now also forms part of the ecosystem of the White Bay and Black Wattle Bay areas [for the Statement of Significance for White Bay Power Station*

6.3.3 Glebe Island Wheat Silos

The Glebe Island Wheat Solos are listed on the following heritage registers:

Item Name	**Address** (as noted on the listing)	**Signif-icance**	**Listing**	**Item no.**	**Relationship to the site area**
Glebe Island Wheat Silos	Victoria Road, Rozelle	State	State Environmental Planning Policy, No. 26 -City West	#4560016	East of the subject site on Glebe Island 
			Sydney Regional Environmental Plan (SREP) No. 26 -City West	Sch.4, Part 3, Item #4	

The Glebe Island Silos (formerly known as the Glebe Island Grain Terminal) are located outside the eastern tip of the study area on Glebe Island.

The following Statement of Significance is provided on the NSW Office of Environment and Heritage Database for this item as follows:

> *Glebe Island Grain Terminal is a seminal site in the development of the bulk wheat storage and export industry in Australia. As such it has a pre-eminent position in the historical development of one of Australia's most important primary industries. It was the first and most important of the port terminals and encompassed technologies that were specific to the industry and influential in the development of that industry throughout the country. The first construction phase is particularly noteworthy because of the circumstances of its wholly imported design and technological expertise.*
>
> *The carefully planned and integrated system, by the 1930's , was considered to be one of the largest, most efficient and well planned installations of its type. The fabric contained within the site, although compromised by alterations and missing elements is capable of demonstrating and recording the evolution of the industrial processes that evolved over several decades. The silos, in particular are the most visible and easily interpreted elements of that former use and form a powerful and well known landmark. The site also has significance for its associations with, and demonstration of, Commonwealth and State government initiatives. (McPhee, Thorpe, Stuart 1994).*

Together with the White Bay Power Station and the Anzac Bridge, the Silos are a major landmark in the Bays West Precinct. The silo complex is historically significant as the first of their kind in the county, purpose built for the industry and cemented Glebe Island as a principal port terminal for the NSW wheat and other bulk cargoes trade throughout the twentieth century. They have an impressive size and scale that are unmatched in the Sydney region.

6.3.4 Glebe Island Bridge

The Glebe Island Bridge is listed on the following heritage registers:

Item Name	Address (as noted on the listing)	Signif-icance	Listing	Item no.	Relationship to the site area
Glebe Island Bridge	Bank Street, Victoria Road, Pyrmont	State	State Heritage Register (SHR)	01914	East of the subject site on Glebe Island 
			Port Authority of NSW s170 heritage inventory register	#4560015	

The Glebe Island Bridge is located to the east of the study area and is listed on the State Heritage Register. The bridge was built between 1899 and 1903, is an electrically operated, low level steel central swing-span road bridge over Johnstons Bay. The following Statement of Significance is provided on the NSW Office of Environment and Heritage Database for this item as follows:

> *The Glebe Island Bridge, across Johnstons Bay, is of state significance as it demonstrates one of the earliest examples of an electric-powered swing bridge in Australia. Technically, it is a complementary structure to the already acclaimed Pyrmont Swing Bridge, and has all the same significant features, including the electrically-driven swing span. Both bridges were designed by Percy Allan, a highly-regarded Australian bridge designer of the late 19th and early 20th century. Both represent the only examples of such types of bridges in New South Wales and are still operable.*[37]

6.3.5 The Anzac Bridge

The Anzac Bridge is listed on the following heritage registers:

Item Name	Address (as noted on the listing)	Signif-icance	Listing	Item no.	Relationship to the site area
Anzac Bridge	Anzac Bridge	Local	S.170 RMS heritage inventory register	#430518	East of the subject site on Glebe Island 

When completed in 1995, the Anzac Bridge became the longest concrete cable-stayed bridge in Australia, with a central span of 345m. The overall length of the bridge is 805 metres, with individual spans of 77.95, 140,345, 140, 54.5 and 42 m. The shipping channel has a vertical clearance

[37] Office of Environment and Heritage. Heritage Database, Available online. Accessed 18/06/2022: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5051118

of 27m. From the eastern end of the bridge an elevated roadway constructed from voided slab pre-stressed concrete some 1.4km long ties the bridge to the expressway complex over Darling Harbour.

The following Statement of Significance is provided on the NSW Office of Environment and Heritage Database for this item as follows:

> *Anzac Bridge has significance at a State level because of its technical qualities; it is a world standard bridge in scale, aesthetics and design features. Anzac Bridge is a reinforced concrete cable-stayed bridge built over Johnstons Bay between Glebe Island and the inner Sydney suburbs of Pyrmont and Darling Harbour. The bridge was designed and built between 1989 and 1995 by the Roads and Traffic Authority (RTA) and its predecessor, the Department of Main Roads (DMR), and is currently the longest such bridge in Australia. The subtle sweep of the bridge's cantilevered deck, which links into the arterial road network and is supported at either end by monumental reinforced concrete towers, forms a striking and integral part of the Sydney skyline. It has quickly become one of the iconic images of Sydney, particularly for those who have views of it, cross it to work by road or bike, or use Anzac Bridge is also historically significant because it is a contemporary solution to a longterm problem for government agencies responsible for road building and maintenance in Sydney. It replaces the Glebe Island Bridge of 1903, adjacent to Anzac Bridge, which was historically part of the five bridges route connecting Sydney to the north shore. This route was important in connecting Sydney to Parramatta and the north shore from the middle of the nineteenth century, and for much of the twentieth century. The design and construction of a new bridge at the Johnstons Bay crossing (along with the associated freeway road systems) from the late 1980s through to the mid 1990s reflected the desire of the road authorities (the DMR, latterly the RTA) to cut travel times for commuters, and also to limit the build up of traffic on the Glebe Island Bridge. Anzac Bridge is part of the Glebe Island Arterial, and forms an essential part of Sydney's road infrastructure.*[38]

6.3.6 The Valley Heritage Conservation Area 'C7'

The Valley Heritage Conservation Area 'C7' is listed on the following heritage register:

Item Name	**Address** (as noted on the listing)	**Significance**	**Listing**	**Item no.**	**Relationship to the site area**
The Valley Heritage Conservation Area 'C7'	Rozelle	Local	Leichhardt Council Local Environmental Plan, Schedule 5, Part 2 Listing number C7	C7	Opposite on Robert Street.

The Valley Heritage Conservation Area "C7" Is located Immediately north of Robert Street and shares the northern border of the study area. The Development Control Plan describes the HCA as follows:

> *This conservation area comprises a large but tightly formed valley which falls south and east from the Darling Street ridge towards White Bay affording enclosed views to industrial workings of the port city in the bay. It includes a number of subdivisions/part subdivisions around the highest land in the Leichhardt Municipality on either side of the Darling Street ridge and across Victoria Road. It includes land east of Wellington Street to White Bay.*
>
> *It also includes the civic buildings and the commercial zone of Rozelle on both sides of Victoria Road, the land east of the Darling Street ridge beyond the commercial zone, the civic and commercial buildings of Balmain retail centre, small groups of shops along Darling Street and the former retail area of Evans and Beattie Streets.*

The following Statement of Significance is provided by Inner West Council as follows:

> *Statement of Significance or Why the Area is Important*
>
> - *One of a number of conservation areas which collectively illustrate the nature of Sydney's early suburbs and Leichhardt's suburban growth particularly between 1871 and 1891, with pockets of infill up to the end of the 1930s (ie prior to World War II). This area is important for illustrating*

[38] Office of Environment and Heritage. Heritage Database, Available online. Accessed 18/06/2022.

development for workers' and artisan housing particularly from 1871–1891 which forms the major element of its identity. It is significant for its surviving development from that period and the later infill development up to World War II (ie pre-1939).

- *Retains evidence of all its layers of growth within that period from the late-1870s.*
- *Through its important collection of weatherboard buildings, including the now rare timber terraces, it continues to demonstrate the nature of this important/major construction material in the fabric of early Sydney suburbs, and the proximity of Booth's saw mill and timber yards in White Bay.*
- *Through the mixture of shops, pubs and industrial buildings it demonstrates the nature of a Victorian suburb, and the close physical relationship between industry and housing in nineteenth century cities before the advent of the urban reform movement and the separation of land uses.*
- *Demonstrates through the irregular pattern of its subdivision the smallscale nature of the spec builders responsible for the construction of the suburb.*
- *Demonstrates the nature of some private subdivisions before the introduction of the Width of Streets and Lanes Act of 1881 required roads to be at least one chain wide.*

Figure 6.3.6.1: Map of The Valley Heritage Conservation Area C7.

Figure 6.3.6.2: View along the north of Robert Street shared with the Study Area.

6.3.7 Hornsey Street Conservation Area C11

The Hornsey Street Conservation Area C11 is listed on the following heritage register:

Item Name	**Address** (as noted on the listing)	**Significance**	**Listing**	**Item no.**	**Relationship to the site area**
Hornsey Street Heritage	Lilyfield	Local	Leichhardt Council Local Environmental Plan, Schedule 5, Part 2 Listing number C11	C11	Opposite on Victoria Road.

The Honsey Street Conservation Area "C11" Is located Immediately west of Victoria Road. The Development Control Plan describes the HCA as follows:

> *This conservation area is situated around a small knoll of land above Victoria Road, and just above the White's Creek estuary and the industrial areas of Rozelle Bay. There are views across to Rozelle Bay and the city skyline.*

The following Statement of Significance is provided by Inner West Council as follows:

> *Statement of Significance or Why the Area is Important*
>
> - *One of a number of conservation areas which collectively illustrate the nature of Sydney's early suburbs and Leichhardt's suburban growth particularly between 1871 and 1891, with pockets of infill up to the end of the 1930s (ie prior to World War II). This area illustrates a number of layers of development from an early pre-suburban villa of 1876 to smallscale tradesmen and workers' housing*

from the 1870s through to the 1930s. It is significant for its surviving development from the pre-World War II period (ie pre-1939).

- *Demonstrates the close physical relationship between industry and housing (both middle class and workers' housing) in nineteenth century cities.*
- *Demonstrates the nature of some private subdivisions before the introduction of the Width of Streets and Lanes Act of 1881 required roads to be at least one chain wide*

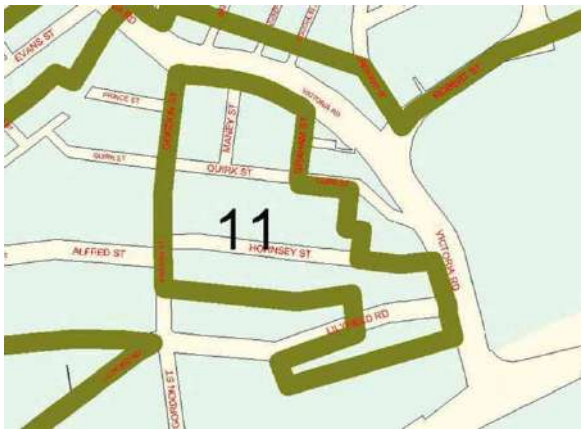


Figure 6.3.7.1: Map of The Hornsey Street Conservation Area C11 (Inner West Council. DCP).

Figure 6.3.7.1: View looking north at the corner of Victoria Road and Lilyfield Road.

7 THE PROPOSAL

7.1 Bays West Stage 1 Master Plan

The proposal includes the finalisation of Bays West Stage 1 Master Plan which has informed the rezoning proposals for the precinct. References to the Bays West Stage 1 Master Plan (or Master Plan) relate to the Draft Urban Design Framework and Public Domain Concept Plan. The Bays West Stage 1 draft Master Plan was exhibited for public comment from 4 May to 31 May 2022.

7.1.1 Urban Design Framework

The Urban Design Framework is a suite of plans, objectives, principles and requirements that prescribe a desired outcome for individual sites, and the Sub-precincts. The UDF delivers a level of certainty about high amenity and accessibility outcomes to Council and the community and retains a level of flexibility for innovation and diverse design outcomes in the future.

The Urban Design Framework is intended to:

- Outlines urban design principles that will underpin the proposed development including how Country has been embedded;
- Demonstrates that the proposed development can achieve high quality place outcomes;
- Proposes maximum building heights, building envelopes, amenity principles
- Assesses impacts on views to significant spaces and landmark structures.

7.1.2 Public Domain Concept Plan

The Public Domain Concept Master Plan represents just one of many permutations of how the Urban Design Framework for the White Bay Power Station (and Metro) and Robert Street Sub-precincts can be realised.

The Public Domain Concept Master Plan represents a reference scheme that demonstrates how the project vision, and objectives and the urban design principles and parameters can be achieved whilst adhering to the Urban Design Framework.

7.2 Development Controls.

The following draft controls on exhibition come from the Master Plan and Urband Design Framework and are being translated into statutory controls. It is noted that the Robert Street Sub-Precinct was included in the original Draft Master Plan but is not included in this rezoning Package. The draft rezoning controls are proposed and defined in the following maps:

- Identification of key sites (Figure 7.2.1).
- Use Zones (Figure 7.2.2).
- Floor Space Ratios (Figure 7.2.3).
- Height of Buildings (Figure 7.2.4).
- Heritage Items and Conservation Area (Figure 7.2.5).
- Proposed Solar Access to Public Open Space (Figure 7.2.6).

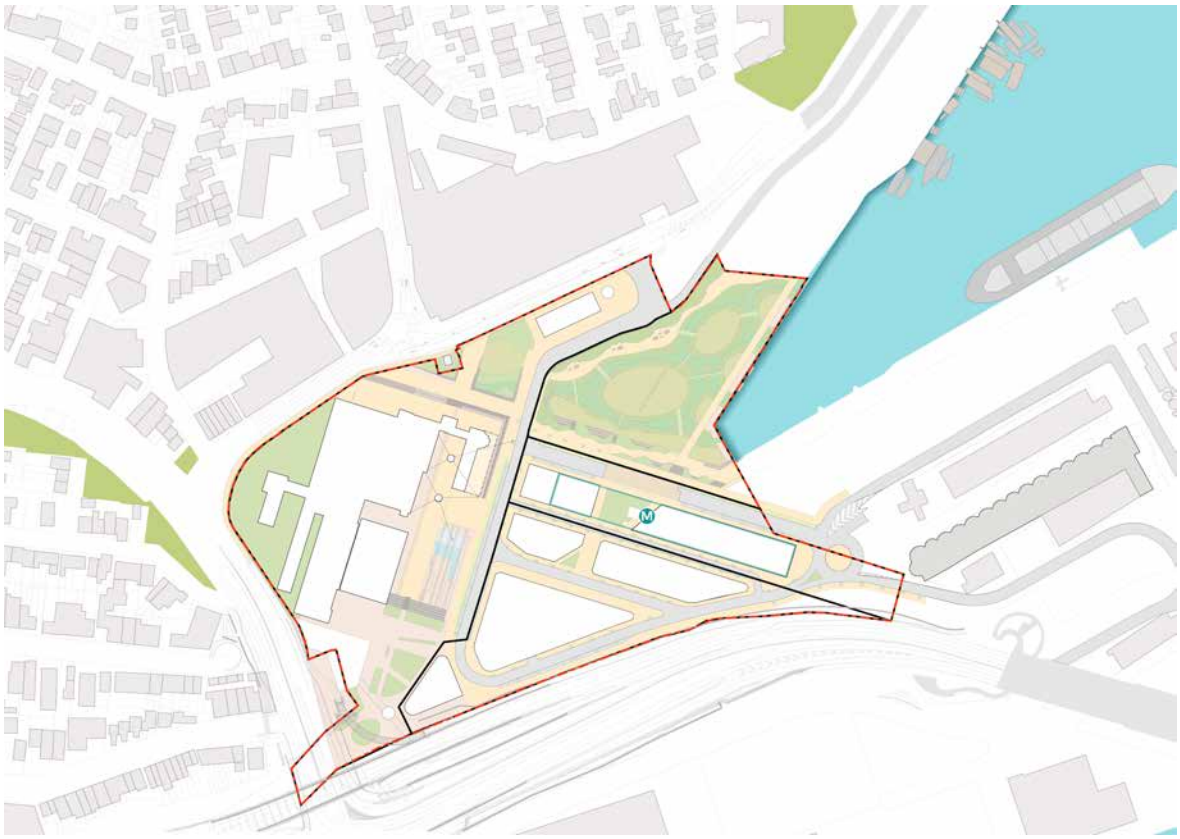


Figure 7.2.1: Key Sites

Figure 7.2.2: Proposed Land Use Zones.

Figure 7.2.3: Proposed Floor Space Ratios.

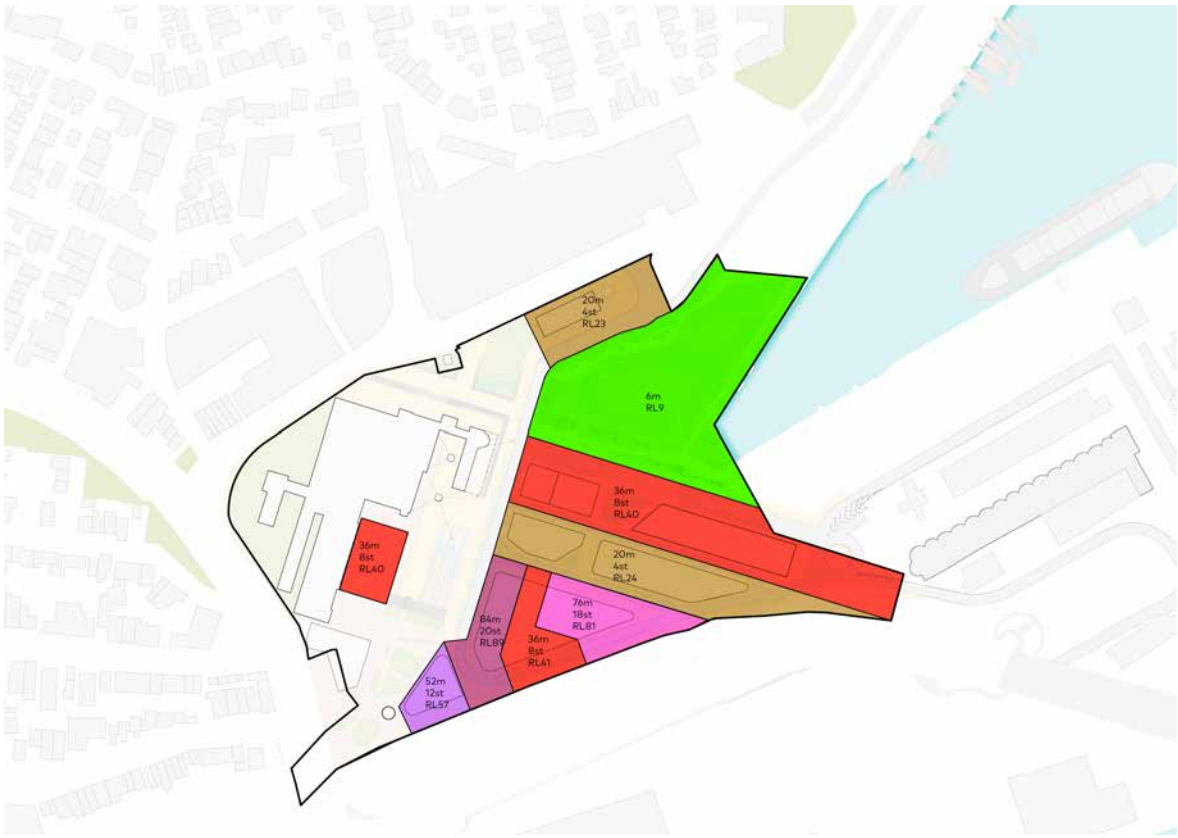


Figure 7.2.4: Proposed Height of Buildings.

Figure 7.2.5: Proposed Heritage Items (brown) including Conservation area in red.

Figure 7.2.6: Proposed Solar Access to Public Open Space. The diagram shows solar access that is required in terms of proportions of the public open space that achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21st June (mid winter).

8 ASSESSMENT OF HERITIAGE IMPACTS

8.1 General comments

The following section provides a summary of heritage impacts based on the proposed Master Plan and rezoning proposals. Heritage Impact Assessment is based predominantly on conservation policy set out in the Conservation Management Plan and Performance Considerations set out in the Bays West Place Strategy. Other assessment criteria are used where relevant.

There are a number of heritage items inside the study area and immediately adjacent. A summary of the potential impacts of the Master Plan and rezoning may have on these items are discussed.

8.2 White Bay Power Station – Statement of Significance

The full Statement of Significance for the White Bay Power Station is quoted in **Section 6** of this report. The statement of Significance provides a sound basis on which to proceed with formulating a policy or strategy as the most appropriate way to retain the cultural significance or heritage value of the place. The Statement of Significance covers a range of criteria including Aesthetic significance (including views, settings and buildings), Historical Significance, Scientific (technical research), and Significance and Social/ Spiritual Significance. Some broad principals covered in the Statement of Significance include:

- White Bay Power Station was the longest surviving power station in Sydney
- It is the most intact power station of this type in Australia
- It retains representative set of machinery for electricity generation.
- It has evidence of technology and practices of electrical power from coal and water dating from 1950s.
- It is highly visible industrial landmark in Balmain/Sydney.
- It has strong social associations for the local community and former workers.
- It is a potent symbol of areas industrial origins and working tradition

Further the relevant over-arching policies state:

> ***Policy 1.1.4***
> *Master Plan design proposals or any plans which set the framework for the future of White Bay Power Station should be developed in response to this CMP and in conjunction with appropriate conservation advice.*

The policy listed below refers to the gradings of significance and has been prepared to guide any works or adaptive reuse of the place to ensure that the integrity and significance of the space or element is not compromised and impacts minimised. The Figure 3.8.2.1 from the Conservation Management Plan Policy 1.4.1 should be complied with when considering any proposals:

> ***Policy 1.4.1***
> *The significance of each machinery element must be respected and considered in its own right, regardless of the grading of its enclosing space. They must be retained in situ and conserved in accordance with the guidelines set out in the inventory sheets in Volume V of this report. They cannot, and must not, be adapted for a new function.*
>
> *These policies have been refined for specific elements by specific policies later in Section 5 of this*
>
> *volume of the report. Reference should be made to Figures 3.8.2/1 - 3.8.2/15 in Section 3 of this volume of the report, showing the Gradings of Significance for all structures and spaces on the site.*
>
> ***Spaces/elements graded 1 Exceptional***
> *These spaces, structures or elements are of exceptional cultural significance. They play a crucial role in supporting the significance of the place, and should be retained in their existing configuration. They are essential to an understanding of the significance of the place and demonstrate the process of power generation. Surviving original machinery, fabric and finishes should be conserved in situ and the integrity of the spaces or elements retained and respected. They should not be obscured nor their significance diminished. The*

appreciation of the spatial quality and detail of these spaces should not be obscured or diminished. The design intent and integrity of the original work should also be respected and not obscured. Any proposed use must focus on in situ preservation and interpretation as the primary objective.

Spaces/elements graded 2 High
These spaces, structures or elements are of high cultural significance and retain a high degree of significant fabric. They play an important role in strengthening and supporting the significance of the place, but less than that for Grade 1. In some cases their reduced significance may result from the absence of significant machinery. Where these spaces or elements form part of a space of higher significance or contain machinery or equipment elements of higher significance, any action must respect that higher significance. Retention of surviving significant fabric in situ is preferred to relocation or removal. Adaptation and alteration of these spaces and elements is possible and new elements may be introduced which alter them as long as the integrity of the spaces and fabric and their original design intent is respected and, if possible, strengthened. Evidence of removed significant machinery should be retained in situ. Relocation or removal of these elements may be considered but only if it is necessary in order to achieve retention and conservation of qualities and aspects of space and elements of higher significance. Adaptation of these spaces or elements would be preferred to their loss or removal. Walls and other elements shared between these, and other spaces of higher significance should be treated in accordance with the higher ranking as it affects that higher ranked space.

Spaces/elements graded 3 Moderate
These spaces, structures or elements retain some integrity but are of lesser cultural significance. They play a moderate role in supporting the significance of the place. Significant fabric may have been altered or obscured. Where these spaces or elements form part of a space of higher significance, any action must respect that higher significance. These spaces and elements can be adapted and changed for other uses, and new openings made, but fabric or machinery of higher significance should be retained in situ in accordance with their ranking. The qualities and integrity of the spaces or elements should, if possible, be respected. Adaptation of these spaces or elements would be preferred to their loss or removal. Relocation or removal of evidence of removed machinery may be considered to allow adaptive reuse of the space however retention and adaptation would always be the preferred option. Walls and other elements shared between these spaces and other spaces of higher significance should be treated in accordance with the higher ranking as it affects that higher ranked space.

Spaces/elements graded 4 Little/neutral
These spaces, structures or elements retain only minor or neutral significance and may be retained or adapted substantially. Elements or fabric of higher significance should be retained if possible. Adaptation is preferred to complete removal. Walls and other elements shared between these spaces and other spaces of higher significance should be treated in accordance with the higher ranking as it affects that higher ranked space.

Spaces/elements graded 5 Intrusive
These spaces, structures or elements retain virtually no significance, and in some cases may be considered intrusive. They may be either removed or altered substantially. Elements shared between these spaces and other spaces of higher significance should be treated in accordance with the higher ranking as it affects that higher ranked space.

Comment

The White Bay Power Station is the last remaining power station of its type in Australia that is considerably intact. The Master Plan and rezoning proposals envisage that the White Bay Power Station is retained, conserved and elevated as a focal destination in the Bays West precinct in line with the Statement of Significance, CMP polices and the Bays West Place Strategy. The White Bay Power Station is landmark and destination within the precinct and the surrounding community and future uses that are compatible and respect the significant elements and attributes of the place should be encouraged.

As such, we support and encourage the following in accordance with the policies of the CMP:

- The primary use of the building to be public and publicly accessible (Policy 1.1.6).
- Retention of the full suite of structures, spaces and machinery which comprise the complete "slice" of the power generation process from coal handling to power reticulation. This includes the spaces and building must be conserved in a manner that retains and respects their significance. must be retained and respected (Policy 1.1.1, 1.3.1, 1.4.1)

- The visual setting and curtilage should be retained and respected. (Policy 1.2.1, 1.2.2, 1.2.3, 1.2.4).
- New uses inside the power station should be compatible, inspired and respond to the existing spaces (Policy 1.1.9, 1.1.10).
- Public access internally to the White Bay Power Station in accordance (Policy 1.1.6, 8.1, 8.2).
- Contextual associations between the White Bay Power Station and other places should be retained and respected, viz. its relationship to the port and railway (Policy 1.1.8).
- Form, scale and massing of the external elevations and relationship to their surrounding context. (Policy 1.2.10, 1.2.11).
- Use, management and change to individual buildings in accordance with detailed policies set out in the CMP.

8.3 Land Use Zoning

The proposal for rezoning has been developed based on Bays West Place Strategy, Draft Bays West Master Plan concepts and proof of concept schemes. The rezoning of White Bay Power Station precinct will include four zones that are discussed in detail in the following section. The four zones are shown in Section 7 of this report and include:

- **Special Use – SP1:** Area encompassing the White Bay Power Station and open space curtilage immediately surrounding.
- **Public Recreation - RE1:** Area encompassing the open space northeast of the Power Station and north of the Sydney Metro West station box and including foreshore along White Bay.
- **Commercial Core – E2:** Area encompassing the Sydney Metro West station box and commercial core
- **Mixed Use – MU1:** Area encompassing the south development lot

8.3.1 Special Use – SP1

The White Bay Power Station and areas immediately surrounding will be zoned SP1 – Special Activity. The objectives of SP1 as detailed in the Standard Instrument[39] are quoted below with relevant clauses underlined:

> ***Zone SP1 Special Activities***
>
> ***1 Objectives of zone***
>
> - *To provide for special land uses that are not provided for in other zones.*
> - *To provide for sites with special natural characteristics that are not provided for in other zones.*
> - *To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land.*

The following CMP polices relate to the reuse of the White Bay Power Station and use for White Bay Power Station:

> ***Policy 1.1.1***
> *White Bay Power Station retains considerable cultural significance and must be retained and conserved. In order to ensure its long-term maintenance and survival it must be adapted for an appropriate new use, or uses. Such uses must retain and respect the significant elements and attributes of the place.*
>
> ***Policy 1.1.5***
> *The integrity of those structures, spaces, elements and machinery which comprise the complete representative*

[39] Standard Instrument – Principal Local Environmental Plan (2006 EPI 155a)
https://legislation.nsw.gov.au/view/html/inforce/current/epi-2006-155a#pt-note-oc.8

"slice" of the power generation process from coal handling to power reticulation must be retained and respected in any future use or development on the site.

Policy 1.1.7
The aesthetic (including the sensory aspects of visual, aural and tactile) qualities of the internal and external spaces and elements of exceptional and high significance must be retained and respected, viz. the visual and spatial qualities of the Turbine Hall.

Policy 1.1.9
The principal and exceptional spaces of the building should house a use or uses which are preferably inspired by and respond to the character and quality of the spaces and their significant elements. All uses should respect the qualities, character and significance of those spaces and elements in their fitout and presentation.

Policy 1.1.10
Any new interventions, alterations and additions to significant areas must be exceptionally well designed by designers with proven experience of working in architecturally sensitive environments.

The Bays West Urban Design Framework build on these policies. While the Performance Considerations detailed in the Bays Strategy should be considered holistically, the most relevant considerations that relate to reuse of the Power Station are quoted below:

	CONSIDERATIONS
Our White Bay Power Station *The White Bay Power Station anchors one end of the heritage and cultural spine and is one of the most unique and celebrated assets at Bays West. It must be adaptively reused and reimagined as a focal point of the Precinct.*	• Conserve, adaptively reuse, and interpret the WBPS to a standard that is appropriate for a piece of nationally significant industrial heritage and in response to its identified cultural significance • Create new insertions within WBPS that are clear, modern overlays on the historic structures, so as not to confuse their evolution or significance • New works should do as much as is necessary for the care of the place and make it usable, but change as little as possible so that its cultural significance is retained • Adapt, enrich and strengthen the integrity and significance of the place and its components rather than downgrading it • Develop an appropriate framework of reuse for each of the parts of the WBPS to guide any proposals sought for future use. Framework to be in line with guidance contained within Conservation Management Plan
Character and meaning *Retain the character of the place to strengthen the sense of uniqueness and contribute to the attractiveness of the precinct. New development should acknowledge the historic industrial character of the site, and respond in a sensitive way without mimicry or losing authenticity. Weaving the new with the old will allow users to enjoy the discovery of an intriguing place.*	• Respond to identified Country stories and former industrial uses, former/current maritime uses of site, and surrounding areas

In accordance with the above criteria, uses for the White Bay Power Station are anticipated to be public inspired by the spaces themselves. Zoning for Special Use enables commercial premises, community facilities, creative industry, educational establishment, entertainment facilities and hotel. While a hotel reuse is not appropriate (unless in a very narrow and limited use), the Master Plan envisages that the White Bay Power Station could be reused for public purposes (Refer to **Figure 8.3.1**) and should follow the guidelines in the Bays West Place Strategy and the White Bay Power Station Conservation Management Plan

A range of uses could be accommodated in the Power Station that support and align with the significance of the place. The Boiler House and Turbine Hall will be suitable for uses that need large open spaces while the Administration Building and Switch House has smaller spaces will be suitable for intimate needs including meetings, offices, studios and galleries. It is essential that any new work respects and strengthens the significance of the place to assist interpretation, understanding and appreciation of significance. The spaces and particularly the machinery must be regarded as a backdrop and identity for any new use or structure.

We consider the type of zone nominated for the White Bay Power Station is appropriate to accommodate flexibility and diversity of social infrastructure uses that are compatible with the unique and special character of a former industrial complex. The zoning is aligned with the objective of public engagement and is compatible with the *Cultural Significance* of the place and the policies contained in the CMP.

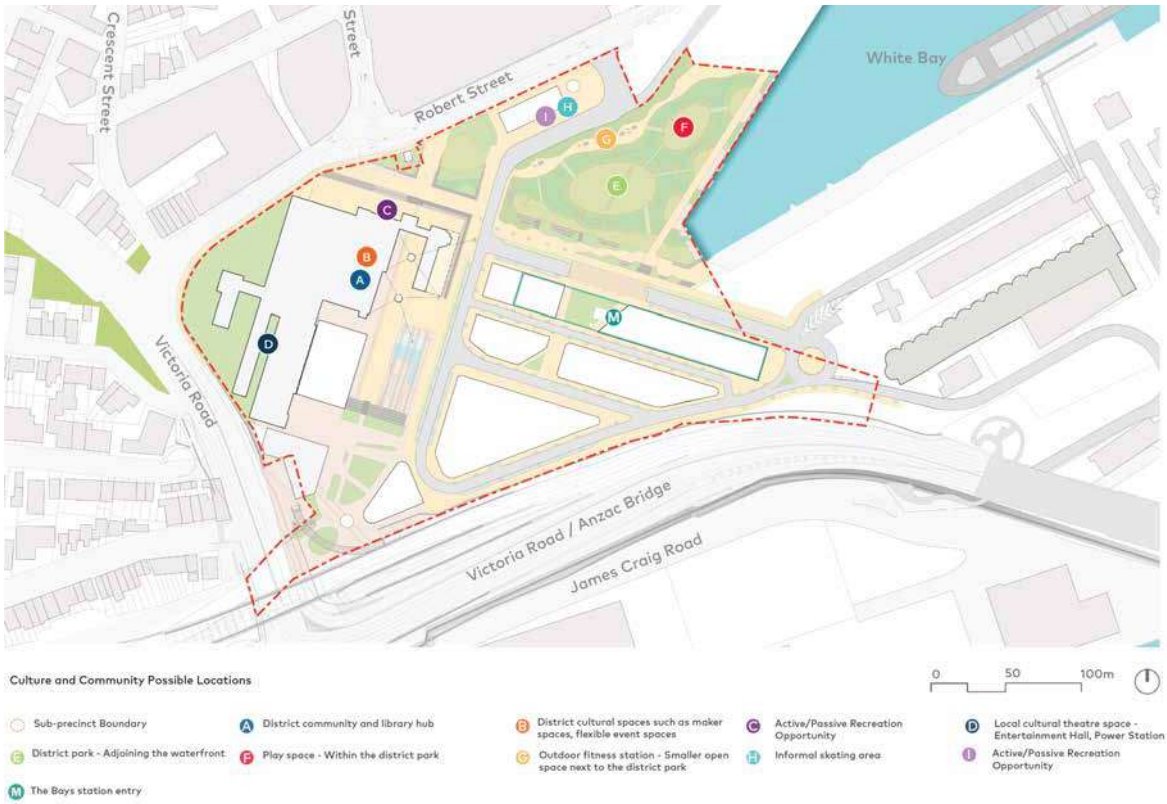


Figure 8.3.1: Proposed uses at White Bay Power Station related to social infrastructure provisions.[40]

8.3.2 Public Recreation - RE1

The area northeast of the White Bay Power Station is nominated as Public Recreation RE1. The Objectives of SP1 as detailed in the Standard Instrument[41] and is quoted below:

1 Objectives of zone

- *To enable land to be used for public open space or recreational purposes.*
- *To provide a range of recreational settings and activities and compatible land uses.*
- *To protect and enhance the natural environment for recreational purposes.*

This area is proposed to be called the White Bay Park and includes reclaimed land and listed heritage structures including the White Bay Power Station outlet canal (listed as the inlet canal). This zone has opportunity for interpretation and recreational use within a parkland setting. The space aligns with the Bays West Strategy for open space and enables views and connection of the precinct with White Bay.

[40] Bays West Stage 1 Master Plan. Page 90.
[41] Standard Instrument – Principal Local Environmental Plan (2006 EPI 155a)
https://legislation.nsw.gov.au/view/html/inforce/current/epi-2006-155a#pt-note-oc.8

8.3.3 Commercial Core - E2

The area east of the White Bay Power Station will be occupied by the Sydney Metro West station and is nominated as Commercial Centre E2. The Objectives of E2 as detailed in the Standard Instrument[42] and is quoted below:

1 Objectives of zone

- *To strengthen the role of the commercial centre as the centre of business, retail, community and cultural activity.*
- *To encourage investment in commercial development that generates employment opportunities and economic growth.*
- *To encourage development that has a high level of accessibility and amenity, particularly for pedestrians.*
- *To enable residential development that is consistent with the Council's strategic planning for residential development in the area.*
- *To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces.*

The intention for this space to be a "core activated anchor" for the Bays Precinct and a major public transport node in the form of the Sydney Metro West and bus interchange. The Sydney Metro West and Station are subject to separate approvals and currently under construction. The area will also accommodate The use of the zone is consistent with Bays West Place Strategy and will enable viable activation of the precinct including that of White Bay Power Station.

In relation to building form and height, the proposed height limit for the over station box for Sydney Metro West is set at relative level of forty metres (RL40) and relative level of twenty-four metres (RL24) south of the metro box. This is an increase from maximum relative level of twenty-two metres (RL22.2) and scaling down to a relative level of eighteen metres (RL18) close to the Power Station detailed in the Bays West Urban Design Framework (page 91). The over station development is a substantial increase in height to the Bays West Place Strategy and will have moderate heritage impact on viewsheds from the south and east (refer to assessment of viewsheds in later section).

The buildings south of the over station box will be limited in height to relative level of twenty-four metres (RL24) to ameliorate views to the Power Station from the Anzac Bridge approach. The setback of new buildings to the west, close to White Bay Power Station, are setback further than anticipated in the CMP and Bays West Strategy through the creation of White Bay Power Station Plaza and introduced road network.

8.3.4 Mixed Use – MU1

The southeast corner of the study area will be zoned Mixed Use MU1. The Objectives of MU1 as detailed in the Standard Instrument[43] are quoted below:

1 Objectives of zone

- *To encourage a diversity of business, retail, office and light industrial land uses that generate employment opportunities.*
- *To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To encourage business, retail, community and other non-residential land uses on the ground floor of buildings.*

[42] ibid
[43] ibid

This area is identified in the Master Plan as well as the Bays Place Strategy as the most appropriate location for density and high building forms. It is also within a key connection point to the Bays Precinct for active transport connecting with the former Rozelle Rail Yards which connects with Lilyfield and beyond and will include a 10ha regional park. The space accommodates important heritage assets including the southern penstock and underground cooling tunnels which are integral to the machinery and processes at White Bay Power Station.

The Master Plan envisages the location of street network, building heights and form are situated to enable appropriate setback and curtilage to the White Bay Power Station and sightlines to the Power Station, Glebe Island Silos, White Bay and Sydney Harbour Bridge in the distance (Refer to discussion of sightlines in **Section 8.4**). Building forms are also located based on broader viewsheds to the precinct, particularly the White Bay Power Station from the surrounds (refer to setting and viewsheds).

8.4 Setting and Viewsheds

8.4.1 White Bay power Station

The following polices are quoted below that most relate to the setting and viewsheds to the power Station

Policy 1.2.1
Any development being proposed in the vicinity of the White Bay Power Station must carefully consider its bulk, scale and placement in order to respect the visibility and prominence of the power station as a harbourside landmark.

Policy 1.2.2
Those views from major axial approaches such as Anzac Bridge, Glebe Point Road, Johnston Street Annandale, City West Link, Victoria Road (from north west) Mullens Street and Robert Street must be maintained as substantially unobstructed views. Any new structures in the vicinity of the White Bay Power Station must not substantially mask the visibility of the power station or threaten its landmark qualities as the major focal element in these views.

Policy 1.2.3
General and changing views towards White Bay Power Station from the harbour, major parks and public areas of the southern edge of Balmain and Rozelle, Glebe Point, Pyrmont Point, Observatory Hill and Darling Harbour, as well as from the Harbour Bridge, Anzac Bridge, City West Link road, The Crescent and Victoria Road, should be retained substantially unobstructed by other large elements, existing or future. Such elements should be sited, so as to be seen as part of its industrial context, framing the power station and strengthening its maritime related industrial character.

Policy 1.2.4
If any large silo structures are considered (as provided for in the Glebe Island and White Bay Master Plan November 2000), they should be designed and located in accordance with the guidelines above and in such a way that does not substantially obscure the main elements of the power station which define it as a landmark from this side, when viewed from the main axial views and the major parks and public areas mentioned above.

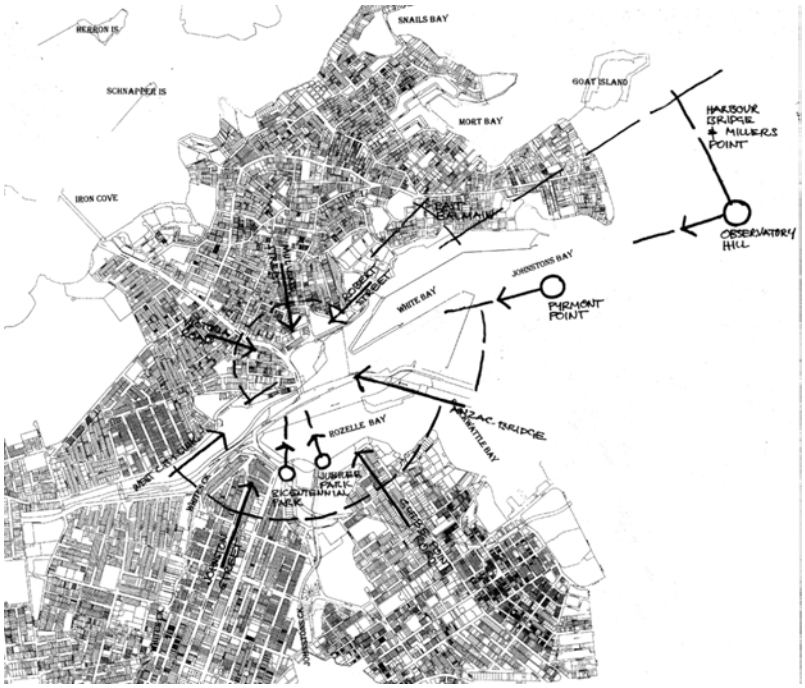


Figure 8.4.1.1: Extract from the CMP, figure 5.1.1.2 "*Views to the White Bay Power Station showing major axial and general views which is also the Visual Curtilage of the Power Station.*" (Page 108)

Comment

The White Bay Power Station is a significant landmark in the area and to local communities, marking the border between the industrial waterfront areas to its east and the suburbs to its west and north. The CMP identifies key view corridors to the White Bay Power Station (**Figure 8.4.1.1**) which is reinforced by the Bays West Urban Design Framework (**Figure 8.4.1.2**) and is now recognised in the current Master Plan and reflected in the height and rezoning areas. The Bays West Urban Design Framework identifies Anzac Bridge and the Silos also having critical viewsheds.

> *The character of these landmarks varies from large scale elements such as White Bay Power Station, Glebe Island Silos and the Anzac Bridge, to smaller more localised elements such as Glebe Island Bridge and the working harbour areas. The large elements help to signify the precinct from afar and act as visual markers and gateways on the journey between the Inner West and the CBD.*[44]

These landmarks form the character of the place and are visible from many areas around the bays for a long time and should not be inappropriately diminished or scaled down. Views can be framed with taller buildings in the vicinity, but major axis views should be retained.

[44] Bays West Urban Design Framework. Page 253

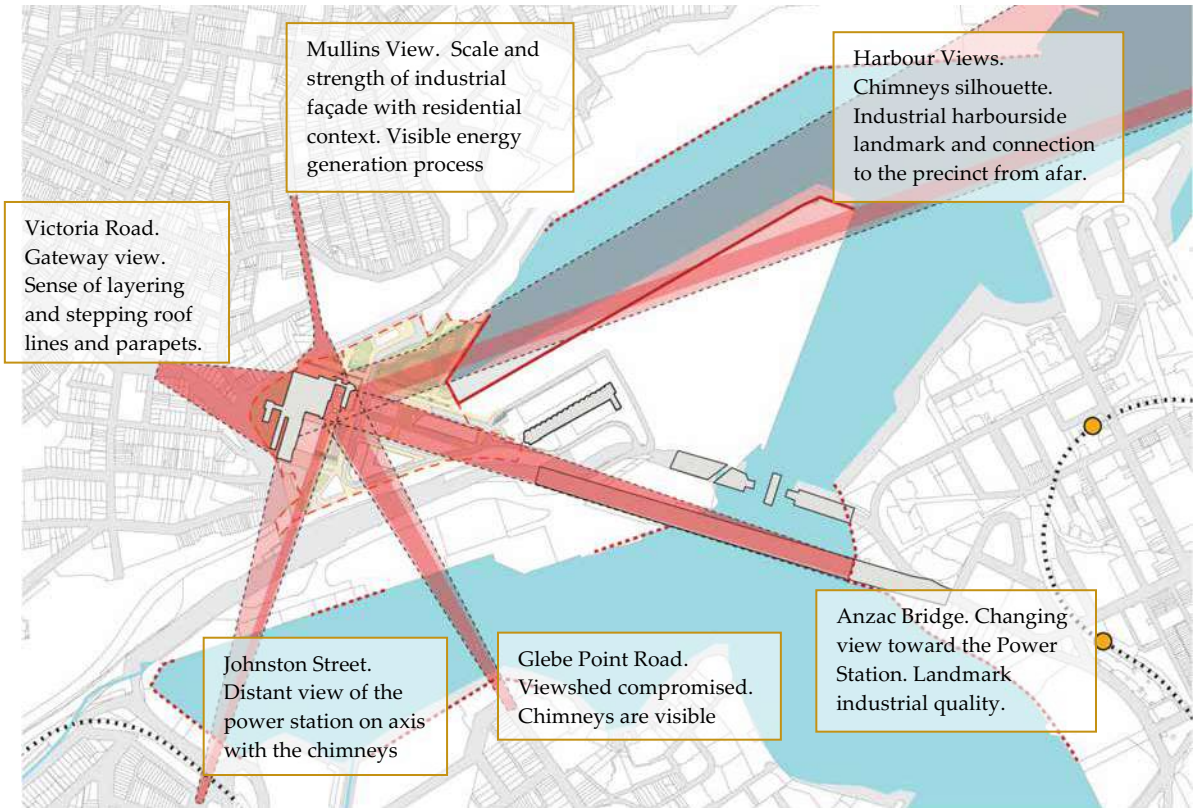


Figure 8.4.1.2: Viewsheds determined in the Bays Place Strategy overlaid.[45]

Figure 8.4.1.3: Indicative building heights through the precinct.[46]

[45] Base image provided by Cox with Design 5 markup.
[46] Base image provided by Cox with Design 5 markup.

8.4.2 Anzac Bridge

View to the Power Station from the Anzac Bridge is a gateway view on exit from the city to the west. The chimneys are visible as landmark as well as the east façade of the Boiler House which is visible over the Coal Handling Shed. The view shifts in scale on approach and is slightly changed from roadway or from the pedestrian and cycle path as shown in the **Figures 8.4.2.1** from the Bays West Urban Design Framework. The restrictions on this view imposed by the Bays West Urban Design Framework include:

Restrictions:

- *Reading of 2 no. chimneys on skyline must be maintained, uncrowded by new buildings.*
- *Reading of all existing building elements highlighted must be maintained.*

Figure 8.4.2.1: Bays West Urban Design Framework – Viewshed from Anzac Bridge.

Views to the Power Station from the Anzac Bridge will be partially blocked by the Sydney Metro West over-station development. The over-station development will be set at relative level forty metres (discussed in earlier section) and block the northern half Boiler House east elevation and completely block the east elevation of the Coal Handling Shed from Anzac Bridge approach. Adjacent to the Metro Over Station Development, buildings will be restricted to only four storeys (relative level twenty-four metres RL24), to enable framed view to the southern 1958 section of the Boiler House including the glass curtain wall. The less significant Pump House building to the south will be fully blocked by new taller buildings in the southeast corner of the site which is anticipated and acceptable.

The extent of blocking is more than desired under the Bays West Strategy and the Conservation Management Plan policy 1.2.5 which states:

> ***Policy 1.2.5***
> *Lower level structures between the Anzac Bridge (western approaches) and the White Bay Power Station could be constructed as long as they do not substantially obscure the major view of the east front of the power station. The full height of the glass curtain wall to the 1958 boiler house should be visible from the western approaches to the Bridge*

The CMP policy envisages future developments to be low level structures so that view to the Power Station are "substantially obscure" the major view from the east. The proposed view and height of buildings essentially show approximately one-third of the curtain wall as obscured by the new structures. This is a changing view and framed view to the power station over the tops of low height buildings framed by higher level buildings to the north and south (the change of view is shown in the in **Figure 8.4.2.2, 8.4.2.3 and 8.4.2.4**). The impact on this viewshed is balanced with implementing a suite of competing interests that provide a sustainable and viable outcome with community benefit as the core objective. The precinct offers an increase in public open space across the precinct than previously envisaged and impact on viewsheds reduce pressure for development elsewhere.

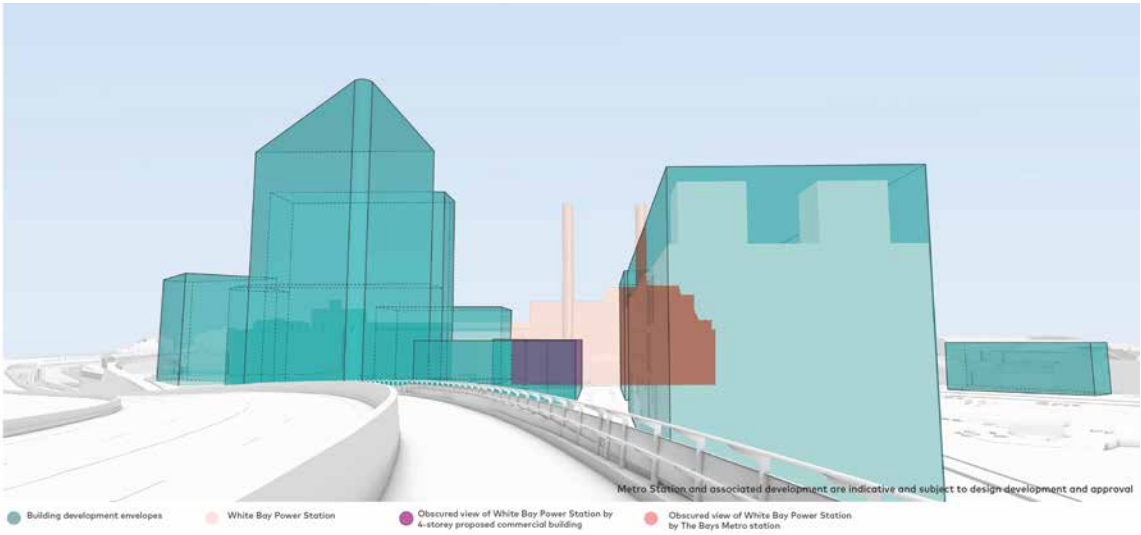


Figure 8.4.2.2. Page 130-131 Draft Bays West Stage 1 Master Plan

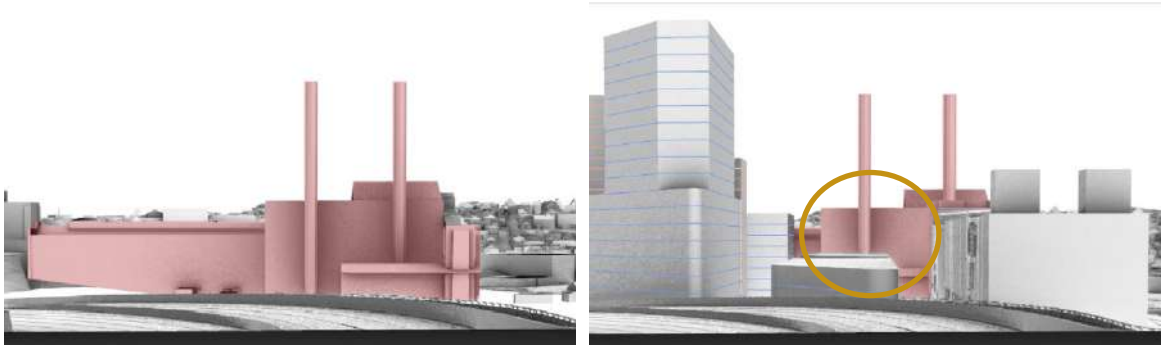


Figure 8.4.2.3. View to the Power Station from Anzac Brdige showing before and after. The bottom part of the glass curtain wall to the 1958 boiler house (circled) will be obscured while view of the chimneys are fully retained.

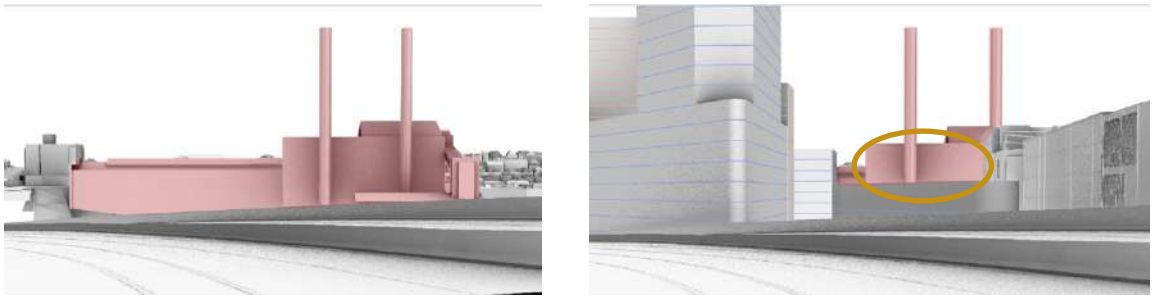


Figure 8.4.2.4. View to the Power Station from Westconnex approach showing before and after.

8.4.3 Harbour and Observatory Hill

View from the harbour are generally distant views but connection can be read from the Harbour Bridge, Observatory Hill and places on the water. The characteristics of this view mainly include the chimneys silhouetted on the skyline as a visible landmark. The chimneys are also significant within the precinct as visible from the water, foreshore, and major public domain spaces. The restrictions on this view imposed by the Bays West Urban Design Framework include:

Restrictions:

- *Reading of 2 no. chimneys on skyline uncrowded by new buildings, maintained from key public viewpoints (specifically Observatory Hill and Sydney Harbour Bridge)*
- *Within the precinct the angled view to northern and eastern facades of WBPS should be a major feature for public domain and foreshore spaces*

The view from Observatory Hill retains the reading of the two chimneys clearly on the skyline and uncrowded by new buildings. The Power Station is also distinct, albeit the extent of the building is not easily read from this distance and is mainly visible from closer range (**Figure 8.4.3.1**). The new buildings and height proposed is not overbearing nor detracting. The proposal for building form comfortably sit within the urban landscape from this viewpoint which includes the silos in the foreground and taller buildings at Jacksons Landing.

Figure 8.4.3.1: Bays West Urban Design Framework – Viewshed from the Harbour Bridge (left) and Observatory Hill (right).

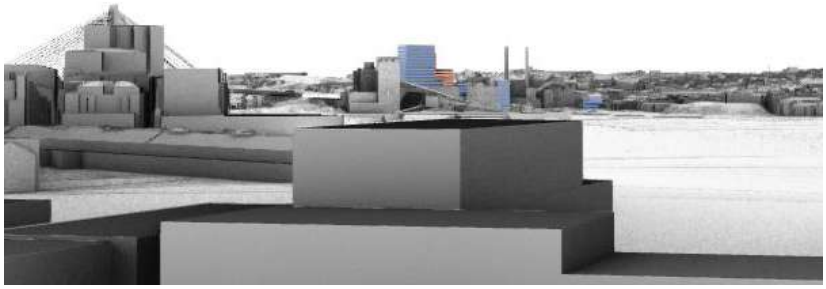


Figure 8.4.3.2. Approximate view from Observatory Hill showing the chimneys remain silhouetted against the sky. New buildings are shown in blue and orange.

8.4.4 Glebe Point Road.

The view to the Power Station form Glebe Point Road is compromised by recent development is Rozelle Bay, namely the Rozelle boat shed. The view is limited to the tops of the chimneys as visible landmark and the top of the Boiler House building from lower Glebe Point Road (**Figures 8.4.4.1, 8.4.4.2 and 8.4.4.3**). The restrictions on this view imposed by the Bays West Urban Design Framework include:

Restrictions:

- *Reading of 2 no. chimneys on skyline must be maintained, uncrowded by new buildings*
- *Reading of all existing building elements highlighted must be maintained*

Based on new building heights, the view and connection from Glebe Point Road will be severed (Refer to **Figure 8.4.4.4**). While small glimpses of the chimneys between building forms may be achieved, meaningful connection and intent of the UDF restricitons are lost. While this is a negative heritage impact and loss of connection, it is supported on balance of:

- The limited opportunity for new development potential across the subject site
- Balanced with the objective of achieving high amounts of public open space across the precinct. As a result, the development that affects this viewshed relieves pressure for development elsewhere on the site which may have the potential for higher adverse heritage impact.

- Of all the six main viewsheds identified in the Conservation Management Plan and the Bays West strategy and Framework documents, this view is considered least significant and already compromised by recent development.

As a result, we consider the encroachment on this viewshed to be acceptable.

Figure 8.4.4.1: Bays West Urban Design Framework – Viewshed from Glebe Point Road.

Figure 8.4.4.2: Current view Glebe Point – east end of Bicentennial Park. Only the chimneys are visible from this vantage point.

Figure 8.4.4.3: Current view from Glebe Point Road. The top of the Power Station is visible but connection to this view is limited.

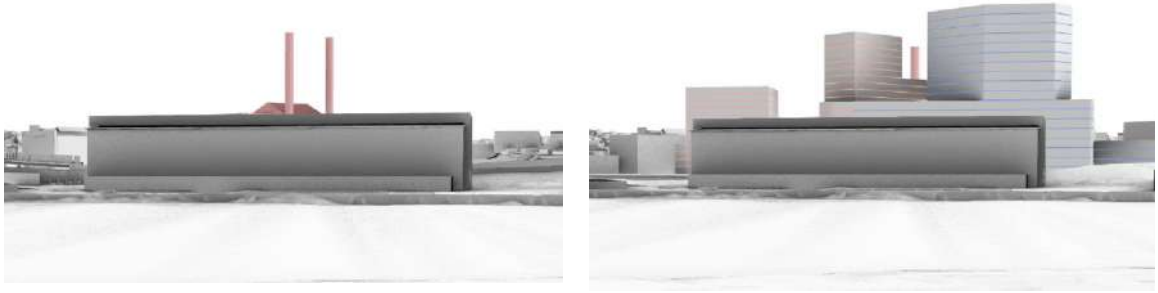


Figure 8.4.4.4: View to the Power Station from the end of Glebe Point road showing before and after. The view and connectin will be mostly severed by new building footprint and height.

8.4.5 Johnston Street

The view from Johnston Street to the White Bay Power Station aligns with the north-south axis of the Power Station. The main characteristic of this view is the chimneys read as silhouetted on the skyline and the top of the Boiler House (**Refer to 8.4.5.1**). The main restrictions on this view detailed in the Bays Urban Design Framework include:

Restrictions:

- *Reading of 2 no. chimneys on skyline must be maintained, uncrowded by new buildings*

- *Reading of all existing building elements highlighted must be maintained*

Figure 8.4.5.1: Bays West Urban Design Framework – Viewshed from Glebe Point Road showing the extent to which the view should be retained.

As shown on **Figure 8.4.5.2**, the view to the Power Station including the chimneys are retained. The south elevation of the Boiler House is obscured by a new structure which is the reinstatement of the 1927 Boiler House that was demolished. The construction of this new building is in accordance with Policy 10.4 which is partially quoted below:

> ***Policy 10.4***
> *Redevelopment of the Power Station must take into account all the Policies contained herein. These Policies are designed to allow for maximum flexibility commensurate with retaining, preserving and conserving the Cultural Significance of this quite exceptional site.*
>
> - *Potential to construct new building to similar height of 1958 Boiler House on site of Boiler House #2. Retain access to daylight for laboratory in Admin wing. New structure may interconnect into Pump House via new openings. This volume should be reinstated as a major priority as it will restore the formal massing and balance of the whole power station.* (CMP. Page. 192)

As a result of the above, the proposed heights and building massing complies with the relevant heritage restrictions from this viewshed.

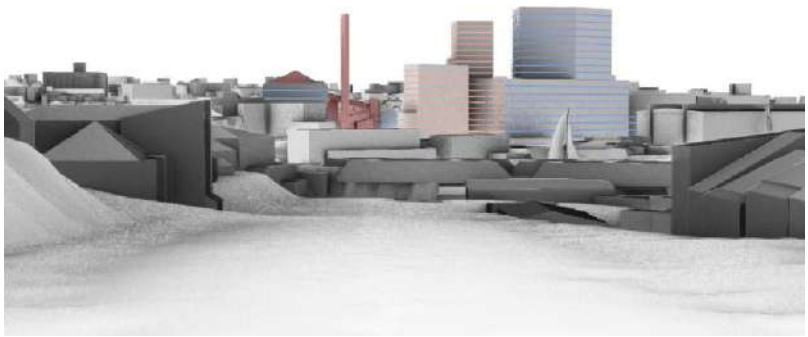


Figure 8.4.5.2: View to the Power Station from Johnston Street. View connection maintained including the chimneys. New building mass in front of the existing Boiler House is reinstated to the height and scale of the demolished Boiler House 2 as per Policy 10.4.

8.4.6 Mullins Street

The Mullins Street view allows for intimate and framed views between low scale houses on the west side of Mullins and medium scale industrial buildings on the east. The scale of the Power Station become apparent and dramatic at the southern axis of Mullins Street as one travels from north toward the power station and opens up to the full vista of the north elevation (Refer to **Figure 8.4.6.1**). This is a defining character of the industrial precinct and important to the identity of Rozelle and Balmain. The character of this view is dominated by the northern façade of the Power Station and the machinery processes within the building. The façade allows for an interpretation of the linear power production process given the direct relationship between the

facade and machinery accommodated inside. The main restrictions on this view as per the Bays Urban Design Frameworks includes:

Restrictions:

- *Reading of all existing building elements highlighted must be maintained*

Figure 8.4.6.1: Bays West Urban Design Framework – Viewshed from Mullins Street showing the extent to which the view should be retained, including the complete north elevation above a certain height and the chimneys.

As no tall structures are proposed on the northern forecourt of the White Bay Power Station, these views will remain intact and not obstructed.

8.4.7 Victoria Road

The Victoria Road approach is a gateway view on the approach to the City. It is characterised by the layering and stepping of the roof lines and parapets. The foreground buildings slowly increase in scale to larger buildings behind starting with the Control room, Switch House, Turbine Hall, Boiler House and the chimneys behind. The view is generally from close range and changes along the approach of Victoria Road (Refer to **Figure 8.4.7.1**). The main restrictions on this view as per the Bays Urban Design Frameworks includes:

Restrictions:

- *No impact on legibility of layering and stepping of roof lines and parapets is permitted*
- *Reading of all existing building elements highlighted must be maintained*

Figure 8.4.7.1: Bays West Urban Design Framework – Viewshed from Victoria Road showing the extent to which the view should be retained, including the complete west elevation showing the layered relationship of buildings on the site.

The Master Plan proposes to retain the western plaza as terraced landscape spaces with no structures that would otherwise block or detract from the White Bay Power Station. Proposed taller buildings will be visible over the top of the Turbine Hall but they do not dominate or disrupt layered reading of the Power Station (Refer to **Figure 8.4.7.2**). The two chimneys remain silhouetted against sky and are not crowded by the proposed building height/forms in the southeast corner of the precinct.

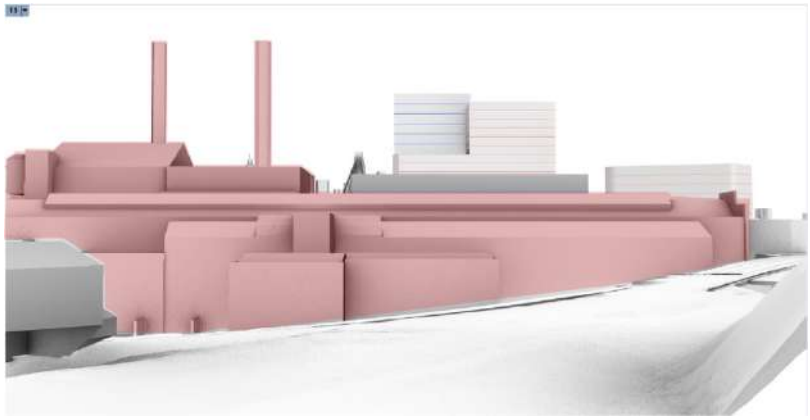


Figure 8.4.7.2: View to the Power Station from Victoria Road. The view of the Power Station and layered relationshiop is not altered. The domninance of the chimneys is retained and they are not crowded by new structures.

8.5 Views within the Precinct

The power station is visible from long views and short views within the precinct and close by. Short views to the power station should also acknowledged and as much as possible.

The masterplan supports views within the site and important connections outside the site and are summarised on **Figure 8.5.1** and below, including:

- Views along the southern entry and south penstock along the former rail tracks terminating on the Ash Handling Shed. This includes a deep setback of new building forms east of the White Bay Power Station public plaza and curtilage to the Power Station
- View along the central axis on the east elevation terminating on the Turbine Hall east entry south of the Boiler House.
- Views to the Silos (Glebe Island) from the southern entrance, (close to the south penstock)
- View connections between White Bay Power Station and the Silos (Glebe Island) are maintained through public open space along the northern area of the Sydney Metro West station building.
- Views from public open spaces including view connections from White Bay and the water's edge. These views will be obscured by the extent of tree canopy
- View from surrounding local streets and approaches is retained. Namely, the buildings on Robert Street are retained as low-level buildings and retains connection with the industrial buildings and character north of Robert Street.
- View to the Harbour Bridge along the rail corridor from the former Rozelle railyards (south entry) is recognised by low level openings in new buildings (within the southern development parcels) and by building footprints in the commercial core.

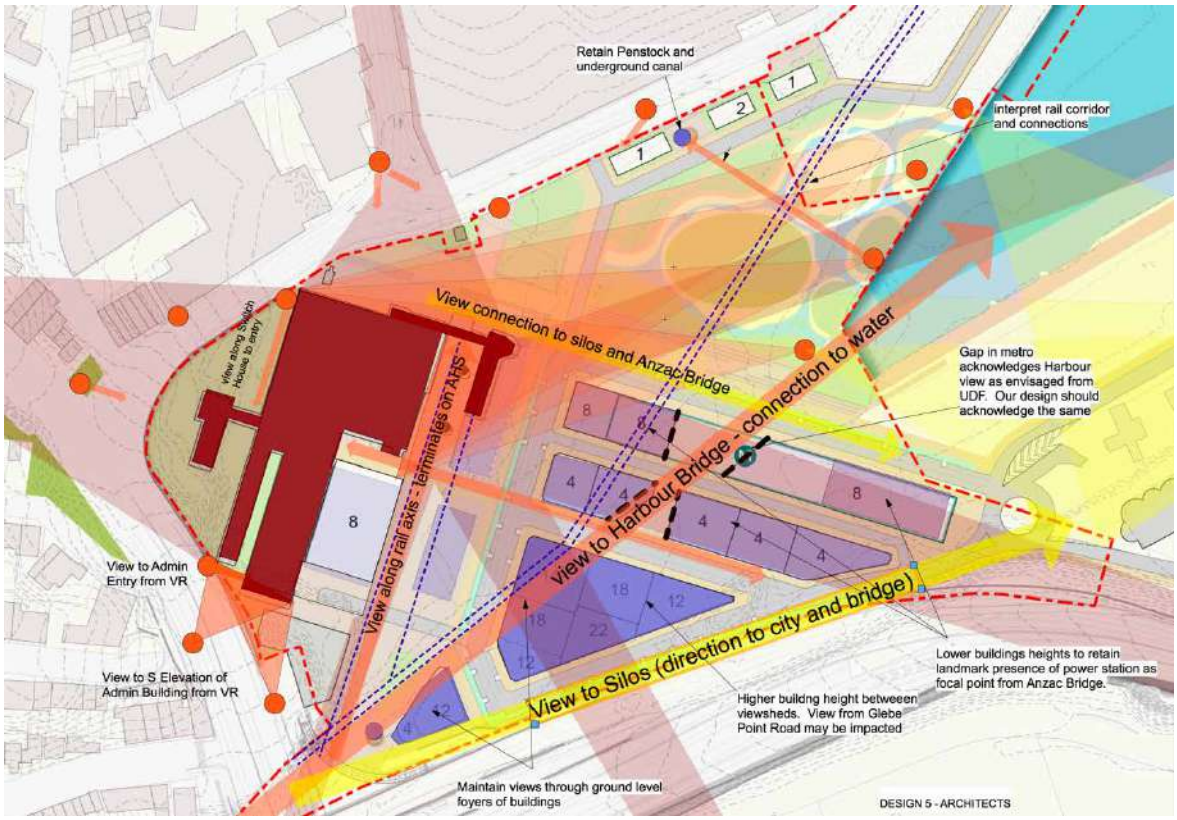


Figure 8.5.1: Viewsheds internally overlaid with proposed heightmaps – White Bay Power Station.

8.6 Landscape

A number of CMP policies and Bays West Place Strategy performance considerations relate to public access and are quoted below followed by comments

Policy 1.12.1
The Landscaping and Site Generally should be conserved and adapted in accordance with Policy 1.4.1.

Policy 1.12.2
Those area of the site which originally acted as or housed storage or industry related facilities should remain as hard landscape areas. Soft landscaping should be confined to those areas which were landscaped as such i.e. north and west of the 1948 Control Room and Switch House and their attendant transformer yards.

Policy 1.12.3
New landscaping should be inspired by and respond to the place and incorporate interpretation of remnant building elements and removed structures.

Policy 1.12.4
Visual and physical links within and through the site should be respected and retained and may be enhanced by new structures and access ways.

The Bays West Urban Design Framework build on these policies as follows:

	CONSIDERATIONS
Starting With Country *Country must be considered as a fundamental of the precinct design from the beginning, through consultation, delivery, care, recognition and engagement with Indigenous culture and language, strengthening the connection with place.*	• Recognise that Country can drive decision making and that identified opportunities have been integrated and expanded upon in manner which recognized the value of these inputs • Utilise indigenous language for naming of significant site elements including streets and public domain spaces in accordance with recommended protocols • Integrate possibilities for honest acknowledgment of the impacts that the ways in which the site has been and continues to be used
Revealing Layers *Embed interpretation and public art in the public domain and built form which will reveal the layers of history in a coordinated way. Express existing and former elements, sub-surface elements and other tangible traces of the past within the precinct structures.*	• Incorporate and interpret sub-surface components (including WBPS coolant water channels and power reticulation), former buildings/transport corridors and former shorelines have been integrated into overall structures
Telling Stories *Deliver a site that integrates, interprets and conserves the wider site heritage elements into a cohesive story that can be understood by future users. Use digital platforms, integrated signage, artwork and remnant artefacts to illustrate the stories across the site.*	• Ensure the quality of an interpretation plan in response to Country and Post-colonial Era elements • Ensure clarity of interpretation proposal in delivering a cohesive story • Deliver interpretation of remnant elements, new public domain and new art proposals and ensure they have been integrated within interpretation proposal

The power station site is generally an altered industrial landscape undergoing dramatic change with recent Sydney Metro West and Westconnex related developments. The site has numerous remnants and historic evidence of earlier site sheds and other structures. Any industrial sites when undergoing adaptive re-use suffer from a process of well-meaning domestication or 'greening'. While this may be appropriate in some areas (refer to earlier discussion on the White Bay Park), it is important that the strength and clarity of the industrial identity of the White Bay Power Station is not diminished or lost.

The landscape ambitions aim for urban tree canopy that shades 30% of the total site and permeable area that covers 22% and provision for a large public waterfront park of approximately 1.8Ha in size. It also includes positive goals to increase biodiversity and use of native species that have existed prior to clearing and industrial use. Some landscape elements use stormwater to provide freshwater environments and intermix with saltwater through series of artificial creeks and ponds before reaching White Bay. As a core objective, new landscaped elements should be inspired by and respond to the place and should incorporate interpretation of remnant and removed structures.

8.6.1 White Bay Park

The heritage impacts of the park are mainly archaeological and erosion of the former industrial and maritime character by the extent of tree cover. Land reclamation in the area occurred as early as the 1940s, however, large scale reclamation in this area would have dated from the early 1900s. From 1912, Sydney Harbour Trust planned broadside wharfage at Balmain East and along the southern shore of Balmain, including Glebe Island. The Sydney Harbour Trust reclaimed more land for additional berths and stores associated with this new project. In the 1950s, a coal loading wharf was established at White Bay and included a large area for the storage and handling of coal (for export) including large conveyors and overhead gantries. These structures were large and impressive and would have made a striking appearance on the landscape (**Figure 8.6.1.1**). Coal exports from White Bay continued until the 1980s when the development of new terminals at Port Kembla led to the transfer of coal away from Sydney Harbour.

Figure 8.6.1.1: Railway access to coal loading facilities at Balmain, c.1960.[47]

One of the core objectives in the Place Strategy include provision for public open space, public access to the foreshore and connecting White Bay Power Station both visually and physically. Several known archaeological and below ground heritage items remain and should be protected and integrated including the White Bay Power Station outlet canal (listed as "inlet" canal) at White Bay including the underground connection with the northern penstock.

The White Bay Park proposes a considerable change to the existing reclaimed land formerly used for manufacturing, maritime wharfage, and coal export with associated rail and transport infrastructure. The proposal will naturalise the landscape which will include a number of islands, creeks and tree canopy rather than retain the industrial character in which the Power Station has commanding presence. The proposal recognises the co-existence of heritage interpretation with the integration of green elements in a changing urban context. Existing heritage features and historic stories include:

- Interpretation of the industrial past, including the spur line and
- Several known archaeological and below ground heritage items remain and will need to be protected and integrated with the renewal, including the White Bay Power outlet Canal opening at White Bay (listed as inlet canal) including the underground connection with the northern penstock (Refer to **Figure 8.6.1.2**)

The proposal elevates themes relating to connection with Country and connection with water and natural systems but include interpretation of the sites industrial themes. White Bay Power Station is a prominent harbourside industrial landmark. The location of the power station is based on access to water for coolant which includes an underground conduit between White Bay and Rozelle Bay. Several CMP policies and Bays West Place Strategy performance considerations relate to the importance of water and are quoted below followed by comments

> ***Policy 1.2.1***
> *Any development being proposed in the vicinity of the White Bay Power Station must carefully consider its bulk, scale and placement in order to respect the visibility and prominence of the power station as a harbourside landmark.*
>
> ***Section 5.8.3 – Water***
> *Although the White Bay Power Station was located close to the harbour for access to its water for cooling in the condensers, it has never had any other form of water access or even a frontage to the harbour, except via the port activity lands to its east.*

[47] Maritime Services Board of NSW.

Given the guidelines in the Sydney Ports Master Plan for the area and issues of customs control as well as Occupational Health and Safety, it is highly unlikely that any access via these areas to the waterfront will be possible in the foreseeable future.

Notwithstanding this, it would still be desirable to establish such an access if this were possible. This would be dependent on the appropriateness of waterfront access to any future use of the power station.

Waterfront connections *Ensure the relationship to the water which each of the heritage elements is retained in a meaningful way. Interpretation of water conduits, channels, heating and cooling systems, dykes and other water systems will contribute to understanding of these layers.*	• Retain WBPS relationship to head of White Bay

The location of the power station close to water is important in cultural heritage terms but is also an opportunity to create public spaces that support the renewal for a vibrant precinct in line with the guidelines and objectives of the Bays West Place Strategy. The zoning for this space is supported as being consistent with the CMP policy and Bay Strategy objectives.

Figure 8.6.1.2: White Bay Park will need to include consideration of important heritage features including the underground White Bay Power Station outlet Canal.[48]

8.6.2 White Bay Power Station East

The east forecourt is a significant open space oriented to align with the spur rail line from the former Rozelle Railyards and is the impetus for the location and orientation of the Power Station (refer to Section on Rail Corridors).

Areas in the immediate vicinity of the power station will retain industrial character including the southern entry, White Bay Power Station Plaza (area immediately to the east of the Power Station) and the north forecourt. The east plaza will offer benefits for open space, orientation and internal

[48] Image source: Cox and Turf: Public Domain Concept Master Plan. Page 186-187. Design 5 markup.

views which are supported. Buildings in the commercial and mixed-use core will be generously set back to enable increase curtilage and views along the east elevation of the Power Station and interpretation of spur lines. The key public domain outcomes detailed in the Master Plan include several heritage objectives which are supported as having a heritage benefit:[49]:

- *Key visual connections north-south*
- *Equal access walkways*
- *Opportunity for event and amenity in plaza, with generous curtilage on the east of White Bay Power Station*
- *Retention of existing spur lines*
- *Expression and interpretation of the original shoreline*

8.6.3 White Bay Power Station North

As detailed in the Conservation Management Plan, each elevation of the power station complex presents a different characteristic of the place that relates in a different way to its context. The north elevation is a massive scale compared to the relationship of smaller structures on Robert Street and surrounding area. The building has been the de facto entry to the site for the past forty years and the north elevation is the iconic diagram of the White Bay Power Station when viewed from Robert Street and Mullins Street. The open area at ground level retains significant above ground and below-ground structures including the Amenities block, Beattie Street Stormwater Channel, the cooling water canal and the Sewage Pumping Station (technically outside the study area but is inherently significant to the space).

A challenge for this area is the site is impacted by significant flooding, particularly the north and east elevation of the White Bay Power Station during storm and surcharge from the Beattie Street stormwater channel (Refer to **Figure 8.6.3.1 and 8.6.3.2**). The flood path surcharge runs along the northern frontage of the White Bay Power Station. The proposal is to raise the northern forecourt by from approximately relative level of 2.2m to relative level of 3.7m.

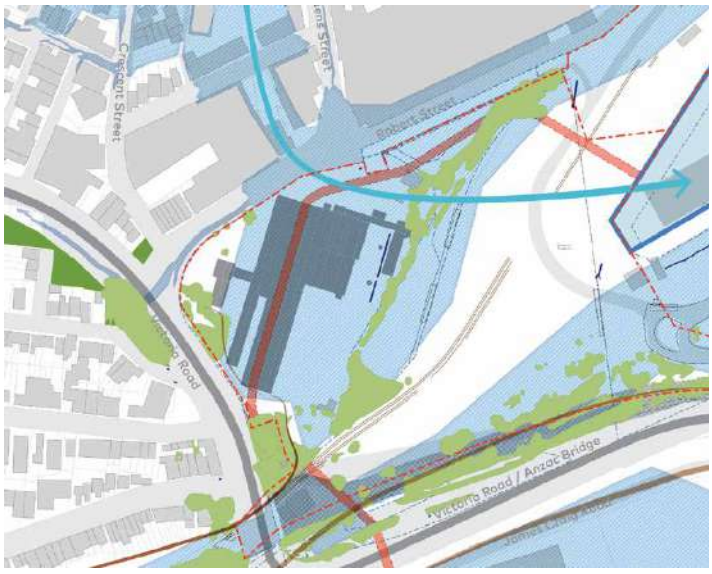


Figure 8.6.3.1: White Bay Power Station precinct showing 1 in 100-year flood areas.[50]

Figure 8.6.3.2: Recent flooding along the northwest corner of White Bay Power Station

The additional height will be created by terracing an "urban platform" that captures overland flood water underneath the terraced area and discharge to White Bay through White Bay Park.

[49] Master Plan. Page 154-155
[50] Cox and Turf. Bays West Stage 1 Draft master Plan and urban Design Framework: White Bay Power Station (and Metro) and Robert Street Sub precinct Page 25.

The key public domain outcomes detailed in the Master Plan include several heritage objectives which are supported as having a heritage benefit:

- *Generous equal access pedestrian walkways in east-west and north-south directions*
- *Strong visual connection to the White Bay Power Station - coal loader shed used to direct pedestrian movement*
- *Shaded soft sunken spaces, with endemic planting and freshwater*
- *Retention of existing spur lines*

In addition to the above, the proposal will need to retain and respect other above ground and below ground heritage features including the amenities block at the western end.

8.6.4 White Bay Power Station West Gardens

While in operation the only area which would have had any soft landscape elements would have been the area northwest of the 1948 Switch House and Control Room and its adjacent Transformer Yards (**Figure 8.6.4.1**). This area was the 'front garden' of the Power Station and was planted with various fruit trees and shrubs, tended by the workers themselves. All other areas were hard industrial surfaces and service and storage areas. The key public domain outcomes detailed in the Master Plan include several heritage objectives which are supported as having a heritage benefit:

- *Integrated pedestrian movement into heritage fabric*
- *Fine grain outdoor rooms*
- *Shade from western sun by endemic tree planting*
- *Retention and reuse of heritage elements.*

Figure 8.6.4.1: The western forecourts was once the "front garden" of the Power station and planted with various fruit trees and shrubs tendered by the workers themselves. There is an are opportunity for landscape and public access in this area.

Figure 8.6.4.2: View of White Bay Power Station showing manicured lawns and gardens from the southeast. Circa 1972. (Source: Pacific Power).

8.7 Public Access

A number of CMP policies and Bays West Place Strategy performance considerations relate to public access and are quoted below followed by comments

> ***Policy 1.1.6***
> *White Bay Power Station must retain a use or uses, which allow reasonable public access to, and interpretation of, those significant spaces, elements and machinery that represent the component parts of the power generation process. Such access should not place significant fabric or qualities of these areas at risk of alteration, damage or removal.*
>
> ***5.8.3 Public Access***
> *All access points should preferably utilise historical or significant entry points. New entry points should be located to strengthen and not confuse an understanding of the significance of the place. The design and*

configuration of any future access points should be consistent with the former industrial use of the place and be clearly marked without competing with or confusing the character and significance of the place.

Policy 8.1
All public access points should preferably utilise historical or significant entry points. New entry points should be located to strengthen and not confuse an understanding of the significance of the place.

The design and configuration of any future access points should be consistent with the former industrial use of the place and be clearly marked without competing with or confusing the character and significance of the place.

Policy 8.2
Pedestrian access to the site is via the original bridge to the main entry of Victoria Road (this entry is now locked for security) and the single major entry from Robert Street.

Pedestrian access to the site should be encouraged but depending on future use should be controlled.

The Bays West Urban Design Framework build on these policies as follows:

	CONSIDERATIONS
Public Access to Significant Features *Provide public access to significant parts of Bays West landmarks that define its character and enable community engagement. Ensure that the public experiences are around the role and significance of these elements and integrate with any interpretation framework.*	• Enable public access to the WBPS to significant features deeply connected to the original operation of WBPS • Integrate public access areas into overall interpretation framework which is linked into the master planning and public domain design across the site
Public Domain Integration *Integrate key public domain spaces in and around significant heritage landmarks and ensure public access. High-quality, welcoming and accessible spaces that enable engagement with and access to the rich cultural elements of the site, will provide great benefit to the public.*	• Deliver high quality logical and legible public access points to publicly accessible areas and integrate into public domain layout • Activate public domain zones associated with WBPS uses and design proposals
Public Offering *Create a public offering within the significant parts and around significant heritage assets at Bays West to enable social, cultural and community benefit. Part of the heritage assets should consider public access and support for creative and cultural institutions.*	• Ensure publicly accessible uses within WBPS to designated public access areas • Provide public access provisions (expansion of access to significant features and integration of community and cultural facilities prioritized) • Allow for publicly accessible tours to all major zones of WBPS – particularly to enable access to all significant spaces where machinery is still located

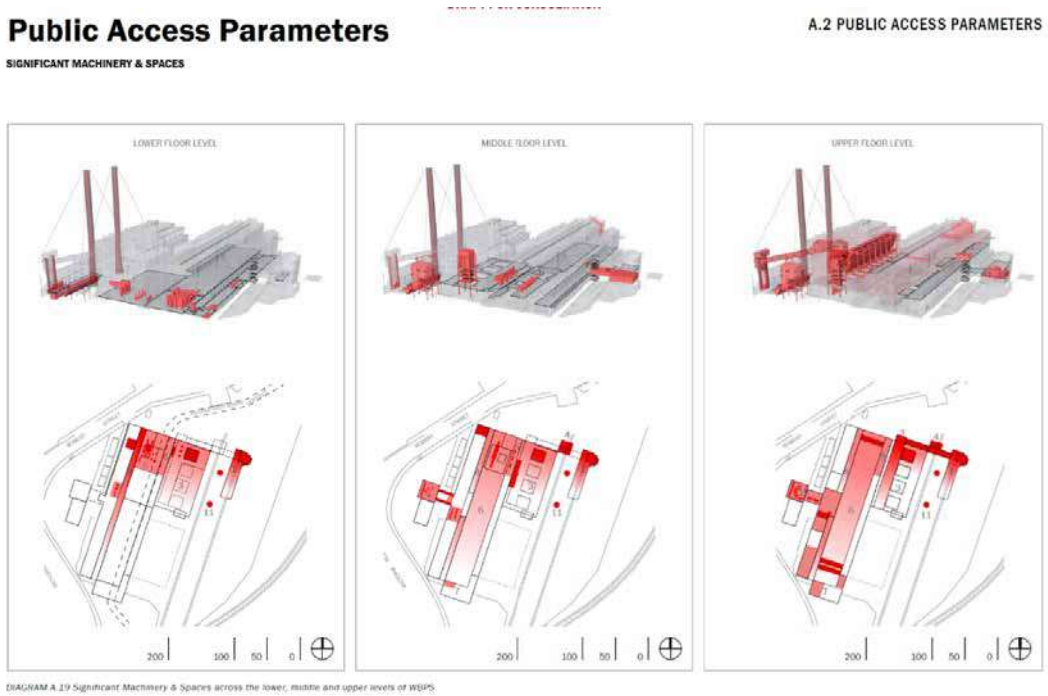


DIAGRAM A.19 Significant Machinery & Spaces across the lower, middle and upper levels of WBPS

Figure 8.7.1: Public Access was detailed in the Bays West urban Design Framework. Areas detailed in red should have a higher level of Public Access and public engagement.

The proposed rezoning nominates the White Bay Power Station as SP1 – Special Activities which will support a public reuse and public access. Existing entrances and openings to WBPS should be used first rather than creating new openings. Public access should be retained to significant internal spaces including spaces that have significant machinery (Refer to **Figure 8.7.1** showing suggested public access to the Power Station detailed in the Bays West urban Design Framework).

The types of existing entries vary across the site in terms of scale and the type of uses being public or private:

- **Victoria Road:** Original entry for workers and visitors to WBPS to the Admin building and the Entertainment Hall. These spaces are more isolated and offer smaller scale independent uses in the Administration building and the Entertainment Hall.
- **West Elevation:** Entry to the stair and lift shaft on the ground floor west elevation to the Switch House provides access to the Switch House and Control Room. The types of uses in these spaces could be isolated from other public uses of the power station such as offices, education type uses including classrooms, small community spaces or similar uses.
- **North Elevation:** Limited ground floor access through existing roller door openings but provide direct ground floor access to these large spaces.
- **East elevation:** Opportunity to use large ground floor entries to major spaces including the Boiler House and the Turbine Hall. Potential for public access and uses that are predominantly public focus.
- **Coal Handling Shed:** The shed is in a key location for public use, orientation and public entry point to the site. Existing large openings on the north and south, used for trains should be retained. New openings on east and west could be made to encourage a more porous and open ground plain that engages with the public open spaces around it while respecting its industrial character and material.

The public access objectives detailed and supported by the Master Plan are supported

Figure 8.7.2: Ground level entry to the Boiler House at the east

Figure 8.7.3: Entry from Victoria Road to Admin Building and Entertainment Hall

Figure 8.7.4: Entry to the Turbine Hall from the central axis.

8.8 Rail corridors

A number of CMP policies and Bays West Place Strategy performance considerations relate to public access and are quoted below followed by comments

> ***Policy 1.1.8***
> *The significant historic, technical and contextual associations between the White Bay Power Station and other places must be retained and respected, viz. its relationship to the port and railways*
>
> ***Section 5.8.3 Rail:***
>
> *Historically the rail access and connection to the site is the most important of all. The rail network is the reason why the power station was built and where it is sited. Unfortunately, the tracks leading back to the Rozelle marshalling yards have been taken up but the cutting and access way survives, with some later added fill to block access.*
>
> *Rail access could be reinstated along its original route both for interpretation purposes as well as servicing and maintenance. This would need to be negotiated with both Sydney Ports and the NSW Rail Corporation. Issues of access security will also require addressing to ensure safety and security of both the power station and neighbouring sites.*
>
> *The area to the east of the site is also approved as part of a mass transit rail system (metro) which, if constructed, would provide a mass transit station close to the Power Station, substantially broadening viability and possibilities for reuse of the site.*

Revealing Layers *Embed interpretation and public art in the public domain and built form which will reveal the layers of history in a coordinated way. Express existing and former elements, sub-surface elements and other tangible traces of the past within the precinct structures.*	• Incorporate and interpret sub-surface components (including WBPS coolant water channels and power reticulation), former buildings/transport corridors and former shorelines have been integrated into overall structures

The existing and former historic rail infrastructure, cuttings and rail alignments retain exceptional cultural significance to the local area in demonstrating the interdependencies of the former Rozelle Rail Yards, Glebe Island and White Bay. Rail infrastructure dating from the early to mid 20th Century has enabled the industrial and maritime expansion of the precinct and is the impetus for grain and coal export, coal delivery, the location and orientation of the White Bay Power Station (aligned with the spur rail line), wharfage and a vital embarkation of military personnel and equipment during WWII (Refer to **Figure 8.8.1 and 8.8.2** for former rail lines and cuttings in the study area captured prior to Westconnex and Sydney Metro West construction work).

The most obvious extant evidence, with potential for interpretation is the rail lines and spur ways connecting Rozelle Rail Yards with the White Bay Power Station, White Bay and Glebe Island. This rail network was connected to the broader Sydney rail network that included other industrial centres including the former Darling Harbour goods yard and the metropolitan goods line (now disused). Several heritage items are associated with the rail lines including, but not limited to; the White Bay Power Station (c1917); The Grain Silos (c1970); the Victoria Road Bridge (c1913); and the Catherine Street Bridge, Lilyfield (c1910).

Many of the lines have been removed with current Sydney Metro West development and the Westconnex development. Regardless, retention and interpretation of rail lines and rail corridors through the precinct is encouraged and supported.

Figure 8.8.1: Rail connections to the Harbour Bridge. (Design 5 photograph prior to Westconnex and Sydney Metro West construction work).

Figure 8.8.2: Rail connections to the Power Station. (Design 5 photograph prior to Westconnex and Sydney Metro West construction work).

8.9 Impacts to heritage items.

8.9.1 Sewage Pump station

The sewage pumping station has above and below ground facilities. Technically outside the study area boundary, it is very much integrated and important element on the northern forecourt. The proposal for the pumping station will be to retain and integrate as part of the northern forecourt. The surrounding fences should be removed and the area around to made safe so that it is better integrated with the public realm.

Works to the Sewage Pumping Station will require consent by the relevant local Council (Inner West) under the EP&A Act as well as Sydney Water who have the responsibility of ensuring that items registered under Section 170 are appropriately maintained and managed. There are no mitigation measures identified as part of the masterplan and rezoning works.

8.9.2 White Bay Inlet Canal (outlet canal)

The White Bay outlet Canal (listed as "inlet" canal) should be retained, conserved and interpreted as part of the implementation of the Master Plan.

8.9.3 Impact to the former Glebe Island Wheat Silos

The Glebe Island silos are a major and well-known landmark in Sydney. They are visible from a range of vantage points and foreshore area in and around Balmain, Annandale and Glebe. The Glebe Island Silos Heritage Assessment undertaken by Urbis[51] identifies the most significant visual curtilage zone for the Silos (**Figure 8.9.3.1**) is predominantly of the local scale and includes parks and foreshore areas north of the Anzac Bridge where the long façade and views from the west from the White Bay Power Station precinct including:

- From Robert Street and northern forecourt of White Bay Power Station.
- From Victoria Road from the south entry to the precinct, allows a view of the south-western end of the Silos to be seen upon entering the precinct and along the new precinct road
- Views along the White Bay.

The draft Master Plan sets the following requirements for the Silos:

- *The silos should retain visual relationship with key surroundings and be seen from White Bay Power Station, the western shore of White Bay and the Victoria Road approaches on the western side of Anzac Bridge.*

[51] Urbis. Prepared for UrbanGrowth NSW. *Glebe Island Silos, Heritage Assessment*., February 2017.

- *New buildings within the Sub-precincts may be constructed, however, they should be lower in height than the silos and respect views out lined in the above dot-point.*

Based on a balanced approach to curtilage and retention of viewsheds, not all views from the precinct can be retained. However, the impact across identified significant viewsheds have been considered in regard to building massing. Views to the Silos from key public domain zones, orientation points (including the south entry and the promenade north of the Sydney Metro West station), White Bay Park and the White Bay foreshore is retained. The retention of views is consistent with the Place Strategy and the Heritage Assessment for the Silos.

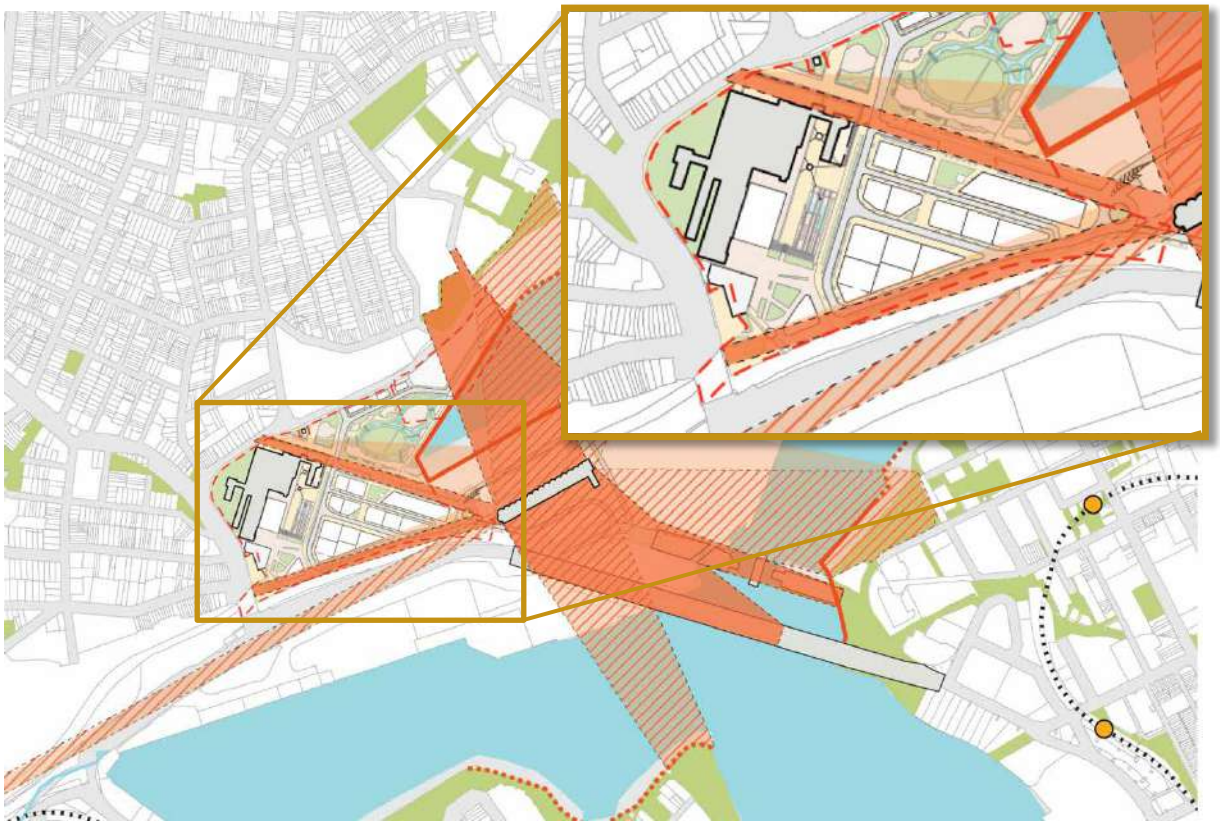


Figure 5.9.3.1: View study to the Silos from public vantage points (Draft Master Plan. page 127 Design 5 markup).

8.9.4 Penstocks and canal

The precinct includes both the north and south penstock which are related to the underground water canal of White Bay Power Station and part of the circulating water system that dates from 1913. The north penstock located along Robert Street is included within the SHR listing of the Power Station. However, the southern penstock is not formally captured on any heritage listing. The Statement of Significance for the north and south Penstock is quoted in Section 6 of this report.

The southern penstock is currently covered by the Westconnex slip road and is not accessible. The following heritage conservation and management policies are recommended:

- The penstocks should be included in a formal heritage listing. (Currently only the north penstock is shown inside the White Bay Power Station (SHR) curtilage boundary while the south penstock is outside the map). Refer to map on the White Bay Power Station listing in Section 6 of this report.
- Both penstocks are retained in the Master Plan and should be conserved and interpreted in accordance with the Interpretation Strategy. This includes re-exposing the south penstock (currently covered by the Westconnex slip road), and exposed as per the Master Plan.
- The penstocks canal should be investigated or intactness and condition. A report should be prepared in consultation with a heritage consultant to determine an appropriate conservation management strategy for the canal (refer to inlet and outlet canal also).

The proposed Master Plan will have positive heritage impacts on the retention and interpretation of the penstocks to a range of audiences that will have access to the precinct.

8.9.5 The Valley Heritage Conservation Area 'C7'

The Valley Heritage Conservation Area is located along the northern interface of the precinct, north of Robert Street and includes existing brick industrial buildings, the new Bunnings store on the corner of Mullins Street and residential dwellings. The Master Plan and planning controls proposed along the northern interface of Robert Street include low to moderately scaled buildings and variety of public open spaces. The dominance of White Bay Power Station and the northern forecourt will be retained (refer to earlier discussions). It is not anticipated that the proposals contained in the Master Plan or planning controls will have any adverse heritage impact on the Valley Heritage Conservation Area. The proposal will have positive aesthetic impacts and improve vies and access to the area and White Bay. It is recommended that new buildings, structures and landscape features in the vicinity be sympathetic to the heritage character of the conservation area.

8.9.6 The Hornsey Conservation Area 'C11'

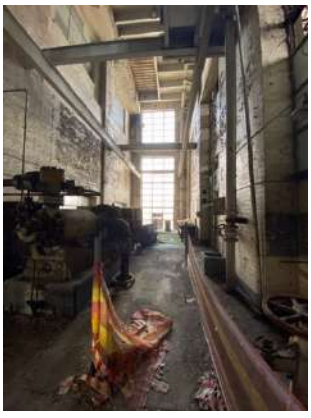
The Hornsey Conservation Area is located on the west side of Victoria Road. Due to the distance of the HCA to the study area, it is considered the Master Plan and planning controls will have neutral to positive heritage impact on the HCA. Heritage benefits are related to the reuse and access to the former industrial area.

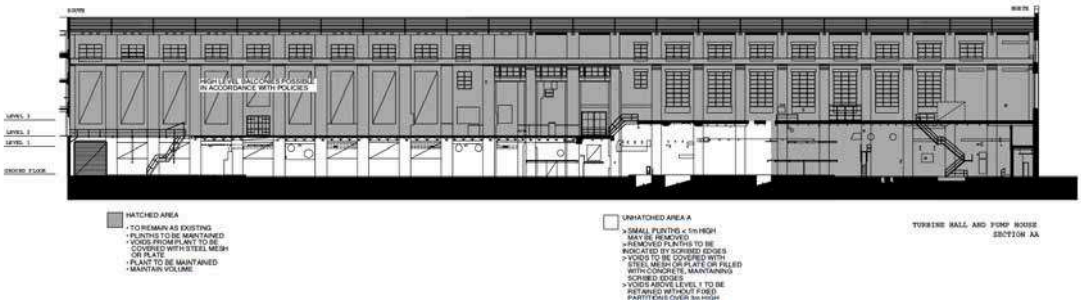
8.10 White bay Power Station Complex

The following polices relate to each building followed by comment. Relevant specific policies are noted in the table which must be read in conjunction with high-level general policies and supporting discussion.

Building	Significance	Specific Policies	Discussion
Coal Handling Shed	High and Exceptional	1.2.9, 1.5.1, 1.5.2	The CHS will be highly visible and in a prime location within the new public domain close to the Metro station. The coal handling shed should be retained as evidence of one of the site's principal operational systems and conserved as such. The machinery and equipment are to be retained and conserved in situ to enhance an understanding of the operation of the power station in its entirety. The master Plan call for new lean to the east of the building which will reinstate earlier configuration and provide added opportunity for use and activation. The proposed lean-to should be in similar form and mass of the former demolished coal store and is supported.  **Figure 8.10.1:** Coal Handling shed c.1953.

Building	Significance	Specific Policies	Discussion
Ash Handling Tower	High and Exceptional	1.6.2	The ash tower is a strong visual element in the identity of the power station and an important part of the operational system of the place. The Ash Handling Tower will be retained and remain prominent structure terminating the north end of the coal handling plaza and visually dominant from north aspects.  **Figure 8.10.2:** Coal Handling shed c.1953.
Two chimney Stacks	Exceptional	1.2.7, 1.6.1	The Chimneys at White Bay Power Station are located in the Coal Handling Plaza and were constructed as part of the what the CMP describes as the "Third Phase" of construction which included renewal to modern electrical generation machinery in the early 1950s. The two chimneys were built in similar detail but in two stages which coincided with the transfer of ownership from the Railway Commissioners to the Electricity Commission of NSW in 1953. As a result, the northern chimney, together with the northern side of the current Boiler House, and turbine generator were completed in 1953 under the Rail Commissioners ownership. The southern chimney was completed five years later in 1958, including the south side of the current Boiler House and turbine generator in 1958 under the Electricity Commission of NSW ownership. The two extant chimney stacks are a major contributing element to the visual identity of the White Bay Power Station and should be retained in situ and conserved and interpreted as an integral part of the significance of the power station The Master Plan will retain the chimneys as iconic landmarks within the precinct. New buildings are constructed sufficient distance to not crowd them or diminish their landmark status (refer to discussion on viewsheds). Guy ropes to the chimneys should remain but those ropes that extend out proposed public roads could be relocated or incorporated onto new structures.
Boiler House	High and Exceptional	1.7.1, 1.7.2, 1.7.3	The Boiler House is a massive brick, steel and reinforced concrete structure built in two stages 1953 & 1958. It is the third Boiler House at the station and stands on the site of the first. The second one, formerly to the south, has been demolished. Adjacent to the Boiler House is a lower steel and concrete tower structure for handling the waste ash. The building retains one complete boiler at the north end while the internal voids identify the location of the other three

Building	Significance	Specific Policies	Discussion
			original boilers that have since been removed. The intent of any new floor space or structures in the Boiler House should be to interpret the mass and voids for the original boiler machinery and their vertical continuity from floor to roof. The voids in the floors could be closed to create a floor space which would provide an opportunity for a variety of uses. New structures in the Boiler House should be undertaken in accordance with the CMP and policies. The Master Plan identifies possible reuse for district community and library hub, cultural spaces and flexible event spaces. The Boiler House is suitable for a variety of reuse options but uses that take practical and effective use of the space are encouraged.  **Figure 8.10.3:** Potential new structures inside the Boiler House (CMP)
Pump House	Exceptional and High	1.8.1, 1.8.2, 1.8.3	The Pump House is a long, tall and narrow space between located between the Boiler House and the Turbine Hall. The floor levels align with the Boiler House and Turbine Hall. Various pumps, controls and water tanks remain in the northern part. However, equipment has been entirely removed from the southern half adjacent to the now demolished second Boiler House. The south half offers considerable opportunity for adaptive reuse in accordance with the CMP and its policies.  **Figure 8.10.4:** North end Pump House  **Figure 8.10.5:** South end Pump House

Building	Significance	Specific Policies	Discussion
Turbine Hall	Exceptional	1.8.4, 1.8.5	The Turbine Hall is an exceptionally significant structure and space with exceptionally significant machinery, and it can be adapted for a new use or uses as shown on Figures 5.1.8.3 & 5.1.8.4 of the CMP To retain and respect the significance of the Turbine Hall and at the same time allow its adaptive re-use, the guidelines and policies in the CMP should be followed.  **Figure 8.10.6:** View of the southern half of the Turbine Hall.
			 **Figure 8.10.7:** Extract of Figure 5.1.8.3 of the CMP showing volumes to be retained.
Admin. Block	Exceptional and High	1.9.1	The Administration Block is located at the far south end of the Turbine Hall. The Administration Block is divided over four levels that house staff facilities, such as, showers, lockers, mess rooms as well as offices including executive offices and laboratory on top floor. For any visitor to the Power Station, and for many of the "clean" staff, this was the point of entry to the site. As such, the interior of the entry area is finely finished with polished Queensland Maple, tessellated tiled floor, pressed metal ceiling and smart lift and stair. Externally, the is entry is via bridge from Victoria Road. The public entry can be retained by Victoria Road and should retain a visual relationship with the Turbine Hall, particularly on level two entry.
Switch House	Exceptional and High	1.10.1, 1.10.2	Built in two stages, the first of brick in 1912-1917, and the second of reinforced concrete in 1927, this structure has been much altered and reconfigured over time. The building's west and south elevations were, and still remain, one of the most visible elements from Victoria Road. It is the 'public face' of the power station.

Building	Significance	Specific Policies	Discussion
			It retains a small number of highly significant spaces including the remains of the original 1917 control room. Some highly significant machinery and fittings remain in situ from the power reticulation, electrical supply and auxiliary power supply systems. To retain the significant elements and values of the Switch House while allowing its adaptive re-use, the Conservation Management Plan guidelines and policies should be followed.  **Figure 8.10.8:** Roof terrace at the north end could be adaptively reused with new level.
Transformer Alley	Exceptional and High	1.10.1	The open space between the Turbine Hall and the Switch House is a very evocative industrial space. Tall, long and narrow and bridged by large pipes, ducts and gangways, this is a tight service laneway space of a purely utilitarian nature. It is, nevertheless, an important spatial experience. It once housed a row of transformers at the ground level and evidence of these survives, with the rail tracks used to move these still extant. The space should be retained and used in accordancw with the CMP policy which calls for the area to be kept as an open space but could be roofed with a clear material and adapted to house lifts, stairs and other equipment. In addition, the space should retain the material and character as an external area.  **Figure 8.10.9:** Transformer Alley

Building	Significance	Specific Policies	Discussion
Entertain-ment Hall	Exceptional and High	1.10.1	The Third Floor - 1927 Entertainment Hall (access: Victoria Road entrance bridge) The Entertainment Hall is accessed from the southe end of the original main entry bridge off Victoria Road. It reteains original perimeter seating, painted wall murals, light fittings, pin ball machines, stage and tea room. The space should be retained and conserved in accordance with CMP policy. It may be adapted for use as a social activity space, preferably public use and kept in its existing configuration with its simple and bare finishes. Windows may be double glazed, skylights added, additional doors added to achieve compliance if the significant elements of the space are retained and respected. For example, some of the windows may be extended to the floor to access exits or balcony areas but the painted murals between them and the wall seating should be retained and conserved. An opening in the north wall could be made to access the adjacent battery room to be used for ancillary uses (amenities, kitchen etc) to support the reuse of the Entertainment Hall. The open truss ceiling should be retained, as well as the lights and other fittings. New services may be added to enable viable new uses.  **Figure 8.10.10:** Entertainment Room during Power Station (Pacific Power).
Control Room	Exceptional	1.11.1, 1.11.2	The Control Room is the clearest and most intact physical expression on the site of the monitoring, measuring and total control which was a major focus of activity during the station's operation. The curved and ordered arrangement of the control panels, dials and switches all speak eloquently of the power and efficiency of the machine age. The cable room and associated cable tunnels immediately below the control room are the underbelly, the intestines or nervous system of the brain above. This space should be retained and conserved in its existing configuration with all machinery, fittings, furniture, documents, signage and finishes in situ.

Building	Significance	Specific Policies	Discussion
			Adaptive reuse is therefore very limited in these spaces but may be more flexible in the adjacent space of the 1948 Switch House in accordance with the guidance and policies in the CMP.

Figure 8.10.11: Control Room.

Transformer Yard

This area is traversed by rail tracks for the movement of transformers and equipment and these tracks should be retained.

Each transformer was separated by a large brick wall, most of which survive. As an element in the landscape here, they strongly define and articulate this area. These blades should be retained but could be used as the extremity of new building envelopes which fill the spaces between the walls. The blade walls should still dominate and should project beyond the wall face or roof of new structures. These new structures should be lightweight, of steel and glass, and machine like in their character.

The floors of the existing transformer spaces may retain contaminated material and an added new structure over these may provide a solution to this.

8.11 Interpretation

A Heritage Interpretation Strategy is prepared for the precinct which is intended sit alongside the Master Plan and guide the preparation for further plans and designs to convey and interpret the significance and the history of the precinct. For the White Bay Power Station, a Heritage Interpretation Strategy must be followed as an integral component to the reuse of the place and forms one of the Conservation Management Plan policies:

> ***Policy 9.1***
> *An Interpretation Strategy should be commissioned as the first stage of an interpretation plan, as an integrated aspect of the development and conservation of White Bay Power Station.*[52]

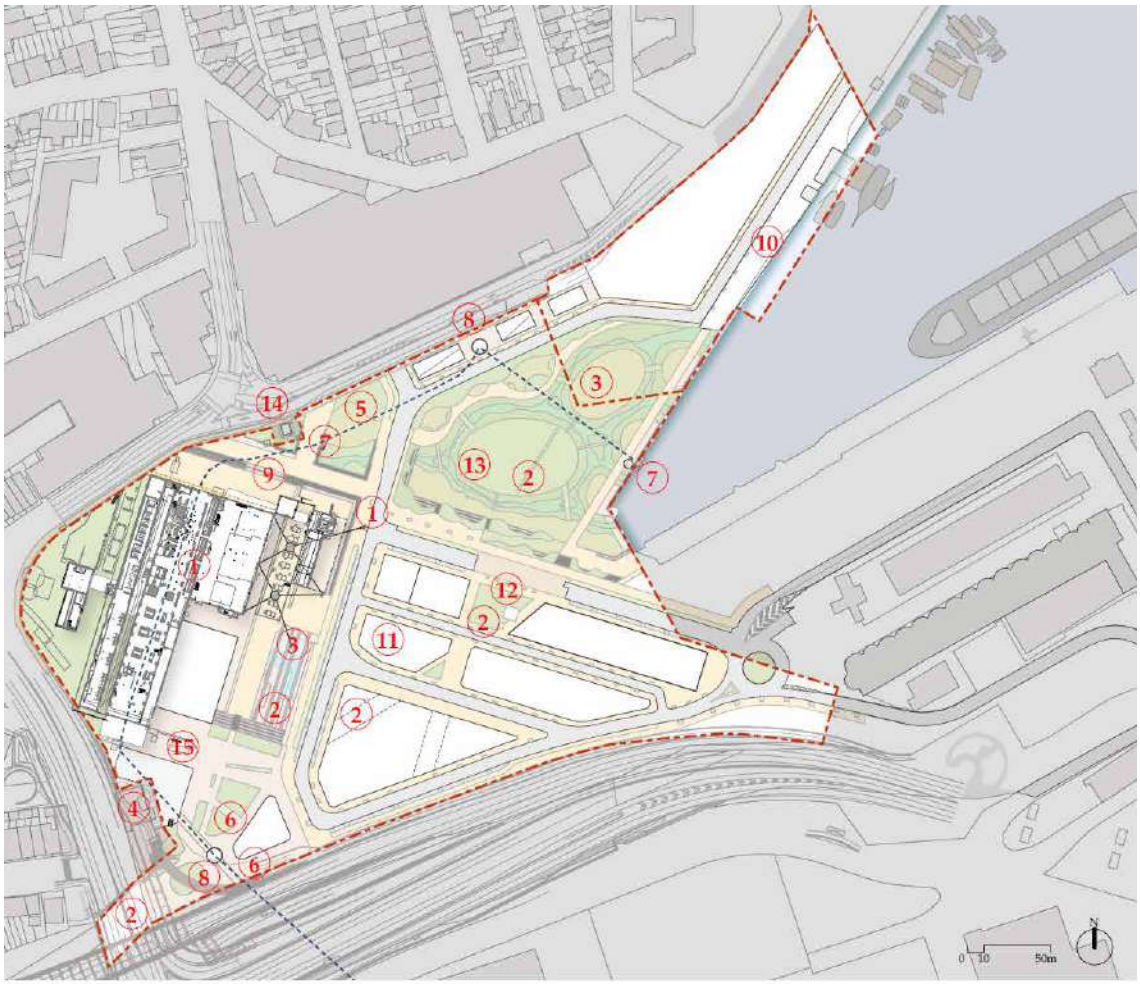
The aim of having a Heritage Interpretation Strategy for the precinct includes:

- *Respond to the Master Plan and guide the preparation of further plans and designs to convey and interpret the significance and the history of the precinct.*
- *Open new perceptions and perspectives so that people are inspired to visit and experience the place. This report will also aim to recommend methods to communicate the historic significance of the site.*
- *Acknowledge the Aboriginal cultural heritage values of the precinct and provide strategy to interpret the Aboriginal cultural values relevant to the site.*
- *Identify themes and provide recommendations for interpretation material*
- *Identify and recommend locations for the interpretation of the themes identified where possible.*
- *Identify and recommend how the Interpretation Strategy is to be implemented.*

Existing and historic structures in the precinct, including the White Bay Power Station, former rail lines and landscape topography will offer dramatic and genuine opportunity to display and convey heritage places in a meaningful way. Works to the place should be carried out in such a way that retains as much significant fabric and evidence of early use as possible to allow the building to simply speak for itself. Heritage Interpretation opportunities identified in the precinct and at the Power Station are detailed in **Figure 8.11.1 and 8.11.2** and include:

- Aboriginal use and pre-European contact
- Natural forms, estuaries and ecosystems including the use of indigenous plant species.
- Establishment of early industry to the harbour
- Worker Housing
- Land reclamation.
- Transport and rail
- Coal Export,
- Social history
- Power generation
- Connection to the water
- Use of the precinct in defending Australia.
- Decline of industry.

[52] Design 5 – Architects. White Bay Power Station, Conservation Management Plan. Volume II, page 187

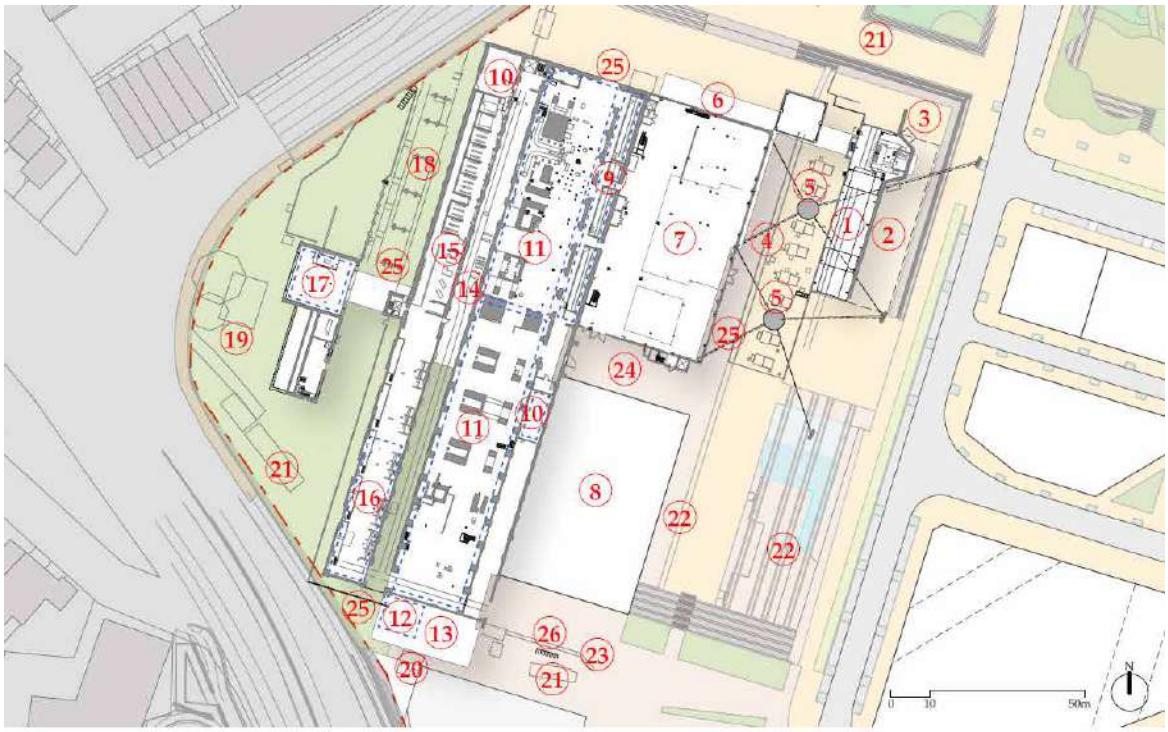


Evidence for interpretation / Themes:

1. White Bay Power Station (Retain, reuse and interpret in accordance with the CMP Policies and Significance) / Power generation, working harbour, social histories
2. Rail corridors - retain view / Transport of coal from mines and connecting rural Australia to the world
3. Changes to landscape and environment / Ecological heritage and land reclamation
4. Former White Bay Hotel / Social history
5. Housing for workers / Subdivision, Social History, working class identity
6. Visual connections to White Bay Power Station, Silos, Sydney Harbour Bridge / industrial and transport Interdependencies
7. Coolant water channel / Power generation
8. Penstocks for coolant water / Power generation
9. Beattie Street stormwater / Overland flows, ecological heritage natural watercourses and industrialisation
10. Wharfage / Maritime industry, export trade, working harbour
11. Former Industrial structures (Engine Shed) / Early industrial development
12. Former Industrial structures (Steel mill) / Early industrial development
13. Sweet Water and filtration / Ecological heritage, Aboriginal stories
14. Sewage pumping station / Housing, sanitation and urban development
15. Natural rock cutting / Ecological heritage and land reclamation.

Figure 8.11.1: Recommended Heritage Interpretation in the precinct.[53]

[53] Extract from the White Bay Power Station and Robert Street Heritage Interpretation Strategy, Prepared by Design 5 – Architects, dated 15 February. Pag 63.



Evidence for interpretation / Themes:

1. Coal Handling Shed: (possible Interpretation Centre - entry to the power station) / Interpret power generation and energy from coal, working conditions
2. Former Storage Area: reinstate covered coal storage area
3. Coal wash pit: proposed to be removed - Interpret outline of coal wash pit
4. Ash Handling Yard - Evidence of plinths for removed ash precipitators
5. Chimneys - Landmark and focal point for viewsheds. Symbol of industry and pollution
6. Coal conveyor - possible public access by tour guide
7. Boiler House: Retain machinery and control rooms. New structures in accordance with CMP policy. Working conditions - loud, dirty, heavy
8. 1927 Boiler House: Reinstate form and scale of removed structure as per CMP policy
9. Pump House. Retain and interpret machinery
10. Workshops. Retain and interpret spaces, working conditions, social history
11. Turbine Hall. Retain and interpret machinery, volumes and view lines. Working conditions - clean, symbol of technology and advancement. Interpret phases of construction
12. Administration Building: Interpret original entry as the Face of the Power Station
13. Administration Building: Working conditions, amenities, Social History, Executive offices and laboratory testing
14. Transformer Alley: Retain transformer, rail tracks, gantries, void and external feel
15. Switch House: Retain machinery. High voltage area and dangerous. Power distribution
16. Entertainment Hall (top floor): Social history, events, working conditions
17. Control Room: Retain fully for interpretive purposes. Command, control and distribution
18. Substation: Use after power station closed
19. "Front Garden": Reinstate plantings and gardens. Interpret social histories of workers
20. Demolished Canteen: Interpret outline
21. Demolished lightweight structures: Potential archaeological interpretation
22. Railway corridors: interpret coal and ash handling
23. Stone cutting: land reclamation
24. Central axis: Possible access to turbine hall
25. Retain and Interpret original access points
26. Cable tunnels

Figure 8.11.2: Recommended Heritage Interpretation in the precinct.[54]

[54] Extract from the White Bay Power Station and Robert Street Heritage Interpretation Strategy, Prepared by Design 5 – Architects, dated 15 February. Pag 62.

8.12 Better Placed Design Guide- Heritage

The Better Placed is an integrated design policy developed by the Government Architects Office with the stated aims as follows:

> *Better Placed provides a policy framework to meet collective aspirations, needs and expectations for the places in which we live and work in NSW. It advocates for good design as an efficient way to mitigate risk and respond to the key challenges facing NSW, including health, climate resilience, rapidly growing population, changing lifestyles and demographics, and infrastructure and urban renewal.*
>
> *Better Placed aims to enhance all aspects of urban environments in NSW by guiding the design of better places, spaces and buildings, and thereby better cities, towns and suburbs. Better Placed establishes the value of good design and outlines the processes required to achieve it, from concept through to construction and maintenance.*

A key component of design for and within a heritage sensitive place is to be respectful of the site's history, its evolution and significance of the place and context. It should provide another layer to the long history of the site without erasing earlier layers. Well considered new work enables the place to have an ongoing viable life while responding to the contemporary needs of the city. Better Placed Heritage quotes the following guidance for new work in sensitive and heritage contexts as set out in the Burra Charter:

> **"An important factor in the success of new work is the quality and sensitivity of the design response. New work should respect the context, strength, scale and character of the original, and should not overpower it. The key to success is carefully considered design that respects and supports the significance of the place ... Well-designed new work can have a positive role in the interpretation of a place."**
>
> **— Australia ICOMOS Practice Note, Burra Charter Article 22 – New Work**

Better Placed identifies seven objectives that encompass the key considerations for good design outcomes. The proposed masterplan should be reviewed under the seven objectives that encompasses the key consideration for good design outcomes. The outcomes of each of the seven objectives are detailed below followed by brief comment:

Objective	Comment
Objective 1: Better Fit **Key design considerations** Understand the specific character of the place, precinct, or area. Design new work to respond to and, when appropriate, strengthen this character. 1. Design new work to positively relate to the style, materiality, scale, massing, and grain of existing buildings and structures. 2. Design new forms to respond to the predominant form of the streetscape. 3. Locate new structures on sites in ways that support existing urban patterns. Careful consideration of height and setback is crucial to designing for a better fit. 4. Where relevant, design new work to respond to and re-establish meaningful urban connections and views. Consider settlement patterns, tree canopy, and connections between places. 5. Retain heritage landscape elements and planting schemes and design new landscape to relate to the existing.	The Master Plan envisage to enhance the White Bay precinct as a destination and arrival point focused around the White Bay Power Station. Many of the interventions in the landscape and within the bays are inspired by previous layers and land uses. Layers including altering earlier rail corridor and topography is vitally important to understanding and interpreting the maritime industrial past. Historic physical and visual connections between parts of the inter-dependent industrial precinct, including the former Rozelle railyards, Glebe Island, White Bay and surrounding communities will be incorporated and enhanced.
Objective 2: Better Performance **Key design considerations** 1. Analyse the opportunities and constraints of existing structures, environmental systems, and site organisation in terms of sustainability, durability, and adaptability. 2. Identify existing effective passive design systems. Rejuvenate them if possible. Consider removing additions that compromise environmental performance. 3. Sensitively integrate new environmental initiatives where appropriate to improve environmental amenity and sustainability performance. 4. Retain and recycle original fabric and materials to preserve embodied energy, where possible. 5. Maximise passive heating and cooling and waste and water management in the design of any new work or additions. 6. Select new building materials and systems to enhance energy efficiencies.	The Master Plan outcomes will retain and reuse the White Bay Power Station based around retention and respect for fabric and public access. The White Bay Power Station should be sensitively restored and adapted with environmentally sustainable design principles. Given the variety of spaces within the White Bay Power Station, the building could be adaptable to a variety of uses and access needs. Many of these spaces have abundant access to natural light and ventilation and are already designed to perform efficiently in regard to passive heating and cooling. For example, the building has a high thermal mass and has a canal running underneath which could be used for heat exchange. A fundamental opportunity is to design and reuse the White Bay Power Station using passive systems to achieve the highest standards in sustainable design.

Objective	Comment
Objective 3: Better Community **Key design considerations** 1. Investigate the cultural significance of the place at the outset of the project. Understand that the place may carry divergent and contested meanings for different groups. 2. Engage local communities early in the process in meaningful ways. 3. Draw on knowledge embedded within the community when identifying significance and developing interpretative strategies. 4. Assess potential impacts on existing communities. Will the project lead to social, economic, and environmental improvements? Is there a risk that it could disenfranchise some existing communities? If so, investigate how this can be ameliorated. 5. Assess the impacts of the method chosen to deliver the project on existing and new communities.	Interpretation of the historic interdependencies of Rozelle Railyards, Glebe Island and White Bay with the broader rail network, as the nexus for this industrial precinct is fundamental to the Master Plan and the Bays West Place Strategy and supporting documents. The Master Plan provides opportunity and ensures the historic relationship that the precint has had to the surrounding suburbs is acknowledged, respected and included in the approach. The Masterplan will connect the precinct with existing community, enhance the industrial and maritime identity of the place and include new initiatives that are inspired by connection with Country. Continued engagement with the local community through the design and implementation phases will be required.
Objective 4: Better for People **Key design considerations** 1. Design any new work to be of a quality and approach that is commensurate with the quality and style of the heritage place. 2. Analyse existing circulation and urban relationships to help determine patterns of use important to the site. 3. Engage highly skilled consultants to deliver collaborative solutions that balance function, comfort, and compliance with heritage significance. 4. Consider how the project can help promote equitable access and walkable communities.	White Bay Power Station (WBPS) is a Sydney landmark with significant heritage value. The Master Plan encourages high connectivity through public transport, active transport, and integration with local community. The outcome will be to develop and encourage healthy, liveable neighbourhoods, that have high degree of accessibility, safety and equity for all uses. The Master Plan is built upon professional knowledge, and community consultations that builds on previous studies including the Conservation Management Plan in (2013), The Transformation Plan in (2015) and the Bays West Place Strategy in (2021).
Objective 5: Better Working **Key design considerations** 1. Retain the existing use where it is both integral to the heritage significance and feasible in terms of current needs, economic viability, and standards. 2. Establish a common understanding of appropriate re-uses early and in consultation with professionals, the local council and/or the Heritage Council of NSW. 3. Explore the history and significance of a heritage place as a possible generator for ideas for future use. 4. Consider temporary uses as a means to maintain heritage places. 5. Design new work to accommodate possibilities for future changes of use.	While the existing use is not possible due to obsolete or changed practices and expectations, the use must support the heritage significance of the place and be compatible with it. Proposals for reuse of the White Bay Power Station should support the significance and be reversible where possible. Design and development should recognize the working industrial nature of the precinct.

Objective	Comment
Objective 6: Better Value **Key design considerations** 1. Explore how the project can add value for the community as well as the client and owner of the heritage place. 2. Ensure that careful project planning, upfront investment in design quality, and consideration of long-term maintenance are all embedded in the process. 3. Undertake cost assessment early in the planning stages and identify applicable financial incentives or concessions. 4. Engage specialist trades where appropriate. 5. Consider ongoing maintenance costs during the design process and embed these in management plans.	Better Placed Heritage provides the following additional guidance for Better Value: *"The benefits of most goods and services, including heritage property, usually accrue to those who own them or pay for them/ not to those who use them. In the case of many heritage properties the reverse is true. An area with architectural or heritage significance may benefit those who reside in it, those nearby or those who just pass through or visit it, as in the case of a heritage property or precinct drawing tourists to the areas. These indirect benefits can be extremely difficult to measure, are rarely static and can apply to an area or a single building." (Peter Willis and Chris Eves, Heritage Australia. Better Placed – Heritage. Page 37).* The Master Plan embraces the unique and significant attributes of the site as a core objective. Implementation of the Master Plan should ensure that the heritage items are conserved, reused and interpreted appropriately to retain and celebrate their significance.
Objective 7: Better Look And Feel **Key design considerations** 1. Design new work to complement the heritage place, not compete with it. 2. New work should exemplify design excellence in its own right. 3. Respond sympathetically to existing planning and spatial structures. 4. Take an informed and strategic approach to colour, materials, and details. Consider their character and history, and identify opportunities for new and existing work to communicate through the design and selection of materials and details.	Better Placed Heritage provides the following additional guidance for Better look and feel: *New design work should respect and reinforce the architectural heritage. It should complement rather than compete, but should also be an excellent example of design in its own right.* *Some built heritage, such as industrial sites, may be less immediately attractive. New design in these circumstances might revel in the aesthetics of the ruin, or bring a new perspective to robust spaces, objects, or fabric, or reveal striking architectural qualities that were formerly hidden. Australia also has many challenging and confronting heritage places, such as former incarceration sites. In these situations, the role of design is not to make sites more attractive, but to engage visitors and make the stories available to new audiences.* *Some built heritage, such as industrial sites, may be less immediately attractive. New design in these circumstances might revel in the aesthetics of the ruin, or bring a new perspective to robust spaces, objects or fabric, or reveal striking architectural qualities that were formerly hidden.* ***Spatial quality*** *It is important to respect the planning and spatial qualities of heritage places, especially when adapting them to new uses. Responsive design is not just about retaining built form or fabric. The original plan and spatial structure may be an important part of the architectural quality of the heritage building or site. Major subdivision or changes to significant spaces should be avoided. Likewise, the spatial structure of a precinct or area should be understood and maintained when planning new developments on sites within heritage contexts.* ***Material and detail*** *Materials play an important role defining and developing the architecture and aesthetic of a heritage building or site. They*

Objective	Comment
	contain their own stories of craft, labour, and social structures, and should be carefully considered when designing new work. *(Better Placed – Heritage. Page 38).* The Masterplan and its implementation should comply and be consistent with the outcomes or guidance detailed and quoted above.

9 CONCLUSION AND RECOMMENDATIONS

The masterplan aims to celebrate and elevate the White Bay Power Station and the precinct as a focal point in for the Bays West revitalisation and renewal. The success of the precinct will be dependent the implementation and adherence of the objectives and guidelines outlined in the Master Plan and consequent draft rezoning controls. Previous studies including the Bays West Strategic Plan and associated technical reports (2021), The Transformation Plan (2015) and the White Bay Power Station Conservation Management Plan (2013) must also be referenced and followed closely. Just as important for implementation is a meaningful understanding on the study area and its Cultural Significance (social, historic, technical and aesthetic values). The Cultural Significance of the place, together with public consultation and inclusion of First Nation voices should be a fundamental driver for decision making guided by professionals in multiple disciplines who have the appropriate skill to implement the changes proposed.

The Master Plan has the potential to enhance the precinct's usability, attractiveness and value for the community. Most important, the implementation of the Master Plan will support the retention, conservation and appropriate reuse of the White Bay Power Station in accordance with the CMP policies and other heritage items in the precinct. The interventions in the precinct and landscape are inspired by previous layers and land uses. Layers including altering the earlier rail corridor and topography is vitally important to understanding and interpreting the maritime industrial past. Historic physical and visual connections between parts of the inter-dependent industrial precinct, including the former Rozelle railyards, Glebe Island, White Bay and surrounding communities will be incorporated and enhanced.

For most of the study area, the implementation of the Master Plan will enable it to be publicly accessible for the first time. This public access and activation represent an important component in safeguarding the significance and ensure it survives.

Some heritage impacts are discussed as they relate to the disruption of viewsheds from Glebe Point Road and Anzac Bridge. Glebe Point Road viewshed is already a compromised view and given the limited opportunity to accommodate change and development across the site. Heritage impacts are considered and balanced in the broad sense of public benefit with implementing a suite of competing interests that provide a sustainable and viable precinct with community benefit retention of heritage as core objective. The precinct offers an increase in public open space across the precinct and increased curtilage around the White Bay Power Station than previously envisaged.

There are various core heritage values and aspirations that are expressed through the Master Plan and should be carried through to implementation. These include:

- The White Bay Power Station must be conserved and repurposed as the focal point of the precinct. Reuse must be consistent with its Cultural Significance, as set out in the Statement of Significance and consistent with Conservation Policy detailed in the Conservation Management Plan. New uses inside the power station should be compatible, inspired and respond to the existing spaces.
- Development must retain and respect the visibility and prominence of the power station as a harbour-side landmark and industrial landmark to the local community.
- Views from major axial approaches including Anzac Bridge, Johnston Street Annandale, City west Link, Victoria Road (from northwest), Mullens Street and Robert Street must be maintained as substantially unobstructed views.
- The unique industrial and maritime history should be integrated and interpreted which will underpin the future use and the character.
- The reuse of the White Bay Power Station should have a public benefit and public access strategy underpinning the core reuse.

Additional Recommendations that stem from discussion in this document include:

- Heritage guidelines and controls expressed in the Master Plan, Design Guide and other related documents, not least the Conservation Management Plan, are viewed as minimal requirements and not maximum goals. Any opportunity to improve heritage outcomes over and above the Master Plan and related studies should be the goal for implementation. As stated in the Better Placed Design Guide (Heritage), improved heritage outcomes have the potential to add value-add which can be extremely difficult to measure and are rarely static.
- The southern penstock should be heritage listed to ensure it has statutory protection as a heritage item.
- Open spaces detailed in the Master Plan are protected as part of the legislative framework.
- Below ground structures are to be identified, assessed and preferably retained. This particularly applies to the water coolant canal which runs continuous from White Bay to Rozelle Bay passing through the Turbine Hall. It should be noted that this canal is active and in part services the White Bay Power Station with stormwater runoff. Any blockage of this canal has the potential to cause stagnant water issues as well as cause unintentional physical damage to White Bay Power Station.
- Archaeological potential to be assessed and integrated with the implementation of the Master Plan.
- The Heritage Interpretation Strategy prepared as part of the Draft Master Plan is to be implemented.
- New buildings, structures or landscape modifications are to be implemented in accordance with the Master Plan and will need to be individually assessed with a Heritage Impact Statement.