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Ryde Pumping Station: Watermain Replacement

Statement of Heritage Impact

Prepared for Sydney Water

May 2025



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EVERICK HERITAGE PTY LTD

ABN: 78 102 206 682

Head Office: Level 9, Matisse Tower 110 Mary Street Brisbane 4000

Sydney Office: Level 2, 61 Renwick Street Redfern NSW 2016

Byron Bay Office: 6/64 Centennial Circuit, Byron Bay NSW 2481

T: (02) 9552 2944

E: info@everick.com.au

www.everick.com.au

Ver.	Date	Author/s	Technical Review	Authorised
1	02/06/25	Matthew Hedges/Aidan Conlon/Tony Brassil	Tony Brassil	Kylie Christian

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Statement of Heritage Impact - Summary

Name of Heritage Item:

Ryde Pumping Station

State Heritage Register/ LEP Heritage Schedule item number and name:

Ryde Pumping Station and Site (SHR #01634) (LEP #1155)

Address and Location:

948 Victoria Road, West Ryde NSW 2114

Statement of Heritage Impact for:

Proposed replacement of a watermain at the Ryde Pumping Station.

Prepared for:

Sydney Water

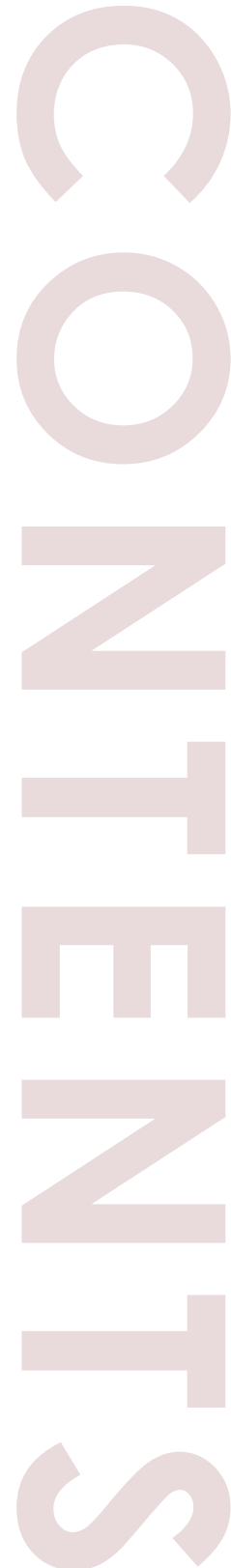
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Glossary of Key Terms

The following definitions apply to the terms used in this report:

Term	Definition
Burra Charter	The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013
CHL	Commonwealth Heritage List
CMP	Conservation Management Plan
DCP	Development Control Plan
DPE	Department of Planning and Environment
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
Heritage Act	<i>Heritage Act 1977 (NSW)</i>
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
s	section as in legislative terminology.
s 170	Section 170 Heritage and Conservation Registers
SHI	State Heritage Inventory. An online database containing heritage items and conservation areas on statutory lists in NSW. This includes the State Heritage Register and local government items.
SHR	NSW State Heritage Register. A list of places and items of importance to the people of NSW. Only places of State heritage significance are listed on the State Heritage Register. The State Heritage Register protects these items and their significance.
SoHI	Statement of Heritage Impact
WHL	World Heritage List

1. Introduction

1.1. Background

Everick Heritage Pty Ltd (Everick Heritage) has been engaged by Sydney Water to complete a Statement of Heritage Impact (SoHI) for works proposed at the Ryde Pumping Station. Subject to approval under a Review of Environmental Factors (REF), the proposal involves the upgrade of an existing water main (RP03) running between Ryde Pumping Station and Roland Avenue, Wahroonga.

Ryde Pumping Station is a heritage item included in the State Heritage Register and listed in the *Ryde Local Environmental Plan 2014* and in the Sydney Water Heritage and Conservation Register (s.170). A Conservation Management Plan (CMP) for the Ryde Pumping Station was prepared in 2004, which is currently being reviewed and updated. This Statement of Heritage Impact report has been prepared to assess the impacts of the proposal on the significance of Ryde Pumping Station and upon any other heritage items in the vicinity.

1.2. Site Identification

Ryde Pumping Station is located at 948 Victoria Road (Lot 100 DP1274192) in the suburb of West Ryde. West Ryde is located within Ryde City Local Government Area (LGA), the Parish of Hunters Hill and the County of Cumberland. The site is near the West Ryde Railway Station and the West Ryde Central Business District, which consists of a mix of medium density residential and commercial development.



Figure 1-1: Aerial image of the Ryde Pumping Station (Source: SIXMaps)

1.3. Heritage Listings

1.3.1. Ryde Pumping Station

The following tables summarise the statutory heritage listings of and within the vicinity of the Ryde Pumping Station.

Table 1-1: Statutory heritage listings of the site:

Heritage List	Item name	Listing number
State Heritage Register	Ryde Pumping Station and Site	SHR #01634
Sydney Water Heritage and Conservation Register	Ryde Pumping Station and Site	WP0005, 4572724
Ryde Local Environmental Plan 2014	Ryde Pumping Station and Site	I155



Figure 1-2: State Heritage Register Statutory Curtilage Map showing the Ryde Pumping Station and Site (outlined in red). (Source: NSW SHI)

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1.3.2. Heritage Items in the Vicinity of Ryde Pumping Station

Table 1-2: Statutory heritage listings in the vicinity of the site:

Heritage List	Item Name	Listing Number
Ryde Local Environmental Plan 2014	House (Former engineer's residence) 958 Victoria Road	I156
Ryde Local Environmental Plan 2014	Church 7 Maxim Street	I69
Ryde Local Environmental Plan 2014	Milton (house) 22 Maxim Street	I70
Ryde Local Environmental Plan 2014	House 24 Maxim Street	I71
Ryde Local Environmental Plan 2014	Maxim Street Heritage Conservation Area	C2

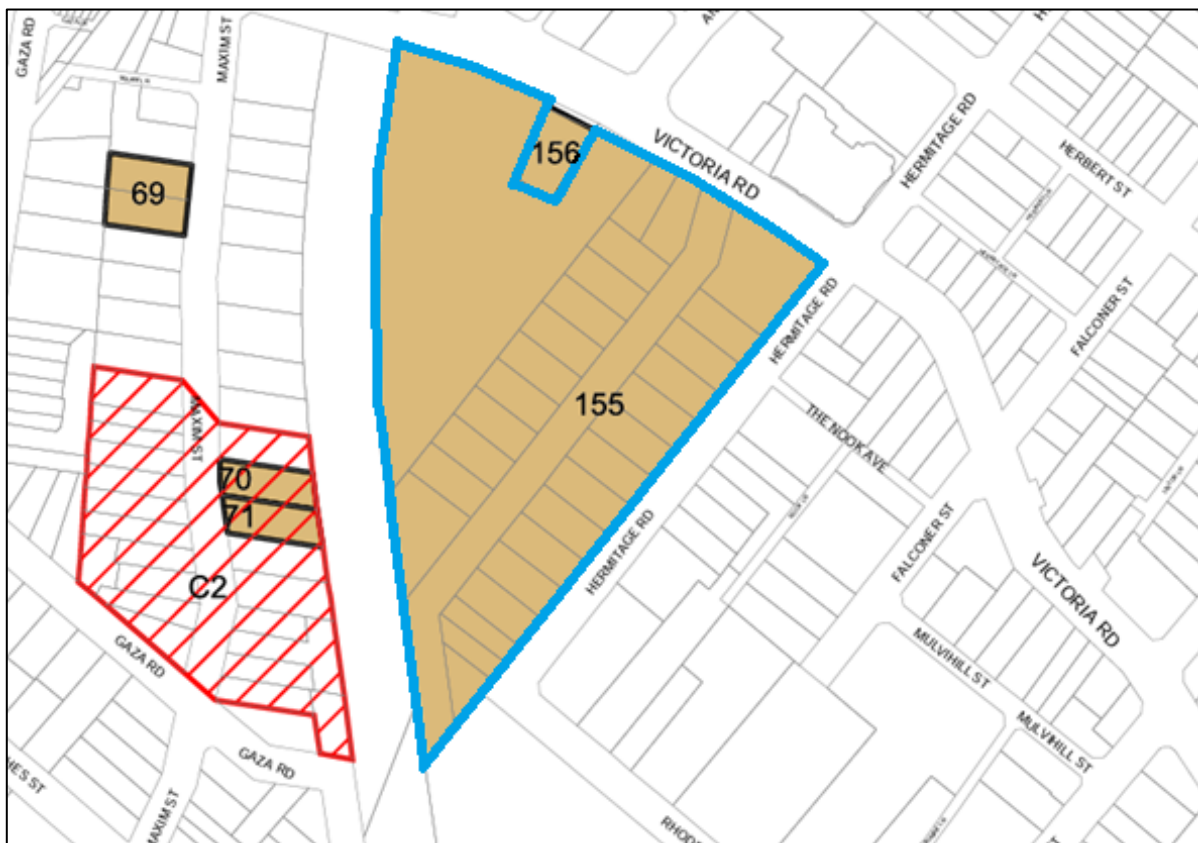


Figure 1-3: Extract from the Ryde LEP Heritage Map (HER_003) showing the location of Ryde Pumping Station (outlined in blue), local heritage items in the vicinity (shown in brown) and local Heritage Conservation Areas (shown in red hatching).

1.4. Methodology

This assessment is consistent with the principles and guidelines set forth in the *Australia ICOMOS Charter for Places of Cultural Significance* (the Burra Charter)¹. The report has been prepared in line with current best practice guidelines identified within the *Guidelines for preparing a statement of heritage impact*.²

1.5. Author Identification

This Statement of Heritage Impact has been prepared by Matthew Hedges, Graduate Archaeologist, Aidan Conlon, Heritage Advisor, and Tony Brassil, Principal Heritage Advisor – Industrial Archaeology. Technical review was undertaken by Aidan Conlon and Tony Brassil.

1.6. Limitations

This report is limited to an assessment of impact on historic heritage and does not include any assessment or evaluation of Aboriginal Heritage as defined in the *National Park and Wildlife Act 1974* (NPW Act). No special site inspection was undertaken for this report, as the authors are familiar with the site. Up-to-date photographs have been supplied by Sydney Water.

¹ Australia ICOMOS. 2013.

² Department of Planning and Environment NSW. 2023b.

2. History of the Ryde Pumping Station

The following history of the Ryde Pumping Station and Site has been prepared by summarising existing sources. It is presented here to provide a general understanding of the site and its heritage significance.

2.1. Land Resumption

The first European landowner of the site was Captain William Kent, RN. The Ryde Pumping Station site is part of a 100-acre allotment granted to Kent at Kissing Point provided he *“reside within the same and proceed to the improvement and cultivation thereof such timber as may be growing or may grow ...which may be deemed fit for naval purposes”*³. It is not known whether the property was used for timber harvesting during Kent’s ownership.

Following the death of Kent at sea in 1812, overseers managed the land at Kissing Point and developed it for grazing and orchards. It was sold around 1835-41 and the 100 acres eventually passed to John Blaxland – the son of explorer and agriculturalist, Gregory Blackland. The property remained in the Blaxland family until 1887, when part of the land was resumed by the NSW Department of Public Works for the construction of a water pumping station.

2.2. Development of Water Distribution Systems

The original water supply for Sydney was the Tank Stream, a freshwater creek at the head of Sydney Cove, as well as other springs and wells. However, by the 1820s, the settlement had polluted and outgrown this source. The second source of freshwater was the Lachlan Swamps, siphoned by the convict-built Busby’s Bore tunnel. In use from 1830, this constituted the first piped water supply and the Colony’s first major engineering project but was also soon outgrown. Sydney’s third water supply was the Botany Swamps scheme from 1858, with the Botany Pumping Station pumping freshwater to Crown Street Reservoir from 1859 to 1895.

By 1867, increasing population and pressures of drought necessitated a reliable and sufficient water supply. In 1869, a Commission recommended the Upper Nepean Scheme, utilising the waters of the Nepean River and its tributaries, the Cataract, Cordeaux and Avon Rivers. The Upper Nepean Scheme

³ Rosen. 2000: 12.

and the Board of Water Supply and Sewerage (later the Metropolitan Water, Sewerage and Drainage Board) were both commissioned and put into service in 1888. The Upper Nepean Scheme used a system of tunnels, canals and aqueducts known as the Upper Canal to deliver water to Prospect Reservoir, from where it was taken via the Lower Canal to Pipe Head, in Guildford, then piped to Potts Hill. From Potts Hill, water was piped to several major pumping stations and service reservoirs.

2.3. Northern Water Distribution System

The northern distribution system, with Ryde Water Pumping Station at its centre, takes water from the Upper Nepean Scheme, via Potts Hill, but is independent of the southern suburbs distribution system. At the time of the establishment of the Board of Water Supply and Sewerage in 1888, the focal point of the distribution of Sydney's water supply was Crown Street Pumping Station (owing to its previously being part of the Botany Swamps Scheme), from which the city and suburbs south of the Harbour were supplied. A limited water supply to the North Shore was provided by a 9-inch (228.6 mm) cast iron submarine main which ran from Dawes Point to Milson's Point.

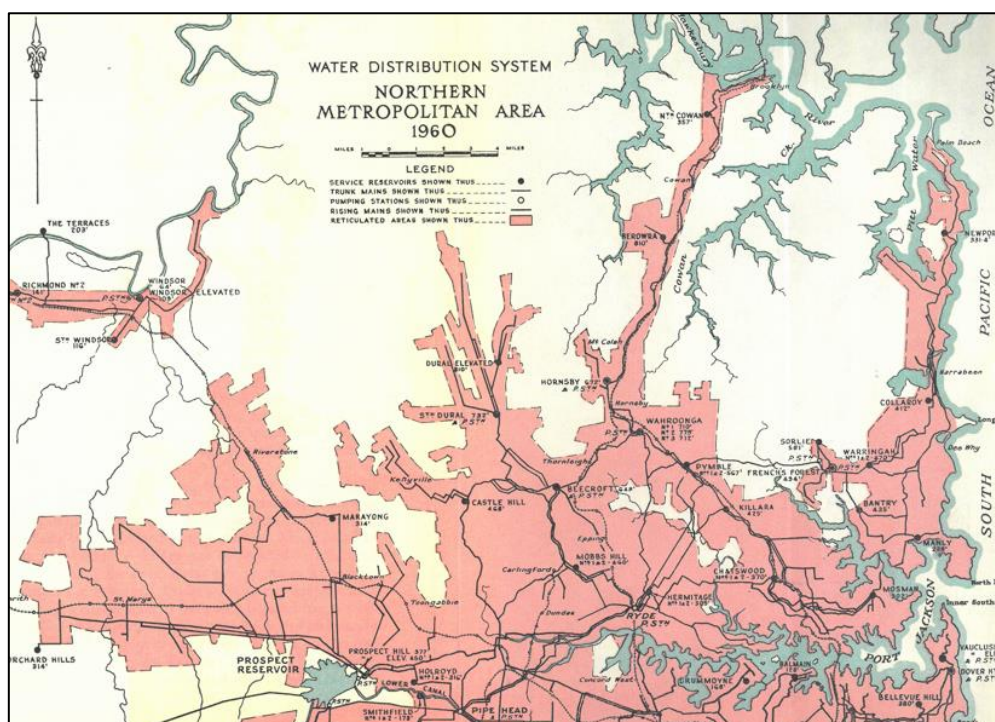


Figure 2-1: Plan of the Northern Water Distribution System for Sydney, dated 1960. Ryde Pumping Station is prominent in the centre. (Source: Aird; 1961)

With the commissioning of the Nepean Scheme, the Public Works Department immediately commenced work on building a pumping station at Ryde to augment supply to the northern suburbs. The first Ryde Pumping Station opened in 1892 and delivered the water from Potts Hill to a wrought-iron tank at Ryde Hill and two wrought-iron tanks at Chatswood. The Ryde Hill tank supplied Ryde, Gladesville and Hunters

Hill and a branch main extending south supplied Balmain. The Chatswood tanks supplied North Sydney, Mosman and Willoughby.

2.4. Development of the No. 1 Pumping Station

The first Ryde Pumping station was completed in 1891 and included an engine house, a boiler house and a chimney with an above-ground flue. The Pumping Station, which faced Victoria Road (formerly Parramatta Road), was constructed in an Italianate style with polychrome brick external walls with patterned, cream-brick detailing. The building was one storey, with a basement.

A concrete supply reservoir was constructed between 1890 and 1891 near the northwest corner of the site, close to Victoria Road, which received water by gravity from Potts Hill Reservoir and, later, direct from Pipe Head at Guildford.



Figure 2-2: Photograph of the No. 1 Pumping Station, taken circa 1913. (Source: Sydney Water)

In the early-twentieth century, the plant was expanded - with a second boiler house installed in 1906. In 1916, the first Boiler House was converted to an engine house and a second engine house (known as the 'Allen' engine house) was installed against the west side of the engine house and in front of the second boiler house.

2.5. Development of the No. 2 Pumping Station

In 1915, the Board acquired additional land for the construction of a second pumping station to be used in conjunction with the No. 1 Pumping Station. Together, the two stations were to meet the increasing demands for water of the growing northern suburbs region. Works were delayed due to the First World War but, in 1919, a reinforced concrete loading staithe (an elevated railway structure that facilitated the delivery of coal from the bunkers to the boiler house) was completed.

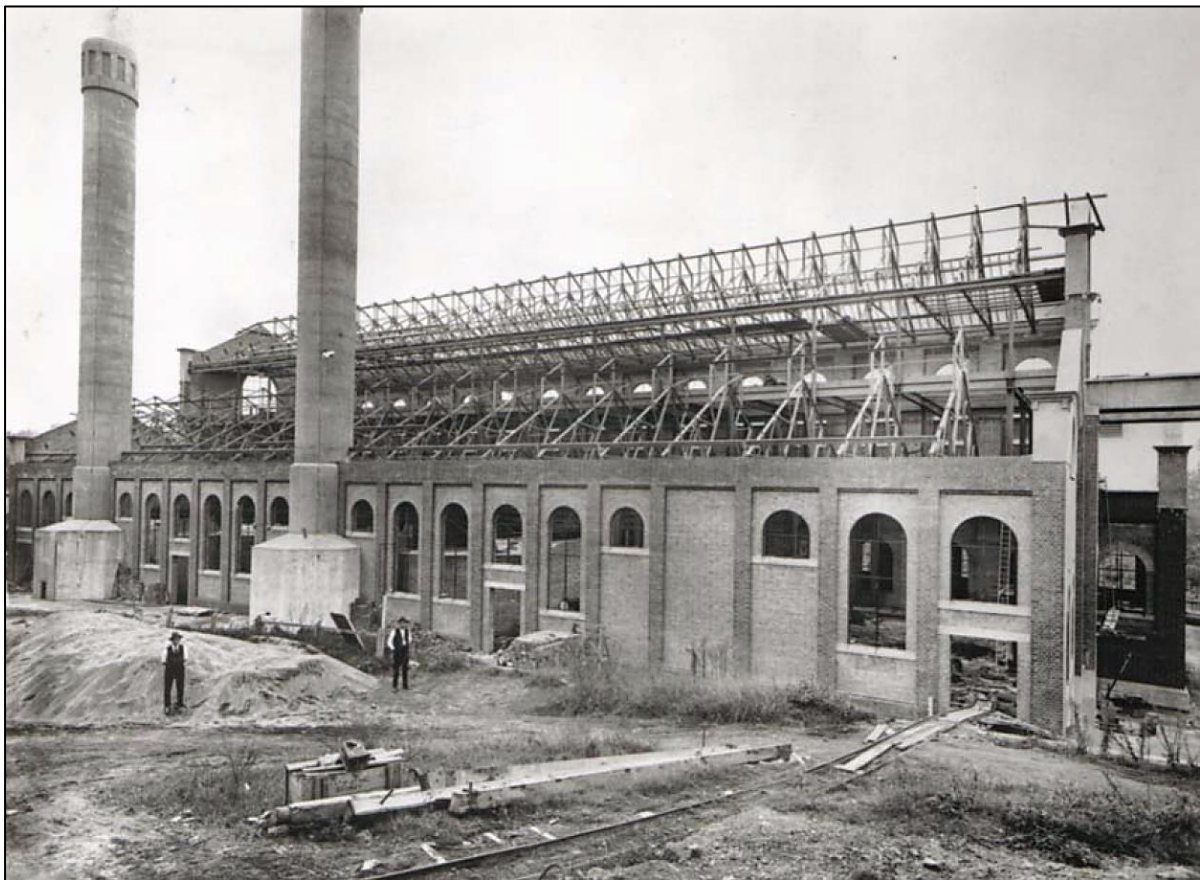


Figure 2-3: Photograph of the No. 2 Pumping Station under construction, circa 1918. (Source: Sydney Water)

Construction of the No. 2 Pumping Station was completed by 1921 and included an engine/pump house, boiler house, economiser house, admin block, workshops, paint shop, locomotive shed and two reinforced concrete chimneys. Upon completion, the No. 2 Pumping Station comprised four Willans & Robinson steam turbines and four Thompson & Co centrifugal pumps. The four pumps were split evenly between pumping to Chatswood and Pymble.

Across the service life of the No. 2 Pumping Station, several modifications were made to the pumping machinery. In 1929, two Fraser and Chalmers/Kelly & Lewis pumps were added to supply the Hermitage Reservoir and a Metropolitan Vickers Turbine-driven centrifugal pump by Thompson & co was installed

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in an southern extension of the Engine Hall, to supply Mobbs Hill. In 1930, a third chimney was added. Further modifications were made in 1932, when two British Thomson-Houston electric pumps were added to supply Pymble reservoir and a single Willans & Robinson steam turbine, connected to a Morts Dock pump, was transferred from the No. 1 Pumping Station into No. 2. Five Vickers turbines with Thompson pumps were installed in 1938. Pumping machinery was again overhauled during the 1950s. The British Thomson-Houston electric pumps were removed in 1953 and, between 1958 and 1959, a new steam plant was installed. This consisted of four Fraser and Chalmers turbines, coupled to Thompson pumps, and replaced the Willans & Robinson/Thompson units. Structural modifications were also made in 1957, including the construction of an Ash Sluicing Plant and ash pit to the east of the No. 2 Pumping Station building.

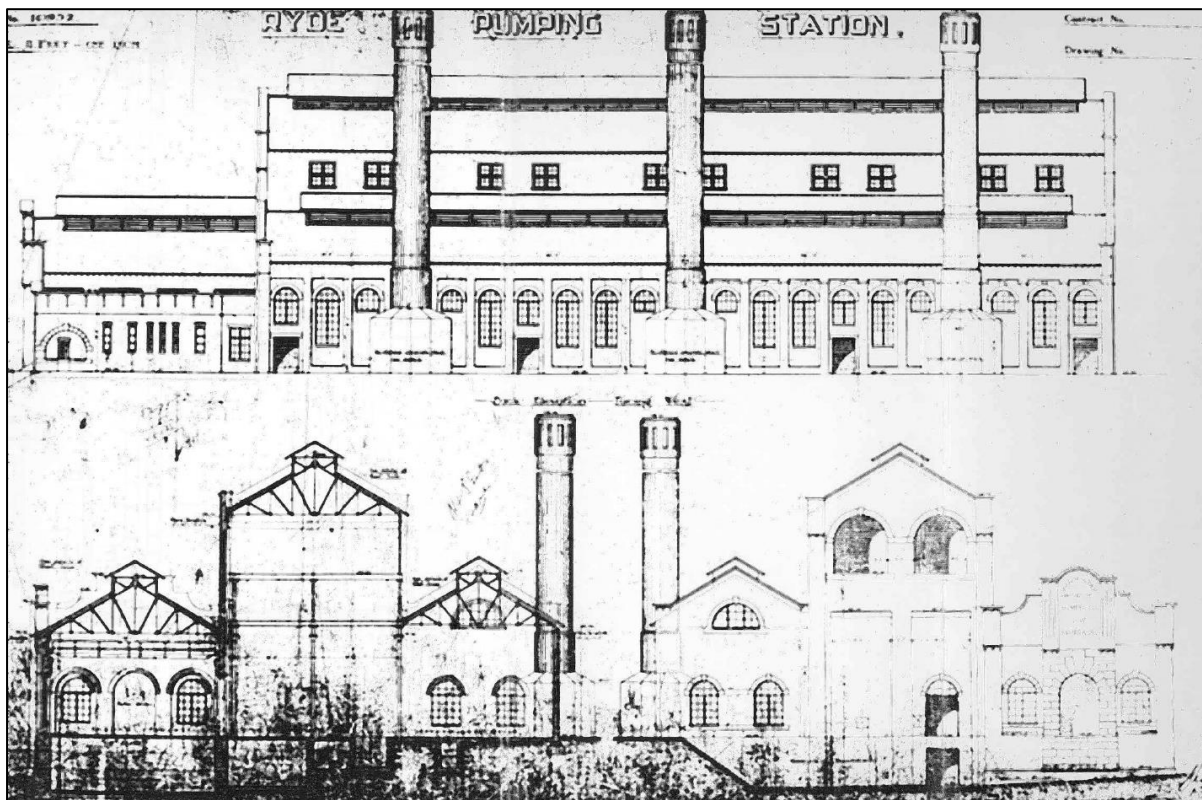


Figure 2-4: Archival architectural drawing of the No. 2 Pumping Station. (Source: Sydney Water)

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Figure 2-5: Photograph of the No. 2 Pumping Station, taken in 1939. (Source: Sydney Water)

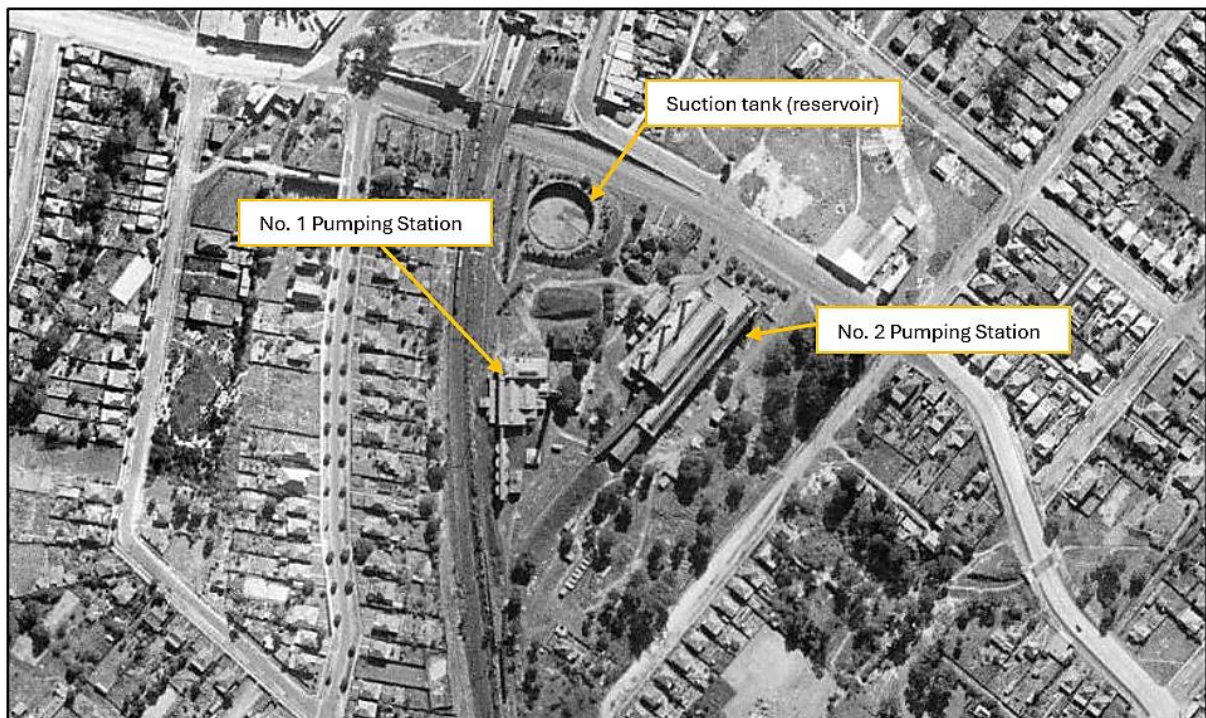


Figure 2-6: Aerial image of the Ryde Pumping Station, taken in 1943. The No. 1 Pumping Station is out-of-service at left, with No. 2 Pumping Station at right. (Source: NSW Spatial Services)

2.6. Later Developments

By 1930, the No. 2 Pumping Station was deemed sufficient to supply the northern suburbs and the No. 1 Pumping Station was surplus to requirements. Whilst pumping operations ceased in the No. 1 Pumping Station, the building was retained as a storage structure. In the 1950s, its chimney was demolished, followed by the rest of the building in 1961.

In 1972, the decision was made by the Board to convert the Ryde Pumping Station to electric power, replacing all existing steam turbines. This work was completed by 1981, marking the final transition of all Sydney Water infrastructure from steam to electric power. In 1983, the AWT Laboratory, also referred to as the Scientific Services Laboratory, was constructed in the south-eastern corner of the site (the Hawkesbury Building), followed by the construction of a number of portable buildings along the Heritage Road frontage to facilitate Sydney Water operations. The Resident Engineer's House was subdivided from the Ryde Pumping Station site and sold during the same year.



Figure 2-7: Aerial image of Ryde Pumping Station, taken in 1986. The No. 1 Pumping Station has been demolished. (Source: NSW Spatial Services)

3. Physical Description

3.1. Setting

Ryde Pumping Station is located on gently sloping land to the north of Parramatta River, approximately 200 m southeast of West Ryde Railway Station. The surrounding area consists of medium to high density mixed-use residential, commercial and light-industrial development. Buildings in the area range from single-storey, residential dwellings to high-rise, mixed-use complexes. The Northern Railway Line runs along the western boundary of the Ryde Pumping Station site, with Victoria Road on its northern side and Hermitage Road and Rhodes Street on its eastern and southern sides.



Figure 3-1: Ryde Pumping Station from Victoria Road, looking southwest (Source: Street View)



Figure 3-2: View east along Victoria Road at the Ryde Pumping Station frontage. (Source: Street View)

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Figure 3-3: Frontage of Ryde Pumping Station along Hermitage Road, looking west. (Source: Google Street View)



Figure 3-4: View along Hermitage Road at the Ryde Pumping Station frontage, looking south. (Source: Google Street View)

3.2. Site Description

The following Site Description is derived from the Description provided in the State Heritage Inventory Database report (see Figures 3.6 and 3.7):

The No. 2 Pumping Station building (Item 7) comprises an Administration Block, the Pump House and the adjoining Boiler House and Economiser House. There is a reinforced concrete coal staithe (Item 34) at the south end, which allowed railway coal wagons to be shunted to the top of the Boiler House and emptied into the coal bunkers inside. Under the Pump and Boiler Houses is a basement. A sub-basement is located under the Pump Room which houses the turbine condensers and auxiliary pumps.

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The Boiler House occupies the central section of the Pumping Station and is much higher than the flanking Pump and Economiser Houses. The Boiler House still contains its rail lines and coal bunkers at roof level but the boilers have been removed. The Economiser House is on the west side of the building adjoining the Boiler House. Now largely empty, it originally contained the economisers, induced draught fans, feed pumps and feed water heaters for the boilers.

In the northwest corner of the site is the original suction tank /reservoir (Item 1). The reservoir is semi-submerged by battered earth walls, with mass concrete walls and floor. A red brick and stone Queen Anne revival valve house (Item 2) is located on the western side of the original reservoir but is now disused.

The area where the original pumping station stood is now a concrete-paved carpark (item 12). The only original building remaining in this area is the former Locomotive Shed (Item 11), a narrow rectangular building with rail tracks leading out of each end. It is currently used as a store. A group of modern demountable sheds stands at the northern end (Item 27).

At the southern end of the Pump House are six additional bays, known as the Mobbs Hill extension. Adjoining the Mobbs Hill extension to the south again is a mid to late 20th century workshop building constructed of brick walls with a gable roof with sheet metal roof cladding and roof lights (Item 6). A separate building to the south of the Economiser House is an original brick building known as the Paint Shop (Item 7). The original purpose of this building is unclear but was likely an early valve house.



**Figure 3-5: View of the northern frontage of the Ryde Pumping Station Engine House, facing southwest.
(Source: Google Street View)**

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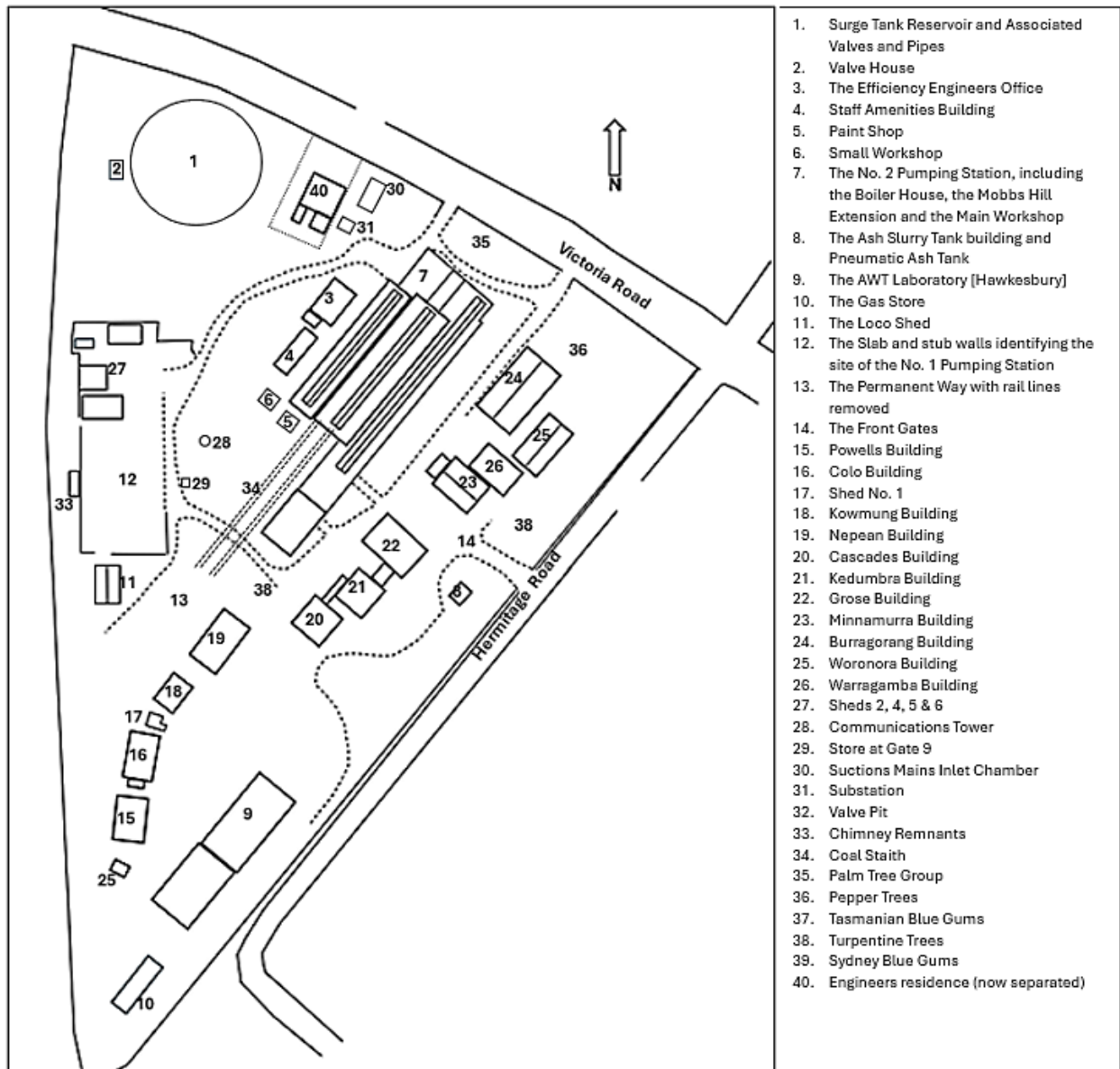


Figure 3-6: Site Plan of Ryde Pumping Station. (Source: Reproduced from CMP 2004; SWC)

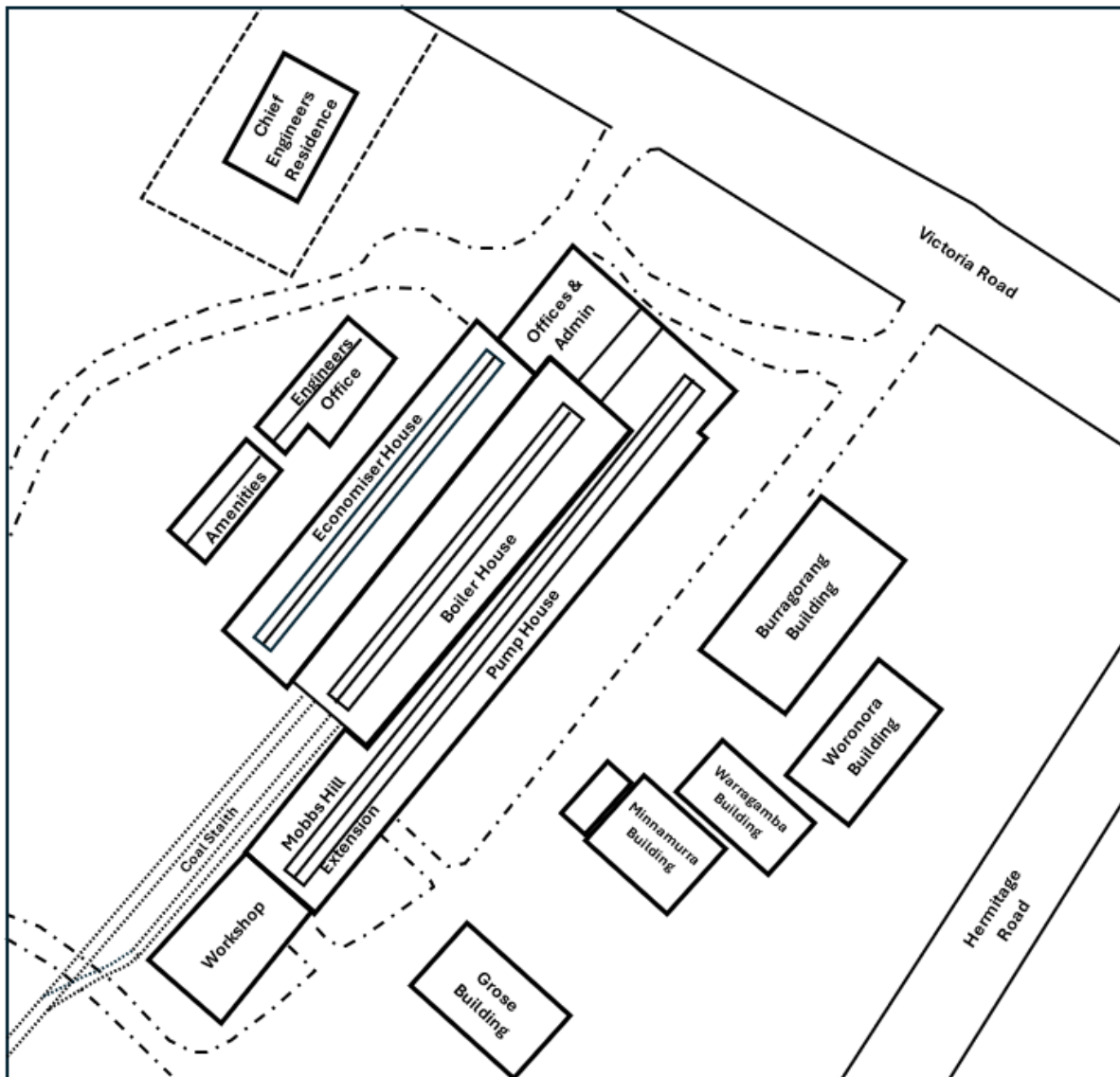


Figure 3-7: Detail Plan of No. 2 Pumping Station and surrounding buildings. (Source: SWC plans)

3.3. Condition, Authenticity and Integrity

The condition, authenticity and integrity of the Ryde Pumping Station and site have been previously assessed. The following assessments are reproduced from the State Heritage Register and Sydney Water Heritage and Conservation Register listing reports (SHI listing sheets 5053872 & 4572724) and the Ryde LEP 2014 (SHI listing sheet 2340117).

While a considerable amount of original (1921) technology in terms of plant and equipment has been removed, substantial tangible evidence remains of buildings, cultural landscape elements, archaeological evidence of the former work practices and cultural (sic).

The integrity of West Ryde Pumping Station is high as it continues to operate for the purpose it was designed.

In consideration of the above, the condition, authenticity and integrity of the Ryde Pumping Station and Site is high. It is clearly interpretable as a predominantly intact, water pumping station constructed in the early 20th century. Alterations and additions were constructed throughout its service life to facilitate operations. These alterations and additions are relatively discrete, can be traced through the site's historical record and have had no adverse impact on the heritage significance of the site.

4. Heritage Significance

An item, place or archaeological site may be considered to be of State or Local significance if it meets one or more of the seven criteria for *Assessing Heritage Significance*⁴, identified and published by the NSW Heritage Council.

4.1. Significance Criteria

The Ryde Pumping Station and Site has previously been assessed against all seven of the Assessment criteria, to ascertain the nature and degree of significance relating to the fabric, setting, history and broader environment of the item. The following table reproduces the criteria assessment contained in the State Heritage Inventory Database (listing sheets 5053872; 4572724 & 2340117).

Table 4-1: Significance criteria assessment for the Ryde Pumping Station and Site

Significance	Description
a) Historic significance An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).	<i>Ryde Pumping Station maintains tangible evidence of the largest pumping station in Australia at the time of its construction. The pumping station continues its original function supplying water to the northern areas of Sydney. Ryde Pumping Station was for many years considered the most important pumping station in the Sydney Water system and the only one warranting appointment of a grade 1 pumping engineer in charge. The pumping station and its tangible historical components are clear evidence of former work practices on a scale for its type of operation now rare in the Sydney Water System. The steep, highly compacted embankment around the suction tank in the northwest corner of the site is an important tangible element in the site's development and dates to the early 1890s.</i>
b) Historical association An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).	<i>Ryde Water Pumping Station has strong associations with the historical development of Sydney Water Corporation. The palms in the northwest corner of the site reflect the character of plantings usually associated with government-related projects by J H Maiden (Director of the Royal Botanic Gardens in the first quarter of the 20th century). Ryde Water Pumping Station has unique associations with the historical development of Sydney, being the key element in water supply for large parts of the metropolitan area. Its development and subsequent operation were closely connected with the activities of Public Works Department, as the construction authority until the mid-1920s, and the State Railways, as the provider of access for coal until the 1970s.</i>
c) aesthetic/creative/technical achievement An item is important in demonstrating aesthetic	<i>The Ryde Pumping Station buildings and cultural landscape are prominent elements in the townscape of Ryde. The main engine house and former boiler and economiser houses along with the cultural landscape reflect the importance of civic design at the time of their construction. The whole of</i>

⁴ Department of Planning and Environment NSW. 2023a.

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Significance	Description
characteristics and/ or a high degree of creative or technical achievement in NSW (or the local area).	<i>the remnant building/landscape group addressing Victoria Road is an imposing local landmark within the local townscape.</i> <i>The main engine house and former boiler and economiser houses along with the cultural landscape reflect the importance of civic design at the time of their construction.</i> <i>The site in its remnant historical buildings provide tangible evidence of high-quality industrial design and detailing of government buildings of the time.</i> <i>The whole of the remnant building/landscape group addressing Victoria Road is an imposing local landmark within the local townscape.</i>
d) Social, cultural, and spiritual An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural, or spiritual reasons.	<i>The place is likely to be held in high regard by a broad range of community members and organisations. The historical significance and function the pumping station plays is recognised by organisations such as the National Trust and the Institution of Engineers of Australia. The familiar and distinct Victoria Road address likely holds high social value as an important local reference point.</i>
e) Research potential An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).	<i>Ryde Pumping Station has been the site of many innovative and substantial attempts at water supply technology. Such evidence includes the following: - the turbine and powered pumps in 1906 were an early use of a highly successful system. - the use of reinforced concrete instead of brick for the chimneys in 1918 was a relatively early use of that type. - the use of electrically welded steam piping in 1921. - the use of pneumatic ash collection in 1923. - the use of cement spray ("cement gun") rendering in 1923. - the pulverised coal fuel for boilers between 1922 and 1927. The site contains a number of elements which are now rare or if not unique in Sydney Water's system of former work practices including the coal staith, archaeological evidence of railway sidings for former use of the site, substantial late 19th century engineer's residence, amongst numerous other built elements and movable relics which give evidence to the work practices at the completion of the No.2 pumping station in 1921.</i>
f) Rare An item possesses uncommon, rare, or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).	<i>The West Ryde Pumping Station site and its significant components comprise the most substantial example of such technology in the Sydney Water system and in NSW. The 1920's plantings are rare specific Government landscape design.</i>
g) Representative An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments.	<i>The site's use as a pumping station is representative of the methods used throughout the Sydney Water system to facilitate water supply to local service reservoirs on a more regional basis.</i>

4.2. Statement of Significance

A Statement of Significance has been produced for the Ryde Pumping Station and Site. The following Statement of Significance is reproduced from the SHI (listing sheets 5053872; 4572724 & 2340117) for Ryde Pumping Station and Site:

“Ryde pumping station as a whole is highly significant as an integral component of the water supply system to much of Sydney. At its completion it was the largest water pumping station in Australia, and today retains considerable fabric and work practices which can be interpreted from that period. While much of the significant plant and equipment has been removed and replaced, it still maintains the overall function and values it was designed for. The significant curtilage includes only the buildings, works, archaeological evidence, machinery and equipment, sheds, and cultural landscape elements (including paths, drives, plantings etc.) up to 1930 listed in the following pages.

The Ryde Pumping Station site contains landscape elements of high significance and has the ability to demonstrate three important and distinct phases of its history by its pre-European vegetation remnants, farming phase remnants and the distinctive 1890s earthworks and group of 1920s plantings associated with, respectively, the 1890s site use, and 1920s major expansion, for the North Shore water supply.

The design of the main civic address both built, (pumping station and residence) and planted, demonstrates the high importance placed on the site at this time of its development. The place continues to make an important contribution to the local townscape and serve as an outstanding landmark group.

*The remnant 1920s plantings are likely to have associative value in being with the influence of JH Maiden Director of the Royal Botanic Gardens (1896-1924) and include mature species that are uncommon within the State Chilean Wine Palm (*Jubaea chilensis*). The place holds scientific value as a reserve for indigenous vegetation remnants.”*

4.3. Gradings of Significance

The following section reproduces the gradings of significance for the Ryde Pumping Station and Site set out in the CMP. The CMP table has been edited to remove items and elements that are not relevant to the proposed works. Gradings of significance terminology is set out in Table 4-2, with the Gradings reproduced in Table 4.3.

Table 4-2: Gradings of significance and related terminology

Grading	Description
Exceptional	<i>Rare or outstanding element directly contributing to a place or object’s significance.</i>
High	<i>High degree of original fabric. Demonstrates a key element of the place or object’s significance. Alterations do not detract from its significance.</i>
Moderate	<i>Altered or modified elements.</i>

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Elements with little heritage value, but which contribute to the overall significance of the place or object.

Little	<i>Alterations detract from its significance. Difficult to interpret.</i>
Intrusive	<i>Damaging to the place or object's significance.</i>

Table 4-3: Gradings of significance from the CMP.

SCHEDULE OF SIGNIFICANT ELEMENTS RYDE WATER PUMPING STATION SITE		
Element	Significance	Notes
SITE AND GENERAL FEATURES		
-Site in General	High	The site use is important although not the primary element for the significance of the site. The site boundaries were altered when the Main Engineers Residence was disposed of. The existing layout is a coincidental consequence of the function and is not important for the significance of the item. Of Pumping Station No. 1 there are only partial and disturbed remains that have a limited potential to demonstrate the historical use of the site. The current site boundaries exclude the Engineer’s Residence, and their integrity is thus not considered highly significant.
-Site of the Pumping Station No. 1 Building	Medium	
-Slab and Concrete Stub Walls on the Pumping Station No. 1 Site	Medium	
-Existing Site Boundaries	Low	
-Existing Architectural Layout	Low	
-Property Fence and Front Gates	Low	Unimportant, utilitarian element
-Original Concrete Chimney Remnants	Low	Currently located on the site.
BUILDINGS AND STRUCTURES		
PUMPING STATION No. 2 GROUP		
-The Pumping House and the Mobbs Hill Extension	Exceptional	Representative of a late-nineteenth century industrial building with high aesthetic qualities, albeit modified.
-The Boiler House and the Economiser House	Exceptional	
-The Coal Staithe	Exceptional	
-The Main Workshop	Medium	
THE SURGE TANK GROUP		
-The Surge Tank	High	A rare surviving component of the Pumping Station No. 1, in continuous use since the 1890s. Important for its ability to demonstrate past uses of the site and association with the history of the development of Sydney’s water supply system. The surviving associated elements mainly consist of valves, pipework etc. The original elements, incl. original supply pipes, where surviving, are disused and laid below ground, often in poor condition and inaccessible.
-The Valve House	High	
-The associated elements, valves etc.	Medium	

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SCHEDULE OF SIGNIFICANT ELEMENTS RYDE WATER PUMPING STATION SITE		
Element	Significance	Notes
OTHER AREAS		
-Efficiency Engineers Office	Medium	Associated with Pumping Station No. 2.
-Paint Shop and Pneumatic Ash Pumphouse	Medium	One of the early buildings on the site.
-Permanent Ways with Rail Lines Removed	Low to Medium	Importance largely lost; however, position and form are indicative of former use.
-Store at Gate 9	Low	Albeit historical, this building is of too simple utilitarian design, unsuitable for interpretation of the site and its significance.
-Staff Amenities Building	Low	Remnant components of the 1950s ash handling system, deprived of original context. Potential to demonstrate historical uses is very limited, and access to the buried Tank and Tunnel thus not considered feasible.
-Locomotive (Loco) Shed	Low	
-Ash Slurry Pumphouse, Tunnel and Tank	Low	
-‘Small Workshop’	Low	A simple utilitarian building.
-Scientific Services Laboratory (Hawkesbury Building)	Low	Unimportant utilitarian elements from the 1980s.
-Gas Store	Low	Unimportant utilitarian elements.
-Powell’s Building	Low	
-Colo Building	Low	A group of eleven utilitarian demountable buildings created in the 1990s.
-Shed No. 1	Low	
-Kowmung Building	Low	
-Nepean Building	Low	
-Kedumba Building	Low	
-Grose Building	Low	
-Minnamurra Building	Low	
-Burragorang Building	Low	
-Woronora Building	Low	
-Warragamba Building	Low	
-Cascades Building	Low	
-Sheds Nos. 2, 4, 5 and 6	Low	
-Communications Tower	Low	
-Substations	Low	
-Other Structures in General	Low	Includes several minor, temporary and unimportant structures.

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SCHEDULE OF SIGNIFICANT ELEMENTS		
RYDE WATER PUMPING STATION SITE		
Element	Significance	Notes
PLANTINGS AND NATURAL HERITAGE ELEMENTS		
-Palm Trees Group (facing Victoria Road)	Medium	Retain <i>in situ</i> . No immediate action required. Condition should be monitored and, if it deteriorates, a suitably qualified arborist should be contacted for treatment and advice.
-Pepper Trees Group (near Warragamba Building)	Medium	
-Avenue of Tasmanian Blue Gums	Medium	
-Sydney Turpentine Ironbark Forest Trees (various locations)	Medium	
-Sydney Blue Gum Trees Group	Medium	
PUMPING STATION NO. 2 COMPLEX - ALL AREAS GENERALLY		
-Ongoing water-pumping function	Exceptional	Retain in use as water pumping station.
-Water pumps in the Pumping House	High	Retain <i>in situ</i> . Repair or reconstruct missing & damaged elements to match the existing as required.
-Pipes, valves and associated installations	Medium	Retain, repair, reuse, or remove as required.

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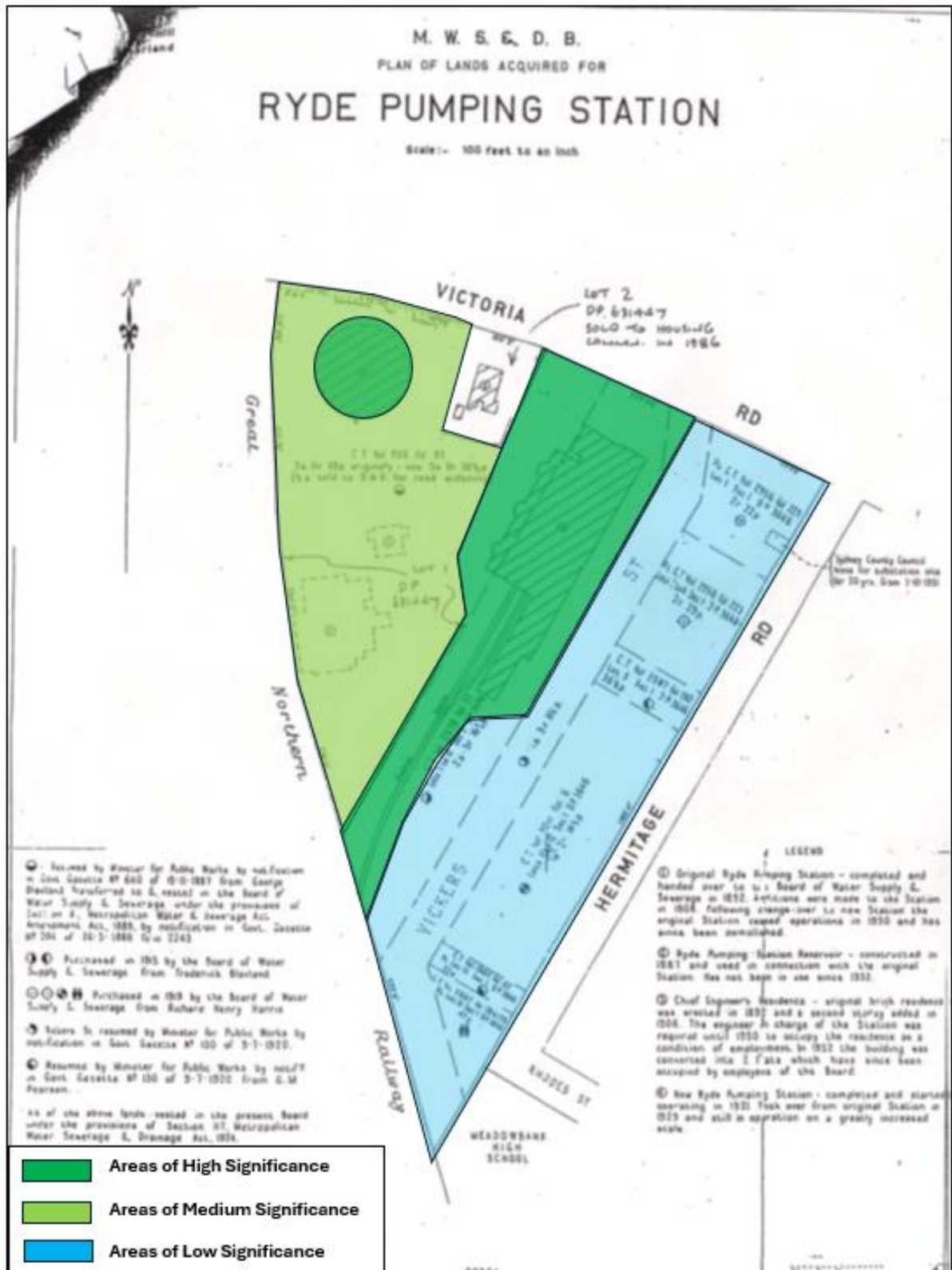


Figure 4-1: Site Plan showing the relative significance of the parts of the site. (Source: CMP, SWC)

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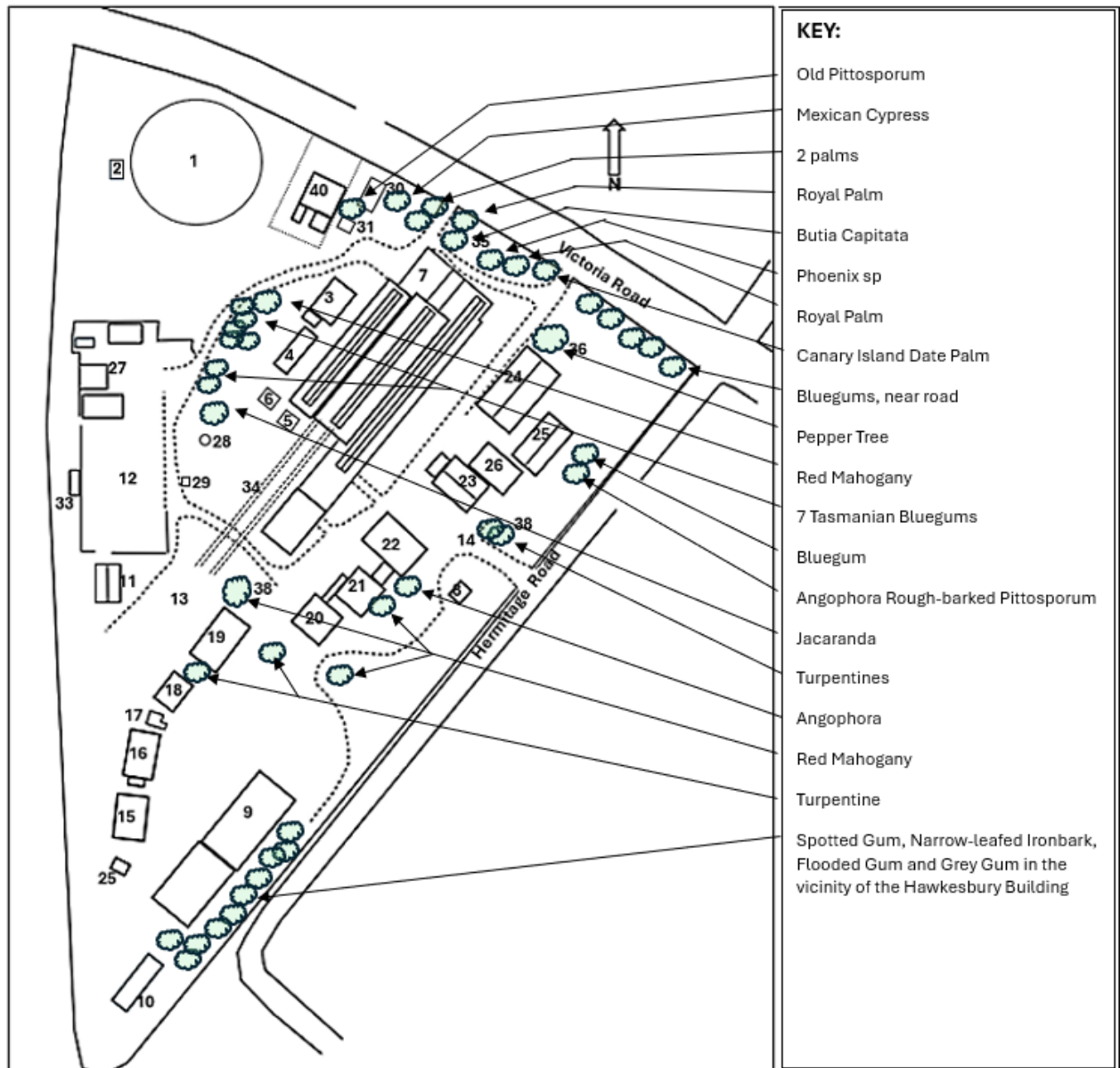


Figure 4-2: Site Plan showing the location and species of major individual trees and groups of trees throughout the site. (Source: reproduced from CMP; SWC)

4.4. Archaeological Significance and Sensitivity

The following has been extracted from the CMP in relation to the Archaeological Significance and Sensitivity of the Ryde Pumping Station site.

4.4.1. Aboriginal Archaeology

Little evidence remains of the Wallumedegal in Sydney area, although some rock engravings have survived along the Parramatta River. A search of the National Parks and Wildlife Aboriginal Sites database indicates that there are no known Aboriginal sites on or in the immediate vicinity of Ryde Pumping Station.

As the Ryde site is highly disturbed, it is unlikely that any Aboriginal artefacts would be discovered. This includes the green spaces, which have also lost their original shrub layer.

4.4.2. Historical Archaeology

The pumping station's use of the site is the first significant European use of this land, commencing with the construction of Pumping Station No. 1, followed by the development of Pumping Station No. 2. The only known prior development on the site was the two residential cottages (c. 1917) on Lot 13. This area was later highly disturbed for the construction of the Hawkesbury Building.

Two fireman's (stokers) cottages on site during the life of the Pumping Station have been demolished. One of the two firemen's cottages on site was demolished for the construction of the coal bins, also since demolished. The second survived for some years as a storeroom. However, it is assessed that it is unlikely that any surviving archaeological evidence of this residential use will provide information that is not readily available elsewhere. The only other building of note was a weatherboard building (believed to have originally housed the electric-motor driven Thompson Pump, circa 1916 to 1922) in the centre of the site which was demolished with the No. 1 Pumping Station. Owing to its materials and technology installed, it is unlikely that there would be substantive remains of this building.

The archaeological potential of deposits associated with Pumping Station No. 1, other than the form and materials of the basements and pipelines, is assessed to be low. All of the machinery associated with the function of Pumping Station No. 1 was sold, scrapped or relocated. The site may have the ability to yield information on the construction techniques, function and operation of water pumping stations of the late nineteenth and early twentieth centuries, however, the evidence at Ryde would not be rare or remarkable. The archaeological potential of the wider Ryde Water Pumping Station site is considered to be negligible, as ongoing development is likely to have destroyed any evidence of former uses or built elements.

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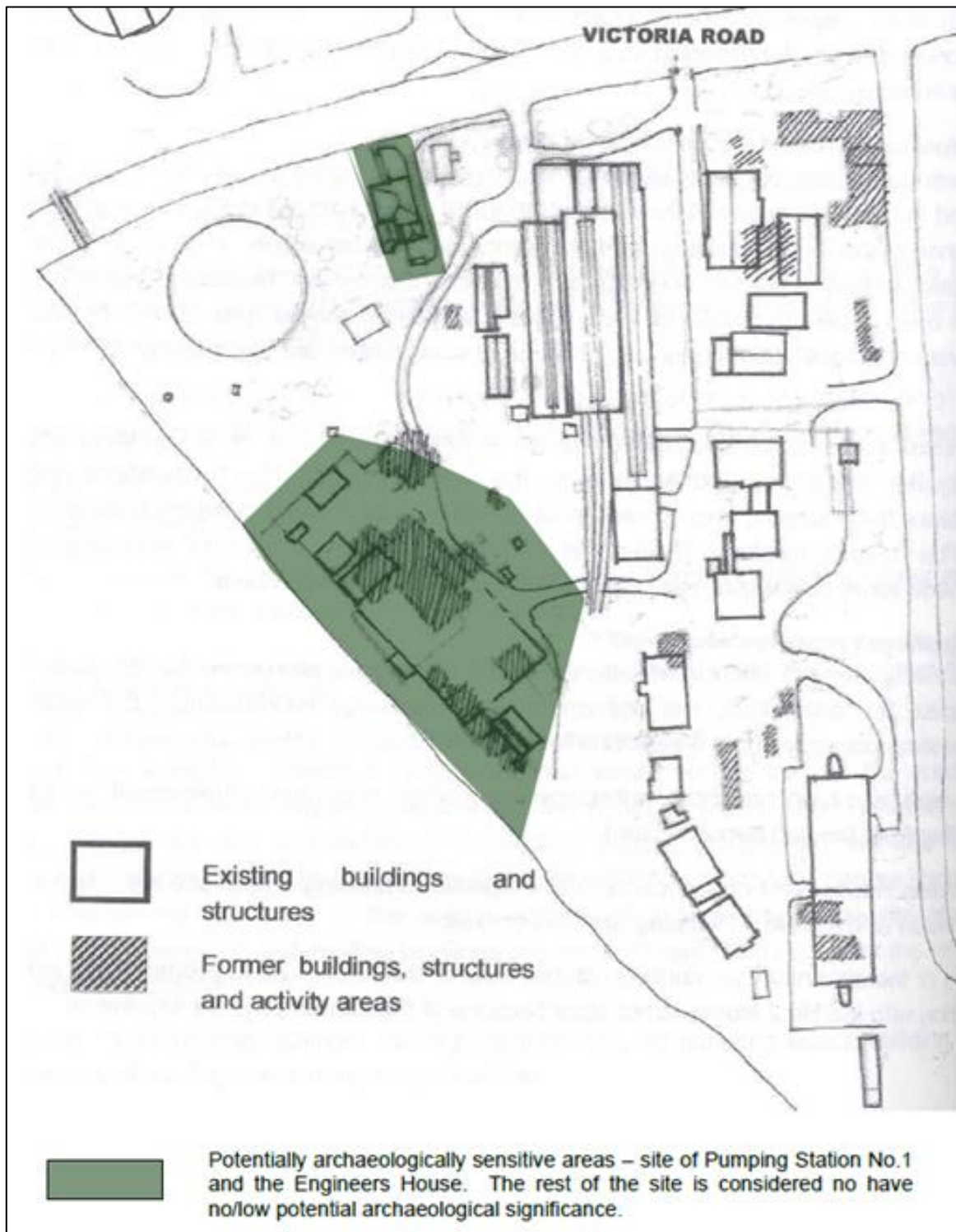


Figure 4-3: Site Plan showing the potentially archaeologically sensitive areas at Ryde Pumping Station. The Engineer's House is no longer part of the site. (Source: Figure 3-27 of the CMP; SWC)

4.5. Heritage Items in the Vicinity

One item of local heritage significance, identified in Schedule 5 of the Ryde LEP 2014, is located in the near vicinity of Ryde Pumping Station. Three others are nearby in Maxim Street but are separated by the railway line. The following table reproduces the relevant Statement of Significance:

Table 4-4: Heritage Items in the Vicinity of Ryde Pumping Station

Local Heritage Items

House (Former Engineer's residence) - Ryde LEP 2014 (I156)

958 Victoria Road West Ryde NSW 2114



representative of the Federation Queen Anne style.

Statement of Significance: The house has historical significance as the former Ryde Pumping Station Engineer's residence, built circa 1891 and extended circa 1900-1906. The house illustrates the accommodation provisions for senior staff of the Pumping Station in the late 19th and early 20th centuries, the alterations to the residence in this period reflecting the changing needs of the resident engineer. The house has historical association with the Ryde Pumping Station from 1891. The house has aesthetic significance as a circa 1891 single storey residence within substantial grounds, extended with a rear wing circa 1900 and with a first floor in 1906, and now

Church - Ryde LEP 2014 (I69)

7 Maxim St West Ryde NSW 2114



Church, is of local social significance to the Uniting Church community of West Ryde, The church is representative of early 20th century suburban churches for protestant denominations, and is representative of the Inter-war Gothic style.

Statement of Significance: The site is of historical significance for its history since 1915 as the site of a Methodist (later Uniting) Church. and its history as part of the Ryde Uniting Church since 1977. The current brick church building has served as a place of worship for the Methodist/Uniting Church community since 1922. The brick church is of aesthetic significance as an austere Inter-war Gothic style church building, built in 1922. The designers of the church are likely to have been architects McCredie and Anderson (designers of the church hall built the same year). The church, built in 1922 as a Methodist Church and now a Uniting

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Milton (house) - Ryde LEP 2014 (I70)

22 Maxim St West Ryde NSW 2114



Statement of Significance: Significant as a highly intact Federation Queen Anne style house built c. 1910 for Richard Springall, engineer, historically associated with the Meadowbank Manufacturing Company, and representative of later development of the Meriam Hill Estate subdivisions. The house is of aesthetic significance as a representative example of the Federation Queen Anne style.

House - Ryde LEP 2014 (I71)

24 Maxim St West Ryde NSW 2114



Statement of Significance: The house "Valhalla" built 1906, is of historical significance as part of the second subdivision of the Miriam Hill Estate of 1900. The house was built for Gustaf E. Green, engineer, by Emil Green, builder. The dwelling has aesthetic significance as a good weatherboard example of the Federation Queen Anne style, its weatherboard construction material being rare in the area.

5. Proposed Works

5.1. Background

The following background for the proposed works was provided by Sydney Water:

Sydney Water is proposing to reinstate an existing watermain running between Ryde pumping station and the Roland Avenue (~10km). The existing watermain was installed in the 1930s and taken out of service in 2014 due to its poor condition and failure risk. The need for the works is to increase capacity of the water distribution system for servicing the uptake in drinking water demand within the Prospect Water System, particularly as the North Shore is projected to grow.

Sydney Water has two options for the detailed implementation of this project, represented by the two tendering contractors (John Holland and MDG JV) for the works.

5.2. Proposed Works

Sydney Water has provided the following summary of the proposed works:

1. *Construction compounds are to be established on hardstand areas within the SHR curtilage for up to 2.5 years; the eastern compound will be largely outside of the SHR curtilage. This is likely to include parking, equipment & materials laydown and site office.*
2. *Excavation of the edge of the property boundary to tie in the new watermain to Ryde Pumping Station. We are looking at 2 different options for the alignment (green and blue lines below are the options; yellow shows the existing asset).*
 - *Tie-in works would involve:*
 - *Non-destructive digging to find, expose and protect existing utilities.*
 - *Excavation works to expose existing watermains and provide working space around the Sydney Water mains.*
 - *Temporary works/shoring system installation – most likely sheet piles.*
 - *Cutting of existing watermains and welding new connections.*
 - *Backfill and restoration.*
 - *Example of how excavation at the connection/cut-in point will look (Figure 5-4) and proposed connection detail (Figure 5-5).*

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- This area has been largely disturbed for installation of existing assets, DBYD and survey info has been mapped. The orange area below shows the connection/cut-in point excavation area (see Figure 5.6).
- Excavations would be outside of the heritage Chilean Palms TPZ along Victoria Ave – an arborist has advised that palm trees and monocots have a TPZ of 1m outside of the crown projection (i.e. tree drip line) to avoid impact to the root balls.
- The green alignment option can use existing asset trenches and the blue alignment would be a new trench approx. 1.9m wide and 2m deep.

Table 5-1: Assessed documentation of Proposed Works

Figure	Description	Date	Revision
Figure 5-1	Proposed compound areas for the watermain construction works.	05/03/2025	1
Figure 5-2	Proposed alignment options for the watermain.	05/03/2025	1
Figure 5-3	Closeup detail image of the proposed alignment options for the watermain.	05/03/2025	1
Figure 5-4	Photographic example of an excavation at the connection/cut-in point.	05/03/2025	1
Figure 5-5	Detail diagram of the proposed watermain connection.	05/03/2025	1
Figure 5-6	Services mapping of the proposed work area.	05/03/2025	1



Figure 5-1: Proposed compound areas for the watermain construction works. These will include areas for parking, equipment and materials laydown and a site office. (Source: Sydney Water)

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Figure 5-2: Proposed alignment options for the watermain. The green and blue lines show the proposed alignment options. The existing watermain is shown in yellow. Blue shading indicates the SHR curtilage. (Source: Sydney Water)

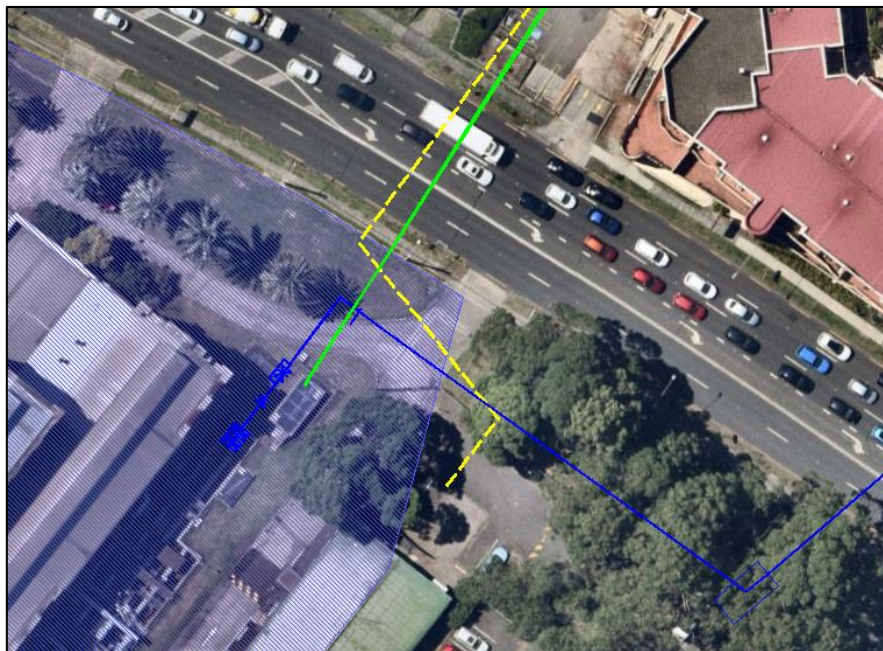


Figure 5-3: Closeup detail image of the proposed alignment options for the watermain. The green and blue lines show the proposed alignment options. The existing watermain is shown in yellow. (Source: Sydney Water)

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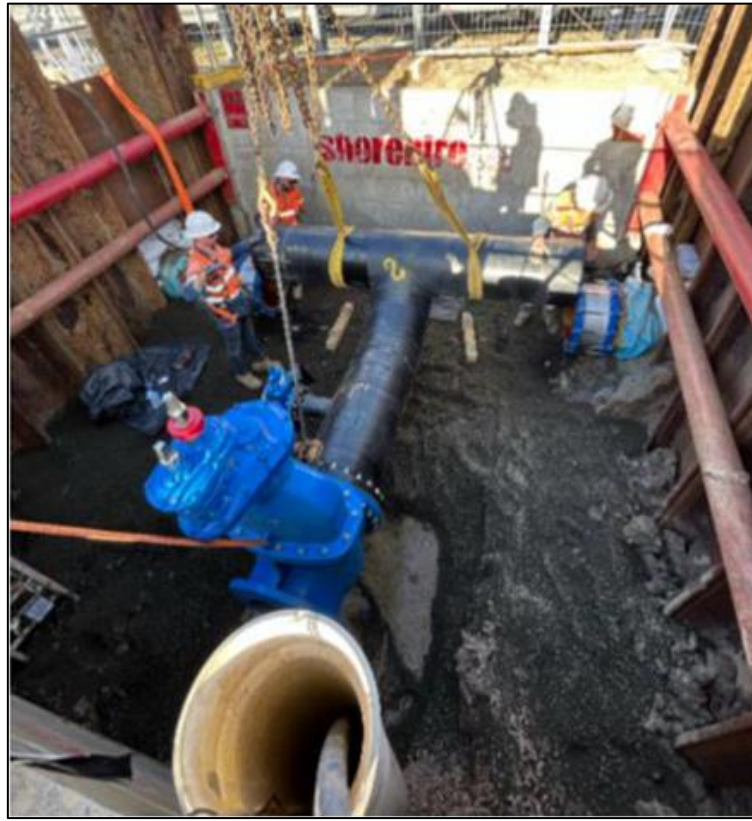


Figure 5-4: Photographic example of an excavation at the connection/cut-in point. The proposed works are expected to broadly follow this approach. (Source: Sydney Water)

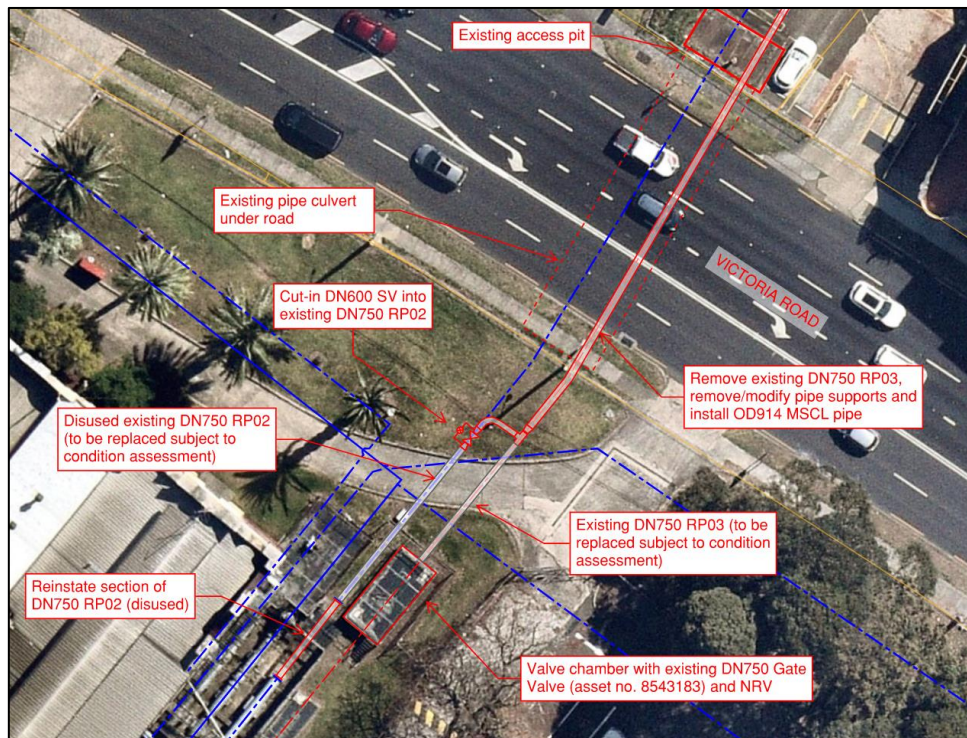


Figure 5-5: Detail diagram of the proposed watermain connection. (Source: Sydney Water)

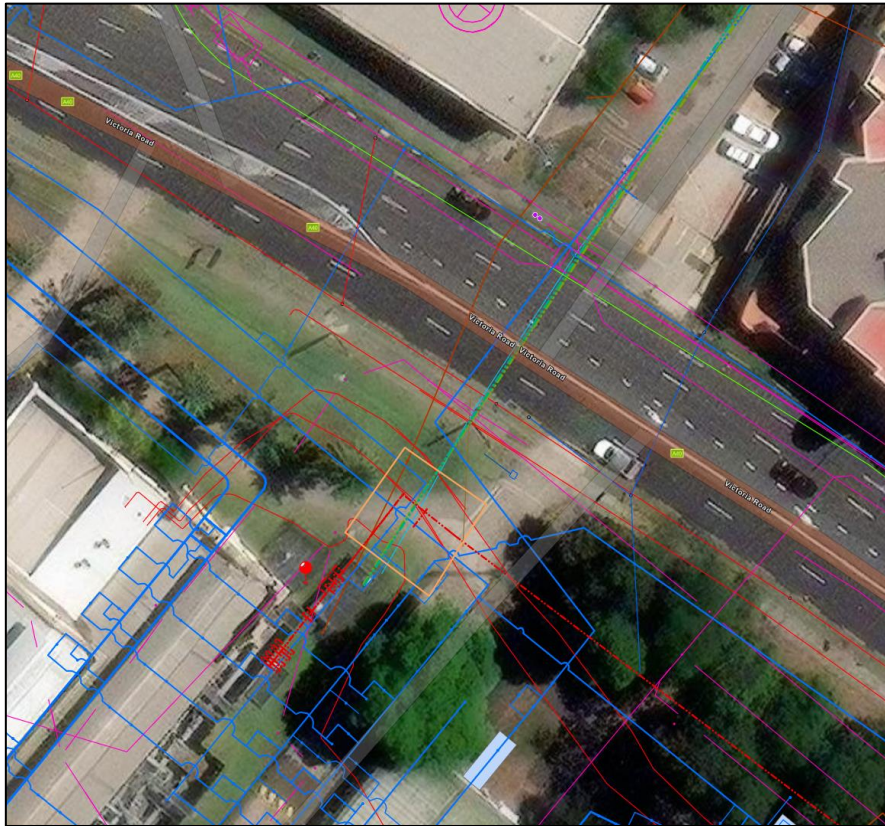


Figure 5-6: Services mapping of the proposed work area. The orange area shows the connection/cut-in point excavation area. (Source: Sydney Water)

5.3. Contractor Variations

The two tendering contractors have provided individual proposals in relation to the execution of this project. Insofar as these proposals affect the State Heritage Register curtilage of Ryde Pumping Station, there are minor variations between the two proposals. These are detailed below.

5.3.1. John Holland

The plan below shows the proposed impact at Ryde Pumping Station for the John Holland proposal. In this plan:

- The yellow polygon is the proposed area of ground disturbance for the pipeline/tie in works.
- The blue/green footprint shows the construction corridor, which includes vegetation trimming/removal, access roads, offices and compounds.
- Vegetation trimming is shown in grey and removal in purple.
- Construction compounds are shown in red.

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Figure 5-7: Layout Plan supplied by John Holland. (Source: John Holland)

John Holland provided additional clarification in relation to specific aspects of this plan as it related to the Ryde Pumping Station area. These clarifications are set out in the table below.

Table 5-2: John Holland Clarifications

Issue	JH Clarification
Any penetration or alteration to the concrete slab or to any of the other concrete elements in this compound area must be avoided - it sits over the buried remains of the first pumping station building. Will there be any disturbance? Will there be any impact to existing small sheds and buildings? 	- Proposed location will be used as a storage / hardstand area only. - We are not expecting to undertake any excavation or ground disturbance works. - External temporary fencing and gates to be installed. - Minimal change to existing buildings, except minor internal renovations <i>(if required)</i>

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	- Environmental Impact Area and construction corridor should exclude the 1m off-tree drip line for the heritage palms – Noted In delivery - Arborist assessment is required for all trees and vegetation. - Final design and construction methodology will need to be confirmed based on the actual location of the existing RP02 main (and other underground services), including any potential impact to the palms.
	- Pending the outcome of the detailed design for surge/transient analysis and as part of the potential provisional sum, the temporary office buildings (inside the yellow area) may have to be removed to accommodate the potential surge vessel's location. - Please note the potential surge vessels will be mounted above ground and will be visible from the road.
	- Current assessment indicates that we will need to provide an access corridor for delivery trucks, with the potential removal of several trees / trimming of others along the current road. - In delivery: - Arborist assessment is required for all trees and vegetation. - Road alignment and sweep path analysis is required to determine the final Tree Clearing / trimming requirements and potential minor curb/road readjustments. - Final road alignment and tree trimming / clearing requirements can take into consideration existing trees.

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5.3.2. MDG Joint Venture

The plan below (Figure 5.7) shows the proposed impact at Ryde Pumping Station for the McConnell Dowell and Gamuda Joint Venture proposal. In this plan:

- The green trees are vegetation to be retained; red trees are to be removed.
- The red boundary is the construction corridor.
- The blue boundary is the proposed area of ground disturbance for the new pipeline and tie-in works.
- The pink polygons are the construction compounds.

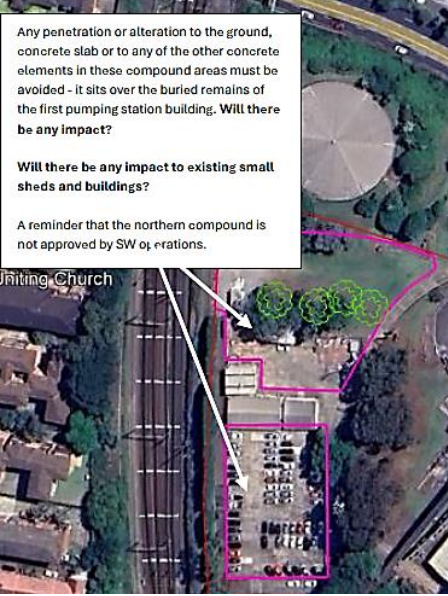


Figure 5-8: Layout Plan supplied by MDG JV. (Source: MDG JV)

The MDG Joint Venture provided additional clarification in relation to specific aspects of this plan as it related to the Ryde Pumping Station area. These clarifications are set out in the table below.

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Table 5-3: MDG JV Clarifications

Issue	MDG JV Clarification
 Any penetration or alteration to the ground, concrete slab or to any of the other concrete elements in these compound areas must be avoided - it sits over the buried remains of the first pumping station building. Will there be any impact? Will there be any impact to existing small sheds and buildings? A reminder that the northern compound is not approved by SW operations. Uniting Church	• No excavation is planned within this area. Confirming concrete elements will not be impacted. • JV has assumed the small sheds and buildings shall remain - no impact proposed. • Noted. Please note previous advice from Sydney Water via Doc4808197697 sent 18/03/25 stated this compound had business approval.
 No work within TPZ (1m off tree drip line) of significant heritage palms.	JV will remain clear of 1m TPZ of significant palms.
 According to the heritage Conservation Management Plan, there is a line of Sydney Blue Gums alongside the road, with a group of Pepper Trees (invasive species) behind. The Blue Gums have higher conservation value than the Pepper Trees. Please confirm is impact will be limited to removal of the Pepper Trees only?	Noting the Blue Gums are the line of trees alongside the road, our current alignment is intentionally offset from both Hermitage Rd and Victoria Rd. This is to maintain alignment as close as possible to the Ryde Pumping Station fence line. Therefore, the removal of trees is likely to be primarily constrained to the Pepper Tree cluster as noted above. Noting the conservation value of the Blue Gums, the JV will perform early investigation to confirm locations of all tree species in the vicinity, supported by arborist assessment. This will inform the refinement of our alignment to mitigate removal of high conservation value Blue Gums. Please note, work is expected to encroach TPZ of some of the retained trees in this area. The impact on these retained trees is expected to be manageable with consultation with specialist arborist advice during delivery phase.

6. Heritage Impact Assessment

6.1. Approach to Assessment

The Ryde Pumping Station and Site is identified in the NSW State Heritage Register, the Sydney Water Heritage and Conservation Register (s170) and in Schedule 5 of the Ryde LEP 2014. The proposed development is, therefore, required to respond to the heritage significance of its site and setting, to ensure the impacts of the proposed works on the heritage significance of the heritage item are minimised.

The following section provides an assessment of heritage impacts caused by the proposed works, consistent with the *Guidelines for preparing a statement of heritage impact*⁵. The assessment follows the definitions of 'heritage impact', based on the *Heritage NSW Material Threshold Policy*⁶. These have been modified to apply to matters of local, Commonwealth and National heritage significance, as relevant to the context of the Ryde Pumping Station and Site.

Table 6-1: Scale of Impact to Heritage Significance

Impact	Definition
Total Loss of Significance	Major adverse impacts to the extent where the place would no longer meet the criteria for listing.
Adverse Impact	Major (that is, more than minor or moderate) adverse impacts. Moderate adverse impacts to the heritage significance of the item. Minor adverse impacts to heritage significance of the item.
Little to no Impact	An alteration to a significant heritage item that is so minor that it is considered negligible.
Positive Impact	Alterations to a significant item that enhance the ability to demonstrate its cultural heritage values.

6.2. Matters for Consideration

The *Guidelines for preparing a statement of heritage impact*⁷ provide a series of matters for consideration when assessing the impact of a proposed work to the heritage values of an item or place. The following sections provide a detailed assessment of matters, as they are relevant to the Ryde Pumping Station.

⁵ Department of Planning and Environment NSW, 2023b.

⁶ Department of Planning and Environment NSW, 2022.

⁷ Department of Planning and Environment NSW, 2023b.

6.2.1. Fabric and Spatial Arrangements

The proposed works are for the excavation and construction of subsurface water services and do not include any demolition of, or alteration or addition to, significant built fabric. The proposed works will not alter the spatial arrangement of any elements of the Ryde Pumping Station site. There will be some limited vegetation trimming and removal but impact to significant trees has generally been avoided in the proposal. The signature Palm trees and Sydney Bluegums along the Victoria Road frontage will not be affected. Where possible, significant native trees will be trimmed rather than removed to provide acceptable vehicle access along the internal roads.

The proposed works will have little to no impact on the fabric and spatial arrangements of the Ryde Pumping Station.

6.2.2. Setting, Views and Vistas

The proposed works are for the excavation and construction of subsurface water services and will not impact the setting, views and vistas of the Ryde Pumping Station buildings or site. There will be a temporary visual impact from the construction site and associated contractor compounds but this will be removed at the end of the works.

The proposed works will have little to no impact on the setting, views and vistas of the Ryde Pumping Station.

6.2.3. Landscape

The proposed works involve the removal of the smaller Pepper Trees adjacent to Victoria Road and pruning of a small number of trees within the site. These works will not remove any trees identified as significant, including the Sydney Blue Gums between the Pepper Trees and Victoria Road. The remnant endemic vegetation trees will not be affected. The Pepper Trees are regarded as an invasive, non-native species and the removal of the self-sown progeny of the original ornamental trees is an acceptable control measure.

Although some vegetation management will be required to facilitate the works, the overall landscape of the Ryde Pumping Station, including significant trees, will remain intact.

6.2.4. Use

The proposed works will support the continued use of the Ryde Pumping Station as an operational water pumping station. It was purpose-built as a pumping station and has operated continuously since 1892.

6.2.5. Demolition

The proposal does not include the demolition or removal of any original, heritage fabric. Valves and pipework will be altered, with some elements being replaced, however, these elements are not of any individual heritage significance and their replacement for operational purposes is consistent with the nature of the significance of Ryde Pumping Station.

6.2.6. Curtilage

There will be no impact upon the curtilage of Ryde Pumping Station arising from the proposed works.

6.2.7. Movable Heritage

There will be no impact upon any items of movable heritage at Ryde Pumping Station arising from the proposed works.

6.2.8. Aboriginal Cultural Heritage

There will be no impact on any aspect of Aboriginal cultural heritage arising from the proposed works at Ryde Pumping Station.

6.2.9. Historical Archaeology

Excavation for access to pipework will be discrete and will be conducted in areas already heavily disturbed by the installation of water supply pipework. The proposal will have little to no impact on any known historical archaeological material at Ryde Pumping Station.

6.2.10. Natural Heritage

Ryde Pumping Station is not identified as having any natural heritage significance.

6.2.11. Heritage Conservation Areas

Ryde Pumping Station is not within the boundaries of any identified Heritage Conservation Areas (HCAs). The nearest is the *Maxim Street, West Ryde Heritage Conservation Area*, which lies across the railway line to west of the site. There will be no impacts to this Heritage Conservation Area arising from the proposed works.

6.2.12. Cumulative impacts

The proposed works will not have any adverse impact on any significant fabric or features at Ryde Pumping Station and, as such, will not produce a cumulative impact that adversely affects the heritage significance of Ryde Pumping Station.

6.2.13. Conservation Management Plan

The *Ryde Pumping Station Conservation Management Plan* was produced by Sydney Water in 2004 and was endorsed by the NSW Heritage Council in August 2004. A subsequent CMP prepared by Urbis in 2018 appears to have not progressed beyond the draft stage, with many sections incomplete. Notably, there are no conservation policies provided in this document and, consequently, it is not applicable to a current assessment of the proposed works.

The conservation policies contained in the 2004 CMP have been reviewed and those that are relevant to the project are addressed below.

Table 6-2 Assessment of the proposed works against the [CMP] policies.

Policy no.	CMP Policy Statement	Assessment Response
7.3.1 Treatment of Fabric of Different Grades of Significance	The grading of significance as outlined in the CMP Manual and applied in Section 4.7 is to be used as a planning tool that assists in developing a consistent approach to the treatment of the different elements. The various grades of significance are to generate different requirements for retention and conservation of the individual elements.	The proposed works have been designed to avoid any impact on fabric identified as being of Exceptional, High or Moderate significance.
7.5 Retention of Significance	The surviving historic fabric of exceptional and high significance should be retained and conserved in ways that protect and enhance the features and characteristics of Ryde Water Pumping Station that define its cultural significance. Conservation should be undertaken in the context of the on-going use and sensitive development of the item as a water pumping station.	The proposed works have been designed to avoid any impacts upon fabric identified as being of Exceptional, High or Moderate significance.
7.6.1 Conservation of Significant Built Fabric	Surviving segments of the historic built fabric shall generally be retained and conserved in accordance with the levels of significance identified in Chapter 4 – Grading of Significant Elements of this Conservation Plan and managed in accordance with Section 7.3.1 –	The proposed works have been designed to avoid any impacts upon fabric identified as being of Exceptional, High or Moderate significance.

Treatment of Fabric of Different Grades of Significance.

7.6.2 Installation of New Services and Upgrading to Suit Contemporary Use

The integrity of the water supply system is recognised as paramount and the introduction of contemporary technologies is permissible where no alternatives exist in order to meet operational needs.

The ongoing function of Ryde Water Pumping Station will require upgrades and changes and changes must be undertaken in a way that minimises the impact on significant fabric.

... The modification of existing services or installation of new services in general is considered acceptable, if it respects the integrity of the original significant fabric.

The removal of elements deteriorated beyond repair and their replacement with modern elements is considered acceptable, provided that the original elements are assessed for suitability to be included in the movable heritage of the site. Alternatively, a full archival recording of the replaced elements should be undertaken and the report stored in the Sydney Water Archives.

The proposed works have been designed to avoid any impacts upon fabric identified as being of Exceptional, High or Moderate significance.

Pipework may be modified by the proposed works where interconnections are to be made, however, these alterations are consistent with the heritage significance of the pipework and of the Ryde Pumping Station overall.

7.8 Engineering Heritage and Technical Significance

The Engineering significance of the Ryde Water Pumping Station is largely encapsulated in its original structures and the technical information about its creation. The preservation of this aspect of significance can be ensured through ongoing retention of the historic fabric of the Pumping Station and through interpretation of the technical information available...

Preserve the elements of the Ryde Water Pumping Station assessed as being of Exceptional or High significance. Should any elements of Exceptional or High significance have to be removed, due to deterioration beyond repair or a public health and safety issue, the removed element should be assessed for suitability to be included in Sydney Water's Moveable Heritage collection. The elements assessed as unsuitable should be recorded for archival purposes prior to their disposal.

The proposed works have been designed to avoid any impacts upon significant fabric.

7.10 Archaeological Resources 7.10.1 Aboriginal Archaeological Resources	Given the high level of disturbance to the site, the survival of Aboriginal archaeological material is considered unlikely. Any potential Aboriginal archaeological resources within the Ryde Water Pumping Station and the associated site should be conserved in accordance with the requirements of the NSW National Parks and Wildlife Act 1974 and their potential for interpretation considered.	The proposed works will be undertaken within areas that already contain pipework and will not have any impact upon Aboriginal archaeological material of significance.
7.10.2 Historic Archaeological Resources	Given the high level of disturbance to the site, (disposal of machinery and moveable heritage, demolition and construction of new buildings) the archaeological potential associated with the former operations and technology of the place is limited and may not provide new or substantial information into the historic operations and technology of the place.	The proposed works will be undertaken within areas that already contain pipework and will not have any impact upon historic archaeological material of significance.
7.11 Landscape, Cultural Plantings & Natural Heritage	The cultural landscape of the site will be actively managed to retain the amenity and landscaped character of the place. Significant views to Pumping Station No. 2 from Victoria Road, as the original presentation, should be conserved and retained.	The proposed works will not have any long-term impact upon views to or from Ryde Pumping Station.
7.11.2 Cultural Plantings	The cultural plantings on site should be conserved as an important part of the landscape setting, as an example of early landscaping with native species and as an example of Depression Relief Gardening Works.	The removal of self-sown Pepper Trees near the Victoria Road and Heritage Road corner is part of the environmental management of invasive species which is now classed as a serious environmental weed in NSW. Removal of the Pepper Trees is a positive environmental outcome. The proposed works will not have any substantive impact on cultural plantings at Ryde Pumping Station.
7.11.3 Remnant Vegetation	The remnant species on site should be conserved as a reminder of the Sydney Turpentine Ironbark forest, which once covered the site.	The proposed works will not have any impact on remnant endemic species at Ryde Pumping Station.
7.11.4 Weeds	Noxious weeds should be dealt with according to their category, in compliance with NSW legislation. Other weeds should be managed to appropriately to prevent their spread.	Vegetation management and removal of self-sown Pepper Trees is consistent with this policy.

7.13 Social Significance and Interpretation

Conservation and on-going use of heritage items should include interpretation of their role in the development of the locality, history of Sydney Water and in Australian history. This does not necessarily require on site interpretation. The interpretation potential of high profile Sydney Water sites should be investigated in a strategic manner, enabling the prioritisation of sites of potential interest.

The proposed works are intended to facilitate the operation of the Ryde Pumping Station and will have little to no impact on any significant buildings, fabric or features.

Due to the minor nature of the works, interpretation is unnecessary.

7.17 Implementation

Retention of significance and conservation of the significant fabric of the Ryde Pumping Station and Site are to be undertaken in accordance with the findings of this Conservation Management Plan. The CMP is to be made publicly available to the operators and visitors of the Ryde Pumping Station and Site, and to other interested parties. Future works on the site must be in accordance with this CMP, including the conservation and maintenance works as detailed in the Chapter 8 – Implementation of this CMP.

The proposed works are consistent with this policy and with the other policies of the CMP.

6.2.14. Heritage Items in the Vicinity

There are no heritage items or heritage conservation areas in the vicinity of Ryde Pumping Station that will be affected by the proposed works.

6.2.15. Commonwealth/National Heritage Significance

There are no heritage items or heritage conservation areas of Commonwealth or National significance in the vicinity of Ryde Pumping Station that will be affected by the proposed works.

6.2.16. World Heritage Significance

There are no heritage items or heritage conservation areas of World heritage significance in the vicinity of Ryde Pumping Station that will be affected by the proposed works.

6.2.17. Interpretation

The proposed works are operational in nature and will not have any substantive impact upon any significant heritage fabric at Ryde Pumping Station. Interpretation of the works is unnecessary.

6.3. State-Owned Heritage Management Principles

As the proposed works are located within the curtilage of Ryde Pumping Station, which is owned by Sydney Water and is listed on the Sydney Water’s Heritage and Conservation Register, the proposed works are required to respond to the *State-owned Heritage Management Principles 2024*⁸. The following table reproduces the State-owned heritage management principles, with responses to each principle as it relates to the proposed works:

Table 6-3: State-Owned Heritage Management Principles, with responses for the proposed works

Principles	Responses
1. Heritage asset management strategy <i>Each state agency is required to develop a heritage asset management strategy to implement the state-owned heritage management principles and guidelines. A heritage asset management strategy:</i> • <i>assists an agency in the conservation of its heritage assets</i> • <i>provides the basis for Heritage Council delegation to state agencies for the management of their heritage assets.</i>	This principle is not applicable to the proposed works.
2. Identification of heritage assets <i>State agencies' heritage asset management strategies are to identify a date for completing their heritage and conservation register.</i>	This principle is not applicable to the proposed works.
3. Lead by example <i>State agencies should lead by example by adopting appropriate heritage management strategies, processes and practices. The public sector should set the standard for the community in the management of heritage assets.</i>	This principle is not applicable to the proposed works.
4. Conservation outcomes	The proposed works will not adversely affect the heritage significance of Ryde Pumping

⁸ Department of Climate Change, Energy, the Environment and Water NSW. 2024.

Principles	Responses
<i>Heritage assets should be conserved to retain their heritage significance. State agencies should aim to conserve assets for operational purposes or to adaptively reuse assets in preference to alteration or demolition.</i>	Station. The works intend to facilitate the continued use of the site as a water pumping station.
5. Sustainability <i>Conservation of cultural and natural heritage is recognised as part of a state agency's management response to ecologically sustainable development. The conservation and, where appropriate, adaptive re-use of heritage assets has major benefits to the community in terms of promoting the wise use of resources and achieving energy savings.</i>	The proposed works will support the long-term sustainability of Ryde Pumping Station by improving the efficiency of the water delivery system.
6. Integrated heritage management <i>Heritage assets, and their importance, should always be considered by state agencies as an integrated part of their asset management. Agencies should be guided by the NSW Treasury capital planning.</i>	This principle is not applicable to the proposed works.
7. Appropriate uses <i>Heritage assets should, where feasible, continue to be maintained in their operational role. Where they are surplus to operational requirements, state agencies should aim to ensure that items are adaptively re-used for a purpose sympathetic to their heritage significance.</i>	The proposed works will support the long-term operation of the Station for the purpose for which it was designed and built.
8. Maintenance of heritage assets <i>Heritage assets are to be maintained in a manner which retains heritage significance, with the objective of preventing deterioration and avoiding the need for expensive 'catch-up' maintenance and major repairs.</i>	The proposed works are not maintenance works but are operational alterations that will support the long-term operation of the Station for the purpose for which it was designed and built.
9. Alterations <i>Alterations should be planned and executed to minimise negative impacts on heritage significance (including curtilage and setting), and appropriate mitigating measures should be identified.</i>	The proposed works involve alterations to delivery pipework but have been designed to avoid any impacts upon significant fabric.
10. Transfer of ownership <i>The transfer of ownership or control of heritage assets that are surplus to the state agency's requirements needs to be planned and executed to conserve the item's significance.</i>	This principle is not applicable to the proposed works.
11. Management of redundant heritage assets <i>Management of redundant heritage assets (orphan assets) surplus to the state agency's needs (but still in</i>	This principle is not applicable to the proposed works.

Principles	Responses
the ownership of the agency or under its control) should be planned and executed to conserve the item's heritage significance.	
12. Prudent financial and budgetary management <i>State agencies should implement the 5 stages of Total Asset Management in an efficient and effective manner which achieves value for money and does not unreasonably burden the community into the future. For example, the deferring of conservation and maintenance actions to heritage assets will result in additional costs in the longer term.</i>	This principle is not applicable to the proposed works.
13. Staff expertise and compliance <i>State agencies need to ensure that their staff are appropriately informed on the value and role of their heritage estate. Specific expertise should be available to effectively and efficiently implement these principles and guidelines.</i>	This principle is not applicable to the proposed works.
14. Monitor performance <i>State agencies should adopt processes to monitor and report on the relevance, effectiveness and efficiency of heritage assets and service delivery, and take prompt action to provide for optimal heritage conservation outcomes.</i>	This principle is not applicable to the proposed works.
15. Monitor condition <i>State agencies monitoring and reporting on the physical condition of heritage assets in their heritage and conservation registers should take appropriate action to ensure heritage significance is not eroded.</i>	This principle is not applicable to the proposed works.
16. Reporting <i>Reporting is an effective tool that is to be used as a basis for achieving continuous improvement within a state agency's heritage asset management strategy and in setting budgetary priorities.</i>	This principle is not applicable to the proposed works.
17. Promotion <i>State agencies should take every opportunity to celebrate and promote their heritage estate with the community.</i>	This principle is not applicable to the proposed works.

6.4. Summary of Assessed Impacts

The proposed works involve alterations to delivery pipework (as well as works outside the curtilage of the Ryde Pumping Station) and have been designed to avoid any impacts on significant fabric at Ryde Pumping Station. The pipework will be modified by the proposed works where interconnections are to be made, however, these alterations are consistent with the heritage significance of the pipework and of the Ryde Pumping Station overall. The proposed works are consistent with the heritage value of Ryde Pumping Station as an operational infrastructure facility and will enable and enhance its ongoing operations.

In the context of the matters assessed above, the proposed works would result in a neutral to slightly positive impact to the heritage significance of the Ryde Pumping Station.

7. Statutory Heritage Context

The conservation and management of heritage items takes place within a framework of relevant Commonwealth, State, and Local government legislation. Additionally, non-statutory registers, conservation policies and community attitudes and expectations can also have an impact on the management, use and development of heritage items. A description of each heritage list and the protection afforded to items listed therein is provided below.

7.1. Commonwealth Legislation

There are no heritage items identified in the World, National or Commonwealth Heritage Lists in or within the vicinity of Ryde Pumping Station. The proposed works are, therefore, not required to respond to any statutory requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), as it pertains to heritage matters.

7.2. State Legislation

7.2.1. The Heritage Act 1977 (NSW)

7.2.1.1. State Heritage Register

The Heritage Council of NSW maintains the State Heritage Register (SHR). Only heritage places, buildings, works, relics, movable objects, precincts and archaeological sites which are of state-level heritage significance in NSW are listed on the SHR. Listing on the SHR controls activities such as alteration, damage, demolition and development. When a place is listed on the SHR, the approval of the Heritage Council of NSW is required for any major activity that could affect the place, including the following:

- Demolishing the building or work.
- Carrying out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place or land within the precinct.
- Altering the building, work, relic or movable object.

An application under section (s) 60 of the *Heritage Act 1977* (NSW) (Heritage Act) must be made to the Heritage Council in order to carry out such activities.

Standard Exemptions

Approval under (s) 60 may not be required if works are undertaken in accordance with the *Standard Exemptions for Works Requiring Heritage Council Approval* (published by the NSW Heritage Council in

June 2022). Works undertaken in accordance with the gazetted standard exemptions do not require official notification to Heritage NSW, although sufficient record keeping and justification for their use may be required. The Standard Exemptions are:

1. Maintenance and cleaning
2. Repairs to non-significant fabric
3. Alteration to non-significant fabric
4. Alteration to interiors of non-significant buildings
5. Repair or replacement of non-significant services (mechanical, electrical and plumbing)
6. Non-significant telecommunications infrastructure
7. Fire safety detection and alarm systems
8. Excavation
9. Painting
10. Restoration of fabric that forms part of the significance of the item (significant fabric)
11. Subdivision of non-significant buildings
12. Temporary structures
13. Vegetation
14. Burial sites and cemeteries
15. Signs
16. Filming
17. Temporary relocation of moveable heritage items
18. Compliance with minimum standards and orders
19. Safety and security
20. Emergency situations and lifesaving
21. Change of use

Of these, Standard Exemptions 3, 8 and 13 may be relevant.

The conditions and standards for Standard Exemption 3 (Alteration to non-significant fabric) are:

Specified activities/works

a. The alteration of an item involving the introduction of new fabric and/or the removal of non-significant fabric.

Relevant standards

b. The specified activities/works must not impact the heritage significance of the item.

c. Significant fabric of the item must not be impacted.

d. Relics must not be impacted.

e. Activities/works must not involve construction of extensions or additions where these may impact the item's setting, views to or from the item, obscure existing significant fabric, impact relics and/or impact significant landscape layout, landscape elements or vegetation.

f. The positioning and size of walls, windows and doors is not altered.

g. Significant finishes, surfaces (including flooring) and fixtures must not be impacted.

h. Any new fabric must be sympathetic to but can be distinguished from the appearance, composition, detailing, size, position and finish of existing fabric.

i. Non-significant fabric must be identified as non-significant fabric in the listing on the State Heritage Register or the gazetted Interim Heritage Order, or a Conservation Management Plan, Conservation Management Strategy, Heritage Collections Plan, Archaeological Management

Plan or Aboriginal Place Management Plan or identified as non-significant fabric in written advice prepared by a suitably qualified and experienced heritage professional before it can be removed.

j. Installation of new fabric must be in accordance with the policies of a Conservation Management Plan, Conservation Management Strategy, Heritage Collections Plan, Archaeological Management Plan or Aboriginal Place Management Plan or in written advice prepared by a suitably qualified and experienced heritage professional before installation.

k. Any new fabric must not impact setting or views to or from the item, obscure existing significant fabric or limit access to existing fabric for future maintenance.

l. Any new penetrations must be:

i. limited in number; and

ii. made through non-significant fabric or mortar joints only.

m. Any excavation must comply with Standard Exemption 8: Excavation relevant standards.

n. Any new fabric must not exacerbate the decay of existing fabric or risk the destruction of existing significant fabric due to chemical incompatibility, vibration, percussion or explosive flammability.

The specified conditions and standards for Standard Exemption 8 (Excavation) are:

Specified activities/works

a. Excavation or disturbance of land that is:

i. for the purpose of exposing underground utility services infrastructure which occurs within an existing service trench, or

ii. to carry out inspections or emergency maintenance or repair on underground utility services, or

iii. to maintain, repair, or replace underground utility services to buildings, or

iv. to maintain or repair the foundations of an existing building, or

v. to expose survey marks, or

vi. associated with feral animal/insect eradication.

b. Removing contaminated soils.

Relevant standards

c. Activities/works must not disturb or remove any relics.

d. Excavation must not compromise the structural integrity of any heritage structure or significant landscape elements.

e. Activities/works must not affect archaeological evidence, for example the archaeology of foundation trench deposits from the time of original construction.

f. If an environmental assessment is required under (NSW) in relation to (b) of the specified activities/works, the assessment must be undertaken prior to Part 5 of the Environmental Planning and Assessment Act 1979 commencing any work to remove the contaminated soil.

The specified conditions and standards for Standard Exemption 13 (Vegetation) are:

Specified activities/works

a. Weeding (including poisoning of weeds), watering, mowing, manual clearing of paths and drains, top-dressing, pest control and fertilising.

b. New planting of species sympathetic to the item.

c. Pruning to control size, improve shape, condition, flowering or fruiting.

d. Removal of non-significant diseased, dying, dead and/or dangerous trees and/or plant material.

e. Tree surgery.

Relevant standards

- f. Activities/works must not alter the significant layout, contours, plant species or other significant landscape features or views.*
- g. Pruning of significant vegetation must not exceed 30% of the tree canopy within a period of two years.*
- h. Tree surgery may only be performed by a qualified arborist, horticulturist or tree surgeon and must be necessary for the health of those plants.*
- i. Selective herbicide should be used when poisoning weeds. Herbicide should be applied using:
 - i. spot application around significant elements of the heritage item (for example, ornamental or symbolic plants, remnant native vegetation, structures, exposed relics and moveable items) to avoid adverse impacts to these; and*
 - ii. spraying in non-significant areas of the curtilage.**
- j. Removal of diseased, dead, dying or dangerous trees and/or plant material must not disturb archaeological relics (for example through stump grinding or removal of tree boles, in such situations stumps and tree boles should be left in place).*

Application

Standard Exemption 3 applies to the works overall and Standard Exemption 8 applies to the excavation works for the purposes of installing and upgrading water delivery services. Standard Exemption 13 applies to the works relating to the proposed vegetation management. The proposed works are consistent with the Specified Activities and Relevant Standards for these Standard Exemptions and the proposed works may be undertaken without the requirement to seek approval from the NSW Heritage Council.

State Agency (Sydney Water) Exemptions

In addition to the Standard Exemptions, the Heritage Act allows for specific State Government Agencies to have specific Exemptions relating to the requirements of their specialist activities. State Agency Exemptions for Sydney Water were published in the NSW Government Gazette No. 636 of 10 December, 2021.

One of these Exemptions, Exemption 4, is relevant to the proposed works:

EXEMPTION 4: EXCAVATION

Specified activities/works:

- (k) Excavation or disturbance of land for the purpose of:
 - i creating temporary stockpiles; and/or*
 - ii exposing, inspecting, testing, replacing, installing, maintaining and/or repairing SWC infrastructure and assets (including dams and fences) and/or survey markers.**

Relevant standards:

- (l) Excavation or disturbance of land is only permissible within existing trenches, or within an area of previous disturbance.*
- (m) Excavation or disturbance of land is not permitted in areas assessed as having archaeological significance.*
- (n) Excavation or disturbance of land must not compromise the structural integrity of any structure listed on the SHR or subject to an IHO, including significant landscape elements, as identified in a SHR listing, statement of significance, CMP and/or CMS.*

Application

The proposed works are consistent with the Specified Activities and Relevant Standards for this Exemption and the excavation works may be undertaken without the requirement to seek approval from the Heritage Council.

7.2.1.2. Archaeological Relics

Part 6 Division 9 of the Heritage Act protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. It applies to all land in NSW that is not included in the SHR. Separate approval for excavation of land within the curtilage of a place listed on the SHR must be undertaken in accordance with a permit under Section (s) 60, or a gazetted Exemption under s 57(2) of the Heritage Act. A 'relic' is defined by the Heritage Act as:

- a) *any deposit, object of material evidence which relates to the settlement of the area that comprises NSW, not being Aboriginal settlement*
- b) *and has local or state significance.*

Application

As discussed in Section 6.2.9, any historical subsurface material within the proposed works area would comprise water services piping and trenching. Such material is not strictly archaeological in nature and would not meet the threshold for being a 'relic' of either local or State significance. The archaeological potential of the works area is, therefore, Nil.

In any case, the area of Ryde Pumping Station to be excavated falls within the State Heritage Register statutory curtilage, the 'relics' provisions of the Act are not applicable.

7.2.1.3. State Government Agency Section 170 Registers

Under section 170 (s170) of the Heritage Act, heritage items owned or managed by State Government agencies are listed, cared for and controlled by the relevant agency. Section 170A(2) requires that:

- (2) *Each government instrumentality is responsible for ensuring that the items entered on its register under section 170 and items and land to which a listing on the State Heritage Register applies that are under its care, control or management are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the Minister on the advice of the Heritage Council and notified by the Minister to government instrumentalities from time to time.*

Application

The *Ryde Pumping Station and site* is included in the Sydney Water Heritage and Conservation Register. The proposed works are, therefore, required to comply with the statutory requirements of the Heritage Act and to respond to the State-Owned Heritage Management Principles (See Section 6.3).

7.2.2. Environmental Planning and Assessment Act 1979 (NSW)

The *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) requires that environmental impacts are considered in land-use planning, including impacts on Aboriginal and non-Aboriginal heritage. The EP&A Act requires councils to consider environmental effects when assessing new developments. Heritage is one of the matters for consideration. Sites of environmental heritage (including historic heritage sites and sometimes Aboriginal heritage sites) are protected by gazetted LEPs and Development Control Plans (DCP) which specify the constraints on development in the vicinity of these sites. Proposed activities and development are considered under different parts of the EP&A Act, including:

- Major projects (State Significant Development under Part 4.1 and State Significant Infrastructure under 5.1) require approval of the Minister for Planning
- Minor or routine development requiring local council consent are usually undertaken under Part 4 activities which, in limited circumstance may require the Minister's consent.
- Part 5 activities which do not require development consent. These are often infrastructure projects approved by local councils or the State agency undertaking the project.

Under Section 5.5 of the EP&A Act, a determining authority has the duty to fully consider the environmental impact (including historical or Aboriginal heritage) of an activity and is required to 'take into account the fullest extent possible all matters affecting, or likely to affect the environment' arising from the proposal. This is facilitated through the current assessment which has the purpose of identifying, assessing and determining the significance of potential heritage impacts, as well as mitigating actions and responsibilities that can be taken to minimise the potential impacts.

7.2.3. State Environmental Planning Policy (Transport and Infrastructure) 2021

The *State Environmental Planning Policy (Transport and Infrastructure) 2021* (the Transport and Infrastructure SEPP) aims to facilitate the effective delivery of transport and infrastructure across NSW. The Transport and Infrastructure SEPP outlines the planning rules for development by Transport and Infrastructure agencies, including:

- Where such development can be undertaken.
- What type of infrastructure development can be approved by a public authority under Part 5 of the EP&A Act following an environmental assessment (REF) (known as 'development without consent').

- What type of development can be approved by the relevant local council, Minister for Planning or Department of Planning under Part 4 of the EP&A Act (known as ‘development with consent’).
- What type of development is exempt or complying development.
- The relationship of other statutory planning instruments to the Transport and Infrastructure SEPP.

Division 24 of the SEPP deals with Water Supply Systems and Clause 2.159(1) states:

- (1) Development for the purpose of water reticulation systems may be carried out by or on behalf of a public authority without consent on any land.*

Clause 2.159(6) states (relevant wording highlighted):

(6) In this Division, a reference to development for the purpose of a water supply system of any kind includes a reference to development for any of the following purposes if the development is in connection with the water supply system—

- (a) dams, reservoirs, weirs, levees, spillways and fishways,*
- (b) catchment management works,*
- (c) groundwater investigation works, groundwater bore stations, borefields, minewater works and the like,*
- (d) access ways,*
- (e) water intakes, **pumping stations, pipelines,** channels, tunnels, canals and aqueducts,*
- (f) gauging and monitoring equipment,*
- (g) power supply to the water supply system,*
- (h) hydro-electric power generation equipment and associated connections to the electricity network,*
- (i) construction works,*
- (j) emergency works and routine maintenance works,*
- (k) environmental management works,*
- (l) schemes for the reuse of water treatment residuals,*
- (m) maintenance depots.*

Clause 2.11 of the SEPP requires consultation with local councils: “if the development—

(a) is likely to affect the heritage significance of a local heritage item, or of a heritage conservation area, that is not also a State heritage item, in a way that is more than minor or inconsequential, and

(b) is development that this Chapter provides may be carried out without consent.”

Ryde Pumping Station is a ‘State Heritage item’ for the purposes of this Clause.

Application

Under these provisions, Sydney Water may undertake the proposed works without development consent and, as the proposed works will be undertaken upon a State heritage item, consultation with Ryde Council in accordance with Clause 2.11 is not required.

However, these provisions do not override the requirements of the Heritage Act and, unless the works qualify under one of the Standard, Agency-specific or Site-specific Exemptions, an application for approval under Section 60 of the Heritage Act would still be required. In Section 7.2.1.1 above, analysis of the works has identified that the works satisfy the conditions for Exemption 3, Exemption 8 and

Exemption 13, as well as the State Agency (Sydney Water) Exemption 4. Application to the NSW Heritage Council for approval is not required.

However, an environmental assessment of the impact of the proposed works is still required, in accordance with the requirements of Part 5 of the EP & A Act. This Statement of Heritage Impact has been prepared to satisfy the requirements for environmental self-assessment under Part 5 of the EP&A Act.

7.3. Local Legislation

7.3.1. Ryde Local Environmental Plan 2014

Every local government area in New South Wales is required to prepare a planning instrument which governed how local governments assess development applications in terms of their impact to local heritage. Section 5.10 pertains to heritage conservation. Section 5.10 sets out when consent from the local council is required:

- a. *demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)—*
 - i. *a heritage item,*
 - ii. *an Aboriginal object,*
 - iii. *a building, work, relic or tree within a heritage conservation area,*
- b. *altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,*
- c. *disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,*
- d. *disturbing or excavating an Aboriginal place of heritage significance,*
- e. *erecting a building on land—*
 - i. *on which a heritage item is located or that is within a heritage conservation area, or*
 - ii. *on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,*
- f. *subdividing land—*
 - i. *on which a heritage item is located or that is within a heritage conservation area, or*
 - ii. *on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.*

Application

The land on which the proposed development is located is a local heritage item: *Ryde Pumping Station and site* (I155), identified in Schedule 5 of the Ryde LEP 2014. However, the provisions of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* provide that the works may proceed without development consent. As the assessment carried out for this report has determined that the proposed works will have no substantive heritage impact (ie the impacts are not more than minor or inconsequential) upon any item of local heritage (and, in any case, Ryde Pumping Station is a 'State Heritage item'), there is no requirement for consultation with Ryde Council.

7.4. Approval Pathway

The proposed works are works that may be carried out without development consent under the provisions of Clause 2.159(1) of the *State Environmental Planning Policy (Transport and Infrastructure) 2021*. An internal determination under Part 5 of the EP & A Act will be required.

In respect of the requirements of the NSW Heritage Act, the proposed works fall within the scope of the Standard Exemption 3, Standard Exemption 8 and Standard Exemption 13, as well as the State Agency (Sydney Water) Exemption 4. Consequently, NSW Heritage Council approval for the proposed works is not required.

8. Conclusions and Recommendations

8.1. Statement of Heritage Impact

The proposed works are necessary to increase the capacity of the water distribution system for servicing the uptake in drinking water demand within the Prospect Water System, particularly for the suburbs north of the Harbour, as the North Shore is projected to grow in population.

The proposed alterations to the water delivery pipelines and the associated pruning and partial removal of vegetation will not have a substantive adverse impact on the significance of the Ryde Pumping Station and Site. The significant features of the Ryde Pumping Station are the 1920s Pumping Station building, the Boiler and Economiser House and remains of the earlier facilities dating from the 1890s -none of which will be directly impacted by the proposal. The proposed works are consistent with the heritage value of Ryde Pumping Station as an operational infrastructure facility and will enable and enhance its ongoing operations.

8.2. Recommended Mitigation Measures

As no adverse impacts are identified arising from the proposed works, no mitigation measures are identified. The following best-practice procedures are recommended.

1. The proposed works to upgrade the Ryde Pumping Station will not have a substantive adverse impact on the significant heritage fabric at the Ryde Pumping Station and should proceed as outlined in this report.
2. Elements of Ryde Pumping Station in the vicinity of the works should be adequately protected during the works to prevent accidental damage. Protection measures could include physical barriers, exclusion zones or other methods as appropriate.
3. All project team members, including contractors, should be informed about the heritage significance of the site as part of the general site induction package. The induction would identify why the Ryde Pumping Station is significant, the contractors' statutory obligations relating to heritage and to unexpected finds and protection methods to be used during construction to prevent accidental damage during construction works.
4. A photographic and documentary record of the works at Ryde Pumping Station should be compiled prior to and following the proposed works and this record kept with the Sydney Water archives for future reference.

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