



# Greenwich Point Wharf Upgrade

Submissions Report

Transport for NSW | July 2022

BLANK PAGE

OFFICIAL

# Greenwich Point Wharf Upgrade

## Submissions Report

Transport for NSW | July 2022

Prepared by Cardno (NSW/ACT) Pty Ltd and Transport for NSW




Publication Number: 22.136

ISBN: 978-1-922875-04-4

**COPYRIGHT:** The concepts and information contained in this document are the property of Transport for NSW. Use or copying of this document in whole or in part without the written permission of Transport for NSW constitutes an infringement of copyright.

# Document controls

## Approval and authorisation

|   |   |
|---|---|
| Title                                       | Greenwich Point Wharf Upgrade Submissions Report                                  |
| Accepted on behalf of Transport for NSW by: | Bob Rimac<br>Senior Project Manager   |
| Signed:                                     |  |
| Dated:                                      | 11 July 2022  |

## Document status

| Document status | Date             | Prepared by   | Reviewed by      |
|-----------------|------------------|---------------|------------------|
| Rev A           | 17 February 2022 | Vivian Lee Yu | Belinda Crichton |
| Rev B           | 25 March 2022    | Vivian Lee Yu | Belinda Crichton |
| Rev C           | 29 March 2022    | Vivian Lee Yu | Belinda Crichton |
| Rev D           | 22 June 2022     | Louis Dardare | Gabriel Chan     |
| Rev 0           | 08 July 2022     | Louis Dardare | Gabriel Chan     |

# Executive summary

## The proposal

Transport for NSW (Transport) is proposing to upgrade Greenwich Point Wharf (the proposal) as part of the Transport Access Program (TAP). The proposal includes both landside and waterside work including the removal of the existing wharf structure and the installation of a new jetty, gangway, covered pontoon, lift, skybridge, stairs and bicycle hoops.

The upgraded wharf would provide access for customers with mobility needs, meeting the standards of the *Disability Discrimination Act 1992* (DDA) and the *Disability Standards for Accessible Public Transport 2002* (DSAPT).

Details of the proposal are provided in Section 1.1 of this Submissions Report.

## Public display of the Review of Environmental Factors

Transport prepared a Review of Environmental Factors (REF) for the Greenwich Point Wharf Upgrade (Transport, 2021). The 'Have Your Say' period for the Greenwich Point Wharf Upgrade REF was formally on public display between Wednesday 8 December 2021 and Wednesday 19 January 2022. The standard four week display period was extended to account for the Christmas holiday period.

The REF was published on Transport's project webpage and made available for download. Due to COVID-19 printed versions of the REF were available by request.

A number of activities were carried out during the public display period to provide the community with an opportunity to learn more about the proposal, ask questions and provide their feedback. Activities included a community drop in session, installation of posters at the wharf, distribution of community updates, postcards, stakeholder email and a targeted social media campaign.

## Summary of issues and responses

A total of 28 submissions were received from the local community, including one from a resident group and one from a government agency.

A number of respondents supported the proposal noting it would provide safer and more accessible facilities than the existing wharf and was visually appealing.

The main issues raised were:

- feedback, suggestions and concerns relating to the proposed design, including current configuration, length of the jetty, adequacy of weather protection, and design alternatives
- wharf closure during construction and alternative transport options
- visual impacts of the new wharf including the lift structure and size of the wharf.

A summary of the responses to these issues is provided below:

- The proposed configuration of the new wharf (including length of the jetty) was selected based on a number of factors including the need to comply with accessibility gradient requirements. The current concept design was chosen after an options analysis process.
- During the detailed design stage, Transport would investigate further opportunities to reduce the length of the jetty while meeting accessibility, operational and safety requirements, and also investigate opportunities for additional weather protection.
- The wharf would be closed for around six months during construction, however options to reduce this timeframe would be investigated when preparing the detailed construction

schedule. Existing public transport options would be used during wharf closure. Transport would investigate extending the bus operating hours.

- Transport is in the process of upgrading all Sydney Harbour wharves using a consistent identifiable design. The size of the wharf structure was determined by factors such as wave and wind conditions, and to meet accessibility gradient requirements. During detailed design Transport would investigate options to reduce the height of the lift and different lift facades.

A more detailed summary of feedback received and our responses is available in Section 2 of this report.

After consideration of the issues raised in the public submissions the safeguard and management measures described in the REF have been revised to further mitigate potential impacts.

## Next steps

Transport as the determining authority has considered the information in the REF and this Submissions Report and has decided to proceed with the proposal.

The project is currently in the detailed design phase and construction will commence in mid 2023. Transport will continue to inform the community and stakeholders prior to and during the construction phase.

# Contents

|   |            |
|---|------------|
| <b>Executive summary</b> .....                          | <b>i</b>   |
| <b>Contents</b> .....                                   | <b>iii</b> |
| <b>1. Introduction and background</b> .....             | <b>0</b>   |
| 1.1 The proposal .....                                  | 0          |
| 1.2 Review of Environmental Factors display .....       | 3          |
| 1.3 Purpose of the report .....                         | 3          |
| 1.4 Updated statutory context .....                     | 3          |
| <b>2. Response to issues</b> .....                      | <b>4</b>   |
| 2.1 Overview of issues raised .....                     | 5          |
| 2.2 Proposal design .....                               | 5          |
| 2.3 Transport, traffic and access .....                 | 13         |
| 2.4 Landscape character and visual impact .....         | 14         |
| 2.5 Consultation and additional information .....       | 15         |
| 2.6 Proposal justification .....                        | 16         |
| 2.7 Biodiversity .....                                  | 16         |
| 2.8 Legislation .....                                   | 17         |
| 2.9 Aboriginal heritage .....                           | 17         |
| 2.10 Non-Aboriginal heritage .....                      | 17         |
| 2.11 Other .....  | 18         |
| <b>3. Environmental management</b> .....                | <b>21</b>  |
| 3.1 Environmental management plans (or system) .....    | 21         |
| 3.2 Summary of safeguards and management measures ..... | 21         |
| 3.3 Licensing and approvals .....                       | 38         |
| <b>4. References</b> .....                              | <b>39</b>  |

## Tables

|  |    |
|--|----|
| Table 2-1: Respondents .....   | 4  |
| Table 2-2: Options analysis .....  | 7  |
| Table 3-1: Summary of environmental safeguards and management measures ..... | 23 |
| Table 3-2: Summary of licensing and approval required .....                  | 38 |

## Appendices

|            |  |
|------------|--|
| Appendix A | Greenwich Point Wharf Upgrade, Review of Environmental Factors, December, 2021 |
|------------|--|



# 1. Introduction and background

---

## 1.1 The proposal

Transport for NSW (Transport) proposes to upgrade the Greenwich Point Wharf (the proposal) as part of the Transport Access Program (TAP). The proposal includes both waterside and landside work as shown on Figure 1-1.

The water based features of the proposal would include:

- installation of a new three metre wide by 22 metre long concrete jetty, supported by eight new piles
- installation of a new, uncovered 18 metre long by 2.5 metre wide gangway to provide access to the new pontoon
- installation of a new covered steel nine metre by 18 metre pontoon containing a curved zinc roof supported by steel columns, glass weather protection, stainless steel balustrades, seating and information boards. The pontoon would be supported by four new piles, with one pivot pile (to assist with berthing) provided at either end of the pontoon (two in total)
- installation of new signage, information boards and Opal card readers
- installation of safety and security features including a help point, lighting, closed circuit television (CCTV) cameras, ladders to the water, a life buoy and tactile ground surface indicators where required
- removal of the existing waiting shelter, jetty and tidal stairs including associated piles.

The land based features of the proposal would include:

- construction of a 9.8 metre long skybridge from the approximate location of the existing bus shelter on Lower Serpentine Road, connecting the existing footpath to the proposed lift
- relocation of the existing bus shelter on Lower Serpentine Road approximately three metres to the east to accommodate new skybridge entrance
- construction of a 12 metre high lift that connects the proposed skybridge to the wharf level. Five metres of the lift would be visible from street level
- regrading of pavement at street level and wharf level to create the entry/exit points of the skybridge, stairs and lift
- replacement of the existing non *Disability Discrimination Act 1992* (DDA) compliant stairs with DDA compliant stairs connecting Lower Serpentine Road and the new wharf, near the proposed lift. The new stairs would use part of the existing stair footprint on Lower Serpentine Road, which currently connects Mary Carlson Park to wharf level
- partial excavation of the embankment to provide room for the new stairs connecting at the western side of the existing bus shelter
- installation of three bicycle hoops
- replacement of balustrades and handrail at wharf level
- electrical work including relocation of existing electrical switchboard cabinet at wharf level, removal of two existing power poles and placing existing electrical overhead wires underground
- pruning of fig trees to accommodate the new skybridge, stairs and lift
- retention of the current existing ramp near Greenwich Park connecting road level to the foreshore.

Planning approval for the proposal has been received. Work would be carried out over a period of six months, weather and maritime conditions permitting, starting in mid 2023. During construction the wharf would be closed.

A more detailed description of the proposal is found in the Greenwich Point Wharf Upgrade Review of Environmental Factors (REF) prepared by Transport in December 2021 (Transport, 2021).

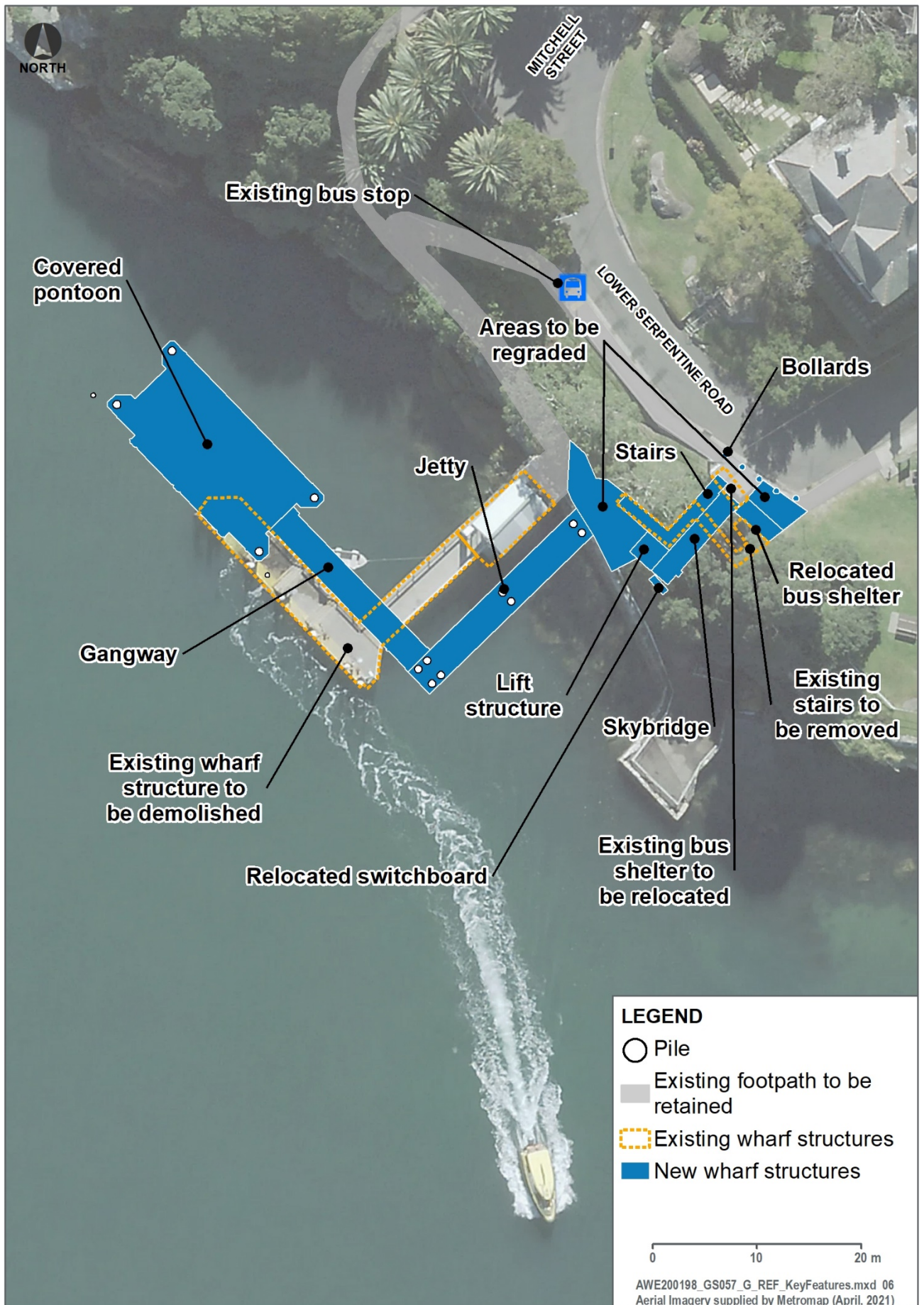


Figure 1-1: Plan of the proposal

OFFICIAL

## 1.2 Review of Environmental Factors display

Transport prepared an REF to assess the potential environmental impacts of the proposed work. The REF was publicly displayed for 42 days between Wednesday 8 December 2021 and Wednesday 19 January 2022. The standard four week display period was extended to account for the Christmas holiday period.

The REF was published on Transport's project webpage and made available for download. Due to COVID-19 printed versions of the REF were available by request. A range of community consultation activities were carried out for the public display which included:

- community drop-in session held at the wharf on Monday 13 December 2021 from 4pm to 6pm
- installation of posters at the wharf with quick response (QR) codes taking passengers to an online survey
- distribution of 176 community updates letterbox dropped within the suburb of Greenwich at the start of the public display period
- distribution of 176 postcards halfway through the public display period as a reminder for the community to have their say
- targeted social media campaign during the public display period that reached 41,185 people
- stakeholder email sent to 250 people on the project database.

## 1.3 Purpose of the report

This Submissions Report relates to the REF prepared for the Greenwich Point Wharf Upgrade and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the proposal and the REF were received by Transport. This Submissions Report summarises the issues raised and provides responses to each issue (Chapter 2) and identifies the revised environmental management measures for the proposal (Chapter 3).

No changes are proposed that would require the preparation of a Preferred Infrastructure Report.

## 1.4 Updated statutory context

The Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) came into force on 1 March 2022. This regulation requires the following criteria be assessed in the REF:

- applicable local strategic planning statements, regional strategic plans or district plans made under the *Environmental Planning and Assessment Act 1979*
- other relevant environmental factors.

The statutory planning framework for the proposal, including relevant strategic plans, was considered throughout Section 2.1 of the REF. It is considered that all relevant environmental factors have been addressed throughout Chapter 6 of the REF.

As a result, no further assessment is required in relation to the EP&A Regulation.

## 2. Response to issues

Transport received 28 submissions, accepted up until the Wednesday 19 January 2022. Table 2-1 lists the respondents and each respondent's allocated submission number. The table also indicates where the issues from each submission have been addressed in this Submissions Report.

Table 2-1: Respondents

| Respondent        | Submission No. | Section number where issues are addressed               |
|-------------------|----------------|---|
| Individual        | 1              | Section 2.5   |
| Individual        | 2              | Section 2.5   |
| Individual        | 3              | Section 2.2.1, 2.4, 2.5, 2.11                           |
| Individual        | 4              | Section 2.3.1   |
| Government agency | 5              | Section 2.5   |
| Individual        | 6              | Section 2.3.1   |
| Individual        | 7              | Section 2.3.1   |
| Individual        | 8              | Section 2.3.2   |
| Individual        | 9              | Section 2.6   |
| Individual        | 10             | Section 2.4, 2.6, 2.8                                   |
| Business          | 11             | Section 2.3.1, 2.3.2, 2.3.3                             |
| Individual        | 12             | Section 2.2.1, 2.3.1                                    |
| Individual        | 13             | Section 2.4   |
| Individual        | 14             | Section 2.3.1   |
| Individual        | 15             | Section 2.2.2, 2.2.4                                    |
| Individual        | 16             | Supportive of the proposal                              |
| Individual        | 17             | Not supportive of the proposal                          |
| Individual        | 18             | Section 2.3.2   |
| Individual        | 19             | Section 2.3.1   |
| Individual        | 20             | Section 2.2.5, 2.4, 2.6                                 |
| Individual        | 21             | Section 2.2.2   |
| Individual        | 22             | Section 2.2.2   |
| Individual        | 23             | Section 2.2.1, 2.2.2, 2.3.2, 2.4, 2.7, 2.10, 2.11       |
| Individual        | 24             | Section 2.2.6   |
| Individual        | 25             | Section 2.7, 2.11                                       |
| Individual        | 26             | Section 2.2.1, 2.2.3, 2.2.4, 2.2.6, 2.4, 2.5, 2.9, 2.11 |
| Individual        | 27             | Section 2.2.1, 2.2.3                                    |
| Resident group    | 28             | Section 2.2.3, 2.2.4, 2.4, 2.8                          |



## 2.1 Overview of issues raised

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and Transport's response forms the basis of this chapter.

A number of respondents supported the proposal noting it would provide safer and more accessible facilities than the existing wharf and was visually appealing.

The issues raised in the submissions from the community and agency can be categorised into ten main areas as follows:

- proposal design
- transport, traffic and access
- landscape character and visual impacts
- consultation
- proposal justification
- biodiversity
- legislation
- Aboriginal cultural heritage
- non-Aboriginal cultural heritage
- other.

## 2.2 Proposal design

### 2.2.1 Wharf design

#### ***Submission number(s)***

3, 12, 23, 26, 27

#### ***Issue description***

Respondents raised concerns about the length and height of the jetty and considered the design unsuitable for Greenwich Point and not integrated with the local public domain. A number of respondents suggested alternative designs including reducing the length or removing the jetty, providing a switchback ramp instead of the lift, moving the lift further east and utilising the existing heritage wharf. One respondent suggested the design process be carried out in collaboration with Lane Cove Council (LCC), and suggests the existing stairs are modified instead of replaced.

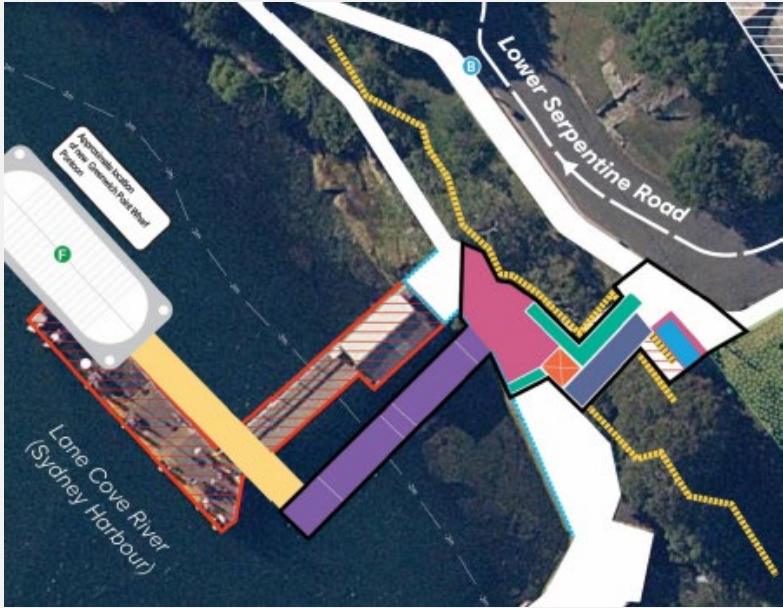
#### ***Response***

The proposed configuration of the new wharf was selected based on a number of factors including to meet accessibility gradient requirements (both on land and in most tidal states) and minimise movement of the pontoon due to the wind and wave movement, thereby maximising customer comfort and safety. The length of the jetty and gangway was determined to provide a *Disability Standards for Accessible Public Transport 2002* (DSAPT) compliant gradient of 1:14 for at least 80 percent of the tidal range.

The wharf was designed to provide appropriate clearances of existing tides, storm surge, sea and wave action whilst also considering 2070 projected sea level rise. The wharf has been designed with an operational life of 50 years. Durability and appropriate materials selection were key design criteria of the proposal. Likewise, the lift would be designed and positioned to minimise potential coastal impacts and maximise its lifespan.


The current proposal design was chosen after an options analysis weighing up the advantages and disadvantages of different options. The options analysis is summarised in Table 2-2. Further information is provided in Section 2.4 of the REF.

Table 2-2: Options analysis

| Option  | Advantages (Source: GHD, 2021)   | Disadvantages (Source: GHD, 2021)  |
|---|--|--|
| <p>Option 1 (revised lift option)</p>  | <ul style="list-style-type: none"> <li>• Provides a lift.</li> <li>• Ease of travel with direct skybridge and at-grade slope.</li> <li>• Turning spaces provided.</li> <li>• CCTV to deter criminal activity.</li> <li>• Direct access from road to wharf.</li> <li>• Maintains existing ramp.</li> <li>• Maintains current access to Greenwich Park.</li> <li>• Only trimming of trees required.</li> <li>• Comparatively smaller landside footprint to options 2 and 3.</li> </ul> | <ul style="list-style-type: none"> <li>• Lift and stair structures may offer refuge from CCTV for criminal activity to occur.</li> <li>• Require modifications to small segments of existing seawall.</li> <li>• Lift structure would require ongoing maintenance.</li> <li>• Lift foundation is waterside requiring specialised construction methods.</li> <li>• Requires excavation for stairs and lift well and piling to rock for skybridge.</li> <li>• DDA access is dependent on lift function.</li> </ul> |



| Option   | Advantages (Source: GHD, 2021)  | Disadvantages (Source: GHD, 2021)   |
|--|---|---|
| <p data-bbox="107 231 421 263">Option 2 (full ramp option)</p>  | <ul data-bbox="952 271 1433 502" style="list-style-type: none"> <li>• No lift improves constructability and there is no need for ongoing maintenance.</li> <li>• Site becomes more open and visible, discouraging criminal activity.</li> <li>• Longer expected lifespan due to no moving parts.</li> </ul> | <ul data-bbox="1489 279 2049 1061" style="list-style-type: none"> <li>• Requires reconfiguration of ramp to facilitate DSAPT compliance and requires longer ramp than Option 3.</li> <li>• Bounding walls restrict passive surveillance which may cause concern for vulnerable members of the community.</li> <li>• Requires excavation of Greenwich Park and limits future land use.</li> <li>• Requires heavy modifications to a large segment of the existing seawall.</li> <li>• Large footprint to accommodate ramp.</li> <li>• Large impact to the visual amenity from the harbour side.</li> <li>• Large segments of vegetation would be required to be removed.</li> <li>• Large scale earthwork would need to be carried out.</li> <li>• The length and limited access of the ramp would create moments of isolation for users potentially creating a trap.</li> <li>• Length of travel: 130 metres</li> <li>• May require extended construction time for in situ work.</li> </ul> |

| Option   | Advantages (Source: GHD, 2021)   | Disadvantages (Source: GHD, 2021)   |
|--|--|---|
| <p data-bbox="107 231 528 260">Option 3 (ramp with 'half lift' option)</p>  | <ul data-bbox="952 284 1400 379" style="list-style-type: none"> <li>• Provides a lift.</li> <li>• Maintains existing ramp with minor modifications.</li> </ul> | <ul data-bbox="1489 284 2049 1281" style="list-style-type: none"> <li>• Requires reconfiguration of ramp to facilitate DSAPT compliance.</li> <li>• Still requires ramps even with provision of a lift.</li> <li>• Length of travel: 94 metres.</li> <li>• Bounding walls restrict passive surveillance which may cause concern for vulnerable members of the community.</li> <li>• Requires heavy excavation of Greenwich Park and limits future land use.</li> <li>• Lift and stair structures may offer refuge for criminal activity to occur.</li> <li>• Large footprint to accommodate ramp and lift.</li> <li>• Lift structure would require ongoing maintenance.</li> <li>• Lift foundation is waterside requiring specialised construction methods.</li> <li>• Requires modifications to small segments of the existing seawall.</li> <li>• Large impact to the visual amenity from the harbour side.</li> <li>• Large sections of vegetation would be required to be removed.</li> <li>• Large scale earthwork would need to be carried out.</li> <li>• May require extended construction time for in situ work.</li> <li>• DDA access is dependent on lift function.</li> </ul> |

Use of the existing heritage wharf is not feasible based on the age and condition of the structure and potential impacts to its heritage significance.

Following consideration of the submissions, Transport would investigate options to reduce the length of the jetty whilst meeting accessibility, operational and safety requirements. Transport would also investigate options to reduce the height of the lift and different lift facades.

Transport has been working closely with LCC throughout the development of the proposal and would continue to do so during the detailed design phase. Removal of the existing non-DDA compliant stairs is required to install DDA compliant stairs. Replacing the existing stairs would limit the footprint of the work and would minimise visual impacts as the new stairs would be integrated into the new lift structure.

The design of the proposal's integration with the heritage aesthetics and landscape character of Greenwich Point is responded to in Section 2.4.

### **2.2.2 Existing ramp**

#### ***Submission number(s)***

15, 21, 22, 23

#### ***Issue description***

Respondents expressed their desire for the existing ramp to be retained and upgraded, and serve as an alternative to the new lift. One respondent wanted to understand whether additional ramps would be provided as part of the proposal.

#### ***Response***

Following community feedback during the concept design, Transport revised the design so were able to maintain the existing ramp to provide more access choices for customers, including people with bikes and water vessels. No additional ramps are included as part of the proposal.

The primary purpose of this proposal is to upgrade the wharf to meet accessibility requirements under the DDA and DSAPT, so equitable access is provided for all public transport ferry customers. Upgrade of the existing ramp is the responsibility of LCC and outside the scope of this project. This feedback will be passed on to LCC.

### **2.2.3 Weather protection**

#### ***Submission number(s)***

26, 27, 28

#### ***Issue description***

Respondents were concerned the proposed design does not offer adequate weather protection, especially from the south and south-westerly winds.

## ***Response***

The proposal includes a waiting area on the pontoon itself with a curved roof, seating and glass weather protection panels to provide a comfortable and sheltered place to wait for the ferry. In addition, there would be shelter at the entrance to the lift.

The proposal includes an uncovered gangway as it minimises the visual impact of the new wharf and leads to an uncovered area on the foreshore.

Transport would investigate additional weather protection during detailed design.

### **2.2.4 Public safety and lift closures**

#### ***Submission number(s)***

15, 26, 28

#### ***Issue description***

Respondents were concerned about public safety, particularly at night, and the reliance of the lift during times when the lift is not operational. Respondents wanted to understand how the proposal would be DDA compliant when the lift is not operational.

## ***Response***

The proposal would introduce additional lighting, help point and CCTV on the new wharf structure and pathways to discourage antisocial and criminal behaviour. Security measures at the wharf would be reviewed during detailed design as part of the Crime Prevention Through Environmental Design (CPTED) review.

The lift would be installed and constructed in accordance with Transport specifications which accommodates lifts within a maritime environment. Transport has a number of lift maintenance contracts across the transport network and Greenwich Point would be maintained as part of the existing maintenance schedule for wharves.

When the lift is not operational, such as during temporary closures for maintenance, users would have access to DDA compliant stairs, as well as the existing non-DDA compliant ramp.

Help buttons would also be provided outside and inside the lift, allowing passengers to request assistance if needed.

For more information on the day of travel, travel alerts including out-of-order lifts can be found online: [www.transportnsw.info/alerts](http://www.transportnsw.info/alerts)

## 2.2.5 Private water vessels

### ***Submission number(s)***

20, 26

### ***Issue description***

Respondents request that access and use of the wharf for private recreational and commercial small water vessels, such as kayaks, be maintained. In particular, one respondent suggested the pontoon have multiple access heights to accommodate different sized water vessels.

### ***Response***

Private recreational and commercial small water vessels would continue to be permitted to berth at the new floating pontoon.

Under Transport's Water Access Policy, Greenwich Point Wharf is listed as accessible for recreational vessels with a Commuter Wharf Permit. This permit allows those vessels to pick up and drop off passengers on a "touch and go" basis with berthing times limited to five minutes. More information on wharf access can be found online: [roads-waterways.transport.nsw.gov.au/maritime/commercial-vessels/wharf-access](https://roads-waterways.transport.nsw.gov.au/maritime/commercial-vessels/wharf-access)

During detailed design Transport would investigate the installation of berthing infrastructure such as appropriately spaced fenders, ladders and cleats on the pontoon to support berthing by vessels of different sizes.

## 2.2.6 Accessibility

### ***Submission number(s)***

24

### ***Issue description***

A respondent wants to understand the accessibility of the wharf for customers with different mobility needs including seniors and cyclists.

### ***Response***

The wharf upgrade would provide people with additional mobility requirements, parents and carers with prams, and customers with bicycles and luggage, access to the wharf.

The wharf would be DDA compliant and include a lift, in addition to DDA compliant stairs. The lift would be large enough to accommodate a bicycle. The existing non-DDA compliant path would be retained. Bicycle user groups strongly supported retaining the existing non-DDA compliant path.



## 2.3 Transport, traffic and access

### 2.3.1 Alternate public transport services

#### ***Submission number(s)***

4, 6, 7, 11, 12, 14, 19

#### ***Issue description***

The respondents are concerned about alternative public transport options during the construction period when the wharf would be closed. The respondents suggested the existing bus service 265 is infrequent, limited at night and does not operate on Sundays. Some respondents would like to know if a temporary shuttle bus or ferry service could be provided during construction.

#### ***Response***

The existing wharf would be closed and all ferry services suspended for up to six months (weather and maritime conditions permitting) to allow for the safe construction of the new wharf. During this time commuters would need to use alternative transport.

The existing bus service could be used to support access to Greenwich Point and surrounding areas as this service would remain unchanged during the construction closure period. Customers would be able to catch the 265 Lane Cove to North Sydney via Greenwich bus service Monday to Saturday from Lower Serpentine Road, where they can then connect with other services. The 265 bus service also connects to St Leonards Station and North Sydney Station, which is another alternative for customers during construction.

Transport acknowledges that bus route 265 has reduced operating hours compared to the F8 ferry service and does not operate in the late evenings or on Sundays and public holidays. As such, during detailed design, Transport would investigate extending the bus operating hours. A temporary shuttle bus or temporary ferry wharf are not feasible.

Ferry users would be notified ahead of construction and during construction so that they can plan their trip via alternative transport modes. Customers are encouraged to plan their trip by visiting [transportnsw.info](http://transportnsw.info) or phone Transport Info on 131 500 before starting their journey.

### 2.3.2 Wharf closure

#### ***Submission number(s)***

8, 11, 18, 23

#### ***Issue description***

Respondents want to understand how long the existing wharf would be closed, how realistic the construction timeframes are and when construction would commence.

#### ***Response***

Construction is expected to take up to six months to complete, weather and maritime conditions permitting starting in mid 2023. A detailed construction schedule would be prepared and options to

reduce this timeframe would be investigated when preparing this schedule. The wharf would be closed the duration of the construction period.

### **2.3.3 Ferry services**

#### ***Submission number(s)***

11

#### ***Issue description***

One respondent wants to understand whether the current ferry service would become more frequent and/or diversified in the future.

#### ***Response***

As the key objective of the proposal is to make the wharf accessible, suggestions regarding changes to timetabling are outside of the scope of this proposal. This feedback will be passed on to the Transport Planning and Programs team. Future feedback on ferry routes can be provided via [transportnsw.info](http://transportnsw.info)

## **2.4 Landscape character and visual impact**

#### ***Submission number(s)***

3, 10, 13, 20, 23, 26, 28

#### ***Issue description***

Respondents were concerned the proposal would detract from the bushland and heritage aesthetic qualities and character of Greenwich Point when viewed from both land and water. In particular, the scale of the wharf elements including height of the lift and structural materials would have a visual impact on the landscape. One respondent suggested standardised elements are not sensitive to the context of Greenwich, while another was concerned the lift may result in significant reflection and glare off the glass. Some respondents suggested alternatives, such as upgrading the existing ramp instead of a lift structure, which would have less impact on the surroundings and views.

#### ***Response***

The design of the wharf would be consistent with other wharves within Sydney Harbour. The design aims to unify and identify the harbour wharves and the ferry commuter transport system.

A Landscape Character and Visual Impact Assessment (LCVIA) was prepared as part of the REF to identify the overall impact of the proposed works on each of the Landscape Character Zones (LCZ) in the area and to identify the visual changes and impacts on the site and its surroundings when viewed from key vantage points. The LCVIA assessment concluded the overall proposal would have moderate to high impact on landscape and visual quality. Further information is provided in Section 6.5 and Appendix F of the REF.

The sensitivity of the Greenwich Point peninsula is noted and whilst the proposal would introduce new wharf elements to the existing landscape, the potential impacts would be further minimised during design through material selection, landscape treatment and design refinement. The height of the lift

shaft from bottom of pit to top of roof is 12.9 metres, with about five metres of that length visible from street level. During detailed design, Transport would investigate the option of reducing the lift height and the option of different lift facades.

Materials and colours have been selected to fit into the surrounds and minimise potential visual impacts, such as using glass walls on the pontoon. The curved zinc roof is low profile to minimise the impact on views to and from the water, and the sheeting on the pontoon is a natural product that would weather and form a natural patina over time. The pontoon size is determined by factors such as wind and wave conditions, maritime activities and space to accommodate future customer demand.

The current proposal design was chosen after an options analysis weighing up the advantages and disadvantages of different options, including one option where no lift was proposed and one option where a 'half lift' with ramp was proposed. Refer to Table 2-2 for a summary of the options analysis. Further information is provided in Section 2.4 of the REF.

## 2.5 Consultation and additional information

### ***Submission number(s)***

1, 2, 3, 5, 26

### ***Issue description***

The respondents requested an extension of time to provide feedback on the REF. Respondents also requested additional information on the design and to view LCC comments on the proposal.

### ***Response***

The standard consultation period for a REF prepared under the Ferry Wharf Upgrade Program is 21 days. As the display for Greenwich Point Wharf REF was over the Christmas holiday period, Transport extended the time for consultation for the public display to six weeks. Transport considers this to be a fair and reasonable time for community members to review the proposal and provide feedback.

During the 'Have Your Say' period on the REF, Transport received a small number of requests from individuals and organisations to extend the six week consultation period. Transport considered these requests and as a result decided to extend the submission period by an additional two weeks until 5pm Wednesday 2 February 2022 to those individuals and organisations who raised an intent to submit by contacting the project team via email or phone by the original closing date of 5pm Wednesday 19 January 2022.

Transport has been working closely with LCC throughout the development of the proposal and would continue to do so during the detailed design phase.

Additional information such as detailed design drawings are not typically supplied to the community. Requests for any technical drawings and detailed design information can be applied for under the *Government Information (Public Access) Act 2009* (GIPA Act) via the Access Application Form (online or by post). For more information on how to apply and the associated application fee please visit [www.transport.nsw.gov.au/about-us/access-to-information](http://www.transport.nsw.gov.au/about-us/access-to-information).



## 2.6 Proposal justification

### ***Submission number(s)***

9, 10, 20

### ***Issue description***

Respondents questioned the justification of the proposal. Specifically, that the cost of the proposal is not justified based on user needs, proposed design, cost and reliability.

### ***Response***

Greenwich Point Wharf has been identified for an accessibility upgrade as it does not currently meet key requirements of the DDA. DSAPT and Disability (Access to Premises – Buildings) Standards (2010) made under the DDA, require all public transport infrastructure, including wharves, to be fully compliant by December 2022. At present, elements of the existing wharf including the tidal steps and lack of accessible pathway for passengers are non-compliant. The primary purpose of the upgrade is to ensure the wharf is accessible from a compliance perspective for all customers.

The current proposal design was chosen after an options analysis, including one option where no lift was proposed. The current proposal design provides ease of travel from street to wharf, is DDA compliant, maintains the existing ramp and access to Greenwich Park and minimises the vegetation removal and construction footprint required.

## 2.7 Biodiversity

### ***Submission number(s)***

23, 25

### ***Issue description***

The respondents wanted to understand the potential impacts to the local fig trees, seagrasses and local ecosystems.

### ***Response***

A Biodiversity Assessment Report (BAR) was prepared as part of the REF, which assessed potential ecological impacts from the proposal. Preparation of the BAR involved a review of existing data, a site survey and a detailed assessment of the impacts of the proposal.

The fig trees to be pruned are located close to the new skybridge and lift structure, and pruning is required to accommodate these new structures. An Arboricultural Impact Assessment would be prepared during detailed design to ensure the trees are not adversely impacted during construction. Seagrass was not identified within the study area and no impacts to seagrass would result from the proposed work.

The BAR concluded the proposal is not likely to significantly impact threatened species, populations, ecological communities or migratory species, within the meaning of the *Biodiversity Conservation Act 2016* (BC Act) or the *Fisheries Management Act 1994* (FM Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Further information is provided in Section 6.3 and Appendix D of the REF.

## 2.8 Legislation

### ***Submission number(s)***

10, 28

### ***Issue description***

The respondents were concerned the proposal would not comply with the *State Environmental Planning Policy No 56 - Sydney Harbour Foreshores and Tributaries* (SEPP 56) or the *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005* (Sydney Harbour SREP).

### ***Response***

SEPP 56 has been repealed. The REF considers the relevant provisions of the Sydney Harbour SREP including the overall aims of the plan, zoning objectives, Division 2 matters, heritage objectives, wetland objectives and wetland matters for consideration (refer Section 4.1.1 of the REF).

The proposal is considered to comply with the provisions of the Sydney Harbour SREP.

## 2.9 Aboriginal heritage

### ***Submission number(s)***

26

### ***Issue description***

The respondent was concerned no consideration was given to the existing Aboriginal heritage and that construction would cause damage to the shoreline and rockface.

### ***Response***

A Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) assessment was completed as part of the REF, which assessed the potential Aboriginal heritage impacts from the proposal. Stage 1 of the PACHCI concluded the proposal was unlikely to have an impact on Aboriginal cultural heritage and did not require further investigations or assessment.

An Unexpected Heritage Items Procedure (RMS, 2015) would be implemented during the work to protect any unknown Aboriginal heritage items the works may come across.

## 2.10 Non-Aboriginal heritage

### ***Submission number(s)***

23

### ***Issue description***

The respondent is concerned the historic stairs north west of the proposal, near the existing bus stop, would be impacted.

## ***Response***

There would be no impacts from the proposal near the existing bus stop. It is noted there are no stairs at this location, however, a drainage channel is present.

The proposed work would only include the removal of the existing concrete stairs down to the wharf, however, these are not part of any heritage item and therefore the removal of the stairs would not impact significant fabric. It is noted the stairs are within the Greenwich Point Conservation Area, however, are not considered to be significant fabric within the conservation area and the proposal would not impact the overall heritage value of the conservation area. Further information can be found in Section 6.6 and Appendix G of the REF.

## **2.11 Other**

### ***Submission number(s)***

23, 25

### ***Issue description***

One respondent was concerned about the waste of resources as the bus shelter was recently upgraded and would now be removed. Another respondent suggested the existing bus shelter be re-used as part of the proposal.

### ***Response***

The proposal would relocate the newly upgraded bus shelter to near the street level entrance to the lift structure. A new bus shelter would not be installed.

### ***Submission number(s)***

23

### ***Issue description***

Th respondent would like to understand any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.

### ***Response***

Section 6 of the REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environment potentially impacted upon by the proposal are considered. In addition, factors listed in clause 228(2) of the Environmental Planning and Assessment Regulation 2000, were considered in the REF to assess the likely impacts of the proposal on the natural and built environment.

Section 1.4 which outlines the recent changes to the Environmental Planning and Assessment Regulation 2000.

### ***Submission number(s)***

25

### ***Issue description***

The respondent wanted to understand whether dredging would be required to accommodate the ferries.

### ***Response***

Dredging for the proposal would not be required.

### ***Submission number(s)***

3, 23, 25

### ***Issue description***

The respondents requested the existing heritage wharf be upgraded and stabilised, and the hand railings along the waterfront be upgraded as part of the work.

### ***Response***

The primary purpose of this proposal is to upgrade the Greenwich Point Wharf to meet accessibility requirements under the DDA and DSAPT, to ensure equitable access is provided for all public transport ferry customers.

Maintenance of the heritage wharf and current railings along the waterfront are the responsibility of LCC and outside the scope of this project. This feedback will be passed on to LCC.

### ***Submission number(s)***

3, 25, 26

### ***Issue description***

One respondent questioned whether fishing would be permitted at the new wharf, while another suggested fishing should be accommodated on the new wharf noting the new pontoon is not ideal for this purpose. Respondents were concerned the new wharf would not encourage responsible fishing behaviour and that the cleanliness and general upkeep of the lift would be compromised by fishing activity.

### ***Response***

Recreational fishing is permitted from the existing wharf and would still be permitted at the upgraded wharf following construction.

Signage would be installed as part of the upgrade to inform and remind the fishing community of the requirements of responsible fishing at Greenwich Point Wharf which includes consideration of nearby residents and other wharf and park users, keeping noise to a minimum and not leaving hooks, bait and fishing lines at the wharf.

The existing wharf cleaning and maintenance schedules would be maintained at the upgraded wharf. Scheduled tasks include cleaning (two to three times per week), preventative and routine maintenance, and monthly inspections.

Recreational fishing in Sydney Harbour is regulated by the NSW Department of Primary Industries. Report suspicious fishing activity to the Fishers Watch Phone line on 1800 043 536 or contact NSW Police to report any anti-social behaviour.

For general fishing information, call the Fisheries Information Line on 1300 550 474.

## 3. Environmental management

---

The REF for the Greenwich Point Wharf Upgrade identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (Section 7.2 of the REF).

After consideration of the issues raised in the public submissions, the safeguard and management measures have been revised to mitigate potential impacts.

Should the proposal proceed, environmental management will be guided by the framework and measures outlined below.

### 3.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these management measures will be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Construction Environmental Management Plan (CEMP) will be prepared to describe safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP would be prepared prior to construction of the proposal and must be reviewed and certified by the Transport Environment Officer before the start of any on-site work. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements.

### 3.2 Summary of safeguards and management measures

The REF for the Greenwich Point Wharf Upgrade identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

Separate to the submissions received for the REF, in May 2022, Transport was made aware of potential Aboriginal engravings located near the proposed wharf upgrade by a Greenwich resident. Following a site visit with the resident and representatives from Transport including the Aboriginal engagement team and project team, three potential engraving areas were identified and recorded. It was agreed by all parties that the engravings have likely been covered by vegetation over time and were not visible during the visit. One potential engraving site was identified as being underneath a recently constructed footpath. The potential engraving sites were also found to be outside the proposal's construction footprint.

Transport forwarded the outcomes of the site visit to Heritage NSW.

During construction of the proposal, the project team will implement additional safeguards and mitigations to protect these potential locations. These measures may include setting up exclusion zones or no-dig zones near the locations identified as possible heritage finds.

An Unexpected Heritage Items Procedure (RMS, 2015) would be implemented during the work to protect any unknown Aboriginal heritage items the works may come across.

After consideration of the issues raised in the public submissions and the potential Aboriginal engravings described above, the environmental management measures for the proposal (refer to

Chapter 7 of the REF) have been revised. Should the proposal proceed, the environmental management measures in Table 3-1 will guide the subsequent phases of the proposal.

Additional and/or modified environmental safeguards and management measures to those presented in the REF have been *underlined and italicised* and deleted measures, or parts of measures, have been ~~struck out~~.

Table 3-1: Summary of environmental safeguards and management measures

| ID          | Impact  | Environmental safeguards   | Responsibility                        | Timing                                  |
|-------------|---|--|---------------------------------------|---|
| <u>GEN1</u> | <u>General - minimise environmental impacts during construction</u> | <p><u>A CEMP will be prepared and submitted for review and endorsement of the Transport for NSW Environment Manager before the start of the activity.</u></p> <p><u>As a minimum, the CEMP will address the following:</u></p> <ul style="list-style-type: none"> <li><u>any requirements associated with statutory approvals</u></li> <li><u>details of how the project will implement the identified safeguards outlined in the REF</u></li> <li><u>issue-specific environmental management plans</u></li> <li><u>roles and responsibilities</u></li> <li><u>communication requirements</u></li> <li><u>induction and training requirements</u></li> <li><u>procedures for monitoring and evaluating environmental performance, and for corrective action</u></li> <li><u>reporting requirements and record-keeping</u></li> <li><u>procedures for emergency and incident management</u></li> <li><u>procedures for audit and review.</u></li> </ul> <p><u>The endorsed CEMP will be implemented during the undertaking of the activity.</u></p> | <u>Transport for NSW / Contractor</u> | <u>Pre-construction</u>                 |
| <u>GEN2</u> | <u>General - notification</u>                                       | <u>All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least seven calendar days before the start of the activity.</u>   | <u>Transport for NSW / Contractor</u> | <u>Pre-construction</u>                 |
| <u>GEN3</u> | <u>General – environmental awareness</u>                            | <p><u>All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings.</u></p> <p><u>Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include:</u></p> <ul style="list-style-type: none"> <li><u>Areas of non-Aboriginal heritage sensitivity</u></li> <li><u>Adjoining residential areas requiring particular noise management measures.</u></li> </ul>   | <u>Transport for NSW / Contractor</u> | <u>Pre-construction/detailed design</u> |
| LS1         | Soil and water  | A soil and water management plan (SWMP) will be prepared and implemented as part of the CEMP. The SWMP will identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks will be addressed during construction.   | Contractor                            | Pre-construction                        |
| LS2         | Soil and water  | Any excavated sediments or soil that require disposal will be sampled, tested and classified in accordance with the Environment Protection Authority (EPA) Waste Classification  | Contractor                            | Construction                            |

OFFICIAL



| ID  | Impact                    | Environmental safeguards   | Responsibility | Timing           |
|-----|---------------------------|--|----------------|------------------|
|     |                           | <i>Guidelines: Part 1 Classifying Waste</i> (EPA, 2014) prior to being disposed of at a waste facility licensed to accept the relevant class of waste. Any materials classified as Hazardous Waste may require treatment or an immobilisation approach in accordance with Part 10 of the <i>Protection of the Environment Operations (Waste) Regulation 2014</i> prior to off-site disposal.   |                |                  |
| LS3 | Soil and water            | Clean and suitable topsoil will be stockpiled and reused on site where appropriate.  | Contractor     | Construction     |
| LS4 | Contaminated land         | If unexpected contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other work that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environment Manager and/or EPA.  | Contractor     | Construction     |
| LS5 | Contaminated land         | The piling activity shall mitigate the risk of sediment dispersal by applying industry best practice using pilling methods or any other seabed interference.   | Contractor     | Construction     |
| LS6 | Erosion and scour         | The number of barge anchor points will be minimised where possible. The locations should be selected to avoid areas of sensitive habitat.  | Contractor     | Construction     |
| LS7 | Erosion and scour         | Work associated with positioning barges, drilling and pile driving will occur during calm conditions to prevent excessive scouring and other impacts.  | Contractor     | Construction     |
| LS8 | Erosion and sedimentation | <p>Prior to commencement of construction activities, sediment control device (such as sediment boom and curtain) will be installed around the site to contain disturbed sediment from the water surface by allowing suspended sediments to settle back on the bottom of the seabed overtime. The silt boom and curtain should extend from a minimum of 100 millimetres above the water line to a minimum of 2.5 metres below the water line before starting work.</p> <p>Installation should be undertaken during high tide periods from a boat. The device should be designed to rise and fall with the tide to prevent disturbance. Inspection of the device should be undertaken on a daily basis after ebbing tides, with additional inspection carried out following storm events. Prior to removing the sediment control device, conditions within the curtain should be assessed visually and with a field instrument to verify that sediment has settled resulting in similar water turbidity to that outside the curtain.</p> | Contractor     | Construction     |
| LS9 | Erosion and sedimentation | <p>Site specific Erosion and Sediment Control Plan/s will be prepared and implemented as part of the SWMP. Control measures are to be implemented and maintained (in accordance with the Landcom/Department of Housing <i>Managing Urban Stormwater, Soils and Construction Guidelines</i> “the Blue Book” (2004)) to:</p> <ul style="list-style-type: none"> <li>• minimise sediment dispersal during piling</li> </ul>   | Contractor     | Pre-construction |

| ID   | Impact                    | Environmental safeguards   | Responsibility | Timing                          |
|------|---------------------------|--|----------------|---------------------------------|
|      |                           | <ul style="list-style-type: none"> <li>prevent sediment moving off-site and sediment laden water entering any water course, drainage line, or drain inlet</li> <li>reduce water velocity and capture sediment on site</li> <li>minimise the amount of material transported from site to surrounding pavement surfaces</li> <li>divert clean water around the site.</li> </ul>  |                |                                 |
| LS10 | Erosion and sedimentation | <p>Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis to identify any potential spills or deficient silt curtains or erosion and sediment controls.</p> <p>Results of the observations are required to be recorded. Records are required to be kept on the site and to be made available for inspection by persons authorised by Transport for NSW.</p>   | Contractor     | Construction                    |
| WQ1  | Accidental spill          | <ul style="list-style-type: none"> <li>A spill management plan will be developed as part of the CEMP and communicated to all staff working on site.</li> <li>Appropriate land and aquatic spill kits are to be maintained on site and on barges. Aquatic spill kits must be specific for working within the marine environment. The spill kit must be appropriately sized for the volume of potentially polluting liquids stored on site.</li> <li>All workers will be advised of the location of the spill kit and trained in its use.</li> </ul> | Contractor     | Pre-construction / Construction |
| WQ2  | Accidental spill          | If an incident (e.g. spill) occurs, the Transport for NSW <i>Environmental Incident Classification and Reporting Procedure</i> is to be followed and the Transport for NSW Contract Manager notified as soon as practicable.   | Contractor     | Construction                    |
| WQ3  | Accidental spill          | In the event of a maritime spill, the incident emergency plan will be implemented in accordance with Port Authority of NSW's response to shipping incidents and emergencies outlined in the <i>NSW State Waters Marine Oil and Chemical Spill Contingency Plan</i> (RMS, 2016).  | Contractor     | Construction                    |
| WQ4  | Accidental spill          | Emergency contacts will be kept in an easily accessible location on vehicles, vessels, plant and site office. All workers will be advised of these contact details and procedures.   | Contractor     | Pre-construction / Construction |
| WQ5  | Accidental spill          | Vehicles, vessels and plant must be properly maintained and regularly inspected for fluid leaks.   | Contractor     | Construction                    |
| WQ6  | Accidental spill          | No vehicle or vessel wash-down or re-fuelling will occur on site.  | Contractor     | Construction                    |
| WQ7  | Accidental spill          | Any chemicals or fuels stored at the site or equipment barges will be stored in a bunded area.   | Contractor     | Construction                    |

| ID  | Impact   | Environmental safeguards  | Responsibility                   | Timing           |
|-----|--|---|----------------------------------|------------------|
| WQ8 | Pollution  | An environmental work method statement (EWMS) will be developed for the removal of the existing wharf elements (e.g. jetty and tidal steps) to minimise the risk of pollutants and debris entering the waterway. The EWMS must be approved by Transport for NSW prior to the demolition work.   | Contractor                       | Pre-construction |
| B1  | All project impacts  | <p>Integrate the management of flora and fauna into the CEMP (either as a standalone flora and fauna management plan or a subplan). This is to include all terrestrial and marine flora and fauna and include but not be limited to such measures as:</p> <ul style="list-style-type: none"> <li>• documenting and establishing site clearing limits</li> <li>• establishing no go zones (e.g. no anchoring on rocky reef) and go slow zones (e.g. vessel speeds, restricted areas) and include on sensitive area plans</li> <li>• implementing tree protection measures</li> <li>• pre-clearing surveys, vegetation removal, weed management and unexpected finds measures in line with the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).</li> </ul> | Contractor                       | Pre-construction |
| B2  | Removal of threatened species habitat and habitat features     | Pre-clearing surveys will be undertaken in accordance with Guide 1: Pre-clearing process of the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011). Any roosting microbats in the wharf structures to be removed and the seawall to be impacted/disturbed will be captured and relocated to similar or higher condition habitat. Release will only be done at dusk and roosting individuals should be kept in a secure, dark and warm location until then. Injured individuals or unfurred juveniles are to be transported to a veterinarian.   | Contractor                       | Pre-construction |
| B3  | Disturbance of threatened species habitat and habitat features | The unexpected species finds procedure is to be followed under the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011) if TECs not assessed in the biodiversity assessment, are identified on site.  | Contractor                       | Construction     |
| B4  | Removal of marine vegetation and habitat                       | Considerations during detailed design to promote colonisation of habitat-forming species could include the installation of structures which provide habitat complexity (e.g. designs available as part of the Living Seawalls Project).   | Transport for NSW and Contractor | Detailed design  |
| B5  | Removal of marine  | Minimise anchoring were possible and avoid anchoring on subtidal rocky reef habitat.  | Contractor                       | Construction     |

| ID  | Impact   | Environmental safeguards  | Responsibility    | Timing            |
|-----|--|---|-------------------|-------------------|
|     | vegetation and habitat                           |   |                   |                   |
| B6  | Removal of marine vegetation and habitat         | Complete a targeted survey for Black Rockcod and White's Seahorse within 24 hours prior to the commencement of water-based construction activities. Black Rockcod individuals will be encouraged to move away from the study area and White's Seahorse will be captured and relocated to nearby similar habitat using methods approved by Department of Primary Industries (DPI) Fisheries. A White's Seahorse relocation plan will be developed in consultation with DPI Fisheries to dictate this activity. These activities are to be completed by a qualified marine ecologist. | Transport for NSW | Pre- construction |
| B7  | Removal of marine vegetation and habitat         | A Section 37 permit under the FM Act to relocate Syngnathids collected during the targeted pre-clearance survey will be required as part of the White's Seahorse relocation. Relocation may be undertaken by a pre-qualified permit holder.   | Transport for NSW | Pre-construction  |
| B8  | Aquatic impacts                                  | Aquatic habitat will be protected in accordance with Guide 10: Aquatic habitats and riparian zones of the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011) and Section 3.3.2 Standard precautions and mitigation measures of the <i>Policy and guidelines for fish habitat conservation and management Update 2013</i> (DPI, 2013).   | Contractor        | Construction      |
| B9  | Aquatic impacts                                  | Piling to stop if marine mammals or reptiles are observed within approximately 100 metres of the site and only to recommence once they have moved beyond 100 metres of the site or are not seen for at least 20 minutes.  | Contractor        | Construction      |
| B10 | Changes to coastal processes                     | The detailed design will aim to avoid/minimise any impact to coastal processes and hydrology.   | Transport for NSW | Detailed design   |
| B11 | Injury and mortality of fauna                    | Fauna will be managed in accordance with Guide 9: Fauna handling of the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).   | Contractor        | Construction      |
| B12 | Invasion and spread of weeds, pests and diseases | Weed species will be managed in accordance with Guide 6: Weed management of the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).   | Contractor        | Construction      |
| B13 | Invasion and spread of                           | Pathogens will be managed in accordance with Guide 2: Exclusion zones of the <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).  | Contractor        | Construction      |

| ID  | Impact   | Environmental safeguards  | Responsibility    | Timing           |
|-----|--|---|-------------------|------------------|
|     | weeds, pests and diseases                        |   |                   |                  |
| B14 | Invasion and spread of weeds, pests and diseases | Water-based equipment and vessels to be sourced from local suppliers where possible. Equipment and vessels must be cleaned and inspected prior to entering the site.  | Contractor        | Construction     |
| B15 | Invasion and spread of weeds, pests and diseases | Occurrence of any marine pests must be reported to DPI Fisheries.   | Contractor        | Construction     |
| B16 | Noise, light and vibration                       | Shading and artificial light impacts will be minimised through detailed design.   | Transport for NSW | Detailed design  |
| B17 | Tree protection                                  | An Arboricultural impact assessment will be prepared during detailed design to ensure trees on site are not adversely impacted and to outline tree protection measures to be implemented during construction.   | Transport for NSW | Detailed design  |
| NV1 | Noise and vibration                              | <p>Preparation of a construction noise and vibration management plan (CNVMP) based on recommendations provided within the NSW Interim Construction Noise Guideline (ICNG) and Australian Standard AS 2436-1981: <i>Guide to Noise Control on Construction, Maintenance and Demolition Sites</i>. This is to include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• Plant controls: <ul style="list-style-type: none"> <li>– Use of noise attenuating controls at the source, such as mufflers, acoustic screens, etc</li> <li>– Maintain plant and equipment in good working order to prevent excess noise generation</li> <li>– Locate static sources of noise such as the generators as remotely as possible from noise sensitive receivers</li> <li>– Use of broadband reversing alarms, or “quackers”, on mobile equipment in accordance with the relevant health and safety regulations</li> <li>– Use of temporary noise barriers where practical. The height and location of these barriers will be determined during preparation of the CNVMP when more information regarding the proposed plant to be used for each construction stage is available</li> <li>– Investigate whether “at plant” mitigation or muffled plant is available for plant with high source noise levels such as rock hammers and piling rigs, and plant emitting continuous noise such as generators</li> </ul> </li> </ul> | Contractor        | Pre-construction |

| ID  | Impact              | Environmental safeguards   | Responsibility                 | Timing           |
|-----|---------------------|--|--------------------------------|------------------|
|     |                     | <ul style="list-style-type: none"> <li>– Acoustic curtains will be investigated for stationery plant within the worksite once a detailed schedule of work and plant is available.</li> <li>• Management and behavioural controls: <ul style="list-style-type: none"> <li>– Ensure that managers effectively communicate acceptable and unacceptable work practices for the site, through staff site inductions, notice boards, and prestart meetings</li> <li>– Avoid the need for reversing on site by creating a loop road or similar</li> <li>– Avoid dropping materials from height</li> <li>– Workers will avoid shouting, minimise talking loudly, and avoid slamming vehicle doors.</li> </ul> </li> <li>• Conducting noise monitoring during all construction phases/scenarios considering the potential exceedances for the purposes of assisting in noise mitigation and to verify the findings of this noise assessment.</li> <li>• Implementing a procedure for dealing with complaints to ensure that all complaints are registered and dealt with appropriately.</li> <li>• Conducting additional monitoring if complaints are received or proposed activities and number of plant exceed those assumed in this assessment.</li> <li>• Modifying work activities where noise or vibration is found to cause unacceptable impact.</li> <li>• Implementation of additional mitigation measures in accordance with the Construction noise and vibration guideline (CNVG) including notification, respite periods and alternate accommodation as reasonable and feasible.</li> </ul> |                                |                  |
| NV2 | Noise and vibration | <ul style="list-style-type: none"> <li>• Carry out work within standard construction hours as follows: <ul style="list-style-type: none"> <li>– 7am to 6pm Monday to Friday</li> <li>– 8am to 1pm Saturdays, no work on Sundays or public holidays.</li> </ul> </li> <li>• Do not carry out work during the evening or night, unless required for safety reasons.</li> <li>• Should work be required outside standard hours, an out of hours procedure detailing the work schedule, approval process, communication requirements and management measures will be prepared.</li> <li>• All reasonable and feasible efforts will be undertaken to ensure noise levels will not exceed the ICNG noise management level (NML) stated in this REF by carrying out night-work with reduced numbers of plant for example.</li> </ul>  | Contractor                     | Construction     |
| NV3 | Noise and vibration | <ul style="list-style-type: none"> <li>• Notification of potentially affected receivers detailing work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the night time period, any operational noise benefits from the work (where applicable) and contact telephone number.</li> </ul>  | Transport for NSW / Contractor | Pre-construction |

| ID  | Impact                                  | Environmental safeguards   | Responsibility    | Timing                               |
|-----|---|--|-------------------|--------------------------------------|
|     |   | <ul style="list-style-type: none"> <li>Notification should be a minimum of seven calendar days prior to the start of work.</li> <li>A contact telephone number and email address will be available for community feedback.</li> </ul>  |                   |                                      |
| NV4 | Vibration impact to heritage structures | <ul style="list-style-type: none"> <li>Determine safe working distances based on proposed plant and where possible, smallest plant able to carry out required work should be utilised to minimise potential impacts. Where work is proposed within the safe working distances, for the heritage structures, specialist advice will be sought from an appropriately qualified structural engineer who is familiar with heritage structures to assess if vibrations associated with the proposed work could potentially result in impacts to heritage structures.</li> <li>A vibration monitoring plan will be prepared as part of the CNVMP and implemented to confirm vibration levels prior to construction commencement. Where exceedances are recorded, work will be modified in consultation with the identified specialist to reduce vibration levels.</li> </ul> | Contractor        | Pre-construction / Construction      |
| NV5 | Vibration impact to heritage structures | <p>Regular inspections of the construction activities and work areas will be undertaken by structural engineers and any other required specialist to monitor and review the construction methodology to confirm the integrity of the heritage items. Assessment and monitoring of vibration impacts will adhere to:</p> <ul style="list-style-type: none"> <li>British Standard BS 7385: <i>Part 2: Evaluation and Measurement for Vibrations in Buildings –Part 2 Guide to Damage Levels from Ground-Borne Vibration</i></li> <li>German Standard DIN 4150, <i>Part 3: Structural Vibration in Buildings: Effects on Structures</i>.</li> </ul>   | Contractor        | Pre-construction / Construction      |
| NV6 | Vibration                               | Where buildings are located within the safe working distances, pre and post construction dilapidation surveys will be carried out.   | Contractor        | Pre-construction / Post-Construction |
| NV7 | Vibration                               | Where buildings are located within the safe working distances (non heritage structures), vibration monitoring will be carried out to ensure compliance with the required criteria. If exceedances are recorded, work will be modified accordingly to reduce vibration levels.  | Contractor        | Pre-construction / Construction      |
| LV1 | Landscape and visual                    | <p>Urban design principles will be integrated throughout the detailed design of the project and include:</p> <ul style="list-style-type: none"> <li>Use of colours that blend into the landscape (as viewed from the harbour) and that complement the materiality of the cliff face (e.g. sandstone).</li> <li>Incorporate landscaping elements, which can ameliorate impacts of the new structures.</li> <li>Painting of the concrete/steel construction for the lift and stair structures. The visible sides of tread/risers could be painted darker colours to blend into the harbour cliff.</li> </ul>   | Transport for NSW | Detailed design                      |

| ID  | Impact                                  | Environmental safeguards  | Responsibility    | Timing            |
|-----|---|---|-------------------|-------------------|
|     |   | <ul style="list-style-type: none"> <li>Frame materials on the lift structure should be black or dark grey/green to blend in, and should not be white, light or shiny steel which would reflect sunlight and increase prominence.</li> </ul> <p>Consideration of tinted and less reflective glazing for the lift structure rather than light and highly reflective clear panels.</p>   |                   |                   |
| LV2 | Landscape and visual                    | Hoarding will be erected around the site where possible, to reduce visibility.  | Contractor        | Construction      |
| LV3 | Landscape and visual                    | Where out of hours work is required, lighting will be directionally controlled to limit potential impacts of light spill on surrounding receivers, including residential properties.  | Contractor        | Construction      |
| LV4 | Landscape and visual                    | All impacted areas and ground surfaces will be reinstated as near as possible to their original state following the completion of work.   | Contractor        | Post-construction |
| H1  | Archaeological significance             | A heritage induction will be provided to workers prior to construction, informing them of the significance of known heritage items and the implementation of the <i>Unexpected Heritage Items Procedure</i> (RMS, 2015) if unanticipated heritage items or deposits are located during construction.  | Contractor        | Pre-construction  |
| H2  | Unexpected finds                        | <p>Archaeological remains will be managed under the <i>Unexpected Heritage Items Procedure</i> (RMS, 2015) if unanticipated heritage items or depositions are located during construction. Under this procedure:</p> <ul style="list-style-type: none"> <li>If archaeological 'works' such as evidence of former road surfaces or streetscape elements are unexpectedly encountered during construction work and will be impacted, archaeological investigation and recording will be undertaken prior to impacts. If unexpected 'relics' are encountered during excavation, a section 146 relics notification will be forwarded to Heritage NSW, Department of Premier and Cabinet (DPC). 'Relics' cannot be impacted without appropriate approvals under the <i>Heritage Act 1977</i>.</li> </ul> | Contractor        | Construction      |
| H3  | Heritage interpretation                 | Opportunities for the implementation of heritage interpretation will be investigated during detailed design.  | Transport for NSW | Detailed design   |
| H4  | Vibration impact to heritage structures | If vibration monitors are attached to the heritage items, they must not be attached with permanent fixings. They should be removable without causing damage. Bees wax may be a suitable attachment method.  | Contractor        | Construction      |
| H5  | Greenwich Point Wharf (SHI no.          | A Photographic Archival Recording of the Greenwich Point Wharf (State Heritage Inventory (SHI) no. 4920084, Lane Cove Local Environmental Plan (LEP) no. I130) and the area impacted by project must be undertaken prior to impacts to record the current setting of the  | Contractor        | Pre-construction  |

OFFICIAL



| ID  | Impact  | Environmental safeguards   | Responsibility    | Timing                             |
|-----|---|--|-------------------|------------------------------------|
|     | 4920084, Lane Cove LEP no. I130)                                | wharf and the Greenwich Conservation Area (Lane Cove LEP no C1). Recording should be prepared in accordance with the guideline for <i>Photographic Recording of Heritage Items Using Film or Digital Data Capture</i> (Heritage Council, 2006).  |                   |                                    |
| H6  | Greenwich Point Wharf (SHI no. 4920084, Lane Cove LEP no. I130) | As the existing wharf structure within Greenwich Point Wharf (SHI no. 4920084, Lane Cove LEP no. I130) will be demolished, Heritage NSW, DPC must be notified in accordance with s170A (1c) of the <i>Heritage Act 1977</i> . A copy of the SoHI (Artefact, 2021) should be submitted to Heritage NSW, DPC for their records.  | Transport for NSW | Pre-construction                   |
| H7  | Greenwich Point Wharf (SHI no. 4920084, Lane Cove LEP no. I130) | Care must be taken during the removal of the waiting shelter and underlying concrete landing to minimise damage to the sandstone sea wall during removal of the concrete. A hydraulic hammer should not be used to separate the concrete from the face of the sea wall to reduce the risk of damaging the sandstone blocks. Any impacted sections of the sea wall must be made good, and if necessary, damaged sandstone blocks must be replaced with like-for-like sandstone. | Contractor        | Construction                       |
| H8  | Greenwich Point Wharf (SHI no. 4920084, Lane Cove LEP no. I130) | Following construction of the new wharf, the SHI description and heritage curtilage for Greenwich Point Wharf (SHI no. 4920084, Lane Cove LEP no. I130) must be updated to reflect its location and condition.   | Transport for NSW | Post-construction                  |
| H9  | Design change   | If design changes result in additional earthwork and impacts to potential archaeological remains associated with the former Greenwich Point Wharf to the south-east of the existing wharf, further archaeological assessment and management will be required.  | Transport for NSW | Detailed design / Pre-construction |
| H10 | Design change   | Any project redesign resulting in new ground disturbance, vegetation removal, or new features must be assessed in an addendum to the SoHI (Artefact, 2021).  | Transport for NSW | Detailed design / Pre-construction |
| AH1 | Aboriginal heritage   | Should the scope of the proposed work change, further consultation with Transport for NSW's Aboriginal Cultural Heritage Officer and regional environmental staff must be undertaken to reassess any potential impacts on Aboriginal cultural heritage.  | Transport for NSW | Pre-construction / Construction    |
| AH2 | Aboriginal heritage   | All site personnel are to be made aware of the nearby AHIMS sites (45-6-1037 and 45-6-3049) <u>as well as the three potential engraving locations</u> in the form of Aboriginal site awareness during induction.   | <u>Contractor</u> | <u>Construction</u>                |

| ID         | Impact                                 | Environmental safeguards  | Responsibility    | Timing                          |
|------------|--|---|-------------------|---------------------------------|
| AH3        | Unexpected heritage finds              | The <i>Unexpected Heritage Items Procedure</i> (RMS, 2015) will be followed in the event that (an) unknown or potential Aboriginal object(s), including skeletal remains, is/are found during construction. This applies where Transport for NSW does not have approval to disturb the object(s) or where a specific safeguard for managing the disturbance (apart from the procedure) is not in place. Work will only restart once the requirements of that procedure have been satisfied.   | Contractor        | Construction                    |
| <u>AH4</u> | <u>Potential Aboriginal Engravings</u> | <u>The three potential Aboriginal engraving locations identified following the site visit on 03/06/2022 are to be either demarcated as exclusion zones (in the case of the potential sites located in the vegetated areas near the cliff-side) or signposted as no-dig zones (in the case of the potential site located underneath the footpath).</u>   | <u>Contractor</u> | <u>Construction</u>             |
| T1         | Land transport and parking             | A TMP will be prepared and will include the following: <ul style="list-style-type: none"> <li>• Final access and parking arrangements.</li> <li>• Alternate pedestrian and cyclist access around the site.</li> <li>• Measures to ensure light vehicle parking is strictly in accordance with LCC requirements and prevents parking on footpaths and grassed areas adjacent to the site.</li> </ul>   | Contractor        | Pre-construction                |
| T2         | Land transport and parking             | Where possible, the preferred means of transporting equipment and materials to the site will be via boat and barge over land transport so as to limit impacts to the local road network.  | Contractor        | Construction                    |
| T3         | Land transport and parking             | Public transport passengers will be notified of any impacts to transport services and the alternative transport options prior to the commencement of construction. This will include updates to the timetable (online and Opal app) indicating the construction work at the wharf.  | Transport for NSW | Pre-construction / Construction |
| T4         | Water transport                        | <ul style="list-style-type: none"> <li>• A maritime navigation exclusion zone will be established during construction to prevent unauthorised vessels entering the site.</li> <li>• This zone will be clearly defined to communicate access for other water users.</li> </ul>   | Contractor        | Pre-construction / Construction |
| T5         | Water transport                        | A Maritime TMP will be prepared and implemented during the water based construction work. The Maritime TMP will be prepared in consultation with Transport for NSW and approved by the Harbourmaster. In addition, the project will: <ul style="list-style-type: none"> <li>• Fit all buoys with lights.</li> <li>• Prepare Response Plans for emergencies and spills for all construction vessels.</li> <li>• Fit at least one vessel with an Automatic Identification System (AIS).</li> <li>• Retrieve any material associated with the construction of the development that enters the water to prevent the obstruction of vessel movements.</li> </ul> | Contractor        | Pre-construction / Construction |

| ID  | Impact                     | Environmental safeguards  | Responsibility                 | Timing                          |
|-----|----------------------------|---|--------------------------------|---------------------------------|
|     |                            | <ul style="list-style-type: none"> <li>Prepare a Communications Plan for implementation during the work which must include 24/7 contact details, protocols for enquiries, complaints and emergencies.</li> </ul> Any variation to the above will be agreed in advance with the Harbourmaster.   |                                |                                 |
| T6  | Water transport            | Commercial, recreational operators and private services that use the existing wharf will be advised of the wharf closure at least two weeks prior to closure.   | Transport for NSW              | Pre-construction                |
| SE1 | Socio-economic             | A Communications and Stakeholder Engagement Plan will be developed prior to the commencement of construction and will be implemented during construction to provide timely and accurate information to stakeholders during construction. It will include (as a minimum): <ul style="list-style-type: none"> <li>Mechanisms to provide details and timing of proposed activities to affected residents and local businesses, including changes to traffic, public transport services and access.</li> <li>A contact name and telephone number for complaints.</li> </ul> The Plan will be prepared in accordance with the <i>Community Involvement and Communications Resource Manual</i> (RTA, 2008). | Transport for NSW / Contractor | Pre-construction / construction |
| SE2 | Socio-economic             | <ul style="list-style-type: none"> <li>A webpage and free-call number will be established for enquiries regarding the project, and will remain active for the duration of construction.</li> <li>Contact details will be clearly displayed at the entrance to the site.</li> <li>All enquiries and complaints will be tracked through a tracking system, and acknowledged within 24 hours of being received.</li> </ul>   | Contractor                     | Pre-construction / construction |
| SE3 | Sustainability             | Investigate opportunities to encourage the Contractor to purchase goods and services locally.   | Transport for NSW              | Pre-construction / construction |
| SE4 | Sustainability             | Investigate opportunities to incorporate community health and wellbeing initiatives in the design and construction of the project.  | Transport for NSW              | Detailed design / construction  |
| SE5 | Land transport and parking | Opportunities to provide alternative transport during the construction period will be considered.   | Transport for NSW              | Pre-construction                |
| AQ1 | Air quality                | Air quality during construction will be considered and addressed within the CEMP and will include methods to manage work during strong winds or other adverse weather conditions as required. As a minimum, the following measures will be included: <ul style="list-style-type: none"> <li>Covering all loaded trucks and vessels.</li> <li>Machinery to be turned off rather than left to idle when not in use.</li> <li>Maintenance of all vehicles, including trucks and vessels entering and leaving the site in accordance with the manufacturers specifications to comply with all relevant legislation.</li> </ul>  | Contractor                     | Pre-construction / construction |

| ID  | Impact            | Environmental safeguards   | Responsibility    | Timing                          |
|-----|-------------------|--|-------------------|---------------------------------|
|     |                   | <ul style="list-style-type: none"> <li>Maintenance of all plant and equipment to ensure good operating conditions and exhaust emissions comply with the <i>Protection of the Environment Operations Act 1997</i> (PoEO Act).</li> <li>Maintaining the work site in a condition that minimises fugitive emissions such as minor dust.</li> <li>Appropriate sediment and erosion controls for any exposed earth or stockpiled waste.</li> </ul>  |                   |                                 |
| AQ2 | Sustainability    | During construction, the Contractor is to monitor performance of their non-road diesel plant and equipment against United States Environmental Protection Agency (US EPA), European Union (EU) or equivalent emissions standards using Transport for NSW <i>Air Emissions Workbook - DMS-FT-439</i> .  | Contractor        | Construction                    |
| WM1 | Waste             | <p>A waste management plan (WMP) will be prepared in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i>. A WMP is to be prepared as part of the CEMP and will include measures to minimise waste, outline methods of disposal, reuse and recycling and monitoring, as appropriate. This is to include the following:</p> <ul style="list-style-type: none"> <li>Appropriate measures to avoid and minimise waste associated with the project should be investigated and implemented where possible.</li> <li>Waste management, littering and general tidiness will be monitored during routine site inspections.</li> </ul> | Contractor        | Pre-construction / Construction |
| WM2 | Resource use      | Recycled, durable, and low embodied energy products will be considered to reduce primary resource demand in instances where the materials are cost and performance competitive and comparable in environmental performance (e.g. where quality control specifications allow).  | Transport for NSW | Detailed design                 |
| WM3 | Sustainability    | During construction, the Contractor is to monitor waste and recycling quantities using Transport for NSW <i>Waste Data Collection Workbook – DMS-FT-436</i> to support compulsory requirement 4 of the Transport for NSW <i>Sustainability Design Guidelines version 4.0</i> (2017).   | Contractor        | Construction                    |
| HR1 | Hazards and risks | Weather forecasts will be monitored during construction. In the unlikely event of a major weather event or strong marine winds/waves, equipment and materials will be temporarily removed from the site, where possible.   | Contractor        | Construction                    |
| HR2 | Hazards and risks | Further investigations and assessment of impacts to local utilities will be undertaken.  | Transport for NSW | Detailed design                 |
| HR3 | Hazards and risks | Onsite service location will be carried out prior to undertaking any excavation or piling work to identify any additional cables not identified during design.   | Contractor        | Pre-construction                |

| ID        | Impact                          | Environmental safeguards  | Responsibility                 | Timing  |
|-----------|---------------------------------|---|--------------------------------|---|
| CC1       | Climate change                  | During detailed design undertake a compliant carbon footprinting exercise in accordance with the Transport for NSW <i>Carbon Estimate and Reporting Tool Manual</i> (TfNSW, 2019). The carbon footprint will be used to inform decision making in design and construction.  | Contractor                     | Detailed design / Construction                                    |
| CC2       | Climate change                  | During detailed design undertake a compliant climate risk assessment in accordance with the Transport for NSW <i>Climate Risk Assessment Guidelines – DMS-SD-081</i> .  | Contractor                     | Detailed design   |
| CC3       | Climate change                  | The detailed design process will consider adaptation measures for climate change, including the following: <ul style="list-style-type: none"> <li>• design of pontoons, waiting areas and gangways</li> <li>• integrate coastal erosion control techniques around landside infrastructure</li> <li>• drainage and storm water infrastructure</li> <li>• specifications of materials in design</li> <li>• weather protection features.</li> </ul>  | Contractor                     | Detailed design   |
| S1        | Sustainability                  | The Contractor shall propose a suitably qualified and experienced sustainability officer at a minimum 14 days prior to site establishment to be endorsed by Transport for NSW. The sustainability officer will be responsible for implementing the sustainability objectives for the project. Details of the sustainability officer, including defined responsibilities, duration and resource allocation throughout the appointment are to be submitted to Transport for NSW prior to the preparation of the Sustainability Management Plan. | Contractor                     | <del>Detailed design</del> <u>Pre-construction / Construction</u> |
| S2        | Sustainability                  | Prior to commencement of construction, a Sustainability Management Plan shall be endorsed by Transport for NSW. The Plan will be provided prior to construction and include the following minimum components: <ul style="list-style-type: none"> <li>• A completed electronic checklist demonstrating compliance with Transport for NSW's <i>NSW Sustainability Design Guidelines Version 4.0</i> (7TP-ST-114).</li> </ul> The Contractors sustainability goals and targets, internal procedures, and implementation strategy.                | Contractor                     | Detailed design   |
| S3        | Sustainability                  | The Contractor must comply with the Transport for NSW <i>Sustainability Design Guidelines version 4.0</i> .   | Transport for NSW / Contractor | Detailed design / Construction                                    |
| C1        | Cumulative construction impacts | <ul style="list-style-type: none"> <li>• Consultation will include notification prior to the start of work</li> <li>• Updates on any delays or changes to the construction period will also be communicated.</li> </ul>   | Transport for NSW              | Pre-construction / construction                                   |
| <u>D1</u> | <u>Design</u>                   | <u>During detailed design Transport for NSW will investigate the following:</u>   | <u>Transport for NSW</u>       | <u>Detailed design</u>  |

OFFICIAL

| ID | Impact | Environmental safeguards   | Responsibility | Timing |
|----|--------|--|----------------|--------|
|    |        | <ul style="list-style-type: none"> <li>• <u>Opportunities to reduce the lift height</u></li> <li>• <u>Opportunities to reduce the length of the jetty</u></li> <li>• <u>Additional weather protection</u></li> <li>• <u>Different lift façades</u></li> <li>• <u>Installation of berthing infrastructure such as appropriately spaced fenders, ladders and cleats on the pontoon to support berthing by vessels of different sizes.</u></li> </ul> |                |        |

### 3.3 Licensing and approvals

A summary of the licences and approvals required for the proposal is provided in Table 3-2.

Table 3-2: Summary of licensing and approval required

| Instrument                           | Requirement  | Timing                          |
|--------------------------------------|--|---------------------------------|
| <i>Fisheries Management Act 1994</i> | Permit under Section 37 of the <i>Fisheries Management Act 1994</i> is required to relocate seahorses. Relocation may be undertaken by a pre-qualified permit holder.  | Prior to start of the activity. |
|                                      | Notification to the DPI Fisheries will occur in accordance with Section 199 of the <i>Fisheries Management Act 1994</i> for reclamation and dredging.  | Prior to start of the activity. |
| <i>Heritage Act 1977</i>             | Heritage NSW must be notified in accordance with s170A (1c) of the <i>Heritage Act 1977</i> as the existing wharf structure within Greenwich Point Wharf (SHI no. 4920084, Lane Cove LEP no. I130) will be demolished. | Prior to start of the activity. |
| <i>Roads Act 1993</i>                | Consultation with LCC is required for work on Lower Serpentine Road.   | Prior to start of the activity. |

## 4. References

---

GHD (2021) *Options Development Report: Greenwich Point Wharf*. Prepared by GHD Pty Ltd for Transport for NSW, August 2021.

Transport (2021) *Greenwich Point Wharf Upgrade. Review of Environmental Factors*. Prepared by Cardno (NSW/ACT) Pty Ltd on behalf of Transport for NSW, December 2021.



# Appendix A

Greenwich Point Wharf Upgrade, Review of Environmental Factors,  
December 2021