



North Sydney Wharf Upgrade

Submissions report

Transport for NSW | February 2021

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



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Executive summary

The proposal

Transport for NSW is proposing to upgrade North Sydney wharf (the proposal) as part of the Transport Access Program (TAP). The proposal includes both landside and waterside works including installation of a new wharf and accessible ramp, new accessible parking and Kiss and Ride spaces and removal of part of the existing wharf structure.

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.

Display of the Review of Environmental Factors

Transport for NSW prepared a Review of Environmental Factors (REF) for the North Sydney Wharf Upgrade (TfNSW, 2020). As part of the planning process the REF was publicly displayed between 30 October 2020 and 27 November 2020. The REF was published on the Transport for NSW project website and made available for download.

Due to COVID-19 the REF was available online and printed versions 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 'have their say'. Activities included installation of posters at the wharf, distribution of community updates and postcards, a targeted social media campaign, meetings with North Sydney Council, government and community organisations and individual community members on request.

Summary of issues and responses

A total of 25 submissions were received, with 22 from the general community and one each from North Sydney Council, Sydney Harbour Federation Trust (SHFT) and the Milson Precinct Committee.

The main issues raised and responses to those issues are summarised below.

Proposal design

Eight submissions provided feedback, suggestions and concerns on the design of the proposal, including size and location of the wharf structure, impact to the park with the inclusion of excessive hardstand areas in the design, and whether adequate weather protection is provided. Some submissions suggested alternative designs.

Response regarding size and location of the pontoon and weather protection

The proposed configuration of the new and existing wharf structures is based on a number of factors including the need to:

- Minimise movement of the pontoon due to the wind and wave movement, thereby maximizing customer comfort and safety
- Increase the clearance in navigational channel to allow for the safe passage of water vessels
- Avoid existing moorings
- Allow the wharf to be accessible in all tidal states
- Minimise timetable delays associated with berthing and turning in a confined area
- Provide a safe distance between the two structures.

The project team considered this feedback, however, the proposed wharf design, including partial retention of the existing wharf, best meets the project objectives.

Shelter would be provided for customers waiting for the ferry on the wharf pontoon itself. With the exception of the berthing face, the glazing on the wharf will be increased to provide additional weather protection on the pontoon. The proposal includes an uncovered gangway as it minimises the visual impact of the new wharf and leads to an uncovered park area on the foreshore.

Response regarding excessive hardstand areas and impact to the park

In consultation with North Sydney Council, the project team will investigate options to reduce hardstand areas, minimise additional concrete and remove redundant concrete, while still providing compliant direct access to the new wharf.

Project justification

Five submissions questioned the justification for the proposal.

Response

The project team considered this feedback, however, the purpose of the proposed upgrade is to ensure that the wharf is compliant with the accessible transport requirements made under DDA by 2022.

Tree removal

Four submissions were concerned about the removal of trees.

Response

The REF identified that the proposal may require removal of up to four trees (three Wildfire trees and one Smooth-barked Apple) along the foreshore. The project team has considered this feedback and will investigate options to re-align the accessible ramp, while maintaining the required gradients, to minimise the impact to the identified trees. The requirement to remove up to four trees is a worst case scenario and trees would be retained where possible.

Replacement planting of trees would be undertaken in the instance that removal is deemed necessary and would be determined in consultation with North Sydney Council so that impacts to the visual characteristics and green space of Kesterton Park are minimised.

Landscape character and visual impact

Four respondents were concerned that retaining part of the existing wharf alongside the new wharf would negatively impact the visual amenity of the area, suggesting incorporating the existing wharf into the new wharf to create a more integrated design.

Response

The project team has considered this feedback and responded by retaining a section of the existing wharf for recreational use, including fishing, at the request of stakeholders including the Department of Primary Industries (DPI) and members of the community. The structure would be partially demolished to minimise the visual impact and to ensure a safe space between the wharves.

Integration of the old and new wharf is not achievable as substantial structural works would be required to stabilise the existing wharf to a point where it could be used to interface with a new pontoon. The cost to remediate the existing wharf and piles to make it structurally sound to support the new accessible gangway and pontoon was not considered feasible.

Alternative transport

Three submissions expressed concern about closing the existing wharf for six months during construction and the subsequent interruption to ferry services. It was suggested that alternative transport options be considered in addition to the existing alternative services in the area for those with reduced mobility.

Response

The project team considered this feedback, however, closing the existing wharf and ceasing ferry services is necessary for construction and safety. The closure would be limited to the time required to safely remove the existing tidal steps and construct the new wharf. Unfortunately existing local bus services are not able to access the southern end of High Street due to insufficient road width and turning capabilities within the cul-de-sac. A private bus service to connect with local bus services is not feasible given the existing low patronage at North Sydney wharf.

Alternative public transport options that would be available during the wharf closure include ferry services at Neutral Bay, Kirribilli and Milsons Point, local bus services including 262 and 269, and train services at North Sydney and Milson Point stations.

Water access from existing wharf

Four submissions requested the lower tidal steps of the existing wharf be retained to allow access to the water for recreational use such as swimming, kayaking and use by other recreational watercraft.

Response

The existing tidal steps require removal for safety and structural reasons, and to leave an appropriate distance between the existing and new wharf structures. However, the project team has considered this feedback and will investigate the option of installing a ladder to the remaining portion of the existing wharf, if structurally safe to do so. The ladder would allow access to the water from the retained platform.

Recreational fishing

Four submissions requested that recreational fishing be banned from the new wharf, to prevent user conflicts with passengers embarking and alighting from the ferry and other impacts such as anti-social behavior, noise, occupying parking spaces and generating litter.

Response

The existing wharf would be partially retained for recreational purposes including fishing. Fishing would be banned on the new wharf with 'no fishing' signage to be installed. Signage would be retained on the existing wharf to inform and remind the fishing community of the requirements of responsible fishing, which includes consideration of nearby residents, other wharf and park users, keeping noise to a minimum and not leaving hooks, bait and fishing lines at the wharf.

Changes to the proposal

Following detailed design development and the consideration of submissions, the proposed design has been amended as follows:

- Investigate modifications to the alignment of the accessible ramp to minimise the impact on the trees while still achieving required gradients
- The accessible parking space would be located on the left and the Kiss and Ride space on the right when looking at the harbour, this position has been reversed from that identified in the REF
- Investigate modifications to the design to reduce additional concrete and remove redundant concrete
- Glazing on the wharf would be increased to provide additional weather protection on the pontoon.

Additional assessment

Since display of the REF an addendum Statement of Heritage Impact (SOHI) was carried out to document the results of the maritime heritage databases searches in order to identify any potential additional heritage constraints.

The assessment identified one additional item, Marina (site ID 3909), listed on the Shipwreck register within the visual buffer zone of the proposal (approximately 140 metres north east of the construction footprint). Overall the proposed works would not cause direct or indirect impacts to the potential remains of the site. As a mitigation measure, the Marina (site ID 3909) would be included in the Construction Sensitive Area Plan developed by the Contractor.

Next steps

Transport for NSW as the determining authority will consider the information in the REF and this submissions report and make a decision whether or not to proceed with the proposal. The decision will be shared with stakeholders and the community.

Where a decision is made to proceed, Transport for NSW will continue to inform the community and stakeholders prior to and during the construction phase.

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Appendix B	Addendum Statement of Heritage Impact, December 2020

1. Introduction and background

1.1 The proposal

Transport for NSW proposes to upgrade the North Sydney wharf (the proposal) as part of the Transport Access Program (TAP). The proposal includes both waterside and landside upgrade works.

The waterside features of the proposal would include:

- Installation of a new 3.3 metre long by 3.3 metre wide concrete jetty, supported by three new piles, including minor modifications to the top of the seawall
- Installation of a new 12 metre by 27 metre pontoon including weather protection, seating and information boards. The pontoon would be held in place by four new piles, with pivot piles (to assist vessel berthing) provided at either end of the pontoon
- Installation of a new 18 metre uncovered aluminium gangway located to the north of the existing wharf to provide access between the jetty and pontoon
- Installation of two protection piles on the northern side of the gangway
- Demolition of three of the four tidal steps and associated piles and fender piles from the existing wharf
- Safety and security features on the pontoon including an emergency help point, lighting, closed circuit television (CCTV), ladders to the water and a life buoy and tactile indicators ¹ where required.

The landside features of the proposal would include:

- One accessible parking space at the cul-de-sac end of High Street
- One Kiss and Ride space at the cul-de-sac end of High Street
- Three new bicycle parking hoops
- Footpath regrading to produce a *Disability Standards for Accessible Public Transport 2002* (DSAPT) compliant grade
- Installation of a new accessible ramp between the existing footpath and the new gangway
- One new seating bench on the waterfront and relocation of two existing seating benches in Kesterton Park
- Installation of new wayfinding signage, information boards, and opal card readers
- Removal and replacement of up to four trees to construct the accessible pathway.

The proposal would be constructed over a duration of up to six months starting in 2021.

An overview of the proposal is provided in Figure 1-1.

A more detailed description of the proposal is found in the North Sydney Wharf Upgrade Review of Environmental Factors (REF) prepared by Transport for NSW in October 2020 (TfNSW, 2020).

¹ Tactile indicators are textured ground surface indicators to assist pedestrians who are blind or visually impaired.

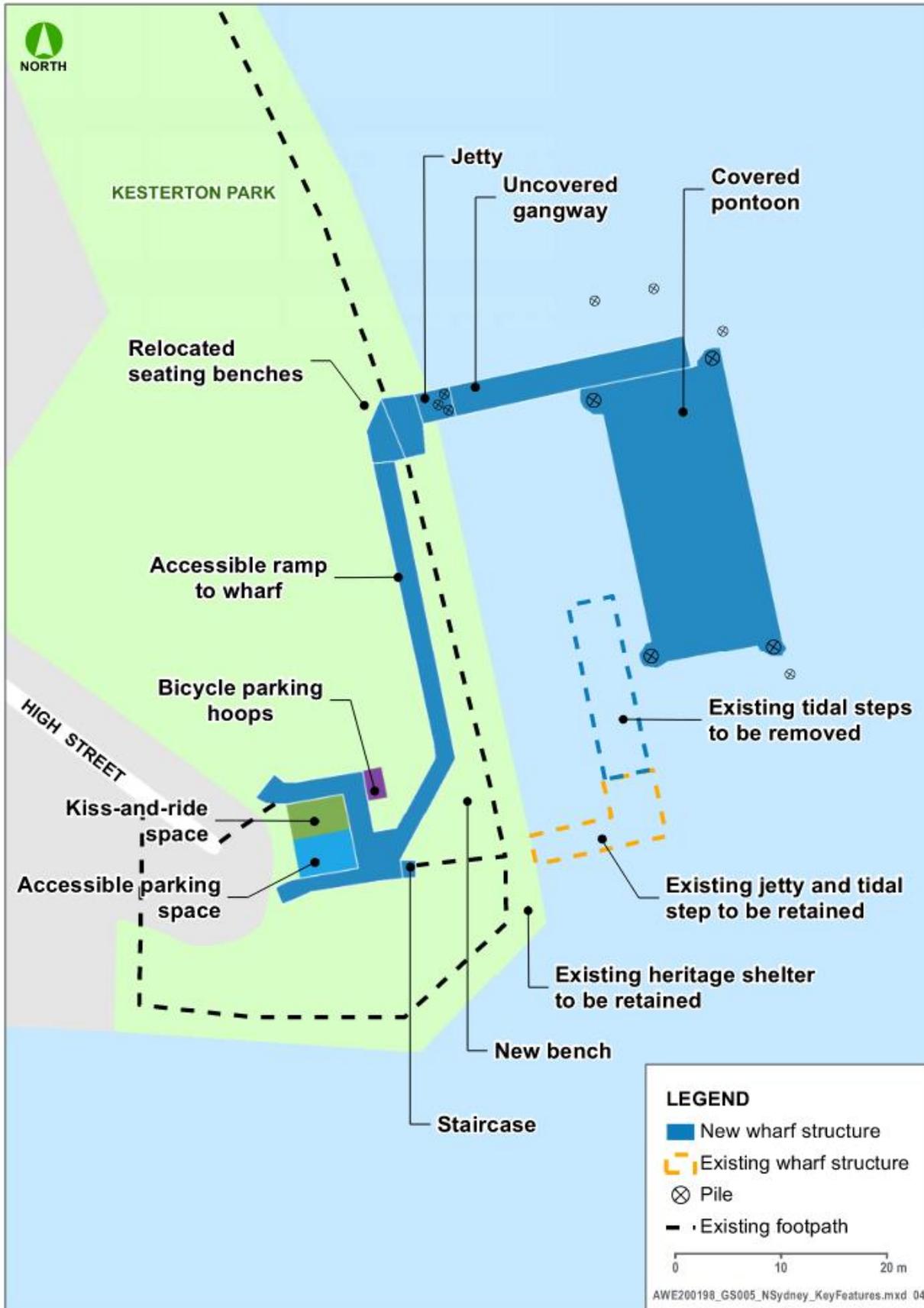


Figure 1-1: Plan of the proposal

1.2 REF display

Transport for NSW prepared a review of environmental factors (REF) to assess the potential environmental impacts of the proposed works. The REF was publicly displayed for 29 days between 30 October 2020 and 27 November 2020.

The REF was available online in digital format only with printed copies available on request. Due to COVID-19, general public meetings were not held to safeguard the health and safety of the community and Transport for NSW staff.

The REF was placed on the Transport for NSW project website and made available for download. A range of community consultation activities were undertaken for the public display which included:

- Installation of posters at the wharf with quick response (QR) codes taking passengers to an online survey
- Distribution of around 4,100 community updates letterbox dropped within the suburbs of North Sydney, Kirribilli, Kurraba Point and Neutral Bay at the start of the public display period
- Distribution of around 4,100 postcards as a reminder halfway through the public display period as a reminder for the community to have their say
- A targeted social media campaign during the public display period that reached 10,152 people
- An opportunity for the community to set up a phone or video meeting with the project team
- Meetings with North Sydney Council, the Sydney Harbour Federation Trust (SHFT) and the Milsons Precinct Committee.

1.3 Purpose of the report

This Submissions report relates to the REF prepared for the North Sydney 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 for NSW. This Submissions report summarises the issues raised and provides responses to each issue (Chapter 2). It details changes to the proposal (Chapter 3), describes new environmental assessments (Chapter 4) and identifies the environmental management measures for the proposal (Chapter 5).

No proposal changes are proposed that would require the preparation of a preferred infrastructure report.

2. Response to issues

Transport for NSW received 25 submissions, accepted up until the 4 January 2021. 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 2.2.1
Individual	2	Section 2.2.4
Individual	3	Section 2.3
Individual	4	Section 2.9.1
Individual	5	Section 2.3, 2.7.2
Milson Precinct Committee	6	Section 2.2.1, 2.2.2, 2.2.6, 2.5, 2.7.1
Individual	7	Section 2.8.4
Individual	8	Section 2.2.1, 2.2.3, 2.8.4, 2.9.2
Individual	9	Section 2.2.1, 2.2.3, 2.4, 2.5, 2.7.1, 2.8.3, 2.9.1, 2.9.2, 2.9.3
North Sydney Council	10	Section 2.2.5, 2.7.1, 2.8.1, 2.9.3
Sydney Harbour Federation Trust	11	Section 2.9.1, 2.11
Individual	12	Section 2.7.2
Individual	13	Section 2.3
Individual	14	Section 2.8.4
Individual	15	Section 2.3, 2.5
Individual	16	Section 2.9.2, 2.9.3
Individual	17	Supportive of the proposal
Individual	18	Section 2.5
Individual	19	Section 2.9.1, 2.9.3
Individual	20	Section 2.2.1, 2.2.4
Individual	21	Section 2.7.2
Individual	22	Section 2.3, 2.8.2
Individual	23	Supportive of the proposal
Individual	24	Section 2.2.3, 2.7.2
Individual	25	Section 2.6, 2.7.2, 2.8.3, 2.8.4, 2.9.2, 2.10

2.1 Overview of issues raised

A total of 25 submissions were received in response to the display of the REF. This included submissions from two government agencies, one local community group and 22 individual submissions from the community.

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 for NSW response to these issues forms the basis of this chapter.

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

- Proposal design
- Proposal justification
- Consultation
- Tree removal
- Noise impacts
- Landscape character and visual impacts
- Transport, traffic and access impacts
- Recreational amenity and access
- Construction related impacts
- Cumulative impacts.

2.2 Proposal design

2.2.1 Configuration of new and existing wharf / accessible ramp

Submission number(s)

1, 6, 8, 9, 20

Issue description

A number of respondents raised concerns over the design of the proposal and / or suggested alternative designs including:

- Proposed an alternate design that locates the pontoon to the north of the proposed gangway. The intent of the suggested design change is to provide navigational access to the existing wharf and the western side of the new wharf
- Questioned the location of the new wharf and whether it can be in place of the existing wharf stairs
- Asked whether the entrance to the new wharf could be moved closer to the existing wharf entry
- Suggested the existing pathway that joins the children's playground and High Street be upgraded to provide access from High Street to the new wharf
- Suggested that the old pontoon should be demolished and new pontoon re-positioned.

Response

The proposed configuration of the new wharf was selected based on a number of factors including to; minimise movement of the pontoon due to the wind and wave movement, thereby maximizing customer comfort and safety, increase the clearance in navigational channel (to allow for safe passage of water

vessels), avoid existing moorings, allow the wharf to be accessible in all tidal states, partially retain the existing wharf for fishing and to minimise timetable delays associated with berthing and turning in a confined area. The existing tidal steps are being removed to provide a safe distance between the two structures and to allow public access to the remaining portion of the existing wharf while ferries are using the new wharf.

Further, the position of the new wharf was chosen to accommodate the new landside accessible direct ramp between High Street and the new wharf. The new ramp would provide access for people with assisted mobility and would comply with relevant legislation. To achieve the required slope, and to allow customers to travel safely up and down the ramp, the ramp would need to be 30 metres long, starting from the footpath at the end of High Street, connecting to the top of the gangway. The proposed alignment of the ramp minimises the impact on the Kesterton Park and requires the gangway to be located further north away from High Street. Locating the gangway closer to High Street would require a switchback ramp that would have a greater impact on the park.

The existing pathway that joins the children's playground and High Street is not currently accessible, nor is the slope between the proposed accessible parking space and the start of the pathway. The design will be re-considered to minimise the impact of the new accessible ramp on the park while still achieving the accessibility standards.

2.2.2 Weather protection

Submission number(s)

8, 9, 24

Issue description

Respondents raised concerns over the proposed uncovered gangway, whether there was adequate protection from wind and rain on the new wharf and questioned whether the opal card readers would be undercover.

Response

The proposal includes an uncovered gangway as it minimises the visual impact of the new wharf and leads to an uncovered park area on the foreshore. Covered gangways are provided when the customer is already under cover when they arrive at the wharf interchange, for example Neutral Bay Wharf, Cremorne Point Wharf and Mosman Bay Wharf.

Shelter would be provided for customers waiting for the ferry on the wharf pontoon itself. Wharves similar to North Sydney include Drummoyne Wharf, Balmain East Wharf and Pyrmont Bay Wharf have uncovered gangways.

The project team has considered this feedback, and with the exception of the berthing face, the glazing on the wharf has been increased in the design to provide additional weather protection on the pontoon.

The opal card readers would be placed on the uncovered bridge structure at the entrance to the new wharf.

2.2.3 Kiss and Ride and accessible parking spaces

Submission number(s)

6

Issue description

The Milson Precinct Committee (MPC) suggested that the new Kiss and Ride space be located on the right and the new accessible parking space on the left so that the new accessible parking space is moved closer to the new pathway. MPC also suggested excavating the new parking spaces to a lower level to achieve the accessible gradients for the ramp direct from the parking spaces.

Response

Following detailed design development and consideration of submissions, the design has been amended to place the accessible parking space on the left and Kiss and Ride on the right (when looking toward the harbour).

The design will be further developed to provide all customers with a compliant direct path to the new wharf, while minimising impacts in the park. The necessary DDA levels are considered in the design process.

2.2.4 Commercial facilities

Submission number(s)

2, 20

Issue description

Two community submissions expressed interest in incorporating a commercial facility for refreshments in the proposed design.

Response

The aim of the upgrade is to provide accessible transport to the community and therefore this request is outside the scope of the Proposal. As owners of the park, North Sydney Council is responsible for considering any commercial opportunities in the park. This request will be passed on to North Sydney Council for consideration.

2.2.5 Loss of public open space

Submission number(s)

10

Issue description

North Sydney Council has expressed overall opposition to the proposal design, and expressed concern over the loss of open space in Kesterton Park in order to provide for the Kiss and Ride space and accessible parking space. North Sydney Council requests a review of the design of the accessible ramp and other structures be undertaken with a view to minimising the impact on Kesterton Park including no loss of parkland, no net increase of hard surfaces within the park and no removal of mature trees.

Response

As part of the detailed design phase the project team will look at opportunities to re-position the path to minimise the impact on the park and trees, reduce the concrete hardstand and remove redundant concrete while achieving DDA compliance between High Street and the new wharf. Transport for NSW will do this in consultation with North Sydney Council.

2.2.6 Removal of concrete

Submission number(s)

6

Issue description

The Milsons Precinct Committee suggested the proposal minimise the use of concrete where possible, including removing concrete from the existing sign and light post area and the pathway between the new wharf and the existing wharf. It is suggested that the pathway be replaced with garden and/or grass.

Response

Following review of this submission, Transport for NSW will investigate options to remove all redundant concrete in the proposed design. Where concrete is removed the areas would be reinstated to parkland by re-turfing or landscaping.

In addition, the design will be reviewed in an effort to achieve a negligible net increase of hard stand in the area including looking at opportunities to reduce the amount of hard stand around the proposed car parks where the existing sign and light post are located.

2.3 Proposal justification

Submission number(s)

3, 5, 13, 15, 22

Issue description

Five community submissions questioned the justification for the proposal, suggesting that the low patronage, the close proximity to other wharves (e.g. Neutral Bay, Kirribilli, Milsons Point and McMahons Point) and alternative transport options did not justify the cost of the proposal and overall disruption to the community. One submission (15) requested the public ferry service to North Sydney wharf be discontinued, while another submission (22) suggested upgrading the existing wharf instead of constructing a new wharf.

Response

The North Sydney wharf has been identified for an accessibility upgrade as it does not currently meet key requirements of the DSAPT or the *Disability Discrimination Act 1992* (DDA).

DSAPT and Disability (Access to Premises – Buildings) Standards (2010) (Disability Standards 2010) made under the DDA, require all public transport infrastructure, including wharves, to be fully compliant by 2022.

At present, a number of elements of the existing wharf including the tidal steps and steep paths are non-compliant. The Proposal is required to satisfy accessible transport requirements.

The existing tidal steps, piles and wharf are in varying stages of structural deterioration and cannot be cost-effectively modified to meet accessibility standards. The proposal would ensure that North Sydney Wharf would meet legislative requirements under the DDA and the DSAPT.

2.4 Consultation

Submission number(s)

9

Issue description

One submission queried whether Transport for NSW has undertaken consultation with North Sydney Council or the Sydney Harbour Federation Trust (SHFT).

Response

Consultation between Transport for NSW, North Sydney Council and the SHFT has been undertaken.

Transport for NSW has been consulting with North Sydney Council since 2018 to develop a design which is acceptable to North Sydney Council as owners and operators of the landside elements of the proposal. Many items raised by North Sydney Council in response to the REF display have been addressed in this Submissions report.

The SHFT is supportive of the proposal as it would complement the Sub Base Platypus development and would provide benefits for local access along the foreshore. Items raised by the SHFT during consultation have been addressed in this Submissions report.

2.5 Tree removal

Submission number(s)

6, 9, 15, 18

Issue description

Four submissions were concerned about the removal of trees due to their value in regards to greenspace and the environment. Suggestions to avoid tree removal included working around the trees, redesigning the ramp to avoid the trees and relocating the trees within the park.

Response

Transport for NSW understands the concern raised for the loss of trees and recognises the value of trees to Kesterton Park. The REF identified the proposal may require the removal of up to four trees (three Wildfire trees and one Smooth-barked Apple) along the foreshore.

Following detailed design development and consideration of submissions, re-alignment of the accessible ramp will be considered to minimise the impact on the trees identified in the REF. The requirement to remove up to four trees is a worst case scenario and trees would be retained where possible.

Replacement planting of trees would be undertaken in the instance that removal is deemed necessary and would be determined in consultation with North Sydney Council to reinstate the green space and minimise impacts to the visual characteristics of Kesterton Park. If tree removal is unavoidable Transport for NSW

would seek advice as to the possibility of relocating the trees elsewhere in Kesterton Park or replacing with indigenous trees suitable for the location.

Other trees within proximity to the construction works would not be damaged or removed.

2.6 Noise

Submission number(s)

25

Issue description

One submission expressed concerns over the predicted 'highly intrusive' noise impacts to residents at the southern end of High Street, particularly during night time piling. The respondent suggested work be re-evaluated and that alternative accommodation should be offered to residents during these works. The respondent raised the issue of cumulative noise impacts from previous developments in the area.

Response

Transport for NSW acknowledges there would be noise impacts during construction. The noise levels predicted in the REF were for the worst case scenario with all noise sources operating simultaneously within the construction footprint. As such, in practice noise experienced by nearby receivers is likely to be substantially lower than the noise model predictions.

To mitigate potential noise impacts to the local community a Construction Noise and Vibration Management Plan (CNVMP) would be prepared prior to construction and implemented throughout the construction period. Construction works would be restricted to daytime hours wherever possible. However, for safety reasons calm water may be required during pile installation and for intricate lifts. Calm water in the harbour occurs late at night or very early in the morning therefore some activities would need to be carried out at this time, with a maximum of about 30 night shifts (from 11 pm to 7 am) proposed across the construction period of up to six months.

The CNVMP would outline mitigation measures in line with the Transport for NSW *Construction Noise and Vibration Guidelines* (RMS, 2016) which, depending on predicted noise levels, may include notifications, phone calls and respite periods.

Transport for NSW acknowledges that local residents may have experienced construction impacts from other projects in recent times. Transport for NSW will also continue to consult with North Sydney Council and SHFT regarding the project and proposed construction timeframes so cumulative impacts of this proposal with other developments in the area may be considered.

2.7 Landscape character and visual impact

2.7.1 Pontoon

Submission number(s)

6, 9, 10

Issue description

Two submissions (6 and 10) raised concerns regarding the size of the pontoon being too large and negatively impacting visual amenity and views from Kesterton Park. One submission (9) considers the proposed roof covering to be too flat and suggests a curved, non-reflective roof covering as an alternative.

Response

Transport for NSW acknowledges the visual amenity concerns raised regarding the proposed pontoon. The size of the proposed pontoon was determined by the maritime (wind and wave) conditions in this location. Pontoons are sized to provide a stable waiting area, a safe platform for customers to board and a safe berth for ferries. A smaller pontoon would move around too much at this location for safe boarding and would also be uncomfortable for waiting passengers.

The design of the pontoon would comprise glass screens and a curved roof structure, supported by steel columns fixed to the pontoon deck, to provide weather protection for the waiting area. The curved roof is designed to be low profile and minimise the impact on the views to and from the water. The design of the wharf would be consistent other wharfs within Sydney Harbour.

2.7.2 Retention of existing wharf

Submission number(s)

5, 12, 21, 24, 25

Issue description

A number of respondents were concerned that retaining part of the existing wharf alongside the new wharf would negatively impact the visual amenity of the area. Some respondents suggested incorporating the existing wharf into the new wharf to create a more integrated design. One respondent questioned why the existing wharf was being retained.

Response

The decision to retain part of the existing wharf was made following consultation with stakeholders including Department of Primary Industries (DPI) and the local community. It was noted that the existing wharf is a popular recreational fishing amenity that adds social value to Kesterton Park. Part of the existing wharf is being retained to allow for the continued use of the area for recreational activities including fishing and to allow fishing to be prohibited on the new wharf.

The existing structure would be partially demolished to minimise the visual impact and allow sufficient space between the existing and new wharves for safety reasons, while providing a platform for fishing.

One of the objectives of the proposal is to standardise designs for continuity across all Sydney Harbour commuter wharves. Substantial structural works would be required to stabilise the existing wharf to a point where it could be used to interface with a new gangway and pontoon. The cost to remediate the existing wharf and piles to make it structurally sound to support the new accessible gangway and pontoon was considered unfeasible.

2.8 Transport, traffic and access

2.8.1 Construction traffic management and access

Submission number(s)

10

Issue description

North Sydney Council notes that Transport for NSW is required to enter into a lease agreement with North Sydney Council for the construction and site compound zone in the park during construction. Further, North Sydney Council requests the preparation and submission of a Construction Traffic Management Plan (TMP) prior to the commencement of works.

Response

Prior to construction, a works and access licence between Transport for NSW and North Sydney Council would be developed and executed in consultation with North Sydney Council.

The Construction Traffic Management Plan (CTMP) would be prepared by the Contractor and approved by Transport for NSW as the development authority in consultation with North Sydney Council as would any modifications required during construction.

2.8.2 Access

Submission number(s)

22

Issue description

The respondent notes that construction of the new wharf would impede access to Sub Base Platypus and charter vessels (Captain Cook) during the construction period.

Response

It is acknowledged that closure of the existing wharf during construction would impact charter boats that are currently able to utilise the existing ferry wharf for berthing. Charter boats would be required to access an alternative wharf for berthing.

In addition, passengers that may use the ferry service to visit Sub Base Platypus would require an alternate method of transport. These alternate methods of transport include bus and train services in the local area (refer section 2.8.4). During construction, whilst pedestrian and cyclist access would be restricted in Kesterton Park, access would still be maintained by providing an alternate route around the construction footprint and landside access to Sub Base Platypus would be maintained.

2.8.3 Parking

Submission number(s)

9, 25

Issue description

Two respondents raised concern regarding the loss of on-street parking for local residents as a result of the proposal.

Response

The proposal would result in a new dedicated accessible parking space and a new dedicated Kiss and Ride space off the cul-de-sac at the end of High Street.

No parking spaces would be permanently lost as a result of the proposal. During construction every effort would be made to reduce the impact to parking in the area, however there is potential for temporary loss of some parking spaces on High Street due to construction workers utilising the local parking arrangements. It is noted that construction workers would be encouraged to use public transport or travel by water to access the construction site.

2.8.4 Alternative transport

Submission number(s)

7, 14, 25

Issue description

Three submissions expressed concern about the six month closure of the wharf for construction and the subsequent disruption to ferry services. It was suggested that alternative transport options be considered in addition to the existing alternative services in the area for those with reduced mobility. One submission suggested longer working hours each day to reduce the total closure time.

Response

Transport for NSW investigated alternative transport options for customers during the wharf closure period including existing local bus services (three stops within 500 metres, bus routes 262 and 269), Milsons Point train station (1.1 kilometres from the existing wharf), North Sydney train station (1.2 kilometres from the existing wharf), Neutral Bay, Milsons Point and Kirribilli wharves and private vehicle.

Unfortunately existing local bus services are not able to access the southern end of High Street due to insufficient road width and turning capabilities within the cul-de-sac. A private bus service to connect with local bus services is not feasible given the existing low patronage at North Sydney wharf.

Closure of the existing wharf and stopping ferry services would be limited to the time required to safely remove the existing tidal steps and construct the new wharf. It is not feasible to keep the existing ferry wharf operational during construction of the new wharf. There is insufficient space, and ferry movements to the existing wharf would lead to waves and wash creating an unsafe environment for construction.

Transport for NSW is required to undertake construction work during standard working hours where possible. Standard hours are Monday to Friday (7 am to 6 pm) and Saturday (8 am to 1 pm). For safety reasons it is noted some works (e.g. piling) would be undertaken at night or in the early morning. Based on these restrictions construction is expected to take up to six months to complete.

A Construction Environmental Management Plan (CEMP) would be prepared before the commencement of works and would outline measures to minimise disruption to residents and the community during construction. Ferry users would be notified ahead of construction and updated whilst the proposal is being built.

Operation of the proposal would provide benefit to the community through improving accessibility, amenity, safety and overall user experience for all passengers including those with low mobility.

2.9 Recreational amenity and access

2.9.1 Water access from existing wharf

Submission number(s)

4, 9, 11, 19

Issue description

Four submissions requested the lower tidal steps of the existing wharf be retained to allow access to the water for recreational use such as swimming, kayaking and use by other recreational watercraft.

Response

The existing tidal steps require removal for safety and structural reasons, and to leave an appropriate distance between the existing and new wharf structures. However, the project team has considered this feedback and will investigate the option of installing a ladder to the remaining portion of the existing wharf, if structurally safe to do so. The ladder would allow access to the water from the retained platform.

The new wharf would be open for both public and private use.

2.9.2 Recreational fishing

Submission number(s)

8, 9, 16, 25

Issue description

Four submissions requested that recreational fishing be banned from the new wharf to prevent user conflicts with passengers embarking and alighting from the ferry and other impacts such as anti-social behavior, noise, occupying parking spaces and generating litter.

Response

The existing wharf would be partially retained for recreational purposes including fishing. Signage would be retained on the existing wharf to inform and remind the fishing community of the requirements of responsible fishing, which includes consideration of nearby residents, other wharf and park users, keeping noise to a minimum and not leaving hooks, bait and fishing lines at the wharf. Recreational fishing in Sydney Harbour is regulated by the DPI Fisheries and is currently permissible at the existing North Sydney wharf.

Noting that part of the old wharf would be retained as a fishing platform, fishing would be banned on the new wharf. No fishing signage would be installed on the new wharf as part of the upgrade.

The new accessible parking space and Kiss and Ride space would be appropriately signposted to inform the community of the restrictions placed on the parking spaces.

2.9.3 Amenity and public restrooms

Submission number(s)

9, 16, 19

Issue description

One respondent noted the existing wharf should not be removed as it is a destination for walkers, sightseers, swimmers, fisherman and a place to sit and be exposed to the elements and surrounds, which would not be possible with the new wharf. The other two respondents suggested that the existing seating be retained and the wharf be used for general viewing and fishing.

Response

The existing wharf would be partially retained for recreational purposes such as sightseeing, viewing, relaxation, swimming and fishing. One new seating bench and relocation of the two existing benches would be provided along the foreshore similar to the existing situation to provide opportunities to view the harbour.

Submission number(s)

10

Issue description

North Sydney Council has raised concerns over the potential increased use of the public restroom facility at Kesterton Park as a result of the proposal and requests Transport for NSW consider resourcing the upgrading of these facilities.

Response

All public ferries have toilet facilities for Transport for NSW customers.

The toilets within Kesterton Park are not within the project boundary and are therefore not included in the scope of work. Any required upgrade works are a matter for North Sydney Council to consider.

2.10 Construction Impacts

Submission number(s)

25

Issue description

The respondent is concerned about the impacts to local residents during construction including access to the park, amenity issues (dust and noise) and the potential for utility interruptions. The respondent also

notes that waterside impacts are preferred to landside impacts and waterside access for construction should be utilised where possible to avoid impact to residents.

Response

Transport for NSW acknowledges that construction of the proposal may result in temporary impacts to the local community such as noise, dust, visual amenity, parking impacts and temporary power outages. All construction related impacts would be appropriately managed prior to and during construction through implementation of a Construction Environmental Management Plan (CEMP). The CEMP would outline monitoring requirements such as noise and air quality monitoring.

Impacts to landside (Kesterton Park) would be minimised and where feasible, materials and equipment for water based elements of the proposal would be shipped (barged) into and out of the area to limit any impact on High Street and surrounds. This would provide the best method to build the marine components. It may also be the best method to deliver materials to the land based areas providing there is adequate access for loading and unloading, however it is anticipated that most materials and equipment required for land based elements of the proposal would be delivered by road. The amount of materials shipped to site, over being delivered by road, would be confirmed prior to construction.

Operation of the proposal provides justification over the temporary impacts, as it would benefit the community through improving passenger accessibility, amenity, safety and overall user experience. It is anticipated that the proposal would also have indirect wider community benefits, through ensuring continuation of the wharf for its expected lifespan (50 years). This extends to the cultural and amenity benefit of continuing to operate a wharf in this location.

2.11 Cumulative Impacts

Submission number(s)

11

Issue description

The Sydney Harbour Federation Trust (SHTF) has raised concerns over possible cumulative impacts to the community resulting from the proposal coinciding with the next stage of redevelopment of Sub Base Platypus. The SHTF suggests coordinating the respective Construction Traffic Management Plans (CTMP) to mitigate impacts on local traffic and the residents of High Street.

Response

Cumulative impacts such as traffic and noise impacts may occur when multiple projects are constructed at the same time in similar locations. To mitigate the risks of cumulative impacts associated with the re-development of Sub-Base Platypus while the wharf is being re-developed, Transport for NSW will continue to consult with SHTF, which may include re-organisation of construction activities to reduce impacts on the local community (subject to project timelines).

3. Changes to the proposal

3.1 Adjustment of the accessible path

In the REF, the accessible path followed the foreshore to the west of the existing footpath from the accessible parking space to the entrance of the new wharf. The accessible path crossed over the existing footpath at the entrance to the new wharf. The location of this path had the potential to impact up to four trees.

Following feedback from North Sydney Council and the community Transport for NSW will investigate options to re-position the new ramp to minimise the impact to the trees, while still achieving a direct and compliant route between the accessible parking and new wharf.

3.2 Accessible parking

Following development of detailed design and in consideration of public submissions the location of the accessible parking space and the Kiss and Ride space at the cul-de-sac end of High Street will be reversed from the location proposed in the REF. That is, the new Kiss and Ride space would be located on the right and the new accessible parking space would be located on the left (when looking toward the harbour) so that the new accessible parking space is closer to the new accessible pathway.

3.3 No net increase of hard surface

In consideration of the North Sydney Council and community feedback the design will be reviewed in an effort to achieve a negligible net increase of hard stand in the park, including looking at opportunities to reduce the amount of hard stand around the proposed car parks and along the foreshore.

In addition, Transport for NSW will investigate options to remove all redundant concrete in the proposed design. Where concrete is removed the areas would be reinstated to parkland by re-turfing or landscaping.

3.4 Microwave aerial

The proposal described in the REF included installation of a new microwave aerial at the entrance to the gangway and removal of the existing microwave aerial on the existing shelter. Following detailed design development and in consultation with Transdev, the microwave aerial no longer needs to be relocated and will remain insitu on the roof of the existing shelter.

3.5 Weather protection

With the exception of the berthing face, the glazing on the wharf has been increased in the design to provide additional weather protection on the pontoon.

4. Environmental assessment

A Statement of Heritage Impact (SOHI) was prepared for Cardno, on behalf of Transport for NSW, during preparation of the REF to assess the potential impacts to listed heritage items and potential archaeological remains as a result of the proposal. During preparation of the SOHI the Transport for NSW Maritime Procedure was still being drafted and, as a result, the SOHI did not include searches of maritime heritage databases.

An addendum SOHI has been prepared to document the maritime heritage databases search results in order to identify any potential additional heritage constraints as part of the preparation of this Submissions report.

It is noted that the assessment of potential maritime archaeological remains within the construction footprint was included as part of the SOHI presented in the REF and as a result, the addendum SOHI does not reassess the potential for maritime archaeological remains within the construction footprint unless it is informed by the results of the maritime databases.

4.1 Non Aboriginal heritage (Maritime)

4.1.1 Methodology

An addendum SOHI for the proposal has been undertaken by Artefact (refer Appendix B).

The addendum SOHI expands on the state and federal statutory and non-statutory heritage registers searched during preparation of the SOHI. The addendum SOHI included a search of the following additional databases:

- Australasian Underwater Cultural Heritage Database (AUCHD)
- Shipwreck Register.

4.1.2 Existing Environment

The search of the additional maritime databases on 14 December 2020 did not identify any heritage items listed on the AUCHD or the Shipwreck Register that are located within or in the immediate vicinity of the construction footprint listed.

However, one additional item, Maria (site ID 3909), listed on the Shipwreck register was recorded within the visual buffer zone, and located approximately 140 metres north east of the construction footprint.

The Shipwreck Register records that the Maria sank in Neutral Bay on 21 March 1868, and provides the following historical information about the event:

During a heavy squall on the afternoon of Saturday, March 21st, 1868 the harbour ballast lighter Maria, belonging to Mr Bayliss, filled with water and sank off Neutral Bay. The crew of the Maria were most grateful for the prompt action of the captain and crew of the French ship Alphonse de Neille, who came to their rescue.

It is noted that the shipwreck has not been found and / or inspected. Although the Shipwreck Register provides an indicative location for the wreck, its exact location or its condition (including whether it has survived) remains unknown.

4.1.3 Potential impacts

Construction

The Shipwreck Register provides an indicative location for the Maria (site ID 3909) as being about 140 m north east of the construction footprint. Although the exact location of the wreck is unknown, or if it has survived, there is no indication that it would be located within the construction footprint. As a result, the proposed works would not cause direct impacts to the potential shipwreck.

Overall, the proposed works would result in neutral potential direct impacts to the potential remains of the Maria (site ID 3909).

Operation

The shipwreck is not visible as it is underwater in the middle of Neutral Bay, and it is unknown if the wreck has survived. As a result, the proposal would not result in any visual impacts to the potential shipwreck.

Overall, the proposed works would result in neutral indirect impacts to the potential remains of the Maria (site ID 3909).

4.1.4 Revised safeguards and management measures

Although the addendum SOHI has identified the presence of an additional heritage item, Maria (site ID 3909), within the visual buffer zone of the proposal, no additional constraints or potential heritage impacts have been identified compared to what has already been assessed in the SOHI prepared as part of the REF.

As a mitigation measure, the Marina (site ID 3909) would be included in the Construction Sensitive Area Plan developed by the Contractor.

5. Environmental management

The REF for the North Sydney 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 and changes to the proposal, the safeguard and management measures have been revised to mitigate potential impacts. Modification of one safeguard to identify the need for a Construction Sensitive Area Plan (to identify environmental constraints such as the Marina shipwreck) has been included.

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

5.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified in order 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 would 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 will be prepared prior to construction of the proposal and will be reviewed and certified by environment staff, Greater Sydney Project Office, prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements. The EMP would be developed in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System), QA Specification G38 – Soil and Water Management (Soil and Water Plan), QA Specification G40 – Clearing and Grubbing and QA Specification G10 – Traffic Management.

5.2 Summary of safeguards and management measures

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

After consideration of the issues raised in the public submissions, 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 5-1 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 5-1: Summary of environmental safeguards and management measures

Impact	No.	Environmental safeguards	Responsibility	Timing
General – minimise environmental impacts during construction	GEN1	<p>A CEMP will be prepared and submitted for review and endorsement of the Transport for NSW Environment Manager prior to commencement of the activity.</p> <p>As a minimum, the CEMP will address the following:</p> <ul style="list-style-type: none"> any requirements associated with statutory approvals details of how the project will implement the identified safeguards outlined in the REF issue-specific environmental management plans roles and responsibilities communication requirements induction and training requirements procedures for monitoring and evaluating environmental performance, and for corrective action reporting requirements and record-keeping procedures for emergency and incident management procedures for audit and review. <u>preparation of a Sensitive Area Plan identifying all environmental constraints including but not limited to heritage and archaeological items or areas, sensitive receivers and terrestrial and aquatic biodiversity</u> <p>The endorsed CEMP will be implemented during the undertaking of the activity.</p>	Contractor/Transport for NSW project manager	Pre-construction/ etailed design
General – notification	GEN2	All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor/Transport for NSW	Pre-construction
General – environmental awareness	GEN3	<p>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.</p> <p>Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include:</p> <ul style="list-style-type: none"> Areas of non-Aboriginal heritage sensitivity Adjoining residential areas requiring particular noise management measures 	Contractor/Transport for NSW	Pre-construction/ etailed design <u>Construction</u>

Impact	No.	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> Waterside impacts. 		
Soil and water	LS1	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, contamination and water pollution and describe how these risks will be addressed during construction.	Contractor	Pre-construction
	LS2	Any excavated sediments or soil that require disposal will be sampled, tested and classified in accordance with the EPA's <i>Waste Classification 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.	Contractor	Construction
	LS3	Clean and suitable topsoil will be stockpiled and reused on site where appropriate.	Contractor	Construction
Contaminated land	LS4	An intrusive soil investigation to the depth of excavation will be undertaken to ensure the safety of construction workers and provide waste classification of the materials to be removed.	Contractor	Construction
	LS5	If unexpected contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works 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
	LS6	The piling methodology shall seek to mitigate the risk of sediment dispersal.	Contractor	Construction
Erosion and sedimentation	LS7	<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 Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book) to:</p> <ul style="list-style-type: none"> Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets Reduce water velocity and capture sediment on site 	Contractor	Pre-construction

Impact	No.	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> Minimise the amount of material transported from site to surrounding pavement surfaces Divert clean water around the site. 		
	LS8	<p>Prior to commencement of construction activities, sediment control device (such as sediment boom and curtain) will be installed around the construction footprint 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 would 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 be carried following storm events. Monitoring of turbidity inside and outside of the device should also be performed, using a portable turbidity meter/logger. Prior to removing the sediment control device, conditions within the curtain would 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	<u>Pre-construction</u> /Construction
	LS9	<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 of the integrity of the silt curtain are required to be recorded and maintained specifically for the purpose. 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
Erosion and scour	LS10	The number of jack-ups/anchor points will be minimised where possible. The locations will be selected to avoid areas of sensitive habitat.	Contractor	Construction
	LS11	Work associated with positioning barges, drilling and pile driving should occur during calm conditions to prevent excessive scouring and other impacts.	Contractor	Construction
Accidental spill	WQ1	<ul style="list-style-type: none"> A spill management plan will be developed and communicated to all staff working on site. 	Contractor	Pre-construction / Construction

Impact	No.	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> 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 substances at the work site. All workers will be advised of the location of the spill kit and trained in its use. 		
	WQ2	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	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 (Maritime, 2012)</i> .	Contractor	Construction
	WQ4	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	Vehicles, vessels and plant must be properly maintained and regularly inspected for fluid leaks.	Contractor	Construction
	WQ6	No vehicle or vessel wash-down or re-fuelling will occur on-site.	Contractor	Construction
	WQ7	Any chemicals or fuels stored at the site or equipment barges will be stored in a bunded area.	Contractor	Construction
Pollution	WQ8	An environmental work method statement (EWMS) is to be will be developed for the removal of the existing tidal steps and piles to minimise the risk of pollutants and debris entering the waterway. The EWMS must be approved by Transport for NSW prior to the demolition of part of the existing wharf structure.	Contractor	Pre-construction
Biodiversity	B1	Integrate the management of flora and fauna into the construction environmental management plan (either as a standalone flora and fauna management plan or a subplan). This is to include all terrestrial and marine flora and fauna.	Contractor	Pre-construction
	B2	Retained vegetation in close proximity to construction activities (e.g. south-western corner) will not be damaged or removed and mitigation measures identified in the <i>Arboricultural Assessment Report: North Sydney Wharf High Street, North Sydney</i> (Earthscape Horticultural Services, 2020) will be implemented.	Contractor	During construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Removal of native vegetation, threatened species habitat and habitat features	B3	Native vegetation and habitat removal will be minimised through detailed design.	Transport for NSW	Detailed design
	B4	Pre-clearing surveys will be undertaken in accordance with <i>Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).	Contractor	Pre-construction
	B5	Vegetation and habitat removal will be undertaken in accordance with <i>Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).	Contractor	Construction
	B6	Native vegetation will be re-established in accordance with <i>Guide 3: Re-establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011). Replacement planting (species and number) will be determined in consultation with North Sydney Council to reinstate habitat and minimise impacts to the visual characteristics of Kesterton Park. <u>Transport for NSW will seek advice as to the possibility of relocating the trees elsewhere in Kesterton Park.</u>	Contractor	Detailed design / Post construction
	B7	The unexpected species find procedure is to be followed under <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011) if threatened ecological communities, not assessed in the biodiversity assessment, are identified in the project site.	Contractor	Construction
Removal of marine vegetation and habitat	B8	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	Detailed design
	B9	Direct removal of marine vegetation and habitat limited to the footprint of the eleven piles and some minor anchoring during water-based construction activities.	Contractor	Construction
	B10	Minimise anchoring where possible and avoid anchoring on subtidal rocky reef habitat.	Contractor	Construction
	B11	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 should be encouraged to move away from the study area and White's Seahorse should be captured and relocated to nearby similar habitat. A White's Seahorse relocation plan (including other Syngnathids as per DPI Fisheries advice	Transport for NSW/ <u>Contractor</u>	Pre-construction

Impact	No.	Environmental safeguards	Responsibility	Timing
		on 9 September 2020) should be developed in consultation with DPI Fisheries to dictate this activity.		
	B12	A Section 37 permit under the FM Act to relocate Syngnathids collected during the targeted pre-clearance survey would be required as part of the White's Seahorse relocation. Alternatively, a provision can be added to a Part 7 Permit under Section 205 of the FM Act to include approval for Syngnathid relocation.	Transport for NSW	Pre-construction
Aquatic impacts	B13	Aquatic habitat will be protected in accordance with <i>Guide 10: Aquatic habitats and riparian zones of the 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> (NSW DPI, 2013).	Contractor	Construction
	B14	Piling to stop if marine mammals are observed within 100 metres of the project area and only to recommence once they have moved beyond 100 metres of the proposal footprint or are not seen for at least 20 minutes.	Contractor	Construction
Changes to coastal processes	B15	The detailed design should aim to avoid/minimise any impact to coastal processes and hydrology.	Transport for NSW	Detailed design
Injury and mortality of fauna	B16	Fauna will be managed in accordance with <i>Guide 9: Fauna handling of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).	Contractor	Construction
Invasion and spread of weeds, pests and diseases	B17	Weed species will be managed in accordance with <i>Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).	Contractor	Construction
	B18	Pest species will be managed within the project site.	Contractor	Construction
	B19	Pathogens will be managed in accordance with <i>Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011).	Contractor	Construction
	B20	Water-based equipment and vessels to be sourced from local suppliers. Equipment and vessels must be cleaned and inspected prior to entering the project site.	Contractor	Construction
	B21	Occurrence of any marine pests must be reported to DPI Fisheries.	Contractor	Construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Noise, light and vibration	B22	Shading and artificial light impacts will be minimised through detailed design.	Transport for NSW	Detailed design
Noise and vibration	NV1	<p>Preparation of a noise and vibration management plan based on recommendations provided within the NSW ICNG and Australian Standard AS 2436-1981: Guide to Noise Control on Construction, Maintenance and Demolition Sites. This is to include, but not be limited to:</p> <ul style="list-style-type: none"> • Plant controls: <ul style="list-style-type: none"> – Use of noise attenuating controls at the source, such as mufflers, acoustic screens, etc. – Plant and equipment would be in good working order to prevent excess noise generation. – Locating static sources of noise such as the generators as remotely as possible from noise sensitive receivers – Use of broadband reversing alarms, or “quackers”, on mobile equipment in accordance with the relevant health and safety regulations – Use of temporary noise barriers where practical. The height and location of these barriers would be determined during preparation of the construction noise and vibration management plan when more information regarding the proposed plant to be used for each construction stage is available – 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 – Acoustic curtains (generally loaded vinyl based products), attached to wire construction fencing or laid over steel scaffold can also provide practical temporary noise barriers. We recommend that this is investigated for stationery plant within the worksites once a detailed schedule of works and plant is available – Provision of a solid 2 metre high anti-gawk barrier along the site work area boundaries may provide some reduction to nearby receivers, however this is only expected to benefit the lower levels of the nearby receivers. Local barriers will have minimal effects on noise reduction for receivers with multiple levels as there will still be a clear line of sight from the works to the receivers. Inclusion of an angled return at the top of the barrier (if this is practical to construct) may 	Contractor	Pre-construction

Impact	No.	Environmental safeguards	Responsibility	Timing
		<p>provide increased benefit to multiple storey receivers when the plant is located close to the barrier and is generally stationery. We recommend that this is further investigated once a detailed schedule of works and plant is available.</p> <ul style="list-style-type: none"> • Management and behavioural controls: <ul style="list-style-type: none"> – Ensure that managers effectively communicate acceptable and unacceptable work practices for the site, through staff site inductions, notice boards, and prestart meetings – Avoid the need for reversing in the construction area by creating a loop road or similar – Avoid dropping materials from height – Workers should avoid shouting, minimise talking loudly, and avoid slamming vehicle doors. • Allowing construction to occur only during approved construction hours, unless otherwise required as a condition of Transport for NSW safety requirements • 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. • Implementing a procedure for dealing with complaints to ensure that all complaints are registered and dealt with appropriately. • Conducting additional monitoring if complaints are received or proposed activities and number of plants exceed those assumed in this assessment • Modification of work activities where noise or vibration is found to cause unacceptable impact. • Application of respite periods for noise activities. 		
Noise and vibration	NV2	<ul style="list-style-type: none"> • Carrying out works within standard daytime hours as follows: <ul style="list-style-type: none"> – 7:00 am to 6:00 pm Monday to Friday – 8:00 am to 1:00 pm Saturdays, no work on Sundays or public holidays. • Do not carry out operations during evening or night-time hours, unless required for safety reasons when the water is calmer during the night period (including early morning). <p>Should operations be required outside standard hours, an Out of Hours Procedure detailing works schedule, approval process, communications requirements and</p>	Contractor	Construction

Impact	No.	Environmental safeguards	Responsibility	Timing
		management measures will be prepared. All reasonable and feasible efforts should be undertaken to ensure noise levels would not exceed the ICNG noise management levels stated in Section 6.4.3 of this assessment by carrying out night-works with reduced numbers of plant for example.		
	NV3	<ul style="list-style-type: none"> 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. Notification should be a minimum of 7 calendar days prior to the start of work. A contact telephone number and email address will be available for community feedback. 	Transport for NSW / Contractor	Pre-construction
	NV4	Conduct short term background noise monitoring prior to construction to confirm the ambient noise levels presented in this report, which were carried out during COVID 19 and may not be representative of typical levels.	Transport for NSW / Contractor	Pre-construction
Vibration impact to heritage structures	NV5	Where works are proposed within the safe working limits, for the heritage structures (seawall in Kesterton Park (LEP no. 10858), North Sydney Bus Shelter (LEP no. I0407), structures within Careening Cove Conservation Area (LEP no. CA10) and Rockcliff Mansions (LEP no. I0853)), specialist advice should be sought from an appropriately qualified structural engineer who is familiar with heritage structures to assess if vibrations associated with the proposed works will potentially result in impacts to heritage structures. Vibration monitoring should be carried out to confirm vibration levels prior to construction commencement.	Contractor	Pre-construction
	NV6	<p>Regular inspections of the construction activities and work areas should be undertaken by structural engineers and any other required specialist to monitor and review the construction methodology and confirm the integrity of the seawall in Kesterton Park (LEP no. I0858), structures within Careening Cove Conservation Area (LEP no. CA10) and Rockcliff Mansions (LEP no. I0853). Assessment and monitoring of vibration impacts should adhere to:</p> <ul style="list-style-type: none"> British Standard BS 7385: Part 2: Evaluation and Measurement for Vibrations in Buildings –Part 2 Guide to Damage Levels from Ground-Borne Vibration German Standard DIN 4150, Part 3: Structural Vibration in Buildings: Effects on Structures 	Contractor	Construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Vibration	NV7	Where buildings are located within the safe working distance zone, dilapidation surveys should be carried out prior to construction.	Contractor	Pre-construction / Construction
	NV8	Where receivers are located within the safe work distance zones, vibration monitoring should be carried out to ensure compliance with the required criteria. If exceedances are recorded, works should be modified accordingly to reduce vibration levels.	Contractor	Pre-construction / Construction
Landscape and visual	LV1	<p>Urban design principles will be integrated throughout the detailed design and construction of the proposal and include:</p> <ul style="list-style-type: none"> • Similar visual structures (such as jetties, pontoons and wharfs) as those located within Neutral Bay, Neutral Harbour and Careening Cove • The design of the wharf consistent with the Neutral Bay Wharf situated to the north-east and other wharfs within Sydney Harbour • A coordinated palette of materials and colours to respond to the existing maritime and foreshore character • Low-scale landside and waterside works to improve accessibility, wayfinding and services • The approaches to and surrounds of the wharf designed to maximise amenity and keeping with the existing urban and landscape environment. • Landscape treatment of the approaches to the wharf to be appropriate and complimentary to the existing landscape of Kesterton Park. Sandstone blocks will be used in the design with respect to the earlier use of the area as a quarry. 	Transport for NSW	Detailed design
	LV2	Hoarding will be erected around the construction compound where possible, to reduce visibility.	Contractor	Construction
	LV3	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	All impacted areas and ground surfaces must be reinstated as near as possible to their original state following the completion of works within Kesterton Park (LEP no. I0858)	Contractor	Post-construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Archaeological significance	H1	If any design changes result in additional excavations and impacts to potential archaeological remains of the former weigh bridge, further archaeological assessment and management will be required. This may include a program of archaeological test excavation.	Transport for NSW	Detailed design / pre-construction
	H2	If unexpected 'relics' are encountered during excavation, a section 146 relics notification will be forwarded to Heritage NSW, DPC. 'Relics' cannot be impacted without appropriate approvals under the <i>Heritage Act 1977</i> .	Contractor	Construction
	H3	If significant archaeological remains are encountered during excavation, design options for avoiding impacts to the significant archaeological remains should be considered where practicable and opportunities should be investigated for the implementation of heritage interpretation.	Contractor	Construction
Non-Aboriginal heritage	H4	A heritage induction will be provided to workers prior to construction, informing them of the location and significance of known heritage items and the implementation of the Roads and Maritime <i>Unexpected Heritage Item Procedure 2015</i> if unanticipated heritage items or depositions are located during construction. The heritage induction will include management of expected non-significant archaeological remains, such as minor artefactual material associated with Phase 2 reclamation fills.	Contractor	Pre-construction
	H5	The Roads and Maritime <i>Unexpected Heritage Item Procedure 2015</i> will be implemented if unanticipated heritage items or depositions are located during construction.	Contractor	Construction
Vibration impact to heritage structures	H6	If vibration monitors are attached to the seawall in Kesterton Park (LEP no. I0858), the North Sydney Bus Shelter (LEP no. I0407), structures within Careening Cove Conservation Area (LEP no. CA10) or Rockcliff Mansions (LEP no. I0853), 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
	H7	If it is identified that levels of vibration are causing damage to heritage fabric, works must cease, and the construction methodology reviewed by the project engineers in consultation with a Heritage Consultant in order to mitigate further impacts. A temporary protection plan to outline protection measures required for significant fabric during activities causing potential vibration impacts would be prepared prior to commencement of works.	Contractor	Construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Impact to heritage item (LEP no I0407)	H8	Care must be taken during the removal of the non-significant elements from the North Sydney Bus Shelter (LEP no. I0407) to ensure that significant fabric is not damaged in the process. An environmental work method statement (EWMS) should be prepared to guide the removal of elements from the bus shelter to minimise the risk of inadvertent impacts.	Contractor	Pre-construction
Impact to heritage item (LEP no I0858)	H9	Works within Kesterton Park (LEP no. I0858) must be kept to a minimum where possible and be undertaken with care to minimise impacts to the local heritage item and minimise the loss of public green space and vegetation.	Contractor	Construction
	H10	An environmental work method statement (EWMS) should be prepared to guide the modification of the seawall within Kesterton Park (LEP no. I0858) for the new gangway abutment and pavement finish.	Contractor	Pre-construction
	H11	A Photographic Archival Recording should be undertaken of Kesterton Park (LEP no. I0858) to document its current visual setting prior to any impacts and modifications.	Contractor	Pre-construction
Design	H12	If any design changes result in additional underwater ground disturbing works in the location of the current wharf, then a maritime archaeological assessment should be undertaken to assess the potential for impacts to maritime archaeological remains of the former wharves.	Transport of NSW	Detailed design / Pre-construction
	H13	Any project redesign resulting in new ground disturbance, vegetation removal, or new features must be assessed in an addendum to the North Sydney Wharf SOHI.	Transport for NSW	Detailed design / Pre-construction
Aboriginal heritage	AH1	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
Unexpected heritage finds	AH2	The Standard Management Procedure – <i>Unexpected Heritage Items</i> (Roads and Maritime, 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 would only restart once the requirements of that procedure have been satisfied.	Contractor	Construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Land transport, parking and access	T1	<p>A Traffic Management Plan (TMP) will be prepared and will include the following.</p> <ul style="list-style-type: none"> • Final access and parking arrangements • Alternate pedestrian and cyclist access around the construction area • Measures to ensure light vehicle parking is strictly in accordance with North Sydney Council requirements and prevents parking on footpaths and grassed areas adjacent the site. 	Contractor	Pre-construction
	T2	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	Public transport passengers will be notified of any impacts to transport services and the alternative transport arrangements prior to the commencement of construction. This will include updates to the timetable (online and Opal app) indicating the temporary closure of the North Sydney Wharf.	Transport for NSW	Pre-construction / construction
Water transport	T4	<ul style="list-style-type: none"> • A maritime navigation exclusion zone will be established during construction to prevent unauthorised vessels entering the area. • This zone will be clearly defined to communicate access for other water users. 	Contractor	Pre-construction / construction
	T5	<p>A Maritime TMP will be prepared and implemented during the water based construction work. The Maritime TMP will be prepared consultation with Transport for NSW and approved by the Harbourmaster. In addition, the project will:</p> <ul style="list-style-type: none"> • Fit all buoys with lights • Prepare Response Plans for emergencies and spills for all construction vessels • Fit at least one vessel with an Automatic Identification System (AIS) • Retrieve any material associated with the construction of the development that enters the water to prevent the obstruction of vessel movements • Prepare a Communications Plan for implementation during the work which must include 24/7 contact details, protocols for enquiries, complaints and emergencies. <p>Any variation to the above will be agreed in advance with the Harbourmaster.</p>	Contractor	Pre-construction / construction
	T6	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 / construction

Impact	No.	Environmental safeguards	Responsibility	Timing
Socio-economic	SE1	<p>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):</p> <ul style="list-style-type: none"> • Mechanisms to provide details and timing of proposed activities to affected residents and local businesses, including changes to traffic, public transport services and access • A contact name and telephone number for complaints <p>The Plan will be prepared in accordance with the Community Involvement and Communications Resource Manual (RTA, 2008).</p>	Transport for NSW	Pre-construction / construction
	SE2	<ul style="list-style-type: none"> • A webpage and free-call number will be established for enquiries regarding the proposal, and will remain active for the duration of construction. • Contact details will be clearly displayed at the entrance to the site. • All enquiries and complaints will be tracked through a tracking system, and acknowledged within 24 hours of being received. 	Contractor	Pre-construction / construction
Sustainability	SE3	Investigate opportunities to encourage the Construction Contractor to purchase goods and services locally.	Contractor <u>Transport for NSW</u>	Pre-construction / construction
	SE4	Investigate opportunities to incorporate community health and wellbeing initiatives in the design and construction of the project.	Transport for NSW / Contractor	Detailed design / construction
Air quality	AQ1	<p>Air quality during construction will be considered and addressed within the CEMP and would include methods to manage work during strong winds or other adverse weather conditions as required. As a minimum, the following measures will be included:</p> <ul style="list-style-type: none"> • Covering all loaded trucks and vessels • Machinery to be turned off rather than left to idle when not in use • 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 	Contractor	Pre-construction / construction

Impact	No.	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> 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> Maintaining the work site in a condition that minimises fugitive emissions such as minor dust Appropriate sediment and erosion controls for any exposed earth or stockpiled waste 		
Sustainability	AQ2	During construction, the construction contractor is to monitor performance of their non-road diesel plant and equipment against US EPA, EU or equivalent emissions standards using the Transport for NSW <i>Air Emissions Workbook - DMS-FT-439</i> .	Contractor	Construction
Waste	WM1	<p>A Waste Management Plan (WMP) will be prepared in accordance with the WARR Act. A WMP is to be prepared as part of the CEMP and would 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"> Appropriate measures to avoid and minimise waste associated with the proposal should be investigated and implemented where possible. Waste management, littering and general tidiness will be monitored during routine site inspections. 	Contractor	Pre-construction / Construction
Resource use	WM2	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).	Contractor	Pre-construction / construction
Sustainability	WM3	During construction, Construction Contractor is to monitor waste and recycling quantities using the Transport for NSW <i>Waste Data Collection Workbook – DMS-FT-436</i> .	Contractor	Construction
Hazards and risks	HR1	Appropriate emergency equipment such as flotation devices and first aid kits will be kept within the construction area.	Contractor	Construction
	HR2	Safe work method statements or similar will be implemented to manage health and safety risks for the works.	Contractor	Pre-construction / construction

Impact	No.	Environmental safeguards	Responsibility	Timing
	HR3	Weather forecasts will be monitored during construction. In the unlikely event of a major flood event or strong marine winds/waves, equipment and materials will be temporarily removed from the site <i>or relocated to high ground</i> , where possible.	Contractor	Construction
Utilities	HR4	An application to Ausgrid for connection of grid power for the new wharf and to Sydney Water for connection to the water mains will be required.	Transport for NSW / Contractor	Pre-construction
	HR5	Dial Before You Dig (DBYD) investigations will be carried out prior to undertaking any excavation or piling works to identify any additional cables not identified during design.	Contractor	Pre-construction
	HR6	All utilities within and adjacent to the proposal footprint will be located prior to the start of the works.	Contractor	Pre-construction
Climate change	CC1	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	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	The detailed design process will consider adaptation measures for climate change, including the following: <ul style="list-style-type: none"> • Design of pontoons, waiting areas and gangways • Integrate coastal erosion control techniques around landside infrastructure • Drainage and storm water infrastructure • Specifications of materials in design • Weather protection features. 	Contractor	Detailed design
Sustainability	S1	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	Pre-construction

Impact	No.	Environmental safeguards	Responsibility	Timing
	S2	<p>Prior to commencement of construction, a Sustainability Management Plan shall be endorsed by Transport for NSW. The Plan shall be provided at least 14 days prior to site establishment and include the following minimum components:</p> <ul style="list-style-type: none"> • A completed electronic checklist demonstrating compliance with Transport for NSW's <i>NSW Sustainable Design Guidelines Version 4.0</i> (7TP-ST-114) • The Contractors sustainability goals and targets, internal procedures, and implementation strategy. 	Contractor	Pre-construction
	S3	The Contractor must comply with the Transport for NSW <i>Sustainable Design Guidelines version 4.0</i> .	Contractor	Construction
Cumulative construction impacts	C1	<ul style="list-style-type: none"> • Consultation will include notification prior to the start of the works • Updates on any delays or changes to the construction period will also be communicated. 	Transport for NSW	Pre-construction / construction

5.3 Licensing and approvals

A summary of the licences and approvals required for the proposal is provided in Table 5-2.

Table 5-2: Summary of licensing and approval required

Instrument	Requirement	Timing
<i>Fisheries Management Act 1994</i>	Permit is required to relocate seahorses.	Prior to start of the activity
<i>Roads Act 1993</i>	Consultation with North Sydney Council is required for works on High Street.	Prior to start of the activity
<i>Ports and Maritime Administration Regulations 2012</i>	Written permission from the Harbour Master is required to disturb sediment in Sydney Harbour.	Prior to start of the activity
<i>Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005</i>	An application is required to Ausgrid for connection of grid power for the new wharf.	Prior to start of the activity
	An application is required to Sydney Water for connection of water mains for the new wharf.	Prior to start of the activity
<i>North Sydney Council</i>	Access and Works licence for access to and use of Kesterton Park during construction	Prior to the start of the activity

6. References

Artefact (2020) *Ferry Wharf Upgrade Program 3, North Sydney Wharf – Addendum Statement of Heritage Impact*. Prepared by Artefact for Cardno (NSW/ACT) Pty Ltd on behalf of Transport for NSW, December 2020.

RMS (2016) *Construction Noise and Vibration Guideline*. Roads and Maritime Services, August 2016.

TfNSW (2020) *North Sydney Wharf Upgrade. Review of Environmental Factors*. Prepared by Cardno (NSW/ACT) Pty Ltd on behalf of Transport for NSW, October 2020.

Appendix A

North Sydney Wharf Upgrade, Review of Environmental Factors, October 2020

Appendix B

Addendum Statement of Heritage Impact