

Chapter 7

# Stakeholder and community engagement



# 7 Stakeholder and community engagement

This chapter provides an overview of the stakeholder and community engagement activities carried out during the project’s development and during the preparation of this environmental impact statement. An overview of activities which would be carried out to support the public exhibition of this environmental impact statement and during program delivery is also provided.

The Secretary’s environmental assessment requirements as they relate to stakeholder and community engagement, and where in the environmental impact statement they have been addressed, are detailed in Table 7-1.

**Table 7-1 Secretary’s environmental assessment requirements – Stakeholder and community engagement**

Secretary’s requirement	Where addressed in EIS
<b>Consultation</b>	
<p>1. The project must be informed by consultation, including with relevant local, State and Commonwealth government agencies (including the Harbour Master where disturbance of seabeds, shipping channel closures or marine movement of materials/spoil are proposed), infrastructure and service providers, special interest groups (including Local Aboriginal Land Councils, Aboriginal stakeholders, and pedestrian and bicycle user groups), affected landowners, businesses and the community.</p>	<p>A summary of consultation carried out to date is provided in <b>Section 7.1</b> and <b>Section 7.2</b>.  A summary of feedback received is provided in <b>Section 7.3</b>.  A summary of project refinements in response to feedback is provided in <b>Section 7.4</b>. Project refinements have also been considered in <b>Chapter 5</b> (Project description).</p>
<p>2. The Proponent must document the consultation process and demonstrate how the project has responded to the inputs received.</p>	<p>The consultation process is documented in <b>Section 7.1</b> and <b>Section 7.2</b>.  A summary of the feedback received and how the feedback has been addressed is provided in <b>Section 7.3</b>. A summary of project refinements in response to feedback is also provided in <b>Section 7.4</b>.  Project refinements have also been considered in <b>Chapter 5</b> (Project description).</p>
<p>3. The Proponent must describe the timing and type of community consultation proposed during the design and delivery of the project, the mechanisms for community feedback, the mechanisms for keeping the community informed, and procedures for complaints handling and resolution.</p>	<p>Community and stakeholder engagement during the public exhibition of the environmental impact statement is outlined in <b>Section 7.2</b>.  Ongoing and future engagement for the project is outlined in <b>Section 7.5</b>. A detailed Community Communication Strategy would be developed and implemented during delivery of the project. This would be based on the consultation framework provided in <b>Appendix E</b>.</p>

Secretary's requirement	Where addressed in EIS
<p>4. The Proponent must assess the potential for complaint fatigue to occur during construction of the project and describe how mitigation measures, complaint handling procedures and community consultation mechanisms will mitigate complaint fatigue. The assessment must consider the cumulative impacts from the project and other major projects in the area.</p>	<p>The potential for complaint fatigue to occur and proposed mitigation measures and complaint handling procedures are described in <b>Section 7.5</b>. Complaint management tools are outlined in <b>Appendix E</b> (Community consultation framework) Potential cumulative impacts from the project are considered in <b>Chapter 27</b> (Cumulative impacts).</p>
<p><b>Socio-economic, Land Use and Property</b></p>	
<p>6. A draft Community consultation framework must be prepared identifying relevant stakeholders, procedures for distributing information and receiving/responding to feedback and procedures for resolving stakeholder and community complaints during construction and operation. Key issues that must be addressed in the draft Framework include, but are not limited to:</p> <ol style="list-style-type: none"> <li>a. traffic management (including property access, pedestrian access);</li> <li>b. landscaping/urban design matters;</li> <li>c. construction activities including out of hours work; and</li> <li>d. noise and vibration mitigation and management.</li> </ol>	<p>A draft Community consultation framework is provided at <b>Appendix E</b>. The content of the Framework is summarised in <b>Section 7.5</b>.</p>

## 7.1 Engagement and consultation process

### 7.1.1 Engagement objectives and strategy

The engagement process aimed to provide opportunities for community and stakeholder involvement throughout the development of the project. To achieve this, the following engagement objectives have been applied:

- Provide clear, consistent and timely information about the project to stakeholders and the community
- Provide communication in a variety of mediums
- Promote and raise awareness of the project and engagement activities being carried out
- Foster and develop relationships with stakeholders and the community
- Identify opportunities for community and stakeholder groups to be involved in the project

- Collaborate with the community and stakeholders to help shape the design of the project at each key development phase
- Address and respond to community and stakeholder issues raised
- Meet the statutory requirements for consultation under the *Environment Planning and Assessment Act 1979*
- Meet the Secretary's environmental assessment requirements.

Community and stakeholder engagement has been an integral component in the development of the project and the Western Harbour Tunnel and Beaches Link program more widely. The engagement program has proactively informed and involved stakeholders and community members during project development. This approach aimed to increase public understanding of the project, encourage participation in the development process, and promote the benefits of the project to local communities and stakeholders. The project has benefitted from the input of local knowledge, insight, experience, goals and priorities, which has helped to identify issues, potential mitigation strategies and opportunities to improve project outcomes.

Consultation forms a component of engagement. For the purpose of this document, the definitions of consultation and engagement are provided in Table 7-2, in line with International Association of Public Participation (IAP2) definitions.

**Table 7-2 Engagement and consultation definitions**

Term	Definition
Engagement	In this document, engagement refers to any type of interaction with the community or stakeholders and is also used to refer to the community and stakeholder engagement program holistically. Engagement includes communication, consultation, notification and education.
Consultation	In this document, consultation refers to the level of engagement of a specific activity. Specifically where the term consultation has been used, this describes the process where the aim of the engagement is to obtain public and community feedback on a matter and use this information for project development.

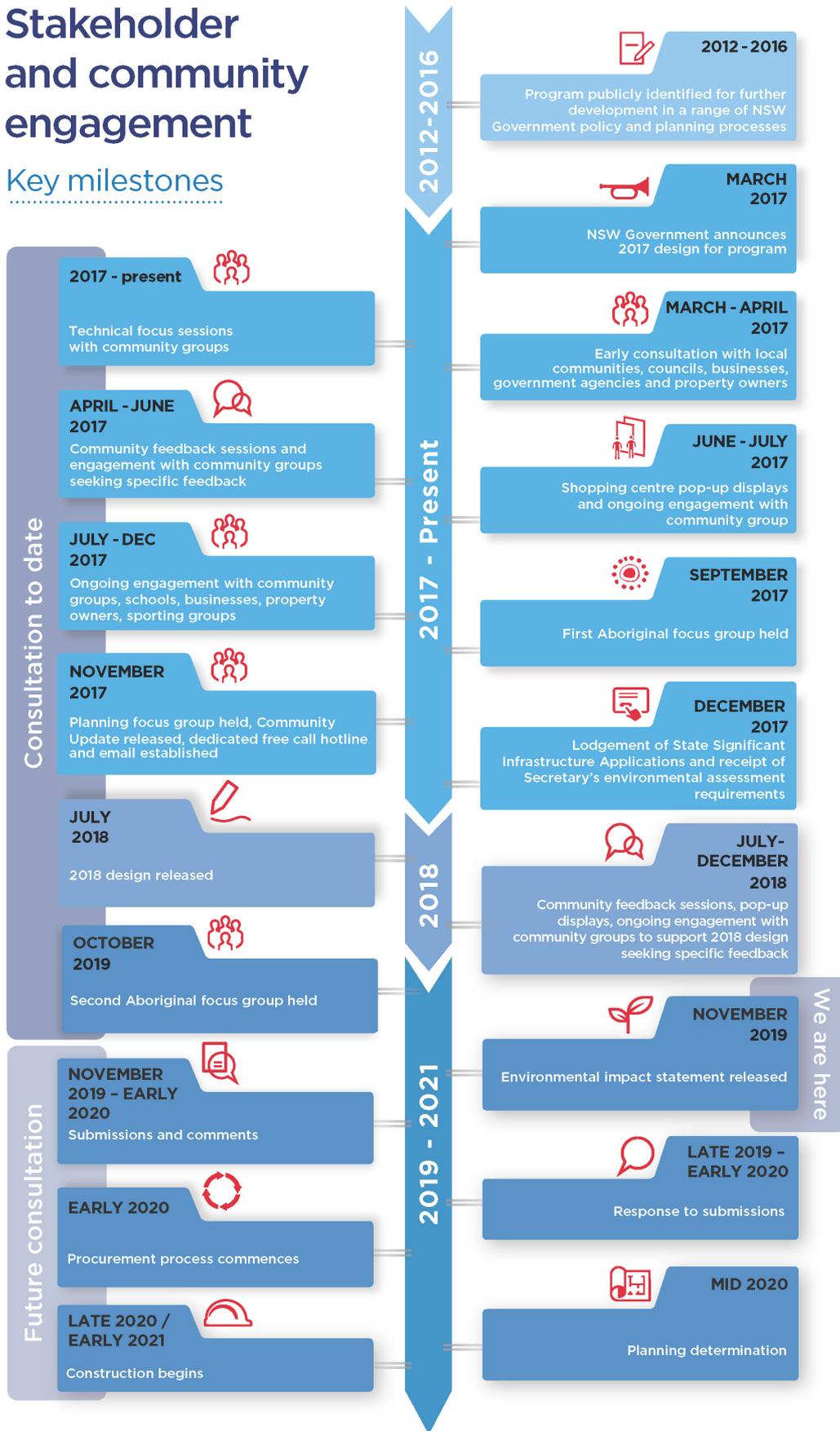
## 7.1.2 Engagement timeline

Engagement for the Western Harbour Tunnel and Warringah Freeway Upgrade project was carried out by Transport for NSW (formerly Roads and Maritime) as part of the engagement process for the wider Western Harbour Tunnel and Beaches Link program of works. Engagement with key government and other project stakeholders, including NSW Ports Authority, Sydney Metro, Infrastructure NSW, Sydney Coordination Office and Northern Beaches B-Line, has occurred since early 2016 to develop the design and plan investigations. Engagement with the public and broader stakeholders commenced in March 2017 and has continued through to the preparation of this environmental impact statement.

Community and stakeholder engagement has been carried out in accordance with the Secretary's environmental assessment requirements. A summary of the community and stakeholder engagement process and timeline for the project is shown in Figure 7-1.

# Stakeholder and community engagement

## Key milestones



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**Figure 7-1 Western Harbour Tunnel and Beaches Link program of works community and stakeholder engagement process**

### 7.1.3 Stakeholders

Stakeholders were identified through consideration of the project's potential direct and indirect impacts and from records of previous correspondence with relevant government bodies, business groups and community groups. Engagement has included ongoing liaison and consultation with the following stakeholder groups:

- Government Ministers and elected representatives
- Federal and State Government agencies
- Local councils
- Property owners and residents along and near the alignment
- Members of the community
- Community service providers
- Business and industry groups
- Education, health and sporting facilities along or near the alignment
- Local precinct committees and/or resident action groups
- Marine stakeholders and waterway users
- Aboriginal groups and the Local Aboriginal Land Council (LALC)
- Pedestrians and cyclists
- Service and utility providers.

### 7.1.4 Engagement and Consultation tools

A variety of two-way consultation and communication tools have been used to provide information to the community, providing a range of opportunities for the community to be consulted and involved throughout the project's development. Communication and consultation tools established for the project include:

- Toll free community information line (1800 931 189)
- Project email ([whtbl@rms.nsw.gov.au](mailto:whtbl@rms.nsw.gov.au))
- Project website (<https://nswroads.work/whtbl>)
- Interactive web feedback map (<https://nswroads.work/whtbl>)
- Project database to record correspondence relevant to the project, including contact details and issues raised during the life of the project
- Community update newsletters and letters to residents
- Community information sessions, information displays and staffed pop-ups
- Registered stakeholder database email updates
- Stakeholder briefings, meetings, workshops and presentations
- Interest group correspondence including letters and phone calls
- Face-to-face meetings and doorknocks with individual property owners and residents of properties which may be affected by the project
- Advertisements and proactive media articles in the local press
- Letterbox drops
- Media events at key milestones of the project.

## 7.2 Engagement activities to date

An extensive community engagement process has been carried out for the project before exhibition of the environmental impact statement. This has included two rounds of formal public consultation for the Western Harbour Tunnel and Beaches Link program of works:

- Between April and June 2017 following the announcement of the design
- Between July and December 2018 following the publishing of further development of the design.

In addition to these formal engagement periods, consultation and engagement with stakeholders has been ongoing throughout the project's development, with the project team holding numerous workshops and meetings with councils, community groups and other stakeholders. The following provides a summary of engagement activities carried out to date.

### 7.2.1 Commonwealth, State and local government agencies

Engagement and consultation has been carried out with key Commonwealth, State and local government agencies as summarised in Table 7-3. Feedback on specific environmental, technical and socio-economic matters provided by government stakeholders has informed the design development of the Western Harbour Tunnel and Warringah Freeway Upgrade project.

**Table 7-3 Consultation with Commonwealth, State and local government agencies**

Stakeholder	Timeframe	Engagement topics/activities
Other divisions of Transport for NSW	2016 – present	<ul style="list-style-type: none"> <li>• Various project updates to different functional areas across the transport cluster to ensure coordinated planning across projects and operations</li> <li>• Northern Beaches B-Line and bus service coordination and future network planning post completion of the Western Harbour Tunnel and Beaches Link program of works</li> <li>• Coordination with the Transport Management Centre and Sydney Coordination Office for site investigations</li> <li>• Coordination and planning sessions with the Sydney Coordination Office and Transport Management Centre to plan traffic management during construction and operation</li> <li>• Site visit to the Traffic Management Centre to discuss and observe existing operation of the Warringah Freeway, the Sydney Harbour Bridge, Western Distributor, ANZAC Bridge and other critical road links</li> <li>• Birchgrove Ferry Wharf upgrade – planning and coordination of upgrade and future works by the program</li> <li>• North Sydney public transport integration and transport planning</li> <li>• Transport integration working group</li> <li>• North Sydney integrated transport planning working group</li> <li>• Rozelle precinct cumulative traffic working group to coordinate construction and operational traffic across projects in this area</li> </ul>

Stakeholder	Timeframe	Engagement topics/activities
		<ul style="list-style-type: none"> <li>• Health, safety and environmental briefings</li> <li>• Marine construction overview to understand implications for marine traffic.</li> </ul>
Sydney Trains	2016 – present	<ul style="list-style-type: none"> <li>• Various project updates to different functional areas across transport cluster to ensure coordination across projects and operations</li> <li>• T1 North Shore and Northern rail line underground interface.</li> </ul>
Sydney Metro	2016 – present	<ul style="list-style-type: none"> <li>• Sydney Metro City &amp; Southwest tunnel design and construction coordination</li> <li>• Sydney Metro West planning and construction strategy coordination</li> <li>• Spoil haulage and reuse: opportunities for consideration</li> <li>• Rozelle precinct coordination</li> <li>• North Sydney public transport integration and precinct planning.</li> </ul>
NSW Crown Lands	2017 – present	<ul style="list-style-type: none"> <li>• General project overview and updates.</li> </ul>
Metropolitan Local Aboriginal Land Council (LALC)	2017 – present	<ul style="list-style-type: none"> <li>• Regular meetings and correspondence to provide project briefings and seek feedback</li> <li>• Correspondence with CEO, Metropolitan LALC, regarding location of sites near Manly Dam and Balgowlah</li> <li>• Involvement of site officers in archaeological surveys and field surveys</li> <li>• Involvement of site officers in survey, recording and condition assessment of cultural heritage close to the project corridor, including site adjacent to the Wakehurst Parkway.</li> </ul>
Federal Department of the Environment and Energy	2017 – present	<ul style="list-style-type: none"> <li>• General project overview and updates</li> <li>• Consultation regarding the potential for offshore disposal of dredged material at the designated offshore disposal site</li> <li>• Development of testing plans and permit applications.</li> </ul>
Federal Department of Infrastructure, Transport, Cities and Regional Development	2017	<ul style="list-style-type: none"> <li>• General project overview and update.</li> </ul>
Infrastructure Australia	2017 – present	<ul style="list-style-type: none"> <li>• General project overview and updates.</li> </ul>

Stakeholder	Timeframe	Engagement topics/activities
Department of Planning, Industry and Environment	2017 – present	<ul style="list-style-type: none"> <li>• General project overview and updates</li> <li>• Warringah Freeway and Gore Hill concept overview presentation</li> <li>• Frenchs Forest precinct planning and transport integration</li> <li>• Planning focus session on lodgement of State Significant Infrastructure Application</li> <li>• Western Harbour Tunnel and Beaches Link program of works site tour to understand design and key challenges</li> <li>• Western Harbour Tunnel and Beaches Link program of works construction methodology, noise, vibration and spoil management presentation.</li> </ul>
Greater Sydney Commission	2017 – present	<ul style="list-style-type: none"> <li>• Multiple project overview and update meetings</li> <li>• North Sydney precinct and transport planning sessions</li> <li>• Frenchs Forest precinct planning</li> <li>• Land use and employment assumptions for design development.</li> </ul>
Government Architect NSW	2017 – present	<ul style="list-style-type: none"> <li>• Project overviews and updates</li> <li>• North Sydney Integrated transport planning</li> <li>• Reference Design Urban Design review panel.</li> </ul>
Port Authority of NSW	2017 – present	<ul style="list-style-type: none"> <li>• Regular project updates and briefings</li> <li>• Stakeholder sessions prior to geotechnical investigations in Sydney Harbour and Middle Harbour</li> <li>• Multiple planning sessions for White Bay construction support site (WHT3), including footprints and operations</li> <li>• Simulation training for Pilots at Brisbane facility for moving immersed tube tunnel units around the harbour, cruise terminal operations and Gore Bay terminal operations during Western Harbour Tunnel immersed tube tunnel construction, and transporting immersed tube tunnel units into Middle Harbour through the Spit Bridge</li> <li>• Development of Harbour Master's conditions for proposed dredging, cofferdams, immersed tube tunnel construction and general marine logistics within Sydney Harbour</li> <li>• Engagement on the Harbour Master's conditions for potential temporary relocation of the <i>Cape Don</i> and <i>Baragoola</i> vessels</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
NSW Urban Growth (now Infrastructure NSW from July 2019)	2016 – present	<ul style="list-style-type: none"> <li>• Project overviews and updates</li> <li>• Interactive sessions to coordinate Glebe Island/White Bay construction and development activities</li> <li>• Consultation on The Crescent/City West Link intersection</li> </ul>

Stakeholder	Timeframe	Engagement topics/activities
		<ul style="list-style-type: none"> <li>options and pedestrian bridge alignments</li> <li>Engagement via representation at the Bays Precinct coordination group</li> <li>Consultation on White Bay spoil beneficial reuse options</li> <li>Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
NSW Small Business Commissioner	2018	<ul style="list-style-type: none"> <li>Project briefing/update.</li> </ul>
Department of Planning, Industry and Environment (Regions, Industry, Agriculture and Resources)	2017 – present	<ul style="list-style-type: none"> <li>General project overview and updates</li> <li>Agency briefings on terrestrial biodiversity, freshwater and contamination, marine water (hydrodynamics and dredging)</li> <li>Marine ecology survey and water quality testing</li> <li>Planning focus meeting on lodgement of State Significant Infrastructure submission</li> <li>Consultation for the development of the Western Harbour Tunnel application for offshore disposal of dredged material</li> <li>Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
Department of Premier and Cabinet (Heritage)	2017	<ul style="list-style-type: none"> <li>Planning focus meeting on lodgement of State Significant Infrastructure submission</li> <li>Agency briefings on non-aboriginal heritage and aboriginal heritage</li> <li>Agency briefings on terrestrial biodiversity, freshwater and contamination, marine water (hydrodynamics and dredging).</li> </ul>
NSW Environmental Protection Authority (EPA)	2017 – present	<ul style="list-style-type: none"> <li>General project overview and updates</li> <li>Marine ecology survey and water quality testing</li> <li>Planning focus meeting on lodgement of State Significant Infrastructure submission</li> <li>Western Harbour Tunnel and Beaches Link program of works construction methodology, noise, vibration and spoil management presentation</li> <li>Consultation for the development of the Western Harbour Tunnel application for offshore disposal of dredged material</li> <li>Briefing to the Advisory Committee on Tunnel Air Quality. Members of the committee were provided the air quality technical report and health impact assessment for review and comment.</li> </ul>

Stakeholder	Timeframe	Engagement topics/activities
Infrastructure NSW	2016 – present	<ul style="list-style-type: none"> <li>• Multiple project overview and update sessions</li> <li>• Multiple reviews by Infrastructure NSW on various aspects on the design and construction aspects of the project</li> <li>• Reviews of environmental and community impacts, mitigations and assessment process</li> <li>• Bays precinct construction, development and port operation review</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
NSW National Parks and Wildlife Services	2017	<ul style="list-style-type: none"> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
NSW Department of Premier and Cabinet	2016 – present	<ul style="list-style-type: none"> <li>• Multiple project overview and update sessions</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
NSW Treasury	2016 – present	<ul style="list-style-type: none"> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission</li> <li>• Multiple project overview and update sessions</li> <li>• Regular engagement via Western Harbour Tunnel and Beaches Link program of works steering committees.</li> </ul>
Sydney Harbour Federation Trust	2017	<ul style="list-style-type: none"> <li>• Meeting to discuss potential options for temporary mooring or dry-dock availability for the <i>Cape Don</i> and <i>Baragoola</i> vessels</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
Ministry of Health	2017 – present	<ul style="list-style-type: none"> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission</li> <li>• Project update during environmental impact statement development</li> <li>• Briefing to the Advisory Committee on Tunnel Air Quality. Members of the committee were provided the air quality technical report and health impact assessment for review and comment.</li> </ul>
NSW Chief Scientist	2017 – present	<ul style="list-style-type: none"> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission</li> <li>• Project overview and update session</li> <li>• Joint public consultation on approach to Western Harbour Tunnel and Beaches Link air quality and ventilation outlet locations</li> <li>• Briefing to the Advisory Committee on Tunnel Air Quality. Members of the committee were provided the air quality technical report and health impact assessment for review and comment.</li> </ul>

Stakeholder	Timeframe	Engagement topics/activities
Defence – HMAS Waterhen	2017	<ul style="list-style-type: none"> <li>• Project briefing ahead of geotechnical investigations</li> <li>• General project update, including construction methodology, interface with HMAS Waterhen, environmental impact assessment process and temporary relocation of the <i>Cape Don</i> and the <i>Baragoola</i> vessels.</li> </ul>
M4-M5 Link Project Team	2016 – present	<ul style="list-style-type: none"> <li>• Coordinated design and technical specification development to ensure integrated and efficient design and construction planning</li> <li>• Regular coordination meetings on construction method, delivery program, environmental impact statement development, cumulative traffic assessments and procurement.</li> </ul>
Willoughby City Council	2017 – present	<ul style="list-style-type: none"> <li>• Project updates on geotechnical work planning, potential project impacts, temporary construction support sites, noise, air quality, future land use after the project is complete and the development of the environmental impact statement</li> <li>• Discussion of feedback from the local community</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
Mosman Council	2017 – present	<ul style="list-style-type: none"> <li>• Project updates on the project design, potential project impacts and temporary construction support sites, noise, air quality, and the development of the environmental impact statement</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
Lane Cove Council	2017 – present	<ul style="list-style-type: none"> <li>• Project updates on the development of the design, construction methodology, active transport connections, motorway facilities, ventilation outlets, tunnel entry and exit points, spoil transport, tunnel depth and alignment, potential community impacts, air quality, and environmental impact statement development</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
North Sydney Council	2017 – present	<ul style="list-style-type: none"> <li>• Updates on tunnel design, project justification, urban design, community engagement process, public transport integration, Warringah Freeway Upgrade, ventilation outlet locations, air quality and monitoring, impacts to St Leonards Park and Cammeray Golf Course, active transport and pedestrian connections, opportunities and impacts to the North Sydney area, environmental impact statement development</li> <li>• Multiple north Sydney precinct and transport planning workshops</li> <li>• North Sydney urban design workshops to discuss</li> </ul>

Stakeholder	Timeframe	Engagement topics/activities
		<p>proposed impacts and potential mitigation measures – particularly at and around temporary construction support sites and permanent facilities</p> <ul style="list-style-type: none"> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>
City of Sydney Council	2017	<ul style="list-style-type: none"> <li>• General project overview and update.</li> </ul>
Inner West Council	2017 – present	<ul style="list-style-type: none"> <li>• Updates on project development, proposed temporary and permanent impacts, construction method in Sydney Harbour, Yurulbin Park temporary impacts, noise and vibration, geotechnical work, community feedback, tunnel depths, construction parking, Victoria Road construction support site (WHT2), Glebe Island and White Bay construction support site (WHT3), spoil transport and cumulative traffic considerations, and submission process</li> <li>• Consultation ahead of geotechnical investigations to refine borehole locations to minimise community impacts</li> <li>• Planning focus meeting on lodgement of State Significant Infrastructure submission.</li> </ul>

## 7.2.2 Service and utility providers

Engagement and consultation has been carried out with service and utility providers through activities including briefings, meetings and ongoing technical engagement. These activities provided:

- An overview of the Western Harbour Tunnel and Beaches Link program of works including the proposed design and construction method
- Discussions about the possible impact on utility assets
- Discussion and development of potential relocation and protection strategies
- An opportunity to provide feedback and discuss any issues or concerns.

Providers that have been engaging with the Western Harbour Tunnel project team include:

- Ausgrid
- Jemena
- NBN
- Optus
- UeComm
- Telstra
- TPG
- Sydney Water
- Verizon
- AARNet
- Vocus
- Vodafone.

Feedback from these service and utility providers has informed the design for service and utility relocation and/or protection, where applicable.

### 7.2.3 Aboriginal stakeholders

Consultation with the Aboriginal community was carried out in accordance with requirements outlined in Chapter 15 (Aboriginal cultural heritage) of this environmental impact statement.

Table 7-4 provides a summary of engagement and consultation activities carried out. Refer to Appendix L (Technical working paper: Cultural heritage assessment report) for further details on Aboriginal stakeholder engagement.

**Table 7-4 Consultation with Aboriginal stakeholders**

Stakeholder	Summary
National Native Title Tribunal	Contacted to identify any registered native title claimants of native title holders for the options assessment area. No registered native title claimants were identified in relation to the study area.
Aboriginal Site Officers	Aboriginal Site Officers nominated by the Metropolitan LALC were present for archaeological surveys.
<ul style="list-style-type: none"> <li>• Department of Premier and Cabinet (Heritage)</li> <li>• The New South Wales Aboriginal Land Council</li> <li>• The Metropolitan LALC</li> <li>• The Aboriginal Heritage Office</li> <li>• The Registrar appointed under the Aboriginal Land Rights Act 1983</li> <li>• The National Native Title Tribunal</li> <li>• The Native Title Services Corporation Limited</li> <li>• Inner West Council</li> <li>• North Sydney Council.</li> </ul>	Organisations were written to during June and July 2017 seeking the details of Aboriginal people who may have an interest in the project and who may hold cultural knowledge about objects and places in the study area.
Aboriginal Focus Groups	Identified Aboriginal stakeholders (registered Aboriginal parties) were contacted by letter and advertisement, and invited to attend focus group meetings to discuss the project and received comment on the draft archaeological survey methodology. The first Aboriginal Focus Group was held in September 2017. A second Aboriginal Focus Group was held in October 2019 to outline the findings of the Aboriginal cultural heritage assessment and seek feedback from registered Aboriginal parties.
Aboriginal Site Officers	Aboriginal site officers were engaged for archaeological fieldwork.

## 7.2.4 Engagement with business stakeholders

A business survey was carried out to gain a better understanding of the main issues, perceptions and concerns of businesses in regard to construction and operation of the project. Surveys were conducted during a three-week period in November 2017 in nine local centres that may be more susceptible to direct or indirect effects of construction and/or operation. Businesses were approached at random within these local centres, with every effort made to survey a range of business types across the study area.

More than 182 businesses participated in the survey. The results of the business survey are provided Appendix U (Technical Working Paper: Business impact assessment) and discussed in Chapter 21 (Socio-economics).

Local business owners also attended community information sessions. Further engagement with business stakeholders would be carried out during the environmental impact assessment exhibition period.

## 7.2.5 Directly impacted landowners and residents

In March 2017, property owners affected by the early design were notified. In July 2018, property owners affected by the further developed design were notified. Residential property owners were provided the opportunity to start the acquisition process (at owner discretion). Further engagement would be carried out with affected property owners as the project progresses.

All acquisition required for the project is carried out in a manner consistent with the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW) (Just Terms Act), the *Land Acquisition Information Guide* and the land acquisition reforms announced by the NSW Government in 2016.

Transport for NSW has appointed a Personal Manager Acquisition to help land owners who may be affected by acquisition for the project. The Personal Manager Acquisition is in regular contact with these individuals to provide updates on the project and respond to questions and queries. Should acquisition for the project be confirmed for a particular property, the Personal Manager Acquisition would work with the affected land owners and residents to offer assistance and support throughout the acquisition and relocation process (refer to Chapter 20 (Land use and property)).

## 7.2.6 Community

Community engagement was carried out for the Western Harbour Tunnel and Beaches Link program of works as a whole by Transport for NSW (formerly Roads and Maritime). The following section describes the community feedback received during the 2017 and 2018 consultation periods for the program of works, in addition to engagement carried out with key community and interest groups.

### **2017 design community engagement**

In March 2017, the NSW Government announced the Western Harbour Tunnel and Beaches Link program of works design. Feedback on the design was invited between 16 March 2017 and 31 July 2017, supported by community engagement activities summarised in Table 7-5.

**Table 7-5 2017 design – community engagement activities**

Activity	Details
<b>General program information and feedback channels</b>	
Program website	<a href="http://www.rms.nsw.gov.au/whtbl">http://www.rms.nsw.gov.au/whtbl</a>
Program email address	Over 700 emails were sent to the program email account: <a href="mailto:motorwaydevelopment@rms.nsw.gov.au">motorwaydevelopment@rms.nsw.gov.au</a>
Program 1800 number	Over 1000 telephone calls were received via the program information line: 1800 789 297.
Letterbox drops	More than 330,000 program fact sheets and community feedback session information flyers delivered.
Online community engagement map	More than 1700 comments posted on specific topics by members of the community.
Subscribers to program updates	Over 2300 subscribers to receive ongoing program updates.
Ministerial	About 90 customer enquiries issued as ministerial inquiries.
<b>Hosted events</b>	
Community Feedback Sessions attended by program team and technical specialists	Sixteen sessions attended by more than 2100 people at the following locations: <ul style="list-style-type: none"> <li>• The Mosman Club (two sessions)</li> <li>• McMahons Point Community Centre (two sessions)</li> <li>• Chatswood Club (two sessions)</li> <li>• Balmain Town Hall (two sessions)</li> <li>• Manly-Warringah Leagues Club (two sessions)</li> <li>• Northbridge Bowling Club (two sessions)</li> <li>• North Sydney Oval Function Centre (two sessions)</li> <li>• Seaforth Community Centre (one session)</li> <li>• Fred Hutley Hall, North Sydney Council Chambers (one session).</li> </ul>
Pop up information displays	Twelve displays in major shopping centres attended by more than 800 people including: <ul style="list-style-type: none"> <li>• Birkenhead Point Shopping Centre (two sessions)</li> <li>• Warringah Mall (four sessions)</li> <li>• Balgowlah Stockland (two sessions)</li> <li>• Chatswood Westfield (four sessions).</li> </ul>
<b>Direct engagement with individual stakeholders</b>	
Meetings with residents and stakeholders	More than 25 meetings were attended by more than 1000 people.
Door knocks	More than 1500 residences.

Activity	Details
<b>Notifications of investigation work</b>	
Marine geotechnical notifications	More than 170 notifications to properties in the vicinity of the proposed harbour crossings.
Land based geotechnical notifications	More than 5500 notifications and more than 1200 doorknocks.
Noise monitoring installation notifications	More than 590 notifications and more than 470 doorknocks.
Air quality monitoring station installations	More than 50 notifications and more than 40 doorknocks.
<b>Media</b>	
Newspaper advertisements	89 half page advertisements, placed in the local media in the weeks preceding the community feedback sessions.
Media releases	One media release was issued by the NSW Government to coincide with the announcements of the preferred corridor and start of field investigation works.
Facebook	More than 169,000 people reached through two direct program related Facebook posts on the Roads and Maritime Facebook page, as well as a broadly targeted Facebook advertising campaign.

### ***2018 further developed design community engagement***

In July 2018, the NSW Government announced a further developed design for the Western Harbour Tunnel and Beaches Link program of works. Feedback on the proposed design was invited between 26 July 2018 and 1 December 2018, supported by community engagement activities summarised in Table 7-6.

Feedback from this period helped to inform the design which has been included in this environmental impact statement. A summary of this feedback and where it has been addressed is provided in Table 7-8.

**Table 7-6 2018 further developed design – community engagement activities**

Activity	Detail
<b>General program information and feedback channels</b>	
Program website	<a href="http://www.rms.nsw.gov.au/whtbl">http://www.rms.nsw.gov.au/whtbl</a>
Program email address	Around 2320 emails were sent to the program email account: <a href="mailto:whtbl@rms.nsw.gov.au">whtbl@rms.nsw.gov.au</a>
Program 1800 number	More than 300 telephone calls were received via the program information line: 1800 931 189.

<b>Activity</b>	<b>Detail</b>
Letterbox drops	About 400,000 program fact sheets and community feedback session information flyers delivered.
Online community engagement map	More than 4000 comments posted on specific topics by members of the community.
Feedback forms	More than 530 written feedback forms received at community sessions.
Subscribers to program updates	Over 3300 subscribers to receive ongoing program updates.
Ministerial	Over 90 customer enquiries issued as ministerial inquiries.
<b>Hosted events</b>	
Community Feedback Sessions attended by program team and technical specialists	<p>Twenty sessions attended by more than 2600 people at the following locations:</p> <ul style="list-style-type: none"> <li>• Balgowlah Club Totem (one session)</li> <li>• Balgowlah Golf Club (one session)</li> <li>• Crows Nest Centre (two sessions)</li> <li>• Mosman RSL (two sessions)</li> <li>• North Sydney Council – Fred Hutley Hall (two sessions)</li> <li>• Waverton Bowling Club (two sessions)</li> <li>• Balgowlah RSL (three sessions)</li> <li>• Manly Warringah Leagues Club (two sessions)</li> <li>• Balmain Town Hall (two sessions)</li> <li>• Northbridge Golf Club (two sessions)</li> <li>• Cammeray Golf Club (one session).</li> </ul>
Pop up information displays	<p>Six displays in major shopping centres attended by more than 590 people including:</p> <ul style="list-style-type: none"> <li>• Birkenhead Point Outlet Centre (three sessions)</li> <li>• Balgowlah Stockland (three sessions).</li> </ul>
<b>Direct engagement with individual stakeholders</b>	
Stakeholder meetings	More than 88 meetings were held with local precinct committees, schools and school Parents & Citizens (P&C) Associations, resident groups, special interest groups, sporting associations, Government agencies and local councils.
Door knocks	More than 3890 residences.
<b>Notifications of investigation work</b>	
Land based geotechnical notifications	More than 132 notifications and more than 20 doorknocks.
<b>Media</b>	
Newspaper	Eighteen half page advertisements, placed in the local media in the

Activity	Detail
advertisements	weeks preceding the community feedback sessions.
Media releases	One media release was issued by the NSW Government to coincide with the announcements of the further developed design.

### ***Community and interest groups***

Engagement and consultation has been carried out with key community and interest groups through activities such as briefings, meetings, presentations and workshops. These activities provided:

- An overview of the Western Harbour Tunnel and Beaches Link program of works, including the proposed design and construction method
- Information on potential impacts during construction and operation including air quality, noise and vibration, traffic and transport, flora and fauna, and maritime issues
- Further detail on options considered and their advantages and disadvantages
- The opportunity to provide feedback and discuss any issues or concerns
- The opportunity to present community options for analysis by the technical and environmental team.

Engagement and consultation has occurred with the following community and interest groups:

- Artarmon Progress Association
- Naremburn Progress Association
- North Sydney Precinct Committees
- Plateau Precinct (Cammeray)
- Waverton Precinct Committee
- Waverton Progress Association
- Willoughby Progress Association
- Willoughby South Progress Association
- Wollstonecraft Precinct Committee
- Bays West Projects
- Crows Nest Rotary Club
- North Sydney Rotary Club
- Mosman Rotary Club
- Marist College North Shore
- North Sydney Boys
- St Mary's Primary School
- Anzac Park Public School
- Anzac Park Public School P&C Association
- Cammeray Public School
- Cammeray Public School P&C Association
- Monte Sant' Angelo Mercy College
- Wenona School
- Cammeray Golf Club
- Balmain Leagues Club (Balmain Tigers)

- MV Cape Don Society Inc.
- Glebe Island & White Bay Community Liaison Group
- Western Harbour Tunnel Action Group
- WestProtects Rozelle
- Aboriginal Focus Group
- Bruce Mackenzie AM
- The Greens North Sydney.

## 7.3 Feedback received

Feedback and issues identified during the engagement program by stakeholders and the community have informed the environmental assessment and the ongoing development of the project. A summary of these issues and where they have been addressed is provided in the following section.

### 7.3.1 Summary of feedback received

Feedback received was recorded and considered during the preparation of this environmental impact statement and throughout the development of the project.

Table 7-7 provides a summary of the feedback received during the 2017 and 2018 engagement periods for the Western Harbour Tunnel and Beaches Link program of works, and where this has been considered, for the Western Harbour Tunnel and Warringah Freeway upgrade project, in the environmental impact statement.

**Table 7-7 Summary of stakeholder and community feedback**

Feedback topic	Number of comments 2017	Number of comments 2018	Environmental impact statement reference
Air quality impacts, location and operation of tunnel ventilation system, potential impact on health	1068	4729	Air quality impacts are assessed in Chapter 12 (Air quality) Location and operation of tunnel ventilation outlets and motorway facilities is described in Chapter 5 (Project description) and Appendix H (Technical working paper: Air quality) – In-tunnel ventilation report) Assessment of potential human health impact is provided in Chapter 13 (Human health) and Appendix I (Technical working paper: Health impact assessment)
Design – tunnel entry and exit portals, alignment, road connections, depth, project description, suggested design changes, motorway features	928	1566	Chapter 4 (Project development and alternatives), Chapter 5 (Project description) and this chapter in Section 7.4

Feedback topic	Number of comments 2017	Number of comments 2018	Environmental impact statement reference
Transport mode, public transport alternatives, network integration, connectivity, integration with other key projects and proposed infrastructure (eg B-Line, Sydney Metro)	547	1974	Chapter 3 (Strategic context and project need) Chapter 4 (Project development and alternatives) Chapter 5 (Project description) Chapter 8 (Construction traffic and transport), Chapter 9 (Operational traffic and transport) and Appendix F (Technical working paper: Traffic and transport)
Potential property impact on directly and indirectly affected properties, including property value and potential increase in urban density, property condition surveys, property access, property acquisition	501	1756	Chapter 20 (Land use and property) and Appendix U (Technical working paper: Socio-economic assessment)
Construction impact, location of construction support sites, temporary impact on support construction, hours of work, night work, spoil transport, cumulative impacts, light spill	383	3475	Chapter 6 (Construction work)
Potential impact on local streets, rat runs, local road safety, construction traffic, impact on parking spaces, congestion, road network performance, local road connections, increased traffic, cumulative traffic impact, travel time	398	4023	Chapter 8 (Construction traffic and transport), Chapter 9 (Operational traffic and transport) and Appendix F (Technical working paper: Traffic and transport) Chapter 27 (Cumulative impacts)
Traffic modelling	273	312	Chapter 8 (Construction traffic and transport) Chapter 9 (Operational traffic and transport)
Satisfaction with engagement	151	86	This chapter provides an overview of the engagement and consultation process feedback received.
Impact on fauna, flora, vegetation, green spaces, National Parks	177	1676	Chapter 19 (Biodiversity) and Appendix S (Technical working paper: Biodiversity development assessment report)

Feedback topic	Number of comments 2017	Number of comments 2018	Environmental impact statement reference
Need for land bridges and open space	1	2175	Chapter 22 (Urban design and visual amenity)
Drainage and flooding	2	133	Chapter 18 (Flooding) and Appendix R (Technical working paper: Flooding)
Project cost, cost benefit ratio and tolling	97	437	A description of tolling infrastructure is provided in Chapter 5 (Project description). Tolling cost modelling is not subject to this environmental impact assessment
Support for project	89	184	This chapter provides an overview of the engagement and consultation process feedback received
Dissatisfaction with engagement process, need for further project detail, consideration of different ways to engage with the community and stakeholders including different mediums	81	232	Consultation has been adapted as the project progresses. The project has endeavoured to provide information in a variety of different mediums for stakeholders as detailed in this chapter
Noise impact, construction noise, cumulative noise impact, road traffic noise changes, noise walls, noise monitoring	73	2646	Chapter 10 (Construction noise and vibration), Chapter 11 (Operational noise and vibration) and Appendix G (Technical working paper: Noise and vibration)
Cycling, cycleway facilities, active transport	61	336	Chapter 8 (Construction traffic and Transport), Chapter 9 (Operational traffic and transport) and Appendix F (Technical working paper: Traffic and transport)
Oppose project	59	2243	This chapter provides an overview of the engagement and consultation process and feedback received
Visual amenity, visual impact of temporary/permanent structures, overshadowing, urban design	21	306	Chapter 22 (Urban design and visual amenity), Chapter 21 (Socio-economics) and Appendix U (Technical working paper: Socio-economic assessment)
EIS process and project approval	18	58	Chapter 2 (Assessment process)

Feedback topic	Number of comments 2017	Number of comments 2018	Environmental impact statement reference
Aboriginal and non-Aboriginal heritage	14	486	Chapter 15 (Aboriginal cultural heritage), Appendix L (Technical working paper: Cultural heritage assessment report), Chapter 14 (Non-Aboriginal heritage) and Appendix J (Technical working paper: Non-Aboriginal heritage)
Impact on community amenity during construction/operation, neighbourhood character, local business impact	8	39	Chapter 21 (Socio-economics) and Appendix U (Technical working paper: Socio-economic assessment)
Project timing	6	80	Chapter 5 (Project description)

### 7.3.2 Issues raised by government agencies and local government

A list of government stakeholders consulted and details on engagement activities and topics is provided in Section 7.2.1. Feedback from government stakeholders has informed the design development of the Western Harbour Tunnel and Warringah Freeway Upgrade project, and is addressed throughout the chapters of this environmental impact statement.

### 7.3.3 Issues raised by the community

All questions, comments and issues raised by the community have been recorded in the project's database. Feedback received during both consultation periods has been considered and addressed as part of the environmental assessment and, wherever possible, has been incorporated into the design.

Feedback from the 2017 consultation period was addressed in the Western Harbour Tunnel and Warringah Freeway Upgrade scoping report (Roads and Maritime, 2017a), submitted to the former Department of Planning and Environment (now Department of Planning, Industry and Environment) in October 2017. This feedback informed the development of the proposed reference design, as discussed further in Section 7.4.

Feedback from the 2018 consultation period, including key issues raised by community members, stakeholder interest groups and local businesses are provided in Table 7-8. To consolidate the feedback received by the community, feedback has been grouped by issue category and summarised where appropriate. This table also provides the Transport for NSW response and/or the reference to where this feedback has been addressed in this document.

### 7.3.4 Issues raised by Aboriginal stakeholders

Feedback from Aboriginal stakeholders, including key issues, and how they have been addressed are provided in Chapter 15 (Aboriginal cultural heritage) and Appendix L (Technical working paper: Cultural heritage assessment report). Results from the Aboriginal Focus Group are provided in Appendix A of Appendix L (Technical working paper: Cultural heritage assessment report).

**Table 7-8 Issues raised by the community**

Issue category	Issue raised	Response to issue and where addressed
<p><b>Strategic justification and project need</b></p>	<p>Project viability studies, including the business case, should be released to public.</p>	<p>An overview of the strategic context and project need are provided in Chapter 3 (Strategic context and project need). An overview of the development process and options considered are provided in Chapter 4 (Project development and alternatives).</p>
	<p>Requested more information on whether increased private vehicle road capacity would impact the future development of the North District and Northern Beaches employment centres.</p>	<p>The project would provide increased capacity, connectivity, resilience and result in a decrease in travel time between employment centres. This is anticipated to have a positive impact and encourage future development in the business centres. Refer to Chapter 9 (Operational traffic and transport) and Appendix F (Technical working paper: Traffic and transport) for further information. The potential social and economic impacts of the project are considered and assessed in Chapter 21 (Socio-economics).</p>
	<p>Consider design issues resulting in congestion at the intersection of the City West Link and the ANZAC Bridge related to WestConnex Stages 1 and 3.</p> <p>Concern that the Western Harbour Tunnel is now required to alleviate this choke-point, demonstrating poor planning and inconsistency of WestConnex and the Western Harbour Tunnel.</p> <p>Concern that the key purpose of the Western Harbour Tunnel and F6 projects are to feed traffic into WestConnex to improve profitability and in the interests of enhancing the viability of private tollway projects.</p>	<p>The Western Harbour Tunnel would create a western bypass of the Sydney CBD, taking pressure off the heavily congested Sydney Harbour Bridge, ANZAC Bridge and Western Distributor, which are nearing capacity, and delivering travel time savings across the transport network.</p> <p>The project has been planned and designed in a coordinated manner with the WestConnex network to deliver the motorway network Sydney needs for the future.</p> <p>The project's integration into the wider road network is discussed in Chapter 3 (Strategic context and project need).</p>

Issue category	Issue raised	Response to issue and where addressed
<b>Project development and alternatives</b>	Further investigations into other transport mode options should have been carried out prior to choosing a road option.	An overview of the strategic context and project need are provided in Chapter 3 (Strategic context and project need). An overview of the development process and options considered are provided in Chapter 4 (Project development and alternatives).
	Preference for public transport over motorways.	The project has been planned as part of an integrated transport network to meet the diverse travel and transport needs of Sydney. This includes a well-developed road, rail, bus, ferry, walking and cycling network. An overview of the strategic context and project need are provided in Chapter 3 (Strategic context and project need).
	Project should be replaced by a metro or heavy rail.	The project would provide significant improvements to the efficiency and connectivity of the southbound bus lane on the Warringah Freeway from Miller Street to Sydney Harbour Bridge and direct access to North Sydney to enable interchange with the new Sydney Metro and Sydney Trains. This has also been designed to provide high quality access for express bus services expected to travel via the proposed Beaches Link tunnels in the future – providing a significant improvement in public transport travel times and reliability. More information on public and active transport connections can be found in Chapter 3 (Strategic context and project need) and Chapter 5 (Project description).
	Consideration should be given to a dual rail/road.	An overview of the development process and alternatives is provided in Chapter 4 (Project development and alternatives). Public transport is also addressed in Chapter 9 (Operational traffic and transport).
	Concerns about toll prices.	A description of tolling infrastructure is provided in Chapter 5 (Project description). The potential social and economic impacts of the project are considered and assessed in Chapter 21 (Socio-economics). Tolling cost modelling is not subject to this environmental impact assessment.
	Consideration of alternative routes for the tunnel including changing the Western Harbour Tunnel	An overview of the strategic context and project need are provided in Chapter 3 (Strategic context and project need). An overview of the development

Issue category	Issue raised	Response to issue and where addressed
	crossing to Rhodes to link to the M4.	process and alternatives are provided in Chapter 4 (Project development and alternatives).
<b>Design</b>	Lack of pedestrian and cyclist access to Glebe Island Bridge.	The project would not be making any adjustments to the existing surface network in Rozelle, including at Glebe Island Bridge. Any surface works in the area would be due to other projects. Refer to Chapter 5 (Project description) for a description of the project alignment.
	Preference for a new bike and pedestrian path through Jeaffreson Jackson Park Reserve to St Leonards Park.	Replacement and/or upgrade of active transport infrastructure would occur around and through the Falcon Street interchange, including replacement of Falcon Street shared user bridge. Refer to Chapter 5 (Project description) for a description of active transport infrastructure delivered by the project.
	Suggestion to build ramps at: <ul style="list-style-type: none"> <li>• Brook Street St Leonards, on ramp exit to the north-west</li> <li>• Brook Street St Leonards, off ramp exit from the north-west.</li> </ul>	Further information on the project alignment, including ramp location, is included in Chapter 5 (Project description).
	Preference for Ernest Street ramps to remain.	The ramps at Ernest Street would remain. Further information on the project alignment is included in Chapter 5 (Project description).
	Would like a cycleway included along the length of the tunnel and surface road corridor.	Pedestrians and cyclists would be excluded from the tunnels for safety reasons. More information on permanent cycleway connections can be found in Chapter 5 (Project description).

Issue category	Issue raised	Response to issue and where addressed
<b>Construction</b>	Proximity of construction support sites to homes, businesses and schools.	Construction support sites have been selected to support safe and efficient construction. Their locations have been chosen to minimise the need for residential properties, provide direct access to the arterial road or water transport network, allow for recreational use to continue on green space wherever possible and meet the project requirements. More information on the sites can be found in Chapter 6 (Construction work).
	Potential hours of operation and impacts of construction activities carried out up to 24 hours per day seven days a week.	<p>Above ground construction work would generally be carried out between the following standard construction hours:</p> <ul style="list-style-type: none"> <li>• 7am to 6pm Monday to Friday</li> <li>• 8am to 1pm Saturday</li> <li>• Generally, no work on Sundays or public holidays.</li> </ul> <p>Activities that support tunnelling works and fitout, including aboveground work supporting underground activities, may need to occur 24 hours per day, up to seven days per week. Tunnel excavation and spoil handling outside of standard construction hours would be carried out within acoustic sheds at tunnel construction support sites.</p> <p>Construction hours at construction support sites along the Warringah Freeway Upgrade would vary depending on the type of construction activity being carried out. Some construction works would be required outside of standard construction hours to reduce construction duration, disruption to critical road corridors, and to ensure the safety of both construction works and the public along the Warringah Freeway.</p> <p>Spoil haulage would be limited to standard construction hours. More information can be found in Chapter 6 (Construction work).</p>

Issue category	Issue raised	Response to issue and where addressed
	Cofferdam construction hours.	<p>Construction at the Sydney Harbour cofferdams would be carried out primarily during the following standard construction hours (including rock hammering and piling activities):</p> <ul style="list-style-type: none"> <li>• 7am to 6pm Monday to Friday</li> <li>• 8am to 1pm Saturday</li> <li>• Generally, no work on Sundays or public holidays.</li> </ul> <p>Certain activities may be carried out outside of standard construction hours, including dewatering of cofferdams, dredging, removal of cofferdam structure, and immersed tube tunnel installation. More information can be found in Chapter 6 (Construction work).</p>
	Duration of construction work and potential for long program delays.	Significant effort has been invested in understanding the key construction activities, their durations, key delay risks and mitigation strategies. More information can be found in Chapter 6 (Construction work).
	Future use of construction support sites including proposed rehabilitation and/or use during operation.	Proposed construction support sites are temporary and would be returned to the community as open space wherever possible. The project team are working with councils, communities and stakeholders to ensure the best possible use of this space. More information can be found in Chapter 6 (Construction work).
	Opposition to temporary relocation of the Birchgrove Wharf after it was recently re-opened after renovations.	Opportunities to relocate the Birchgrove Ferry Wharf would be investigated during construction planning. Ferry customers would be notified of alternative travel arrangements in advance of the wharf closure. Potential impacts due to temporary closure of access to Birchgrove Ferry Wharf are considered and assessed in Chapter 8 (Construction traffic and transport).
	Objections to the proposed site locations.	Proposed construction support sites have been selected to support safe and efficient construction. Their locations have been chosen to minimise the need for residential properties, provide direct access to the arterial road or water

Issue category	Issue raised	Response to issue and where addressed
		transport network, and allow for recreational use to continue on green space wherever possible and meet the project requirements. More information on the sites can be found in Chapter 6 (Construction work).
	Potential impacts to property due to tunnel depth.	Potential impacts to property due to tunnel depth is considered and assessed in Chapter 16 (Geology, soils and groundwater).
	Opposed to the use of the Balmain Leagues Club as a construction support site at Victoria Road for spoil removal due to the possible result of significant construction impacts. The use of this site would result in a re-development delay of this site and would eliminate the possibility of a Tigers Leagues Club being established in the new development.	The Victoria Road construction support site (WHT2) would be located within the former Balmain Leagues Club site at Rozelle, and would be temporarily used as a construction support site (either acquired or leased). The temporary occupation would not affect the existing land use zoning or development controls. If the site is leased, it would be returned to the land owners upon completion of construction, for development in accordance with land use zoning and planning controls. Refer to Chapter 20 (Land use and property) for further information.
	Requested more information on the justification for using the narrowest parts of the harbour for the tunnel crossing.	The construction methodology would ensure that there would be an open navigational channel available at all times. More information on the construction methodology can be found in Chapter 6 (Construction work).
<b>Consultation process</b>	Inadequate consultation and dissatisfaction with the process.	This chapter provides an overview of the communication and engagement activities carried out to date, and activities which would be carried out to support the public exhibition of this environmental impact statement and during program delivery. A detailed Community Communication Strategy would be developed prior to the start of construction pending project approval. This would be based on the framework developed and included in Appendix E (Community consultation framework).
Lack of transparency and community involvement as part of the early project development.		
Timing and inadequacy of available project information and distribution.		
Lack of trust in the validity of the information		

Issue category	Issue raised	Response to issue and where addressed
	<p>provided.</p> <p>Dissatisfaction with project team response timeframes.</p> <p>Accessibility, location selection and timing of community information sessions.</p>	
<b>Air quality</b>	<p>Effectiveness of the proposed tunnel ventilation system.</p> <p>Locations of ventilation outlets.</p> <p>Proximity of ventilation outlets to sensitive receivers including schools and recreational facilities.</p> <p>Air quality impacts would be more around the ventilation outlets and portals than at other locations.</p> <p>Concern five kilometres of tunnel would then place five kilometres “worth” of emissions into a single local area.</p> <p>Cumulative air quality impacts when multiple ventilation outlets were present in a single area/suburb.</p> <p>Locations of new air quality monitoring stations. Questions why these were not placed in areas</p>	<p>A description of the ventilation systems and facilities is provided in Chapter 5 (Project description), Chapter 12 (Air quality) and Appendix H (Technical working paper: Air quality).</p> <p>Ventilation outlet locations have been carefully selected to make sure they operate efficiently and there would be minimal changes to local air quality. The air quality assessment has demonstrated that the emissions from the ventilation outlets of the Western Harbour Tunnel have a negligible impact on existing ambient pollutant concentrations and would pose a very low risk to human health. In this context, there is no basis to justify the cost and energy use associated with installation and operation of filtration systems.</p> <p>Operation of these facilities would be carried out in accordance with strict guidelines and would be monitored closely by the relevant authorities.</p>

Issue category	Issue raised	Response to issue and where addressed
	where the tunnels were proposed.	
	Preference for the ventilation system to include filtration.	
	Multiple citations of use of ventilation outlets overseas and suggestion this is best and standard practice.	
	Potential impacts during construction including exposure to emissions and carcinogens produced from processing of sandstone and granite producing silica dust.	Potential construction air quality impacts are considered and assessed in Chapter 12 (Air quality) and Appendix H (Technical working paper: Air quality).
	Potential air quality impacts as the result of road widening.	
	Impacts from contaminants and dust from construction work and spoil haulage.	
	Request for accurate on-going air quality monitoring.	Ongoing air quality monitoring would occur during both construction and operation. Refer to Chapter 12 (Air quality) for further information.
Climate change impacts.	Chapter 26 (Climate change risk and greenhouse gas) assesses the potential impacts of climate change on the project, and greenhouse gas emissions generated by the construction and operation of the project.	
<b>Odour</b>	Odours from treatment of contaminated materials at White Bay.	Assessment of odour impacts is provided in Chapter 12 (Air quality) and Appendix H (Technical working paper: Air quality).

Issue category	Issue raised	Response to issue and where addressed
<b>Operational traffic</b>	New motorway would result in increased traffic on local streets and key arterial routes.	Potential operational traffic and transport impacts have been assessed and considered in Chapter 9 (Operational traffic and transport) and in Appendix F (Technical working paper: Traffic and transport).
	New motorway would create new rat runs.	
	Increased vehicles on local streets trying to access the new portals.	
	Increased commuter traffic creating parking needs in local street which cannot accommodate the demand.	
	Additional traffic congestion on Miller Street, Ridge and Berry Street area as the result of the project.	
	Project will encourage the use of private vehicles for longer trips.	Refer to Appendix F (Technical working paper: Traffic and transport) for an assessment of likely induced traffic due to the project.
	Concern that the Western Harbour Tunnel will increase traffic across Sydney through the induced traffic effect once operational. Particular concern that traffic will increase along Johnson Street and The Crescent at Annandale – the main feeder roads to the Western Harbour portal at the Rozelle Interchange.	There would be some level of increased traffic as a result of the project, which may potentially result in a small level of increased traffic on Johnson Street and The Crescent. Modelling shows that the project would generally have a positive impact on operational traffic performance in the Rozelle area. Potential operational traffic and transport issues are considered and assessed in Chapter 9 Operational traffic and transport and Appendix F (Technical working paper: Traffic and transport).
Requested more information on the cycle connections near Warringah Freeway into North Sydney.	There would be a new green connection for pedestrians and cyclists along at Ernest Street, Cammeray. There would also be a new Ridge Street overpass and connection at High Street, North Sydney. The project team is working with North Sydney Council on aspirations of a connection on both the west	

Issue category	Issue raised	Response to issue and where addressed
		<p>and east side of the highway.</p> <p>Where the project impacts existing walking and cycling infrastructure, they would be reinstated after construction. As much as possible, the project would enhance connectivity within the project footprint. Public and active transport infrastructure that would be provided as part of the project is detailed in Chapter 5 (Project description). Also refer to Chapter 9 (Operational Traffic and transport) on potential impacts on active transport links.</p>
	<p>Requested details on the potential for the program to deliver long term traffic reduction benefits for Military Road and whether a local road improvements program will be delivered as part of the program.</p>	<p>It is expected that there would be traffic reductions on alternative routes like Military Road due to the Western Harbour Tunnel project. As part of the project, no adjustments would be made to Military Road; however, the project would provide the opportunity for agencies (e.g. Councils and Transport for NSW network management teams) to consider other opportunities for local road improvements.</p> <p>Operational traffic impacts and benefits are outlined in Chapter 9 (Operational traffic and transport) and in Appendix F (Technical working paper: Traffic and transport).</p>
<p><b>Construction traffic</b></p>	<p>Increased traffic on local streets around construction support sites.</p> <p>Reduced safety on local streets as the result of increased heavy vehicles.</p> <p>Access to construction areas from residential roads and residents impacted along truck haulage routes.</p> <p>Loss of residential parking on local streets as the result of project staff parking.</p>	<p>Construction support sites have been selected to provide direct access to the arterial road network, dedicated parking for construction workers (where possible) and would keep trucks and vehicles off local streets during construction, wherever possible. During construction, the main priority is to ensure the public can move safely around the area. Vehicle access to and from construction support sites would be managed to ensure pedestrian, cyclist and motorist safety. Assessment of construction traffic impacts including potential benefits is provided in Chapter 8 (Construction traffic and transport) and in Appendix F (Technical working paper: Traffic and transport). Potential construction traffic and transport impacts have been assessed and considered Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport).</p>

Issue category	Issue raised	Response to issue and where addressed
	Increased rat running down local streets by both construction staff and community avoiding areas under construction.	
	Reduced road safety around schools as the result of increased heavy vehicle traffic. Particularly in areas where children are required to cross roads alone and during peak periods including drop off and collections.	
	Heavy vehicle use of narrow local streets and impacts to adjacent residents.	
	Increased traffic congestion on already congested roads like Victoria Street and Darling Street, Balmain.	Traffic modelling has demonstrated that traffic congestion impacts in the Rozelle area would be relatively low. Assessment of potential construction traffic impacts is provided in Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport).
	Impact from construction vehicles on traffic flow and parking in Louisa Road.	<p>Construction support sites have been selected because they have direct access to the arterial road network or direct access to the harbour to keep trucks and construction vehicles off local streets during construction, wherever possible. Yurulbin Park has been selected as it enables the use of barges to transport spoil, equipment and construction materials. This enables delivery of this critical infrastructure project whilst minimising construction traffic and property impacts.</p> <p>Access to the Yurulbin Point construction support site (WHT4) would be via Sydney Harbour only. An access route to Louisa Road has been provided for emergency use only.</p> <p>More information can be found in Chapter 6 (Construction work) and in Chapter 8 (Construction traffic and transport) and in Appendix F (Technical working paper: Traffic and transport).</p>

Issue category	Issue raised	Response to issue and where addressed
	Local traffic impacts from worker parking around Balls Head Road and the Coal Loader.	Local traffic impacts from worker parking around Balls Head Road and the Coal Loader would be mitigated through the inclusion of some on-site parking within the Berrys Bay construction support site (WHT7). Traffic impacts would be further minimised through restricting road haulage of tunnel spoil from the Berrys Bay construction support site to barge transportation from the site to White Bay. Assessment of potential construction traffic impacts is provided in Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport).
	Identify and assess the potential construction challenges of the Warringah Freeway such as access, road closures, change of speed limits, night work.	Construction methodology and staging for the Warringah Freeway Upgrade component is included in Chapter 6 (Construction work). Potential changes and impacts to traffic during construction are considered and assessed in Chapter 8 (Construction traffic and transport). Potential noise impacts from night work are considered and assessed in Chapter 10 (Construction noise and vibration).
	Impacts to Ridge Street residents from heavy truck traffic and worker parking.	Ridge Street at North Sydney would provide light vehicle access during construction and heavy vehicle access during early works at the Ridge Street north construction support site (WHT9) and Ridge Street east construction support site (WFU6). The Ridge Street north construction support site (WHT9) has dedicated parking for construction workers and would keep trucks and vehicles off local streets during construction, wherever possible. Following initial site establishment, heavy vehicle access in and out of the Ridge Street north construction support site (WHT9) would be primarily via Warringah Freeway, with light vehicle access provided via Ridge Street. Access for the Ridge Street east construction support site (WFU6) would be via Ridge Street. Assessment of potential construction traffic impacts is provided in Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport).

Issue category	Issue raised	Response to issue and where addressed
	Access to Ridge Street pedestrian bridge for local residents, cyclists and pedestrians.	The existing Ridge Street shared user bridge would remain operational until the new upgraded shared user bridge is suitable for pedestrian traffic. Refer to Chapter 5 (Project Description) and Chapter 6 (Construction work) for further information.
	Request Robert Street is not used for trucks servicing White Bay and are restricted to James Craig Road. Refers to “it is appropriate that the WestConnex Stage 3 approval has ruled out use of Robert Street”.	Access in and out of the northern portion of the White Bay construction support site (WHT3) would be via Port Access Road and access in and out of the southern portion of the site would be via James Craig Road. Refer to Section 6 (Construction work) for further information.
	Request parking be provided at White Bay/ Glebe Island for all Western Harbour Tunnel workers and ensure workers do not park on surrounding streets such as Rozelle Rail Yards site, Victoria Road and Yurulbin Point due to existing parking demands.	The White Bay construction support site (WHT3) has dedicated parking for construction workers. Construction workers would also be encouraged to use public transport where possible. Refer to Chapter 6 (Construction work) for further information.
	Concern that the traffic and congestion caused by the Victoria Road construction support site will negatively affect the multiple bus services in operation.	Project construction would result in additional construction vehicles travelling on the road network around Rozelle which may increase bus travel times at some locations during certain hours. However, traffic modelling has demonstrated that traffic congestion impacts in the Rozelle area would be relatively low. Ongoing consultation would be carried out with relevant authorities, including local councils, emergency services and bus operators to minimise traffic and transport impacts during construction. Refer to Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport) for further details on potential traffic impacts during construction.
	Concerns around any traffic blockages on the water or roads around HMAS Waterhen.	The immersed tube tunnel crosses immediately south of HMAS Waterhen defence site. The impacts of the works may include minor increases to transit

Issue category	Issue raised	Response to issue and where addressed
		time (as a result of reduced speed limits and partial closures) past the works area. Construction vessel movements would be managed such that they minimise interference with larger navy ship operations. Refer to Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and Transport) for further information.
	Request that a truck stabling area at White Bay be carefully coordinated using GPS tracking and communication technology. No ad-hoc stabling on streets and queuing of trucks entering sites is to be avoided.	The locations of construction spoil haulage trucks would be monitored in real time. Construction environmental management plans would be developed, which would identify haulage routes which spoil haulage vehicles would be required to adhere to. The White Bay construction support site (WHT3) configuration also allows for truck marshalling within the site if required, to minimise queuing on public roads. Potential traffic and transport impacts are considered and assessed in Chapter 8 Construction traffic and transport and Appendix F (Technical working paper: Traffic and transport) for further details.
<b>Traffic</b>	Concern access from Berry Street exit will be blocked.	Assessment of potential traffic impacts is provided in Chapter 8 (Construction traffic and transport), Chapter 9 (Operational traffic and transport) and Appendix F (Technical working paper: Traffic and transport).
	Additional traffic congestion on Miller Street, Ridge and Berry Street area.	
<b>Public transport</b>	Potential impacts to bus routes during construction and operation.	Assessment of potential impacts to public transport is provided in Chapter 8 (Construction traffic and transport), Chapter 9 (Operational traffic and transport) and in Appendix F (Technical working paper: Traffic and transport).
	Preference for public transport dedicated bus lanes on ANZAC Bridge.	No changes to ANZAC Bridge with respect to bus lanes would occur as part of this project. Public transport is addressed in Chapter 9 (Operational traffic and transport). An overview of the strategic context and project need is provided in Chapter 3 (Strategic context and project need).

Issue category	Issue raised	Response to issue and where addressed
	Preference for dedicated express bus lanes in current road infrastructure.	Refer to Chapter 5 (Project description) for a description of public and active transport delivered by the project. Also refer to Chapter 9 (Operational traffic and transport) and Appendix F (Technical working paper: Traffic and transport). An overview of the strategic context and project need are provided in Chapter 3 (Strategic context and project need).
<b>Noise and vibration</b>	Potential damage to property as a result of tunnelling activities.	Minimum working distances for vibration intensive construction activities and vibration monitoring would be implemented where applicable to manage potential vibration impacts to property during construction. Ground movement impacts would be managed through predictive settlement models, building condition surveys (including for heritage assets) and the establishment of an Independent Property Impact Assessment Panel. Refer to Chapter 10 (Construction noise and vibration), Appendix G (Technical working paper: Noise and vibration) and Chapter 16 (Geology, soils and groundwater) for further information.
	Potential damage to property as the result of underground blasting activities.	
	Conservation of heritage homes and potential for cosmetic damage as a result of tunnelling activities, underground blasting and heavy vehicle movements.	
	Noise during construction activities.	Potential noise impacts are considered and assessed in Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration).
	Noise as the result of 24 hour tunnelling activities.	Potential noise and vibration impacts from tunnelling activities are considered and assessed in Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration).
	Vibration issues as the result of tunnelling activities.	
	Hours of work and potential noise impacts.	Ongoing engagement would be carried out with schools about the timing and

Issue category	Issue raised	Response to issue and where addressed
	Duration of activities and subsequent duration of noise impacts.	duration of construction works and management of potential impacts. Proposed hours of work are discussed in Chapter 6 (Construction works). Potential construction noise impacts are considered and assessed in Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration).
	Potential impacts of noise at sensitive receivers like schools during peak exam periods.	
	Noise impacts during construction.	
	Noise from heavy vehicle traffic.	Heavy vehicle traffic is considered as part of the noise assessment and is addressed in Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration).
	Low frequency noise and vibration during construction and operation.	Potential noise and vibrations impacts are considered and assessed in Chapter 10 (Construction noise and vibration), Chapter 11 (Operational noise and vibration) and Appendix G (Technical working paper: Noise and vibration).
	Potential noise impacts as the result of road widening.	Potential noise impacts during construction are considered and assessed in Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration).
<b>Open space</b>	Loss of open space during construction for recreational and leisure activities.	Potential social and economic issues are considered and assessed in Chapter 21 (Socio-economics). Also refer to Chapter 22 (Urban design and visual amenity).
	Change in use of the Cammeray Golf Course during construction and operation.	The project is working with the Cammeray Golf Club to reconfigure the course to meet the needs of the club, members and visitors during construction and operation. After construction, areas of the golf course not required for permanent project infrastructure would be reinstated and rehabilitated, including replacement trees and landscaping. Where feasible and reasonable, the extent of permanent impact on Cammeray Golf Club would be minimised
	Viability of Cammeray Golf Course during operation if no longer able to operate as a 9 hole course.	

Issue category	Issue raised	Response to issue and where addressed
		during further design development. Refer to Chapter 21 (Socio-economics) for further information.
	Loss of open space at Yurulbin Park, Birchgrove during construction.	Ongoing engagement would be carried out with Council about the timing and duration of construction works and management of potential impacts at Yurulbin Park. The park would be reinstated and rehabilitated after construction. Refer to Chapter 21 (Socio-economics) for further information.
	Damage to Yurulbin Park, Birchgrove given this was recently upgraded by council.	
	Loss of access to Yurulbin Park during construction.	
	Impact to Birchgrove Oval.	There is no proposal to use Birchgrove Oval to support the construction of Western Harbour Tunnel.
	Damage to Carradah Park and Balls Head Reserve – especially after previous damage from oil terminals.	Carradah Park is outside the disturbance footprint of the project. There are no surface works either within, or that are planned to impact, Balls Head Reserve.
	Permanent impact on St Leonards Park after construction.	<p>Construction at St Leonards Park would be temporary. Kerb and footpath adjustment works would occur on Miller Street southbound around the intersection with Falcon Street. These works would provide a new dedicated lane for left turning traffic from Falcon Street westbound to Miller Street southbound. Further review of the impacts in this area is currently being carried out and permanent impacts to St Leonards Park would be minimised or, where possible, eliminated.</p> <p>The proposed ramp from Western Harbour Tunnel to Falcon Street would be constructed using the cut and cover method. Following construction of this tunnelled ramp, the park would be reinstated over the top of the structure. The existence of this underground ramp is expected to have no permanent impact on the park.</p>

Issue category	Issue raised	Response to issue and where addressed
	Impacts to local schools using the green space for play and sport, especially Wenona School.	Construction at St Leonards Park would be largely temporary. There would be limited impact on the bowling club or netball courts. The Ridge Street north construction support site (WHT9) would have dedicated parking, and has been located to enable access from the freeway, rather than the local road network. The park would be reinstated upon construction completion. Refer to Chapter 21 (Socio-economics) for further information.
	Impacts to park users including families, sports groups, dog owners and visitors to The Greens Bowling Club.	
<b>Visual amenity</b>	Obstruction to views as the result of the temporary cofferdams and attenuation shed at Yurulbin Park, Birchgrove during construction.	Construction support sites, including at Yurulbin Point (WHT4) and the Sydney Harbour cofferdams (WHT5 and WHT6), would be temporary and would be developed to minimise visual impacts for adjacent receivers where feasible and reasonable. Refer to Chapter 22 (Urban design and visual amenity) for further information.
	Design and visual amenity of the ventilation outlets.	A description of ventilation systems and facilities is provided in Chapter 5 (Project description). Consideration and assessment of urban design and visual amenity is provided in Chapter 22 (Urban design and visual amenity).
	Light pollution from compounds and work during construction.	Site lighting would be designed to minimise glare issues and light spillage into adjoining properties. Refer to Chapter 22 (Urban design and visual amenity) for further information.
	Visual impacts for residents living adjacent to construction compounds.	Hoardings and temporary noise walls would be erected to provide visual screening where appropriate. Refer to Chapter 22 (Urban design and visual amenity) for further information.
	Visual impacts of the noise attenuation sheds on adjacent residents.	Acoustic sheds would be designed to be visually recessive and to minimise potential overshadowing impacts where possible. Refer to Chapter 22 (Urban design and visual amenity) for further information.
	Permanent loss of amenity.	Potential visual amenity impacts are considered and assessed in Chapter 22 (Urban design and visual amenity).

Issue category	Issue raised	Response to issue and where addressed
	Impacts to views of Sydney Harbour, Fort Denison and the Eastern Suburbs.	Construction support sites would be temporary and would be developed to minimise visual impacts for adjacent receivers where feasible and reasonable. Refer to Chapter 22 (Urban design and visual amenity) for further information. Carradah Park is not within the proposed construction footprint of the project.
<b>Flora and fauna (on land)</b>	Potential impacts to fauna including the Waverton Flying Fox colony, possums, birds and echidnas.	Adaptive management strategies would be developed in consultation with the Department of Planning, Industry and Environment (Environment, Energy and Science) and/or an appropriately qualified expert in microbat biology and behaviour and implemented to minimise potential adverse impacts as required to the Eastern Bentwing-bats at Waverton. Refer to Chapter 19 (Biodiversity) and Appendix S (Biodiversity development assessment report) for further information.
	Loss of native fauna around the Cammeray Golf Course	Potential impacts to flora and fauna, including at Cammeray Golf Course, have been considered and assessed in Chapter 19 (Biodiversity) and Appendix S (Biodiversity development assessment report).
	Removal of mature/historic trees in the park and adjacent streets in St Leonards Park.	The project has limited vegetation removal wherever possible and replanting would be carried out as part of rehabilitation work. The project is working with North Sydney Council to develop a masterplan for the rehabilitation of St Leonards Park. More information on vegetation removal and potential impacts can be found in Appendix W (Technical working paper: Arboricultural impact assessment).
<b>Flora and fauna (marine)</b>	Damage to marine environments.	An immersed tube tunnel has been selected as the preferred tunnelling method for the Sydney Harbour crossing. The dredging methodology has been designed to minimise impacts on the marine environment and is detailed in Chapter 6 (Construction works). This includes use of appropriate environmental controls to minimise the risk of sediment and contaminants within the sediments being mobilised into the water. There are significant
	Marine damage from 'dredging' of toxic material in the harbour.	
	Objection to using Immersed Tube Tunnelling	

Issue category	Issue raised	Response to issue and where addressed
	<p>and ‘dredging’ of the harbour floor because of impacts on marine ecology.</p> <p>Request to change construction methodology from Immersed Tube Tunnelling to underground tunnelling to protect ecology.</p> <p>Marine life and sea grasses in Sydney Harbour.</p> <p>Impacts caused by changing tidal flow and disturbance of sediments.</p>	<p>precedents for successful and environmentally sensitive dredging and immersed tube tunnel construction in significantly more sensitive marine environments than that found at the Sydney Harbour crossing. Furthermore, dredging of material with elevated levels of contaminants is not uncommon within Sydney Harbour – with appropriate technology and methodologies available to carry out this work in an environmentally responsible manner. Industry experts with direct experience in such work have been engaged to develop the appropriate methodology, equipment and controls.</p> <p>For further information refer to:</p> <ul style="list-style-type: none"> <li>• Chapter 16 (Geology, soils and groundwater)</li> <li>• Chapter 17 (Hydrodynamics and water quality)</li> <li>• Chapter 19 (Biodiversity) and Appendix T (Technical working paper: Marine ecology).</li> </ul>
<p><b>Hazards and waste</b></p>	<p>Safety of adjacent residents during treatment of contaminated material at White Bay.</p> <p>Asbestos contamination.</p>	<p>Dredged material unsuitable for offshore disposal would be treated at White Bay construction support site (WHT3) to be made suitable to allow transport to a suitably licensed waste disposal facility. This process is widely understood and had been applied on recent projects in Sydney Harbour, including Garden Island dredging works completed in 2010 and 2019. The 2019 project transported material unsuitable for offshore disposal to Glebe Island for initial stabilisation and haulage to a licenced landfill facility as per the methodology proposed for the Western Harbour Tunnel. Refer to Chapter 24 (Resource use and waste management) for further information.</p> <p>Asbestos handling and management would be carried out in accordance with relevant legislation, codes of practice and Australian standards. Potential asbestos contamination issues are considered and assessed in Chapter 16 (Geology, soils and groundwater).</p>

Issue category	Issue raised	Response to issue and where addressed
<b>Social amenity</b>	<p>Reduction in property values as the result of construction activities including noise, pollution concerns, dust, presence of tunnels underneath homes, the proximity of ventilation outlets and tunnel ramps, increased traffic and parking issues.</p> <p>Loss of open space would result in reduction of property prices.</p>	<p>Property values are driven by a range of economic, social and amenity factors, for example housing supply and demand, interest rates, economic growth, local amenity and accessibility to such things as employment and social infrastructure. It is likely that broader external factors would influence property values more than perceived or actual impacts resulting from the project. Furthermore, improvements to transport access, reduced travel times and reduced congestion on surface arterial roads delivered by the project are likely to improve liability in many areas. Refer to Chapter 21 (Socio-economics) and Appendix U (Technical working paper: Socio-economic assessment) for further information.</p>
	<p>Impacts to social amenity because of construction vehicles in nearby residential streets.</p>	<p>Construction support sites have been selected to provide direct access to the arterial road network or water transport, dedicated parking for construction workers (where possible) and would keep trucks and vehicles off local streets during construction wherever possible.</p> <p>Potential traffic impacts are considered and assessed in Chapter 8 (Construction Traffic and transport). Also refer to Chapter 21 (Socio-economics) for information on potential impacts on socio-economic issues.</p>
	<p>Impacts to access of Carradah Park and views at Woodley's boat shed.</p>	<p>Construction support sites would be temporary and would be developed to minimise visual impacts for adjacent receivers where feasible and reasonable. Refer to Chapter 22 (Urban design and visual amenity) for further information. Carradah Park is not within the proposed construction footprint of the project.</p>
<b>Cumulative impacts</b>	<p>Cumulative impacts from WestConnex, Sydney Metro, Bays Precinct developments and the Overseas Passenger Terminal.</p>	<p>Multi-party engagement and cooperation would be established prior to construction to ensure all contributors to impacts are working together to minimise adverse impacts or enhance benefits of multiple projects occurring concurrently or consecutively.</p> <p>Potential cumulative construction impacts are assessed and considered in Chapter 27 (Cumulative impacts). For further details, also refer to:</p>
	<p>Cumulative noise and dust pollution from construction activities and spoil haulage at Glebe Island and White Bay.</p>	

Issue category	Issue raised	Response to issue and where addressed
	Cumulative traffic impacts from construction vehicles and worker parking at Glebe Island and White Bay.	<ul style="list-style-type: none"> <li>• Chapter 6 (Construction work)</li> <li>• Traffic and transport: Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport)</li> <li>• Noise and vibration: Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration)</li> <li>• Air quality: Chapter 12 (Air quality) and Appendix H (Technical working paper: Air quality)</li> <li>• Human health: Chapter 13 (Human health) and Appendix I (Technical working paper: Health impact assessment)</li> <li>• Chapter 19 (Biodiversity)</li> <li>• Chapter 21 (Socio-economics).</li> </ul> <p>The WestConnex program of works has been considered in the operational modelling scenarios for the environmental impact assessment.</p>
	Cumulative construction traffic impacts as the result of multiple projects active in the area.	
	Potential for construction fatigue as a result of ongoing construction activities.	Cumulative impacts are considered in Chapter 27 Cumulative impacts, construction fatigue is considered in Section 7.5 of this chapter.
	Cumulative impacts on traffic from Metro construction.	<p>The project team would work closely with the Metro project team to manage and minimise any potential cumulative traffic impacts.</p> <p>Assessment of potential construction traffic impacts is provided in Chapter 8 (Construction traffic and transport) and Appendix F (Technical working paper: Traffic and transport). Cumulative impacts are considered in Chapter 27 Cumulative impacts.</p>
<b>Heritage</b>	Impacts to the heritage listed brick tower.	There would be no direct impacts to the North Sydney Sewer Vent. For further information on potential heritage impacts refer to Chapter 14 (Non-Aboriginal heritage) and Chapter 16 (Geology, soils and groundwater).

Issue category	Issue raised	Response to issue and where addressed
Health	General concerns about health as the result of air quality.	During construction, the priority would be to ensure public health and safety. Potential air quality impacts would be managed through Construction Air Quality Management Plans, which would include dust suppression measures, selection of construction equipment and/or materials handling techniques that minimise dust generation, minimisation of exposed areas during construction and monitoring activities. Emissions from plant and equipment would be minor and localised. Assessment of construction and operational air quality impacts is provided in Chapter 12 (Air quality) and Appendix H (Technical working paper: Air quality). Potential impacts to health are addressed in Chapter 13 (Human health risk).
	Potential adverse impacts to health as the result of existing medical conditions like asthma and allergies.	
	Environmental and health concerns and risks around contaminated harbour spoil.	<p>An immersed tube tunnel has been selected as the preferred tunnelling method for the Sydney Harbour crossing. The dredging methodology has been designed to minimise impacts on the marine environment and is detailed in Chapter 6 (Construction works). This includes use of appropriate environmental controls to minimise the risk of sediment and contaminants within the sediments being mobilised into the water. There are significant precedents for successful and environmentally sensitive dredging and immersed tube tunnel construction in significantly more sensitive marine environments than that found at the Sydney Harbour crossing. Furthermore, dredging of material with elevated levels of contaminants is not uncommon within Sydney Harbour – with appropriate technology and methodologies available to carry out this work in an environmentally responsible manner. Industry experts with direct experience in such work have been engaged to develop the appropriate methodology, equipment and controls.</p> <p>For further information refer to:</p> <ul style="list-style-type: none"> <li>• Chapter 16 (Geology, soils and groundwater)</li> <li>• Chapter 17 (Hydrodynamics and water quality)</li> <li>• Chapter 19 (Biodiversity) and Appendix T (Technical working paper: Marine ecology).</li> </ul>

Issue category	Issue raised	Response to issue and where addressed
	Potential impacts to health of stakeholder using sporting facilities adjacent to construction support sites.	A comprehensive and robust environmental assessment has been carried out for the project which assesses the potential risks to health and safety as a result of the project. Assessment of construction and operational air quality impacts is provided in Chapter 12 (Air quality) and Appendix H (Technical working paper: Air quality). Potential impacts to health are addressed in Chapter 13 (Human health risk).
	Potential increases in population, and associated issues, in the Northern Beaches due to increased access due to the Western Harbour Tunnel.	The potential social and economic impacts of the project are considered and assessed in Chapter 21 (Socio-economics). Also refer to Chapter 9 (Operational traffic and transport) and Chapter 13 (Human health risk).
<b>Surface water</b>	Requested more information about the impacts of the Warringah Freeway redesign on water treatment at Cammeray Golf Course.	Refer to Chapter 17 (Hydrodynamics and water quality) for details on Cammeray Golf Course stormwater storage dam, and Cammeray Golf Course wastewater treatment plant. Transport for NSW is currently in negotiations with Cammeray Golf Course as to the future location of the water storage facility.

## 7.4 Summary of project refinements in response to feedback

A summary of how community and stakeholder feedback has been incorporated into the project is provided in Table 7-9 and Table 7-10 below.

**Table 7-9 2017 design – considerations in response to feedback**

Stakeholder and community feedback	Response
Ventilation outlets should be located to minimise community concerns, environmental and property impact.	<p>Permanent ventilation outlets would be placed in the Warringah Freeway corridor allowing the motorway facilities for Western Harbour Tunnel and Beaches Link to be co-located, simplifying long-term operational and maintenance activities and allowing for design synergies and reduced property impact.</p> <p>The air quality assessment has demonstrated that operation of the ventilation outlets of the Western Harbour Tunnel would have a negligible impact on existing ambient pollutant concentrations and would pose a very low risk to human health.</p>
The project at North Sydney should integrate with other major programs, like Sydney Metro, and other government initiatives such as the Sydney Harbour Bridge northern access ramp.	The North Sydney Precinct Transport Program has been established by Transport for NSW to provide a framework for integration across all transport programs in the North Sydney precinct.
Council and community concerns about the impact on the Coal Loader Wharf.	The mainline tunnels have been located so as to avoid impacts to the Coal Loader Wharf. No change to the Coal Loader Wharf is proposed as part of this project.
Council, community and interest groups concerns about impact on St Leonards Park.	<p>Construction at St Leonards Park would be temporary. There would be limited impact on the bowling club or netball courts. The construction support site has been located to enable access from the freeway, rather than the local road network for spoil haulage. The park would be reinstated upon construction completion.</p> <p>Kerb and footpath adjustment works would occur on Miller Street southbound around the intersection with Falcon Street. These works would provide a new dedicated lane for left turning traffic from Falcon Street westbound to Miller Street southbound. Further review of the impacts in this area is currently being carried out and permanent impacts to St Leonards Park would be minimised or, where possible eliminated.</p>
Do not use Birchgrove Oval for construction purposes.	There is no proposal to use Birchgrove Oval to support the construction of the project.

Stakeholder and community feedback	Response
<p>Options for alternative construction methodologies, construction support sites, and routes to minimise the project impact.</p>	<p>The current construction methodologies proposed for the project have been developed in conjunction with a team of national and international experts with direct experience in the design and construction of major infrastructure within urban environments. These methods have considered the following key factors:</p> <ul style="list-style-type: none"> <li>• Ability to deliver the required project scope and connectivity</li> <li>• Minimise environmental impacts</li> <li>• Minimise impacts to communities</li> <li>• Ensure safety for construction workers and the public</li> <li>• Minimise the time and cost risks associated with construction</li> <li>• Maximise value for money</li> <li>• Maximise efficiency of construction and future operations of the asset to minimise energy use and operational costs.</li> </ul> <p>Construction support sites have been located so as to minimise:</p> <ul style="list-style-type: none"> <li>• The number of private properties impacted</li> <li>• Haulage through local streets – the majority of construction support sites have direct access to the motorway, the arterial road network, or the harbour for transport via water</li> <li>• Impacts to the environment</li> <li>• Impacts to heritage items</li> <li>• Impacts to the functionality of open space.</li> </ul> <p>Refer to Chapter 4 (Project development and alternatives) and Chapter 6 (Construction work) for further information.</p>
<p>Northern Toll Plaza Removal REF submissions:</p> <ul style="list-style-type: none"> <li>• Request to remove the bus lane cross over that is permitted under the new southbound tolling gantry as it causes delays</li> <li>• Request not to remove the crossover point as it would make access to the main deck of the Sydney Harbour Bridge more difficult.</li> </ul>	<p>The proposed Warringah Freeway Upgrade component design would remove the need for merging between buses and general traffic on the Warringah Freeway between Miller Street and the Sydney Harbour Bridge by changing the location of the bus lane and through physical separation of lanes.</p>
<p>Keep heavy construction traffic off the streets of Balmain and Birchgrove.</p>	<p>Tunnel spoil from the construction support site at Yurulbin Park Birchgrove is proposed to be barged from the construction support site to White Bay. The Victoria Road construction support site (WHT2) provides direct access to and from an arterial road. This would eliminate tunnel spoil haulage on local roads through Birchgrove and Balmain.</p>

Stakeholder and community feedback	Response
<p>Concern regarding proximity to schools in the Cammeray and North Sydney area, in particular in relation to ventilation outlets.</p>	<p>The design of the ventilation systems, including ventilation outlet locations, has been carefully developed to make sure they operate efficiently and there would be minimal changes to local air quality. The air quality assessment has demonstrated that the emissions from the ventilation outlets of the Western Harbour Tunnel have a negligible impact on existing ambient pollutant concentrations and would pose a very low risk to human health.</p> <p>Operation of these facilities would be carried out in accordance with strict guidelines and would be monitored closely by the relevant authorities.</p> <p>Refer to Chapter 12 (Air quality), Appendix H (Technical working paper: Air quality), Chapter 13 (Human health), Appendix I (Technical working paper: Health impact assessment), Chapter 10 (Construction noise and vibration) and Appendix G (Technical working paper: Noise and vibration) for details on construction management measures.</p>
<p>Perception that ventilation outlet is to be located in St Leonards Park</p>	<p>The ventilation outlet is not located in St Leonards Park – it is proposed to be located just north of Ernest Street within the Warringah Freeway road corridor.</p>
<p>Minimise the impact on St Leonards Park and ANZAC Park.</p>	<p>Construction at ANZAC Park would be required to augment the existing drainage network in the vicinity of the park to reduce flooding risk in this area. Construction would be temporary, and there would be no permanent impacts.</p> <p>Construction at St Leonards Park would be temporary. The Ridge Street north construction support site (WHT9) has been located to enable heavy vehicle access primarily from the Warringah Freeway, rather than the local road network. Kerb and footpath adjustment works would occur on Miller Street southbound around the intersection with Falcon Street. These works would provide a new dedicated lane for left turning traffic from Falcon Street westbound to Miller Street southbound. Further review of the impacts in this area is currently being carried out and permanent impacts to St Leonards Park would be minimised or, where possible eliminated.</p>
<p>Concerns about air quality and the proposed location of a ventilation outlet in Rozelle.</p>	<p>The proposed ventilation outlet is located at the Rozelle Interchange, the civil construction of which was approved as part of the M4-M5 Link. Air quality has been assessed as part of the M4-M5 Link environmental impact statement and is also being addressed in Chapter 12 (Air quality). No additional outlets are proposed for the project in Rozelle.</p>
<p>Desire for improved active transport connections.</p>	<p>There are a number of active transport upgrades and improvements proposed as part of the project. These include:</p> <ul style="list-style-type: none"> <li>• A new shared user path along the southern side of the</li> </ul>

Stakeholder and community feedback	Response
	<p>High Street bridge at North Sydney</p> <ul style="list-style-type: none"> <li>• Signalised pedestrian crossings at the intersection of High Street and Alfred Street North at North Sydney</li> <li>• Replacement and upgrade of the existing Ridge Street shared user bridge at North Sydney/Neutral Bay with a wider, dedicated pedestrian footpath and bicycle lanes</li> <li>• A new shared user bridge to the north of Ernest Street at Cammeray, to connect the Cammeray Golf Course site with ANZAC Park</li> <li>• Upgraded pedestrian crossings at the Falcon Street on and off ramps, at North Sydney/Cammeray/Neutral Bay</li> <li>• Replacement of the Falcon Street shared user bridge</li> <li>• Removal of the existing pedestrian underpass beneath Falcon Street at Cammeray</li> <li>• Provision of a new pedestrian footpath along the median through the centre of the Falcon Street interchange upgrade</li> <li>• A new dedicated bicycle path along the eastern side of the Warringah Freeway between Miller Street at Cammeray and Ernest Street.</li> </ul> <p>Further detail is provided in Chapter 5 (Project description).</p>

**Table 7-10 2018 further developed design – considerations in response to feedback**

Stakeholder and community feedback	Response
<p>Retain the Ernest Street ramps at Cammeray.</p>	<p>Ernest Street ramps would be retained at Cammeray. Functionality would change in that access would be facilitated to and from the Sydney Harbour Tunnel instead of the Harbour Bridge.</p>
<p>Reduce the impacts at Warringah Freeway as the result of the proposed night work.</p>	<p>Work would be carried out in stages to maximise the amount of construction work carried out during standard construction hours. Further detail is provided in Chapter 6 (Construction work) and Chapter 10 (Construction noise and vibration).</p> <p>If the project is approved, Transport for NSW would work closely with the project's contractor to further reduce the potential impacts, based on the construction staging methodology.</p>

## 7.5 Future engagement

A comprehensive Community consultation framework (Appendix E) has been prepared to guide the planning and delivery of communication and stakeholder engagement activities across the project.

The objective of ongoing communication and stakeholder engagement program for the project, guided by the Community consultation framework, is to provide the community with:

- Accurate and accessible information about the processes and activities associated with the project
- Information in a timely manner
- Appropriate avenues for providing comment or raising concerns, and to ensure the community is aware of the avenues
- A high level of responsiveness to community feedback and concerns throughout development and delivery of the project.

The Community consultation framework informs the delivery of the communication and stakeholder engagement in line with the requirements of the Secretary's environmental assessment requirements. The framework addresses key issues of concern to the community, including:

- Enquiries and complaints handling procedures
- Monitoring, reporting and evaluation procedures
- Mechanisms for distributing information and seeking feedback
- Specific issues management including:
  - Traffic management (including property access and pedestrian access)
  - Landscaping and urban design
  - Construction activities including out of hours work
  - Noise and vibration mitigation and management.

### 7.5.1 Submissions Report

Following exhibition of this environmental impact statement, the Secretary would provide copies of submissions from the community and stakeholders to Transport for NSW as the project proponent. Transport for NSW would then prepare a submissions report to respond to the feedback received in submissions. The Secretary may also require Transport for NSW to prepare a preferred infrastructure report to outline any proposed changes to the project. This report may be made publicly available if significant changes to the project are proposed.

The Secretary would prepare an environmental assessment report and provide it to the Minister for Planning, who would then decide whether to approve the project and, if approved, identify a set of conditions or approval for Transport for NSW to adhere to during construction and operation of the project.

Community involvement would continue as part of the project's construction, should the project be approved. A construction contractor would be engaged to carry out detailed design and construction. Together with the proponent, the construction contractor would be responsible for communication and engagement and a detailed communications and engagement strategy would be developed and implemented. This would be based on the framework provided in Appendix E (Community consultation framework).

Community liaison would also continue during the operation phase of the project. A communication plan would be developed to support maintenance and operations of the motorway as a key part of the operational environmental management plan framework.

## 7.5.2 Managing consultation fatigue

The extent and impacts of consultation fatigue would be assessed by:

- Identifying potentially impacted stakeholders and community members by both previous/current projects (including the M4-M5 Link) and the project
- Analysing the type, extent and timing of consultation – for other projects and the project – that has been/would be received by these community members
- Determining whether consultation for the project is likely to result in overload or disinterest for community members.

The community relations team would build a working relationship with the project teams for other major projects in the area to identify those persons or organisations who may be susceptible to consultation fatigue.

The project team would work to develop an integrated approach to contacting persons or organisations which may experience consultation fatigue, and would determine which communication mechanisms stakeholders prefer.

## 7.5.3 Managing construction fatigue

The extent and impact of construction fatigue would be assessed by:

- Identifying where the project would have sustained impacts to stakeholders or community members
- Identifying whether the project would result in similar or overlapping impacts with other projects, to the same stakeholders or community members
- Analysing whether the project would increase the magnitude and intensity of overlapping impacts on any stakeholders or community members
- Analysing the extension of duration of impacts for stakeholders or community members.

A preliminary assessment was completed to identify areas where the project would potentially have sustained impacts to stakeholders or community members who may be susceptible to construction fatigue. Project activities which could lead to construction fatigue, potentially impacted groups, and a summary of management measures proposed to address these issues is provided in Chapter 21 (Socio-economics).

During construction of the project, the community relations team would build a working relationship with the project teams for other major projects to identify stakeholders or community members who may be susceptible to construction fatigue. The project team would ensure the expectations of these stakeholders or community members are managed for the project.

The management measures for the project would be aligned with the M4-M5 Link project management measures. The potential for construction fatigue would be taken into account when finalising the management measures for the project, and the project team would ensure the timely implementation of these measures.

## 7.5.4 Managing complaint fatigue

The extent and impact of complaint fatigue would be assessed by:

- Identifying regular complainants from previous and current projects close to the construction support sites
- Analysing the cause and solution to each complaint

- Determining whether the project would result in similar or overlapping impacts with other projects, which are likely to result in a complaint.

A complaints management system would be implemented for the duration of construction. This would include the recording of complaints and how the complaint has been addressed (within a complaints register). Complainants would be contacted within 24 hours to follow up and respond to their complaint. A Community Complaints Commissioner (an independent specialist) would oversee the system and follow up on any complaint where the public is not satisfied with the response.

The community relations team would build a working relationship with the project teams for other major projects which would be under construction at the same time as the project to identify stakeholders and community members who may be susceptible to complaint fatigue.

Transport for NSW would ensure a number of different complaint mechanisms are provided to cater to different needs and preferences. Complaint management tools for the project are outlined in Appendix E (Community consultation framework).

### 7.5.5 Interface management

The project's Communication and Stakeholder Engagement team would work closely with its counterparts in different divisions and adjacent projects. This is to ensure the various State Government projects are releasing and/or consulting on projects in collaboration with each other and to reduce consultation and construction fatigue in local communities.

At present there are two formal groups consisting of members from other projects, as summarised in Table 7-11, which meet regularly to manage potential cumulative impacts. Additional coordination groups would be developed as required and Transport for NSW would continue to work closely with its internal departments.

**Table 7-11 Interface groups**

Group	Description
The Bays West Communications Group	<p>Communication and stakeholder engagement leads from various projects and agencies which have an interface with the "Bays Precinct". This includes any project on the water or foreshores either side of Anzac Bridge. Attendance at meetings varies depending on the work and activities being carried out at the time and includes:</p> <ul style="list-style-type: none"> <li>• Infrastructure NSW</li> <li>• Transport for NSW Rozelle Interchange</li> <li>• West Metro</li> <li>• Transport for NSW</li> <li>• NSW Ports Authority.</li> </ul>
Intergovernmental Working Group – Northern Beaches/Mosman	<p>Engagement leads from agencies which have an interface around the Northern Beaches/Mosman precinct. Attendance at meetings varies depending on the work and activities being carried out at the time and includes:</p> <ul style="list-style-type: none"> <li>• Mosman Council</li> <li>• Northern Beaches Council</li> <li>• Manly MP office</li> <li>• Pittwater MP office</li> <li>• Northern Beaches Council</li> <li>• Transport for NSW.</li> </ul>

