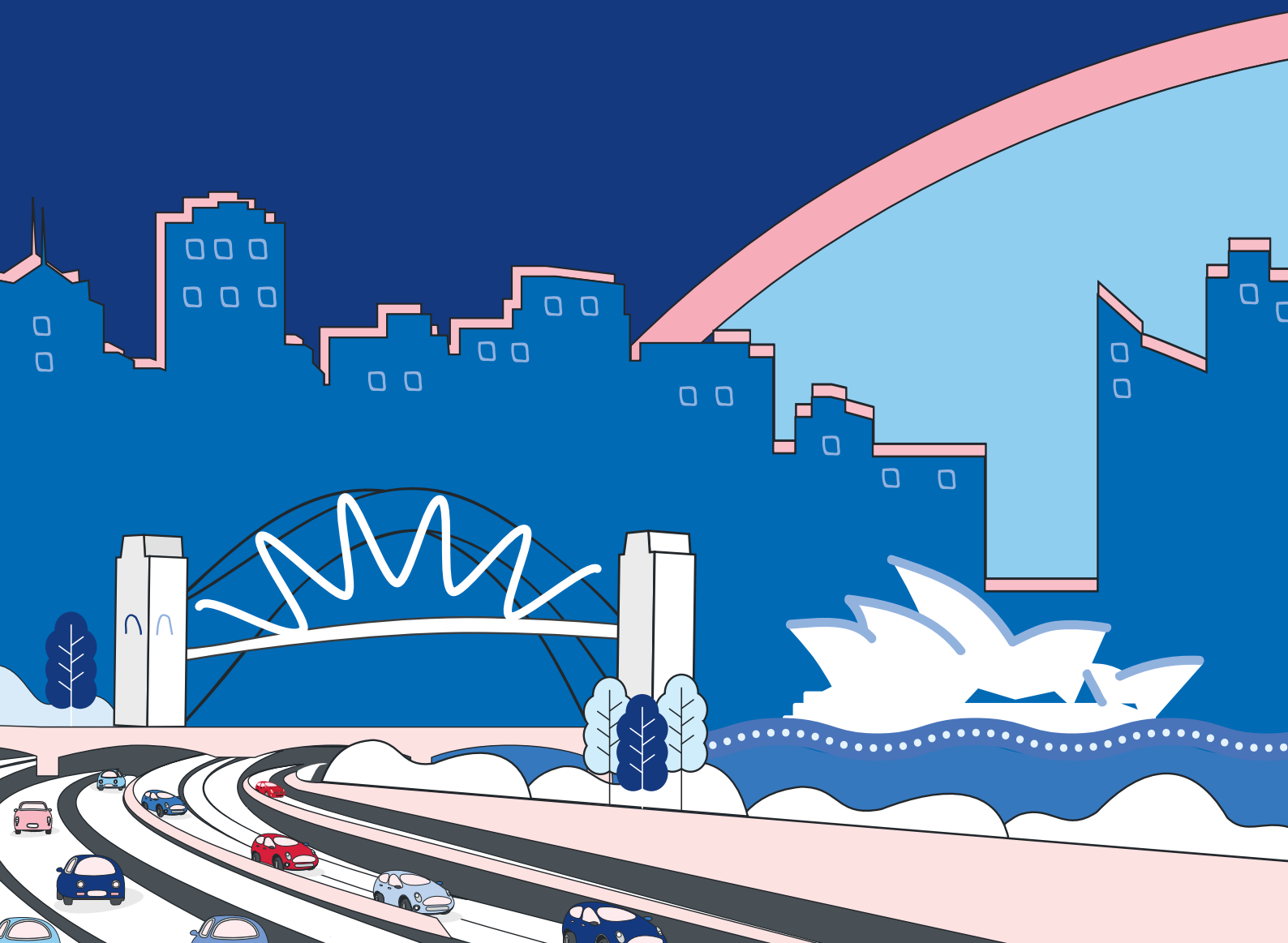
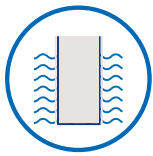


Your Guide to the Western Harbour Tunnel Stage 2 Modification Report

July 2023





Cofferdams will no longer be required



Noise and vibration reduced



Hydrodynamics and water quality



Dredging will no longer be required

The Western Harbour Tunnel Environmental Impact Statement (EIS) Modification Report is now on public display for feedback.

The Modification Report is a document that assesses the environmental impacts of a proposed change to the technique used to construct the tunnel between Birchgrove and Waverton.

We've created this guide to help you understand the proposed changes contained in the full EIS Modification Report.

We are proposing changes to how we build the Western Harbour Tunnel (WHT). These changes will reduce construction impacts on the community by reducing the overall number of construction support sites (an area used to support construction activities) needed to build the project. We will require an additional support site at Emu Plains along with some changes at existing support sites at the Rozelle Rail Yards, Glebe Island and Ridge Street, North Sydney.

What is the project?

The WHT will be Sydney's third harbour crossing. It has two 6.5 kilometres tunnels, side by side, each with three lanes of traffic. WHT will provide connections to the M4-M8 Link tunnels and the Warringah Freeway Upgrade.

The project is being delivered in two stages. Stage 1 is the section from the Rozelle Interchange to Birchgrove and Stage 2 is the section from Birchgrove to North Sydney.



Inside a Tunnel Boring Machine.

Project objectives

- The WHT will reduce congestion and pressure on the Sydney Harbour Bridge, Sydney Harbour Tunnel and Anzac Bridge – leading to faster and more reliable journeys to, from and around the Harbour CBD.
- It will provide additional capacity on the busiest road corridor in Sydney, improving liveability and amenity for local communities by reducing through traffic and improving connectivity.
- WHT will form part of an integrated road and public transport network with improved transport connections and quicker access to public transport interchanges while balancing the needs of motorists and local communities.
- The delivery of WHT will support almost 7000 jobs during construction.

The project EIS (2021)

The project EIS was approved in January 2021, prior to contract award, and detailed the Immersed Tube Tunnel (IMT) construction methodology for WHT. This guide details the proposed changes that are specific to changing how we tunnel under the Sydney Harbour between Birchgrove and Waverton.

All other construction activities and elements of the approved project not included in the EIS Modification Report will proceed as planned, including:

- surface connections at Rozelle, North Sydney and Cammeray, including direct connections to and from the Warringah Freeway (including integration with the Warringah Freeway Upgrade), an off ramp to Falcon Street and an on ramp from Berry Street at North Sydney
- the location and size of the ventilation outlets and supporting motorway infrastructure at Rozelle Parklands and within the Warringah Freeway corridor at Cammeray

- upgrade and integration work along the existing Warringah Freeway, including infrastructure required for connections to the WHT
- using roadheaders to excavate the remaining sections of the tunnels that aren't being excavated by a Tunnel Boring Machine (TBM)
- delivering the Berrys Bay Master Plan
- the location of any construction support sites being used by the Warringah Freeway Upgrade contractor.

What stage of the project is the EIS Modification Report relevant to?

WHT is being delivered in two stages and the Modification Report applies only to Stage 2.

Construction of Stage 1, the southern section of the tunnel, began on 29 June 2022 in Emily Street in Rozelle, and is expected to be completed in 2025.

In December 2022, the second and final stage of the WHT project was awarded to ACCIONA. Work for Stage 2 commenced in May 2023 and will continue for around five years.

Why do we need a modification?

Approval was granted for WHT in January 2021 to construct the 4.8 kilometre section of tunnel (between Birchgrove and Cammeray – including the crossing below Sydney Harbour). Design development and construction planning has progressed since the assessment contained in the EIS.

What modification is proposed?

We are proposing a modification to the approved WHT project to change the construction methodology for crossing Sydney Harbour between Birchgrove and Waverton from the approved Immersed Tube Tunnel (IMT) to tunnel excavation using TBM.

How can I give feedback on the Modification Report?

We encourage you to have your say on the proposed changes by viewing the full Modification Report and making a submission via the following channels:

To make a submission



online at
planningportal.nsw.gov.au/major-projects



posting a written submission to
Director Transport Assessments
Planning and Assessment
Department of Planning and Environment
Locked Bag 5022
Parramatta NSW 2124



For more information



speaking to the team at
Department of Planning
and Environment via
phone **1300 305 695**

How did the proposed changes emerge?

During the tender process for Stage 2 of WHT, different designs and methodologies were considered to ensure the best outcomes for the project, community and environment. An alternative methodology using TBMs rather than the approved IMT, to tunnel underneath Sydney Harbour was submitted. The TBM methodology was assessed and selected as the best outcome for construction and the environment while also minimising impacts on residents and communities.

What is the purpose of an EIS Modification Report?

The purpose of an EIS Modification Report is to assess the economic, environmental, and social impacts of a modified project. The Modification Report is exhibited to give the community an opportunity to read the Modification Report and make a submission on the merits of the modified project.

Western Harbour Tunnel overview map



*Stage 2 tunnel alignment is subject to detailed design and is not to scale

Key changes for Birchgrove, City West Link and Glebe Island

1.

Launching the Tunnel Boring Machines (TBM) under Birchgrove

The TBMs would arrive in Sydney in separate parts and be transported to the entry of WHT at the City West Link portal. They would be assembled and launched from an underground chamber approximately 40 metres below Birchgrove Oval. This method will reduce impacts on the community by removing the need for a construction area above ground.

2.

Leading innovation for improved outcomes

As TBMs dig underground, spoil will be moved through pipes to a Slurry Treatment Plant, a process where we remove the tunnel spoil and drain the water from it. In an industry leading design, we are proposing to build our Slurry Treatment Plant entirely underground at Rozelle. This would minimise the impacts on nearby residents and communities as no surface pipelines would be required.

3.

Limiting our impact on Sydney's most famous waterway

The proposed change in construction methodology would minimise the number of marine vessels needed to support construction activities and reduce impacts to ferries and boats on Sydney Harbour.

4.

Cofferdams not required in Sydney Harbour

The TBM design would no longer need a temporary cofferdam in Sydney Harbour near Yurulbin Point therefore reducing noise, dust, light spill and traffic impacts to residents in the Birchgrove and Balmain area. No cofferdams also means there is no disruption to the harbour seabed.

5.

Transporting our spoil

Excavated material would be transported using covered trucks to minimise dust and spoil being displaced. Trucks would use the future WHT portal and connect to main roads like City West Link for spoil removal meaning less trucks on local roads. To support the TBM tunnelling process, we will need to increase truck movements to and from the WHT Portals at City West Link.

6.

Changing how we use Glebe Island

The use of Glebe Island as a construction support site was previously approved in the original EIS. The proposed TBM design does require some changes to the use of the site for storage and transportation of major plant and equipment to support tunnelling, worker parking and staff amenities. Once tunnelling starts, this site will be operational 24 hours a day, seven days a week. Strict measures will be in place to reduce noise on the nearby community. However, the overall impacts to the community from the use of this site are greatly reduced under this proposal.

7.

Less community impacts

Yurulbin Point will no longer be required as a temporary construction support site. The Birchgrove Ferry Wharf and ferry services will not be impacted by the proposed change to TBM methodology and the wharf will remain open for customers throughout the construction period.

Key changes for Waverton and North Sydney

1.

Returning Berrys Bay to the community

Berrys Bay is no longer needed as a temporary construction site and the NSW Government is committed to returning the space to the community as foreshore parklands and public spaces. Work to revitalise Berrys Bay in Waverton can start much sooner than initially expected.

2.

Reducing the number of construction sites required

Compared to the original, approved project EIS, the total number of construction sites required for the North will be reduced from five to three. Construction sites will still be required at Ridge Street North, Ernest Street and Berry Street.

3.

Limiting our impact on Sydney's most famous waterway

The proposed change in construction methodology would minimise the number of marine vessels needed to support construction activities and reduce impacts to ferries and boats on Sydney Harbour.

4.

Cofferdam not required in Sydney Harbour

The proposed TBM design removes the need to build a temporary cofferdam on Sydney Harbour near the Coal Loader meaning we can avoid the temporary impacts of an above-ground tunnelling site, such as noise, dust, vehicle haulage, visual amenity and loss of open space. There will be no impact to harbour operations or the Coal Loader Sustainability Centre, no temporary relocation required for the MV Cape Don and reduced construction traffic for residents in the Waverton and McMahon's Point area.

5.

Celebrating Sydney's heritage

By removing the need for a cofferdam or other surface construction activities around the Coal Loader and Berrys Bay, we continue to preserve Sydney's rich industrial heritage.

6.

Tunnel support site

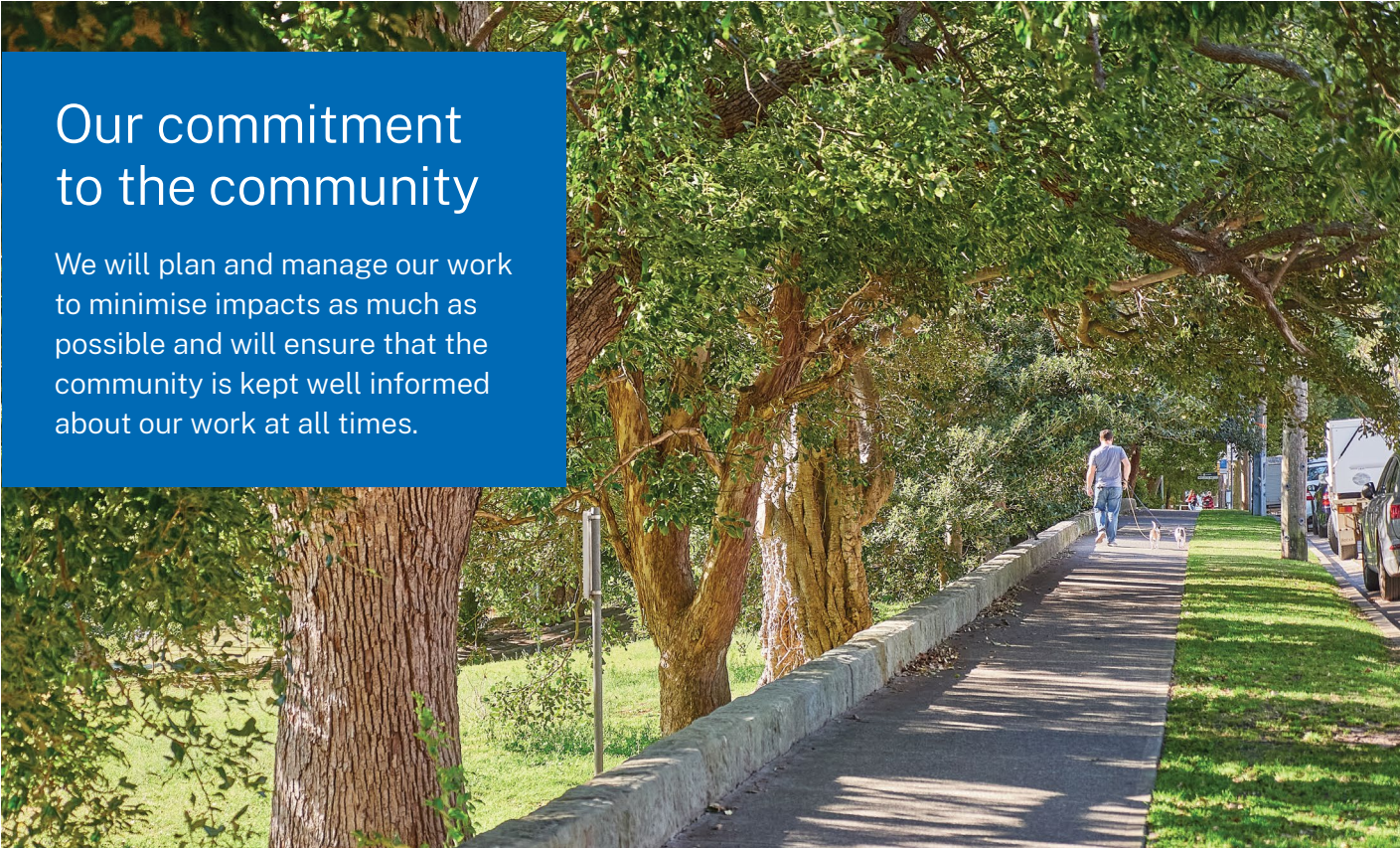
The construction support site at Ridge Street will become a tunnel support site under the proposed design changes. Roadheaders (rock cutting machines) will be launched from here to construct the North Sydney tunnel exit. The footprint of the construction site will not change, however, it will be used 24 hours per day, seven days per week once tunnelling begins.

The proposed changes to the use of this site requires the construction of an acoustic shed to reduce noise and contain our spoil removal activities. Our noise modelling indicates the predicted impacts will be below the noise management levels needed for nearby residents. The EIS Modification Report has more detailed information on the noise modelling predictions. Heavy vehicles will use the Warringah Freeway when accessing the site, avoiding local roads.

7.

Burying the TBMs under Waverton

Once tunnelling is complete, we will salvage as much of the TBM as possible and remove those underground pieces through the tunnel entry at Rozelle. A 'receiving chamber' is proposed to be built under the Waverton Peninsula/Carradah Park to bury the remaining parts of the TBM once tunnelling is complete, including the cutterhead and shield.



Our commitment to the community

We will plan and manage our work to minimise impacts as much as possible and will ensure that the community is kept well informed about our work at all times.

Working together to minimise impacts

We will plan and manage our work to minimise cumulative impacts, including coordinating our noisy and out of hours work and respite requirements in consultation with nearby projects. This would be supported by coordinated programs, combined notifications and activities where possible, including out of hours work, respite requirements, door knocking and information sessions.

The WestConnex (Rozelle Interchange) project is expected to be completed by the end of 2023 and work on the Inner West portion of the WHT between Emily Street in Rozelle and Cove Street in Birchgrove is expected to finish in 2025, before the proposed TBM tunnelling work would begin.

We also have strict construction vehicle management plans we must adhere to, including limiting or eliminating truck movements on local roads, where possible.

We will work closely with the community to understand how you would like to be kept informed or consulted with about local impacts. At times we may combine work updates and project communications to reduce the number of notifications we send to you. We may also combine community engagement activities including door knocking, market stalls, street meetings and more.

Being good neighbours

We understand that we will be your neighbours throughout the construction and delivery of the WHT and we want to ensure that we minimise impacts to the communities and neighbourhoods in which we work.

Some of the things we will be doing include encouraging our project staff to use public transport by running a free return shuttle bus for staff from North Sydney Train Station to their work site. We are also proposing to include about 50 on-site parking spaces at the Ridge Street construction support site and a further 60 parking spaces at the Emu Plains construction support site to minimise impacts on local street parking.

New Emu Plains construction support site

Manufacturing and storage support

In the original EIS we proposed to build the harbour crossing section of WHT using pre-cast concrete units that fitted together to form the tunnel. This type of tunnel is called an IMT. The pre-cast units were to be built at the White Bay/Glebe Island construction sites and floated in Sydney Harbour until they were sunk to the sea-bed floor to form the tunnel.

Now that we are proposing to change from using an IMT to using TBMs to tunnel under Sydney Harbour, we no longer need to use the White Bay/Glebe Island construction sites to build the IMT units, however we will need to establish a new construction support site to build individual concrete segments that will fit together to build the tunnel.



Pre-cast concrete units will fit together to form the tunnel.

A new purpose-built facility

Building a project of this scale requires specialised manufacturing of materials. The proposed changes to the construction methodology from an IMT to a TBM will require a purpose-built facility to manufacture individual concrete segments that will fit together to line the TBM section of the tunnel.

A preferred location has been identified for this construction support site at Railway Street in Emu Plains, on a portion of land that has operated as a quarry since the 1960's (currently used by Boral). This site has many advantages including a large storage capacity in an existing industrial site, therefore reducing impacts on the environment and local communities.

What facilities does this site need?

Once the site preparation work is completed, we need to build the construction support site, which includes:

- shed to cast and cure segments
- storage area for concrete segments
- a concrete batching plant
- a laydown/hardstand area
- offices and site amenities
- on-site parking for up to 60 light vehicles.

Preparing the site

Before we build the concrete segments of the TBM tunnel, we need to prepare a dedicated site for the WHT pre-cast facility. Site establishment work includes:



Connection of utilities
(e.g. power, water, sewerage, gas
and communications)



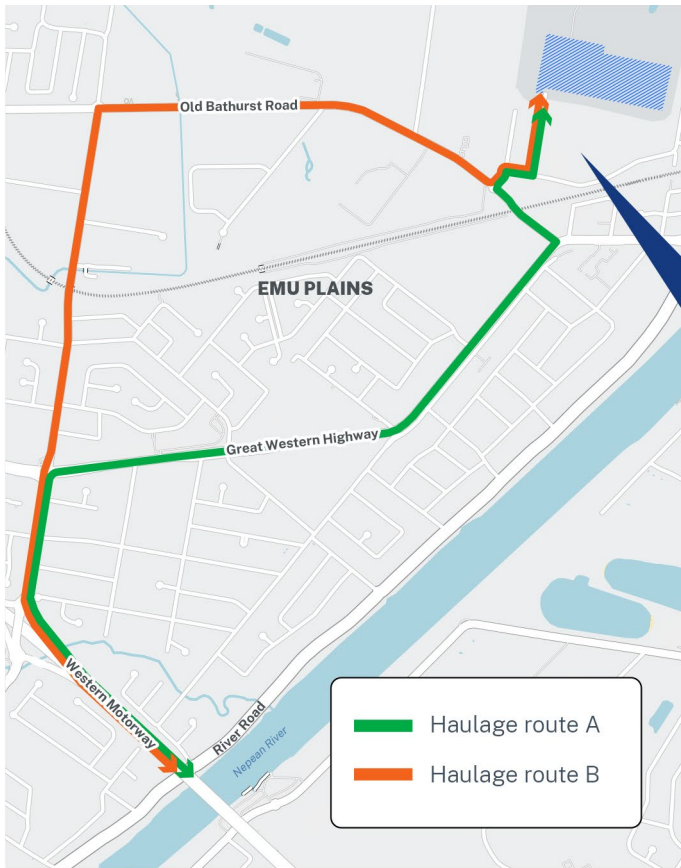
Installation of a new shed
and adjoining facilities



Installation of lighting and signage



Environmental controls



Movements between support site and tunnels

The concrete segments will be transported by road from the Emu Plains site to the tunnel entry at the City West Link portal.

The site will operate 24 hours per day, seven days per week.



Employment opportunities for Emu Plains pre-cast facility

The proposed facility will also generate new employment opportunities for the Emu Plains community and surrounds. These will include both office and site-based roles. More information will be provided about employment and training opportunities as the project progresses.

The project will also implement training programs to support skill development and new entrants to the workforce.



Encouraging women to work in the construction industry is a key focus.

How long do we need the site?

This site is expected to be operational for up to three years, subject to the construction program for the project. The future use of this site would be determined by Boral and would be subject to separate approvals, as required.

What if I need more information on the project?

If you have any questions or would like more information about the proposed modifications please contact the WHT project team on 1800 931 189, email whtbl@transport.nsw.gov.au or visit nswroads.work/whtportal

Come and talk with us

During the public display period we will be holding several community information sessions where you can talk with the team about the proposed changes in the EIS Modification Report. We will also host an online session for those who can't make it out to see us.



Our community team at the Kirribilli Markets

Details of our community information sessions are:

	Location	Date	Time
Inner West	Balmain Town Hall 370 Darling Street, Balmain	Monday 24 July 2023	10am–1pm
North Sydney	North Sydney WHT Information Centre Level 9/60 Miller Street North Sydney	Tuesday 25 July 2023	10am–1pm
Inner West	Balmain Town Hall 370 Darling Street, Balmain	Wednesday 26 July 2023	5pm–8pm
North Sydney	North Sydney WHT Information Centre Level 9/60 Miller Street North Sydney	Wednesday 2 August 2023	5pm–8pm

Online session:



Date: **Tuesday 8 August 2023**

Time: **5pm–6:30pm**

To register for the online session visit: www.eventbrite.com.au/e/wht-stage-2-modification-report-online-community-information-session-tickets-665012920547



How to make a submission

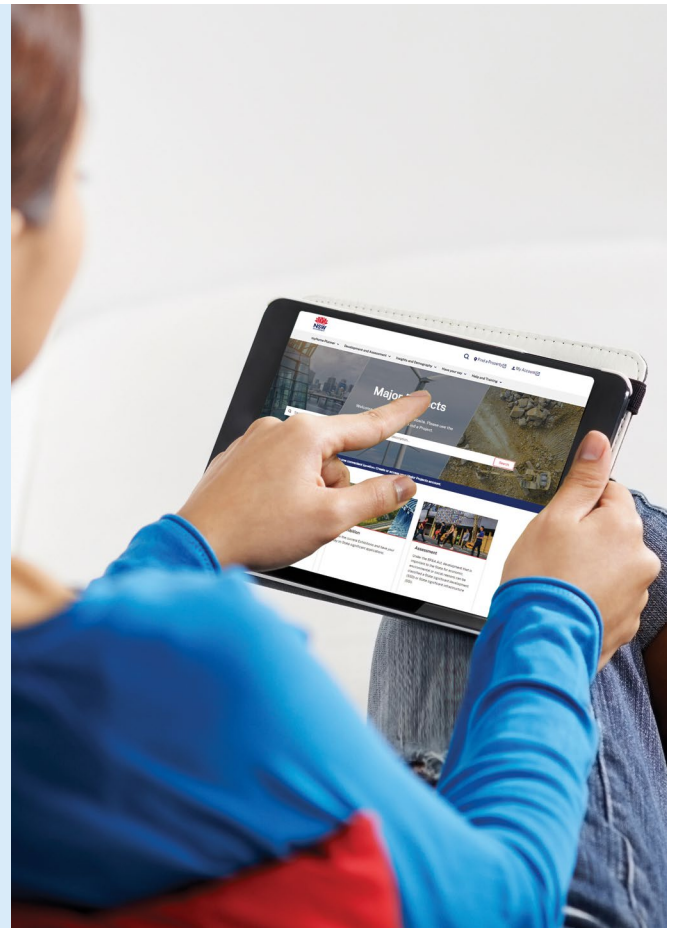
We encourage you to have your say on the proposed changes by viewing the full Modification Report and making a submission to the Department of Planning and Environment.

Make a submission

- online at planningportal.nsw.gov.au/major-projects and signing up for a Major Projects account
- post a written submission to
Director Transport Assessments;
Planning and Assessment
Department of Planning and Environment
Locked Bag 5022
Parramatta NSW 2124

For more information

- speak to the team at Department of Planning and Environment via phone **1300 305 695**



Your submission must reach DPE before the close of the exhibition period: **11:59pm, Tuesday 15 August 2023.**

What if I need more information on the project?

If you have any questions or would like more information about the proposed modification please contact the WHT project team on 1800 391 189, email whtbl@transport.nsw.gov.au or visit nswroads.work/whtportal or scan the QR code to take you directly to the WHT project portal.



Acknowledgement of Country

Transport for NSW acknowledge the Traditional Custodians of the Country on which the Western Harbour Tunnel Stage 2 is being constructed, the Gadigal, Cammeraygal, Wangal and Dharug peoples.

We pay our respects to Elders past and present, and recognise & celebrate the diversity of Aboriginal peoples and their ongoing cultures & connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years. Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.





Contact us

If you have any questions or would like more information please contact our project team:



1800 931 189



whtbl@transport.nsw.gov.au



nswroads.work/whportal



Translating and interpreting service

If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1800 931 189



Scan the QR code to
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July 2023
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