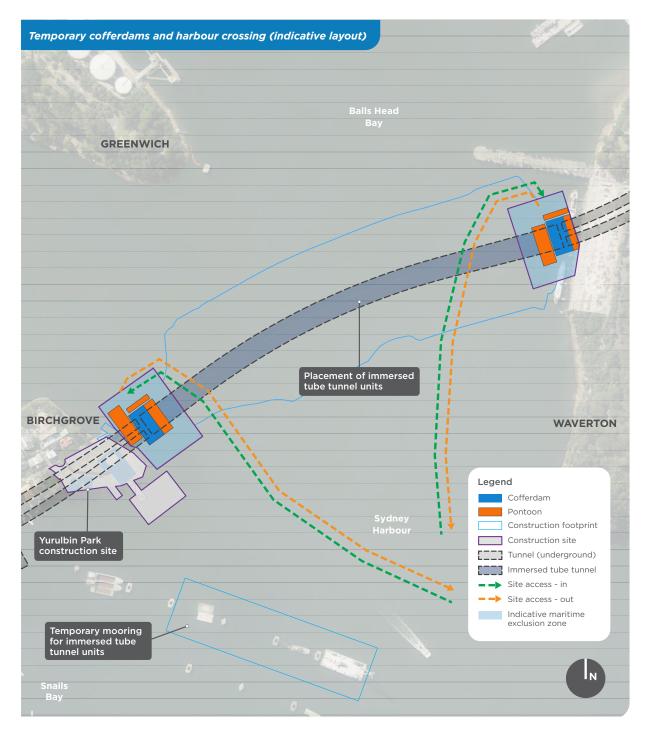


Western Harbour Tunnel and Warringah Freeway Upgrade



Temporary cofferdams and harbour crossing construction sites

We will be building temporary cofferdams on the harbour to support our tunnelling work. These cofferdams will be temporary and help connect the land tunnels with the immersed tube tunnel, under the harbour.



These sites will be water based, serviced by barges from the White Bay site.

Building under the harbour and using government owned land minimises the impact to private properties. We will be using water-based transport where possible to reduce construction traffic on local roads.

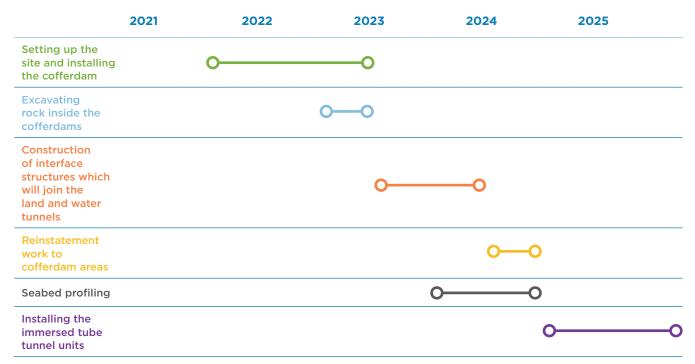
Our peak time for marine traffic will be when we build the interface structures of the immersed tube tunnel within the cofferdams.

Our key activities include:

 building the temporary cofferdams including ground treatment, piling and removing the water from inside the cofferdam so we can work in dry conditions

- excavating rock within the cofferdam to reach the level of the tunnel
- building the interface structure (the connection between the tunnels built underground and the immersed tube tunnels)
- removing the cofferdam
- seabed profiling to form the trench for the immersed tube tunnel
- placing the gravel bed for the immersed tube tunnel units to sit on
- installing the immersed tube tunnel units
- backfilling around and over the immersed tube tunnel units
- rehabilitation of the area.

Indicative construction timeframe and work activities for the temporary cofferdams



Indicative timing only

Birchgrove Wharf temporary closure during construction

We will need to temporarily close Birchgrove Wharf for the duration of construction on the harbour. Before we close the wharf we will work with local residents to understand how it is used and investigate how we can best help users continue to get to their destination while we are building. For example this could include relocating the wharf or providing transport services to another nearby wharf. Before work starts we will inform wharf users of the proposed alternative travel arrangements.

Temporary changes to navigational channels

We will be placing exclusion zones around the sites, for the safety of you and our workers when on the water.

We will have maritime speed restrictions of four knots in place around construction equipment. This will result in increased travel time of up to five minutes, based on a worst-case scenario.

| Duration Wu may see us in your area for around four and a half years as we subup, carry out our construction work and then enclables and rehabilitate the site. We will be working in the cofferdams for around two years. Neurs of work Our general site activities will be carried out during standard construction hours. Some activities may take place outside of standard construction hours including: deviatering the cofferdams seabed profiling work removal of the cofferdams structures installation of the immersed tube tunnel. Taffer / vehicle movements Access to the site will be via Sydney Harbour only. Accessite the uncelled in the immersed tube tunnel. Nou will notice some increase in harbour maritime traffic when we are building the interruptions to port operations and the navigation of ships and ferries within Sydney Harbour cossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and registes temporarily relocating swing moorings and setting up cofferdams and construction sites. To reduce our impact, schedule our activities to limit impacts on recessional marine traffic through some provide will operate our vessels. To reduce our impact we will operate our vessels to a reas of shore ille and not impact, schedule our activities to limit impacts on recessional marine traffic through some provide will be provements for the subsport to With Bay will on the orthore disposal site impacts on recessional marine traffic transportation of shore the prove our for transportation of shore the shore disposal site or wessels to a work to arrea will be carried out outside of standard construction hours. Now Over Step terevises and our sites or | | |
|--|-----------------------------|---|
| Some activities may take place outside of standard construction hours including: • dewatering the cofferdams • seabed profiling work • removal of the cofferdam structures • installation of the immersed tube tunnel. Taffic / vehicle movements • Access to the site will be via Sydney Harbour only. • Control • Access to the site will be via Sydney Harbour only. • Access to the site will be via Sydney Harbour and the navigation of ships and ferries within Sydney Harbour. <td>Duration</td> <td>construction work and then demobilise and rehabilitate the site. We will be working in</td> | Duration | construction work and then demobilise and rehabilitate the site. We will be working in |
| dewatering the cofferdams seabed profiling work removal of the cofferdam structures installation of the immersed tube tunnel. Traffic / vehicle movements Access to the site will be via Sydney Harbour only. Maritime movements Vou will notice some increase in harbour maritime traffic when we are building the immersed tube tunnels for the harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney Harbour. If you spend time on the water you may notice us moving barges, temporarily reducating swing moorings and setting up cofferdams and construction sites. We will work closely with the community as we operate our vessels. To reduce our impact, schedule our activities to limit impacts on recreational marine traffic and temporarily relocating swing moorings and setting up cofferdams and construction sites. Vessel movements Eight small boats movements (about the size of a water taxi) to ferry our workers from White Bay to the site during the day and night to meet shift changes six barge movements for deliveries, which could take place outside of standard construction hours. De boat or barge travelling into and out of site is counted as two movements. Second or barge travelling into and out of site is counted as two movements. We will be working with the owners of the MV Cape Don and MV Baragoola to relocate mixtude do standard construction hours. De boat or barge travelling these wessels. Second or barge travelling these wessels. Second or barge travelling these wessels. Second or barge around 39 metres (th storeys) below the facility and wharf. Our tunnelling without damaging these wessels. Second or barge around 39 metres (th storeys) below the facility and work methods have been and us to insure the and 25 of our | Hours of work | Our general site activities will be carried out during standard construction hours. |
| removal of the orderadam structures installation of the immersed tube tunnel. Trafic / vehicle movements Access to the site will be via Sydney Harbour only. Access to the site will be via Sydney Harbour only. Aritime movements You will notice some increase in harbour maritime traffic when we are building the immersed tube tunnels for the harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney Harbour. If you spend time on the water you may notice us moving barges, temporarily restricting maritime speeds around construction areas and our sites, temporarily relocating swing moorings and setting up cofferdams and construction sites. We will work closely with the community as we operate our vessels. To reduce our impact, schedule our activities to limit impacts on recreational marine traffic and temporrily relocating impactem downings while we work. Vessel movements • Eight small boats movements (about the size of a water taxt) to ferry our workers from White Bay to the site during the day and night to meeds offshore disposal site or White Bay will be required. Transport to White Bay will only be carried out outside of standard construction hours. Neweyer, transport to White Bay will only be carried out outside of standard construction hours. To be board or barge movements for deliveries, which could take place outside of standard construction hours. To be board or barge travelling into and out of site is counted as two movements. Rescaling ships We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunneling will pass around 39 metres (f1 storeys) below the facility and our work work works without damaging these vessels. We will not be impacting the Balls Head Coal Loader Facility and our work mothed havepoind of unrel in your local area, please see pages 24 and 25 of our 'Guide to the E | | |
| Installation of the immersed tube tunnel. Traffic / vehicle movements Access to the site will be via Sydney Harbour only. Image: Access to the site will be via Sydney Harbour only. Image: Access to the site will be via Sydney Harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney. Harbour. Image: Access to the site will be via Sydney Harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney. Harbour. Image: Access to the site will be via Sydney Harbour crossing. We will manage our work to minimise speeds around construction areas and our sites. Itemporarily relocating awing moorings and setting up cofferdams and construction sites. We will work closely with the community as we operate our vessels. To reduce our impact, schedule our activities to film impacts on recreational marine traffic and temporarily relocate impacted moorings while we work. Vessel movements Eight small boats movements (about the size of a water taxi) to ferry our workers for White Bay will be required. Transport to White Bay will only be carried out outside of standard construction hours. Sisteen barge movements for deliveries, which could take place outside of standard construction hours. Impact envelling into and out of site is counted as two movements. We will be working with the owners of the MV Cape Don and MV Baragoola to relocate the seesels. Sisteen barge travelling into and out of site is counted as two movements without damaging these vessels. Impact beaving 39 metres (11 storeys) below the fac | | seabed profiling work |
| Traffic / vehicle movements Access to the site will be via Sydney Harbour only. Arritime movements You will notice some increase in harbour maritime traffic when we are building the immersed tube tunnels for the harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney Harbour. If you spend time on the water you may notice us moving barges, temporarily relocating swing movings and setting up cofferdames and construction sites. We will work closely with the community as we operate our vessels. To reduce our impact, schedule our activities to limit impacts on recreational marine traffic and temporarily relocate impacted movings while we work. Vessel movements on the water you may notice us moving barges, temporarily relocate impacts to limit impacts on recreational marine traffic and temporarily relocate impact but but is to limit impacts on recreational marine traffic and temporarily relocate impact but movings while we work. Vessel movements on the water you may notice us moving barges, temporarily relocate impact but he site during the day and night to meet shift changes is to a White Bay will be required. Transport to the testing distored disposal site may be carried out outside of standard construction hours. • Eight small boats movements for transport to the definer disposal site may be carried out outside of standard construction hours. • or boat or barge movements for transports. Me will be working with the owners of the MV Cape Don and MV Barageola to relocate the several with out damaging these vessels. • or boat or barge travelling into and out of site is counted as two movements | | removal of the cofferdam structures |
| Reference You will notice some increase in harbour maritime traffic when we are building the immersed tube tunnels for the harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney Harbour. If you spend time on the water you may notice us moving barges, temporarily restricting maritime speeds around construction areas and our sites, temporarily restricting swing moorings and setting up cofferdams and construction sites. We will work closely with the community as we operate our vessels. To reduce our impact, schedule our activities to limit impacts on recreational marine traffic and temporarily relocate impacted movings while we work. Vessel movements on the water you will be required. Transport to the designated offshore disposal site may be carried out outside of standard construction hours. • Six barge movements for transportation of spoil to the designated offshore disposal site may be carried out outside of standard construction hours. • or boat or barge travelling into and out of site is counted as two movements. Relocating ships We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will bars around 39 metres (11 storsys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more during our work starts to allow us to build the northern cofferdam will bas around 39 metres (11 storsys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more during the day and inform the set of the designated of shared set work bare been adjusted to reflect the sensitivity of this site. For more during thetof bare species. | | installation of the immersed tube tunnel. |
| Immersed tube tunnels for the harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney Harbour.If you spend time on the water you may notice us moving barges, temporarily relocating swing moorings and setting up cofferdams and construction sites.We will work closely with the community as we operate our vessels. To reduce our impact we will operate our vessels to minimise wash to areas of shoreline and not impact, schedule our activities to limit impacts on recreational marine traffic and temporarily relocate impacted moorings while we work.Vessel movements on the water• Eight small boats movements (about the size of a water taxi) to ferry our workers from White Bay to the site during the day and night to meet shift changes • six barge movements for transportation of spoil to the designated offshore disposal site or White Bay will be required. Transport to White Bay will only be carried out during standard construction hours, however, transport to the offshore disposal site or bhite Bay will be required. Transport to White Bay will only be carried out during standard construction hours, however, transport to the offshore disposal site or barge travelling into and out of site is counted as two movements.Relocating shipsWe will not be working with the owners of the MV Cape Don and MV Baragoola to relocate these vessels locally before work starts to allow us to build the northern cofferdam without damaging these vessels.We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have work/whtportal-eisguide. | Traffic / vehicle movements | Access to the site will be via Sydney Harbour only. |
| restricting maritime speeds around construction areas and our sites, temporarily relocating swing moorings and setting up cofferdams and construction sites. We will work closely with the community as we operate our vessels. To reduce our impact, schedule our activities to limit impacts on recreational marine traffic and temporarily relocate impacted moorings while we work. Vessel movements on the water Eight small boats movements (about the size of a water taxi) to ferry our workers from White Bay to the site during the day and night to meet shift changes six barge movements for transportation of spoil to the designated offshore disposal site may be carried out outside of standard construction hours. Done boat or barge movements for deliveries, which could take place outside of standard construction hours. One boat or barge travelling into and out of site is counted as two movements. Relocating ships We will be working with the owners of the MV Cape Don and MV Baragoola to relocate these vessels locally before work starts to allow us to build the northern cofferdam without damaging these vessels. Balls Head Coal Loader We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads. | Maritime movements | immersed tube tunnels for the harbour crossing. We will manage our work to minimise interruptions to port operations and the navigation of ships and ferries within Sydney |
| impact we will operate our vessels to minimise wash to areas of shoreline and not impact, schedule our activities to limit impacts on recreational marine traffic and temporarily relocate impacted moorings while we work. Vessel movements on the water • Eight small boats movements (about the size of a water taxi) to ferry our workers from White Bay to the site during the day and night to meet shift changes • six barge movements for transportation of spoil to the designated offshore disposal site or White Bay will be required. Transport to White Bay will only be carried out during standard construction hours, however, transport to the offshore disposal site may be carried out outside of standard construction hours • six teen barge movements for deliveries, which could take place outside of standard construction hours. One boat or barge travelling into and out of site is counted as two movements. We will be working with the owners of the MV Cape Don and MV Baragoola to relocate these vessels locally before work starts to allow us to build the northern cofferdam without damaging these vessels. Balls Head Coal Loader Facility and Wharf We will not be impacting the Balls Head Coal Loader Facility and warf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads. work/whtportal-eisguide. | | restricting maritime speeds around construction areas and our sites, temporarily |
| on the waterfrom White Bay to the site during the day and night to meet shift changes• six barge movements for transportation of spoil to the designated offshore disposal site or White Bay will be required. Transport to White Bay will only be carried out during standard construction hours, however, transport to the offshore disposal site may be carried out outside of standard construction hours • sixteen barge movements for deliveries, which could take place outside of standard construction hours.One boat or barge travelling into and out of site is counted as two movements.Relocating ships occoocImage: Site Coal Loader Facility and WharfWe will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads. | | impact we will operate our vessels to minimise wash to areas of shoreline and not impact, schedule our activities to limit impacts on recreational marine traffic and |
| Site or White Bay will be required. Transport to White Bay will only be carried out during standard construction hours, however, transport to the offshore disposal site may be carried out outside of standard construction hours• sixteen barge movements for deliveries, which could take place outside of standard construction hours.• One boat or barge travelling into and out of site is counted as two movements.Relocating ships • or board• Sixteen barge movements of the MV Cape Don and MV Baragoola to relocate these vessels locally before work starts to allow us to build the northern cofferdam without damaging these vessels.Balls Head Coal Loader Facility and Wharf• We will not be impacting the Balls Head Coal Loader Facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads, work/whtportal-eisguide. | | |
| construction hours. One boat or barge travelling into and out of site is counted as two movements. Relocating ships We will be working with the owners of the MV Cape Don and MV Baragoola to relocate these vessels locally before work starts to allow us to build the northern cofferdam without damaging these vessels. Balls Head Coal Loader Facility and Wharf We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads. work/whtportal-eisguide. | | site or White Bay will be required. Transport to White Bay will only be carried out during standard construction hours, however, transport to the offshore disposal site |
| Relocating ships We will be working with the owners of the MV Cape Don and MV Baragoola to relocate these vessels locally before work starts to allow us to build the northern cofferdam without damaging these vessels. Balls Head Coal Loader Facility and Wharf We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads. work/whtportal-eisguide. | | |
| Balls Head Coal Loader Facility and Wharf We will not be impacting the Balls Head Coal Loader Facility and wharf. Our tunnelling will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' nswroads. work/whtportal-eisguide. | | One boat or barge travelling into and out of site is counted as two movements. |
| Facility and Wharf will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' <u>nswroads.</u> work/whtportal-eisguide. | | these vessels locally before work starts to allow us to build the northern cofferdam |
| | Facility and Wharf | will pass around 39 metres (11 storeys) below the facility and our work methods have been adjusted to reflect the sensitivity of this site. For more detail on the depth of tunnel in your local area, please see pages 24 and 25 of our 'Guide to the EIS' <u>nswroads</u> . |
| | | |

How to make a submission

How to make an online submission

- 1. Visit Department of Planning, Industry and Environment's (DPIE) Major Projects website at planningportal.nsw.gov.au/major-projects
- 2. Create a user account by clicking the 'Sign In' icon in the top right of the homepage or under the 'Services' tab and then click the 'Have Your Say' link
- 3. When you are logged in, find the Western Harbour Tunnel and Warringah Freeway Upgrade project, and click the 'Make a Submission' icon.

How to make a hard copy submission

You can submit a hard copy of your submission. If you want DPIE to delete your personal information before publication, please make this clear at the top of your letter.

You need to include:

- 1. your name and address, at the top of the letter only
- 2. the name of the application and application number: **SSI_8863**
- 3. a statement on whether you support or object to the proposal
- 4. the reasons why you support or object to the proposal
- 5. a declaration of any reportable political donations made in the previous two years.

You can hand deliver your submission to DPIE's office, located at:

4 Parramatta Square, 12 Darcy Street Parramatta NSW 2150

You can post your submission to:

Attention: Director, Transport Assessments Planning & Assessment, Department of Planning Industry and Environment Locked Bag 5022 Parramatta NSW 2124

Donations and gift disclosure

Anyone lodging submissions must declare reportable political donations made in the previous two years. To find out what is reportable, and for a disclosure form, go to <u>planning.nsw.gov.au/</u> <u>donationsandgiftdisclosure</u> or phone 1300 305 695 for a copy.

Note: the disclosure requirements apply however a submission is made.

Privacy

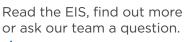
Before making your submission, please read DPIE's Privacy Statement at <u>planning.nsw.gov.au/privacy</u> or phone 1300 305 695 for a copy. DPIE will publish your submission on its website in accordance with their Privacy Statement.

Submissions must be received by DPIE before midnight 12 March 2020.

Contact the Western Harbour Tunnel and Beaches Link team

- ▶ nswroads.work/whtbl
- @ whtbl@transport.nsw.gov.au
- 📞 1800 931 189
- Customer feedback Transport for NSW, Locked Bag 928 North Sydney NSW 2059

Visit our interactive web portal









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.

Privacy Transport for NSW is collecting your personal information in connection with the Western Harbour Tunnel and Warringah Freeway Upgrade ("the Project"). In addition to collecting your name and contact details we may collect other information such as your submissions and other communications with us. We will retain and use this information for consultation purposes, including communications and analysis in connection with the Project. We will not disclose your personal information to third parties unless authorised by law and if we include your submissions in any public report we will not identify you. Providing your personal information is voluntary but if you do not provide it we may not include you on our stakeholder database and you might miss further consultation opportunities. Your personal information will be held by us and you can contact us to access or correct it. Please write to us at either whtbl@transport.nsw.gov.au or Transport for NSW, Locked Bag 928, North Sydney NSW 2059.