

Beaches Link

Initial corridor options assessment

Selecting the concept design

Beaches Link has been identified as a priority transport infrastructure project for New South Wales.

Future Transport, released by the NSW Government in October 2017 includes Western Harbour Tunnel and Beaches Link.

Both the 2012 NSW Long Term Transport Master Plan and the 2014 State Infrastructure Strategy Update referenced the need for improved transport for the Northern Beaches.

In 2015, Roads and Maritime Services began preliminary assessment work into the concept.

Two primary options for providing a new motorway to the Northern Beaches included tunnels or a surface road.

A new bridge was discounted early because of the highly developed setting and visual sensitivity of Middle Harbour.

A tunnel solution can provide similar connectivity and design outcomes as a bridge while minimising visual, air quality, noise and property impacts.

Key factors contributing to the identification and evaluation of possible Beaches Link corridors were:

- Geology, geotechnical stability and suitability for tunnelling
- Tunnel depth, geometry and ability to achieve acceptable road gradients
- Connectivity with existing roads, particularly the Warringah Freeway, Gore Hill Freeway, Wakehurst Parkway and Burnt Bridge Creek Deviation
- Opportunities to minimise impacts on private property
- Opportunities to avoid or minimise impacts on the natural, built and social environments.
- Ability to link with a new Sydney Harbour Crossing.

Initial corridor options assessment

Five initial corridor options were assessed (see over) to determine the concept design.

Pink corridor option

Tunnel from the Warringah Freeway at North Sydney, passing beneath Neutral Bay, Cremorne and Mosman.

This option proposed a new bridge at The Spit and a surface road to Burnt Bridge Creek Deviation.

A second tunnel would then link Burnt Bridge Creek Deviation with the Wakehurst Parkway.

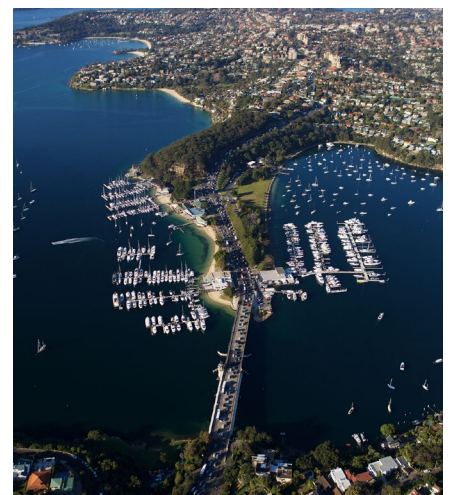
Although the surface roads in this option would have been less costly than a complete tunnel, there would be considerable community, property and environmental impacts.

Purple corridor option

A tunnel under Neutral Bay, Cremorne, Mosman and Middle Harbour, east of the Spit Bridge before continuing north to Burnt Bridge Creek Deviation and then the Wakehurst Parkway.

The purple option was the longest of the five corridor options and disadvantages included:

- Significant tunnel length and its impacts on cost, tunnel ventilation requirements and customer experience
- Potential significant excavation of the sand bar at the entrance to Middle Harbour
- Limited availability of suitable surface construction sites.



Red corridor option

Tunnel under Neutral Bay, Cremorne and Mosman and then under Middle Harbour to the west of the Spit Bridge.

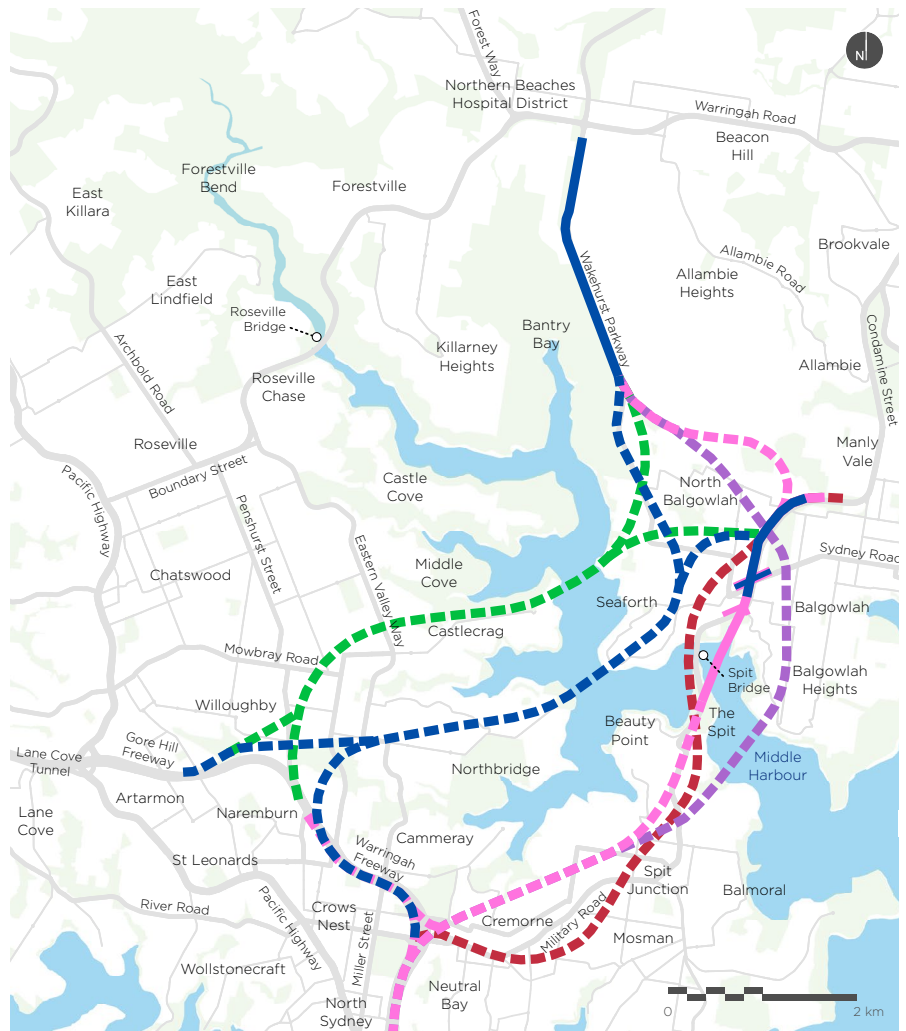
This option required connection to North Sydney via an intersection at Falcon Street, with resultant traffic problems.

Green corridor option

Connections with both the Warringah Freeway and the Gore Hill Freeway, a tunnel under Willoughby, Castlecrag and Seaforth.

At Seaforth, the corridor divided to connect with the Wakehurst Parkway and Burnt Bridge Creek Deviation.

A Middle Harbour crossing between Sugarloaf Point and Pickering Point meant the tunnels would have steep gradients, leading to poor traffic performance and increased ventilation requirements.



Indicative map of options assessed

Selected concept design – blue corridor option

The blue option is similar to the green option, with connections to the Warringah Freeway and the Gore Hill Freeway in the west and the Wakehurst Parkway and Burnt Bridge Creek Deviation in the east.

The blue corridor option follows a more southerly alignment, passing under Northbridge and crossing Middle Harbour near Seaforth Bluff.

The Middle Harbour crossing allows for better motorway geometry than the green option, including lower tunnel gradients.

These flatter tunnel gradients provide for better traffic performance and better in-tunnel air quality.

Other advantages include:

- Better network connectivity, particularly around the Warringah Freeway and Gore Hill Freeway
- Shorter tunnel lengths with flatter gradients
- Reduced environmental impacts compared with the other options.


You can have your say at any time

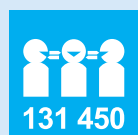
To find out more about the project, or to have your say:

 www.rms.nsw.gov.au/whtbl

 1800 931 189

 whtbl@rms.nsw.gov.au

 Customer feedback
Roads and Maritime Services
Locked Bag 928, North Sydney NSW 2059



This document contains important information about transport projects in your area. If you need an interpreter, please call the Translating and Interpreting Service on **131 450** and ask them to call the Project Team on **1800 931 189**. The interpreter will then help you with translation.

Privacy Roads and Maritime Services ("RMS") is subject to the Privacy and Personal Information Protection Act 1998 ("PPIP Act") which requires that we comply with the Information Privacy Principles set out in the PPIP Act. All information in correspondence is collected for the sole purpose of assisting the assessment of this proposal. The information received, including names and addresses of respondents, may be published in subsequent documents unless a clear indication is given in the correspondence that all or part of that information is not to be published. Otherwise RMS will only disclose your personal information, without your consent, if authorised by the law. Your personal information will be held by RMS. You have the right to access and correct the information if you believe that it is incorrect.