

## 2014-2015 Assessment Brief

<b>Recommended rating:</b>	<b>Ready to proceed</b>
<b>Current rating on Infrastructure Priority List:</b>	<b>Early stage</b>
Initiative Name:	NorthConnex
Geography:	Sydney, NSW
Proponent:	Transport for NSW (TfNSW) Roads and Maritime Service (RMS)
Project description:	
<p>The NSW Government and private sector proponents (Transurban and Westlink M7 shareholders) are proposing to construct and operate a tolled motorway linking the M1 Pacific Motorway at Wahroonga to the Hills M2 Motorway at West Pennant Hills.</p> <p>The project is based on an unsolicited proposal received by the NSW Government, for the private sector proponents to finance, design, build and operate NorthConnex.</p> <p><b>Project objectives include:</b></p> <ul style="list-style-type: none"> <li>▪ Reduce traffic congestion, particularly along Pennant Hills Road;</li> <li>▪ Reduce the number of heavy vehicles using Pennant Hills Road improving air quality amenity;</li> <li>▪ Improve opportunities for public transport in the area around Pennant Hills Road; and</li> <li>▪ Contribute to the national objective of connecting the Melbourne to Brisbane route via a duplicated highway.</li> </ul> <p><b>Problems the project seeks to address are:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Inefficient freight system</b> - Pennant Hills Road between the M1 Pacific Motorway and the Hills M2 Motorway is one of the two remaining sections of the National Land Transport Network within Sydney that is not of a motorway standard; and</li> <li>▪ <b>Congestion</b> - due to a large number of signalised intersections and traffic exceeding the design capacity of Pennant Hills Road.</li> </ul> <p><b>Project Solution:</b></p> <p>The proposed solution is a tolled motorway linking the M1 Pacific Motorway at Wahroonga to the Hills M2 Motorway at West Pennant Hills. The tunnel will be sized to accommodate three lanes in each direction but will initially be marked for two traffic lanes and a breakdown lane.</p> <p>The proposal includes a heavy vehicle regulation regime, where the NSW Government will implement regulatory measures to reduce the number of trucks using Pennant Hills Road when NorthConnex is completed.</p> <p>As part of the financing arrangement, the private sector sponsors will receive concession extensions on the M2/Lane Cove Tunnel and M7 and truck tolls will be increased.</p>	
Capital Cost of Initiative by Proponent (\$ millions, nominal, undiscounted):	\$3.1 billion
Contribution sought by Proponent including requests for project development funding (\$ millions, nominal, undiscounted):	Australian Government contribution \$405 million.
Other funding (source/amount/cash flow) (\$ millions, nominal, undiscounted):	Private sector proponent - \$2,100 million

High level development and implementation program (month/year):	NSW Government - \$570 million (including a \$405 million direct financial contribution)
	Anticipated start date: mid 2015 Anticipated completion: early 2019
	BCR stated by proponent: 2.12:1

## Strategic alignment summary

### Alignment with Infrastructure Australia’s Strategic Priorities:

This project increases Australia’s productivity and productive capacity through reduced congestion and increased road freight productivity.

NorthConnex is located on the National Land Transport Network and will directly contribute to the Infrastructure Australia theme of ‘a national freight network’. NorthConnex will provide the missing link in the National Land Transport Network between the M1 and the Sydney Orbital road network, delivering improved efficiency for national freight carriers and long-distance transport operators.

### Alignment with State Strategic Priorities:

NorthConnex has previously been identified in the NSW Government’s *State Infrastructure Strategy* and *NSW Long Term Transport Master Plan* as important infrastructure for freight traffic and the wider connectivity in NSW.

## Problem assessment summary

The NorthConnex project seeks to address the following problems:

- inefficient freight systems;
- congestion;
- vehicle accidents; and
- adverse socio economic impacts, namely traffic noise, community severance and exhaust emissions.

Pennant Hills Road between the M1 and M2 motorways is one of the two remaining sections of the National Land Transport Network within Sydney that is not motorway standard (the other being the A3 including Roberts Road and King Georges Road). There are high levels of congestion on Pennant Hills Road because of a large number of signalised intersections (21) and traffic exceeding the design capacity of the road. The current congestion restricts the productivity of road freight moving to, from or through Sydney.

Heavy traffic flows and congestion along Pennant Hills Road result in low average peak travel speeds, unreliable travel times and disruption to traffic flows. Traffic speeds are currently 30km/hour in the morning peak and 35 km/hour in the evening peak, well below speeds on Sydney motorways. Without NorthConnex a northbound trip along Pennant Hills Road during PM peak period in 2029 is projected to take 46 minutes compared to 6 minutes for NorthConnex users once this road is available.

## Solution assessment summary

The private sector proponents have prepared a detailed proposal to fund and construct a specific option for delivering the connection between the M1 and the M2.

The submission builds on options analysis prepared in 2004 by Sinclair Knight Merz (SKM) as part of a feasibility study into a link between the M1 and M2 – the option proposed by the proponent is

consistent with the preferred option in the feasibility study. This option has also been supported by the Pearlman Review conducted in 2008.

In the 2004 SKM feasibility study, a range of infrastructure options were proposed. These consisted of three motorway corridors; the first between the M1 and M2 which is similar to the current proposal and two corridors further west joining the orbital road network at the M7 and joining the M1 near Berowra and north of the Hawkesbury river respectively. Within these corridors 17 more detailed sub options were developed and evaluated. Other non-infrastructure measures, such as road pricing, were mentioned but little information was presented. The preferred option was determined using a rapid BCA, and by ranking the projects across qualitative measures such as environmental impact and consistency with strategic objectives.

The findings from the option analysis from the 2004 feasibility study are applicable to the current problem. The feasibility study did not explore application of tolls to NorthConnex or increasing tolls on the M7, noting that the M7 did not open until 2005.

Following the 2008 Pearlman Review, the NSW Government has previously submitted proposals to Infrastructure Australia regarding this corridor. The NorthConnex solution was brought forward to the NSW Government as an unsolicited proposal and has substantial cost reductions compared to previous submissions, innovations in design and a greater reliance on user funding through tolls including through concession extensions and increased truck toll charges on the M2/Lane Cove Tunnel and M7.

## **Economic appraisal summary**

The stated BCR for the project is 2.12:1.

Infrastructure Australia is confident that the BCR is greater than 1 for the proposed solution. There are a number of significant upside and downside risks to the BCR estimate:

- Benefits from increased travel time reliability have not been included in the BCR analysis. Reliability is likely to be materially increased by the project, and including this as a benefit would increase the BCR.
- The travel time cost savings from the proposed solution are based on modeling undertaken by Transurban. These are considerably higher than in a previous submissions to Infrastructure Australia from 2008 for a different scheme (\$4.4 billion compared to \$2.3 billion in real 2013 terms). The NSW Government commissioned its own transport modeling as part of confirming the value of the project, which shows consistent levels of demand to the modeling undertaken by Transurban.

## **Deliverability summary**

The project is well advanced and poses relatively few deliverability risks for the NSW Government. The project has received planning approval, contracts are signed for Lend Lease Bouygues Joint Venture to undertake construction and construction is expected to commence in May 2015.

The NorthConnex project showcases a number of positive features of project development. The procurement process run by Transurban has focused on specifying outcomes, which has allowed tenderers to provide innovations in design and resulted in a 46 per cent cost reduction compared to previous submissions to Infrastructure Australia. The Government's exposure to risk is also substantially lower because of the delivery of the project by Transurban. Further, user funding is an important component of the project and this is supported by Infrastructure Australia, because it can provide stronger incentives for good project selection and a sustainable funding source.

NorthConnex also highlights the use of changes in existing road concessions as a funding mechanism. In the case of NorthConnex, users of the M7 will partly fund the project, particularly heavy vehicles using the M7.



## Overall Assessment

The proponent has provided sufficient information to indicate that the problem being addressed is both significant and aligned to Infrastructure Australia's and the NSW Government's strategic priorities. NorthConnex will provide the missing link in Sydney's orbital road network and the National Land Transport Network. Private involvement through the unsolicited proposal process has allowed the acceleration of this project.

The project will deliver important decongestion benefits which will support productivity and improve amenity around Pennant Hills Road, and would deliver a BCR of 2.12:1. We are satisfied that the BCR for the proposed solution is greater than 1.0:1 and the project is economically viable.

Procurement of this project is well advanced with contracts signed and poses relatively few risks for government. The delivery of the project has led to substantial cost reductions and innovations in design.

## Infrastructure Australia Priority List Decision

Infrastructure Australia assesses the project as Ready to Proceed on the Infrastructure Priority List.

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This brief was approved by the IA Board in May 2015.

The submission material provided to IA referred to concession and extensions truck toll increases for the M7. The brief has been amended to make reference to concession extensions and truck toll increases on M2/Lane Cove Tunnel Motorways.

The estimated travel time for a northbound trip along Pennant Hills Road during the PM peak in 2029 has been amended from 27 minutes to 46 minutes, reflecting an error in the brief.