2012-2013 Assessment Brief

Recommended rating: Threshold

Status in 2012 report to COAG: New submission

Initiative Name: Widening the F3 Freeway – Tuggerah to Doyalson

Geography: Central Coast, New South Wales

Proponent: New South Wales Government

Project description:

The New South Wales Government is seeking $100 million of Commonwealth funding to upgrade a 10.5 kilometre section of the F3 freeway from Tuggerah to Doyalson, approximately 85 kilometres north of Sydney. The upgrade of this section of the freeway includes pavement strengthening and widening of the freeway from four to six lanes.

Objective:

The stated objective is to improve the productivity of the freeway by improving the pavement condition and increasing capacity. The increased productivity will support the function of the road as both a national and intrastate route for freight and passenger vehicles.

The project will enhance connectivity for passenger vehicles and freight movements between the central coast and Sydney by improving the existing road network and reducing congestion.

Problem:

The problem identified is population growth on the Central Coast leading to high levels of commuting through to Sydney and capacity constraints along the freeway.

The pavement condition is poor as a result of soil conditions and the asset nearing the end of its design life. This is driving high maintenance costs as well as increasing vehicle operating costs.

Solution:

The proposed solution is to upgrade a 10.5 kilometre section of the F3 Freeway from Tuggerah to Doyalson. The upgrade consists of two components:

- Widening from four to six lanes; and
- Pavement strengthening.

Proponent’s capital cost estimate (nominal): $200 million

Contribution sought by Proponent including requests for project development funding (nominal): $100 million

Project timing Start/Completion by Proponent:

Construction is expected to commence in 2014/15.

Construction completion date is not provided.

BCR stated by proponent: 2.1
Strategic alignment summary

Alignment with Infrastructure Australia’s strategic priorities:

Improving the productivity of the F3 Freeway supports the development of a national freight network and aligns with Infrastructure Australia’s strategic priorities to ‘expand productive capacity’ and ‘increase Australia’s productivity’. The F3 Freeway is part of the National Land Transport Network and the provisional National Land Freight Network.

Moving people more efficiently from the Central Coast to Sydney will contribute to Infrastructure Australia’s strategic priority of ‘developing our cities and regions’ through improving access to job markets.

However, expanding the capacity of commuter roads to Sydney is likely to attract more passenger vehicles, which will have a negative impact on ‘reducing greenhouse emissions’.

Alignment with state strategies:

The New South Wales Government has released NSW 2021, the New South Wales Long Term Transport Master Plan, and the New South Wales State Infrastructure Strategy.

The project is broadly aligned with key objectives of NSW 2021 by improving the performance of the NSW economy, reducing travel times and investing in critical infrastructure. The project is not specifically identified in the State Infrastructure Strategy recently released by Infrastructure New South Wales or the New South Wales Long Term Transport Master Plan.

While the project is not specifically identified in the plan, the need to deliver better transport links to the Central Coast is identified. The plan also states that growing centres such as the Central Coast will need faster and more efficient transport links to Sydney, better public transport connections and less congestion on major roads.

Problem assessment summary

The submission identifies problems associated with the poor condition of the existing road as well as increased congestion stemming from growth in the freight task and population. This is leading to delays and inefficiency of the road network and high road maintenance costs.

Demand for the road is partly driven by Central Coast residents commuting to work. Approximately 25 percent of the Central Coast workforce commutes out of the region for work, with a large proportion commuting towards Sydney. Demand is expected to increase in the future with population projected to increase 25 percent to 400,000 by 2031.

The congestion problem is reasonably well described. The submission includes data on vehicles indicating that during peak periods there are around 5,400 vehicles travelling southbound (an average of 2,700 per lane). The submission also indicates that current capacity will be exhausted by 2031, based on projected vehicle growth and subsequent deteriorating levels of service.

The key drivers of the problem are population growth, workers commuting from the Central Coast region towards Sydney and poor soil conditions.
Solution assessment summary

The proposed solution is pavement strengthening and upgrading a 10.5 kilometre section of the F3 Freeway from Tuggerah to Doyalson from four lanes to six lanes.

Whilst the identified solution is a reasonable response to the problem in the short term, further measures should be considered, including: the provision of public transport; and reform measures to manage demand, for example road pricing.

BCR appraisal conclusion

The proponent has provided a BCR of 2.1. Although the BCR is greater than 1.0, the assumptions underlying the calculation need to be more clearly explained to support the BCR. In particular:

- Assumptions on average travel speed improvement and the period of time over which benefits are accrued (peak or off-peak) are a key driver of the BCR; and
- The cost benefit analysis may have underestimated benefits by not including reduced vehicle operating costs.

Infrastructure Australia Priority List Recommendation

The Office of the Infrastructure Coordinator acknowledges the importance of addressing the transport challenges facing the NSW Central Coast corridor. The F3 Freeway is part of the National Land Transport Network and the provisional National Land Freight Network.

It is recommended that the project be included on the Infrastructure Priority List at Threshold with the following conditions:

- The proponent develops a transport plan for the region that: addresses the challenges identified in the New South Wales Long Term Transport Master Plan; enables adequate consideration of the long and short term transport needs of the region; and adopts a strategic network wide approach to addressing the problems identified;
- As part of the regional transport plan, the proponent includes demand modeling that analyses whether the project would still be economically viable in the presence of efficient road pricing and public transport pricing; and
- The proponent demonstrates a robust cost benefit analysis.
Figure 1: Central Coast road network

Source: NSW Roads and Maritime Services (2010)