

Infrastructure Priority List

Update to the February 2020
Infrastructure Priority List



A prioritised
list of nationally
significant
infrastructure
needs

Infrastructure Australia is an independent statutory body that is the key source of research and advice for governments, industry and the community on nationally significant infrastructure needs.

It leads reform on key issues including means of financing, delivering and operating infrastructure and how to better plan and utilise infrastructure networks.

Infrastructure Australia has responsibility to strategically audit Australia's nationally significant infrastructure, and develop 15-year rolling infrastructure plans that specify national and state level priorities.

Online

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Moving Along Pathways created by Sydney based artist Dennis Golding

Acknowledgement of Country

Infrastructure Australia acknowledges the Traditional Custodians of Australia, and pays respect to their Elders past, present and emerging. We pay respect to their continuing connection to land, and the continuation of their cultural, spiritual and educational practices.

In preparing for the future of our infrastructure, we acknowledge the importance of looking beyond the immediate past to learn from Aboriginal and Torres Strait Islander's unique history of land management and settlement, art, culture and society that began over 65,000 years ago.

Table of contents

Chair’s Foreword	3
What’s new	6
Project summaries	8
High Priority Projects	10
Priority Projects	11
Initiative summaries	16
High Priority Initiatives	18
Priority Initiatives	21
The Priority List	29
Glossary	47



Chair's Foreword

I am pleased to launch this mid-year update to the *Infrastructure Priority List*, the national guide to the infrastructure investments Australia needs to secure a prosperous and resilient future.

The Priority List identifies for governments and industry the priority investments that will improve the quality of life of all Australians, grow our economy and create jobs. These investments have been independently assessed to ensure they are evidence-based and offer value for money.

This is the first time we have launched a mid-year release of the Priority List. This reflects the national need for infrastructure investment to progress quickly, without jeopardising the quality of those investments. This release aims to highlight new and updated proposals as early as possible so that infrastructure delivery and job creation can quickly progress.

Australia is planning its recovery from a rolling series of environmental, economic and health crises: drought, flood, the bushfires and the COVID-19 pandemic and its economic impacts. Infrastructure Australia is collaborating with the Federal, state and territory governments to provide advice and support on where to direct investment and how to build back better, more resilient infrastructure networks. Over the last 12 months, we have focused on continuing to streamline our assessment process to get the right investments on the table early.

The Priority List is a live document. New projects or initiatives are added to the Priority List as they are assessed and approved by our Board. In addition to regular releases such as this one, you can find the most up-to-date information on Priority List proposals throughout the year on our online, **interactive map**.

In 2019, we received a record number of initiative submissions to the February 2020 Priority List. Given the urgent need to progress the infrastructure pipeline and grow the Australian economy, we continued working with proponents to progress submissions that had merit but required further information.

This mid-year update includes newly announced initiatives – such as the Priority Initiative for Queensland regional road network safety improvements. This offers a state-level response to our national initiative to improve regional road safety across the country. Between 2008 and 2016, 55% of road fatalities in Australia occurred in regional areas. Urgently addressing these issues will make our roads safer, while at the same time supporting our growing regional economies and enabling a growing national freight task to strengthen our economy.

It also includes updates to existing initiatives – such as to the High Priority Initiative for the M1 Pacific Motorway capacity: Eight Mile Plains to Tugun, which has progressed to the Loganholme to Nerang section of the motorway following our assessment and approval of a Stage 2 submission from the Queensland Government.

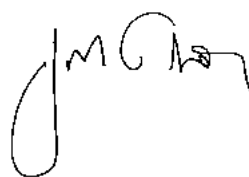
Our current call for submissions for the 2021 Priority List seeks business cases that respond to these initiatives, so that investment and delivery can progress quickly and efficiently.

We have also continued to assess nationally significant projects – these are investment-ready projects supported by strong business cases. Government and industry investment in these projects will create new jobs and grow our economy.

In Western Australia, we welcomed two new METRONET projects to the Priority List to respond to increasing transport demand from Perth’s growing population. In New South Wales we added three new projects to the list including: the M12 Motorway

as a High Priority Project; More Trains, More Services Stage 2 as a Priority Project; and the Port Botany Rail Line Duplication and Cabramatta Passing Loop as a Priority Project. These projects respond to the needs of our growing cities, making it easier for Australians to access employment and services via public transport.

Infrastructure Australia remains committed to collaborating with Australia’s governments and industry in the recovery effort, to bolster the national economy and support quality of life for all Australians. The Priority List serves as critical tool in this effort, directing investments to the infrastructure projects that will kick-start economic growth and have the greatest returns for Australian communities.



Julieanne Alroe
Chair, Infrastructure Australia

Consideration of COVID-19

The COVID-19 pandemic has significantly affected the use of infrastructure. Infrastructure Australia has been working collaboratively with the Commonwealth Government to provide advice on a staged response for managing, and recovering from, the impacts of the COVID-19 pandemic.

One critical element of our advice is to maintain a pipeline of nationally significant infrastructure investments. Nationally significant infrastructure projects are long-term investments, typically considering a 30-year view of the project’s social, environmental and economic impacts. In making these recommendation, Infrastructure Australia continues to take a long-term view and has also considered the sensitivity of key planning assumptions using the best data available to us.

As noted in the 2019 *Australian Infrastructure Audit*, we must continue to evolve the way we plan for Australia’s infrastructure to embrace uncertainty. There are still many uncertainties regarding the long-term impact of the COVID-19 pandemic on infrastructure use.

We will continue to collaborate with industry, the community and governments at all levels to understand the impacts of the COVID-19 pandemic on infrastructure decisions in Australia.

Search the Priority List on the Infrastructure Australia website

The *Infrastructure Priority List* is available as an interactive map on the Infrastructure Australia website. The online map sets out a detailed view of infrastructure problems and opportunities identified around the country: www.infrastructureaustralia.gov.au.

The map provides the most up-to-date view of the nationally significant investments Australia needs to meet its infrastructure challenges, and is continually updated alongside the Priority List.

The interactive map allows you to search the Priority List based on your interests and to find proposals based on the state, territory or region where they would be delivered, the type of infrastructure they represent and whether they were identified independently by Infrastructure Australia.



What's new

This section lists all the new projects and initiatives featured in this edition, along with several initiatives that have been updated with new information since February 2020. Some initiatives have been changed to reflect recent industry or initiative specific developments.

These additions reflect both the live nature of the *Infrastructure Priority List* and the continuous progress being made across the different infrastructure sectors. This mid-year publication ensures that the *Infrastructure Priority List* remains an up-to-date source of information and provides accurate and comprehensive guidance on the priority infrastructure investments for Australia's governments.



New proposals added to the Priority List since February 2020:
Click the proposals following to find out more

New Projects

Project name	Problem/opportunity description
New South Wales	
M12 Motorway <i>High Priority Project</i>	Motorway capacity in Western Sydney
More Trains, More Services Stage 2 <i>Priority Project</i>	Sydney rail network capacity
Port Botany Rail Line Duplication and Cabramatta Passing Loop <i>Priority Project</i>	Sydney freight rail network capacity
Western Australia	
METRONET Morley–Ellenbrook Line <i>Priority Project</i>	Perth rail network capacity
METRONET High Capacity Signalling <i>Priority Project</i>	Perth rail network capacity

New Initiatives

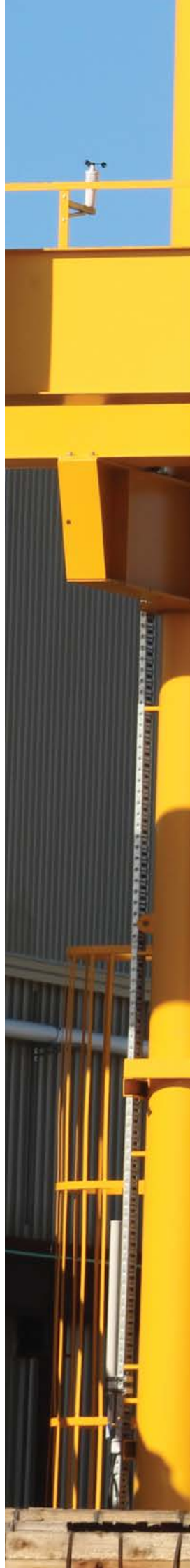
Initiative name	Problem/opportunity description
Queensland	
Queensland regional road network safety improvements <i>High Priority Initiative</i>	Safety on regional roads
Brisbane northern suburbs corridor capacity <i>High Priority Initiative</i>	Brisbane northern corridor capacity

Initiative name	Problem/opportunity description
Browns Plains to South East Busway public transport connectivity <i>Priority Initiative</i>	Brisbane public transport capacity
Browns Plains to Beaudesert road capacity and safety <i>Priority Initiative</i>	Brisbane road network capacity
Mooloolah River Interchange capacity and safety <i>Priority Initiative</i>	Sunshine Coast road network capacity
Queensland inland freight route capacity and safety <i>Priority Initiative</i>	Queensland freight network improvements
Australian Capital Territory	
Australian Institute of Sport modernisation <i>Priority Initiative</i>	Sport and research social infrastructure

Initiatives that have been updated

Initiative name	Reason/s for change
Western Sydney Infrastructure Plan	Removed from the <i>Infrastructure Priority List</i> as Infrastructure Australia has evaluated and recommended the M12 Motorway business case, the final major component of the program. This component is now listed as a High Priority Project. Other components of the program, including upgrades to The Northern Road and Bringelly Road, were formerly on the <i>Infrastructure Priority List</i> as separate Priority Projects, and have since been removed as they are now under delivery.
Port Botany freight rail duplication and Southern Sydney Freight Line upgrade (now Port Botany Rail Line Duplication and Cabramatta Passing Loop)	Graduated from Priority Initiatives to a single Priority Project in February 2020 following Infrastructure Australia's evaluation and approval of the Port Botany Rail Line Duplication and Cabramatta Passing Loop business case.
Transport connectivity between Morley and Ellenbrook (now METRONET: Morley–Ellenbrook Line)	Graduated from a Priority Initiative to a Priority Project in April 2020 following Infrastructure Australia's evaluation and approval of the METRONET: Morley–Ellenbrook Line business case.
M1 Pacific Motorway capacity Eight Mile Plains to Tugun	Infrastructure Australia has assessed and approved a Stage 2 (Initiative identification and options development) submission from the Queensland Government for the section of the M1 Pacific Motorway between Loganholme and Nerang. This is one of the sections of the motorway that forms part of the overall initiative between Eight Mile Plains and Tugun.
East coast deep water container port capacity	Updated to reflect latest industry developments.
Gold Coast rail line capacity (now Gold Coast rail line and station improvements)	Updated to reflect the latest information on the infrastructure constraints on the Gold Coast rail line.
Tanami Road upgrade	Updated to capture road closure impacts during floods, and potential infrastructure responses.

Project summaries





High Priority Projects

M12 Motorway

Location

Western Sydney, NSW



Geography

Fast-growing cities

Category

Urban Congestion

Indicative delivery timeframe

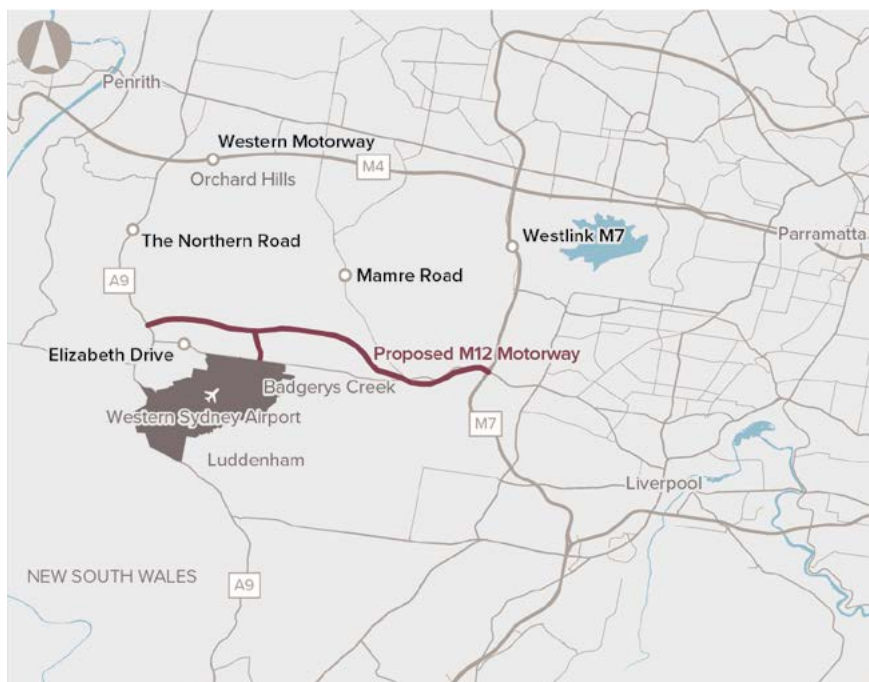
Near term (0–5 years)

Proponent

NSW Government

Evaluation date

18 June 2020



Problem to be addressed

The population in Western Sydney is anticipated to increase from 2.1 million in 2016 to 3.0 million by 2036. This growth and a number of planned developments, including the Western Sydney Airport, is expected to put significant pressure on the existing transport network, including the current main east–west route along Elizabeth Drive.

Traffic modelling undertaken by Transport for NSW indicates that the existing transport network will not be able to sufficiently and efficiently service future demand.

Additional pressure on the network is expected to increase safety risks, worsen travel outcomes and affect planning and development undertakings within the region.

Project description

The M12 Motorway will be a new 16-kilometre dual-carriage motorway and is part of the Western Sydney Infrastructure Plan. It will connect the Westlink M7 Motorway to The Northern Road, which is a major north–south corridor and also a component of the Western Sydney Infrastructure Plan.

The motorway will have two lanes in each direction, a central median allowing future expansion to six lanes, and provide interchanges connecting The Northern Road, Western Sydney Airport and the M7 Motorway.

The project will also construct several bridges:

- across Kemps Creek, South Creek, Badgerys Creek and Cosgroves Creek
- across the M12 Motorway
- across the interchanges and other local roads.

The existing bridge across Ropes Creek and Villiers Road will also be widened.

The M12 Motorway also includes active-transport facilities and connections. Local networks will be modified to connect across and around the motorway.

Economic, social and environmental value

Economic benefits of the project include travel-time savings and vehicle operating cost savings. Other benefits include road safety benefits, a reduction in travel-time variability.

The proponent’s stated benefit-cost ratio is 1.8, with a net present value of \$1,170.7 million (7% real discount rate).

Priority Projects

More Trains, More Services

Stage 2

Location
Sydney, NSW



Geography
Fast-growing cities

Category
National Connectivity

Indicative delivery timeframe
Near term (0–5 years)

Proponent
NSW Government

Evaluation date
18 June 2020



Problem to be addressed

Strong economic and population growth in the Greater Sydney Region has significantly increased demand for rail services. In 2018, the T4 Illawarra, T8 Airport and South Coast lines catered for 410,000 round trips per day, or one-third of Sydney Trains customers.

In 2018, 75% of T4 AM peak services and 54% of T8 AM peak services operated above target operating capacity. This made these services the most and fourth-most crowded lines on the Sydney network respectively.

Strong population growth is expected over the next 40 years. Without intervention, this will continue to increase demand for rail services and expose the key capacity constraints of Sydney's transport network.

Project description

This project is Stage 2 of the multi-stage More Trains More Services (MTMS) Program to increase rail capacity across the Sydney network.

MTMS Stage 2 will include enabling works on the T4 line, including:

- additional turnback capacity at Sydney's Central Station
- new crossovers at Erskineville and Hurstville
- station capacity upgrades and platform lengthening.

On the T8 Airport Line, the project will upgrade signalling, increase train maintenance storage capacity, and provide station upgrades and traction power upgrades.

In addition to the track and rail improvements, 17 eight-car double-deck suburban trains and 30 New Intercity Fleet cars will be procured.

It is expected that the project will result in more services to provide more regular and reliable services on the T4 and T8 suburban lines.

Economic, social and environmental value

Economic benefits of the project include travel-time savings for both public transport and private vehicle users. Other benefits for public transport users include less crowding at stations and on trains, and more travel-time reliability. Private vehicle users will also benefit with vehicle operating cost savings and road safety benefits.

As the project reduces private vehicle kilometres, MTMS Stage 2 delivers a range of environmental benefits including reduced air, water and noise pollution.

The proponent's stated benefit-cost ratio is 1.38, with a net present value of \$890 million (7% real discount rate).

Capital cost of initiative as stated by proponent (2019 business case) \$2,233 million (P90, nominal, outturn) | Australian Government contribution sought \$1,116.5 million | State government contribution \$1,116.5 million

Priority Projects

Port Botany Rail Line Duplication and Cabramatta Passing Loop

Location
Sydney, NSW



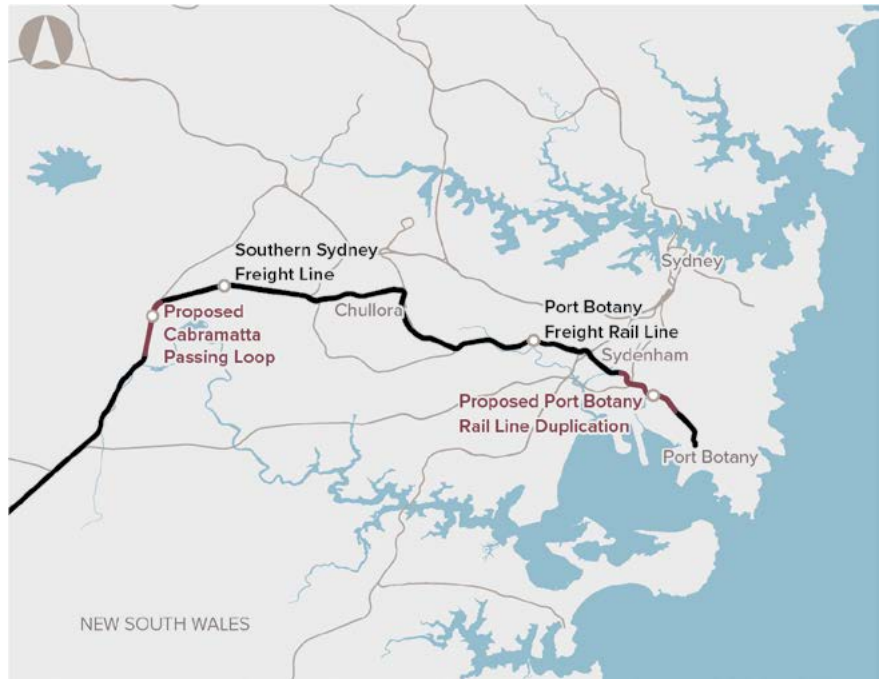
Geography
Fast-growing cities

Category
National Connectivity

Indicative delivery timeframe
Near term (0–5 years)

Proponent
Australian Rail Track Corporation (ARTC)

Evaluation date
20 February 2020



Problem to be addressed

The annual volume of shipping containers moving through Port Botany is expected to increase by 4.5 million twenty-foot equivalent units (TEUs) over the coming decades. Investment in on-dock rail infrastructure at Port Botany to increase its capacity, combined with growth in containerised rail freight demand at metropolitan intermodal terminals, will increase pressure on the Metropolitan Freight Network. In particular, demand is expected to exceed capacity on the Southern Sydney Freight Line (SSFL) and Port Botany Rail Line (PBRL) from 2026. The Cabramatta Passing Loop will increase rail freight capacity on the SSFL by allowing freight trains travelling in either direction to pass each other, while the PBRL Duplication will enhance the reliability, flexibility and capacity for container freight operations to and from Port Botany. Undertaking both project components concurrently provides a necessary supply-chain solution to encourage freight owners to transport more containers by rail and help reduce road congestion.

Project description

The project will provide the capacity required to meet forecast rail demand generated by the Moorebank Intermodal Terminal, Enfield Intermodal Terminal, the St Marys Intermodal Terminal (from 2022), and future terminals, including a site planned near Western Sydney Airport. The proposed construction timeframe aligns and integrates with the design and construction of the Sydney Gateway (road) Project, located adjacent to Sydney Airport.

There is strong strategic merit for the project as it supports the NSW Government's aim to increase the mode share of containers being moved by rail to and from Port Botany.

The proponent – the Australian Rail Track Corporation (ARTC) – proposes a design and construct delivery method. Tendering and award of the contract will be carried out according to ARTC's procurement policies and procedures. This is an appropriate delivery strategy, as the ARTC has the experience and capacity to deliver the project and will build, operate and maintain both components of the project once complete.

Economic, social and environmental value

Economic benefits of the project include road decongestion and road safety benefits. Other benefits include reduced vehicle emissions, resulting from more containers being moved by freight rail rather than by trucks.

The proponent's reported net present value for the project is \$429.7 million, with a benefit-cost ratio of 2.68 using a 7% real discount rate and P50 capital-cost estimate.

Priority Projects

METRONET

Morley–Ellenbrook Line

Location
Perth, WA



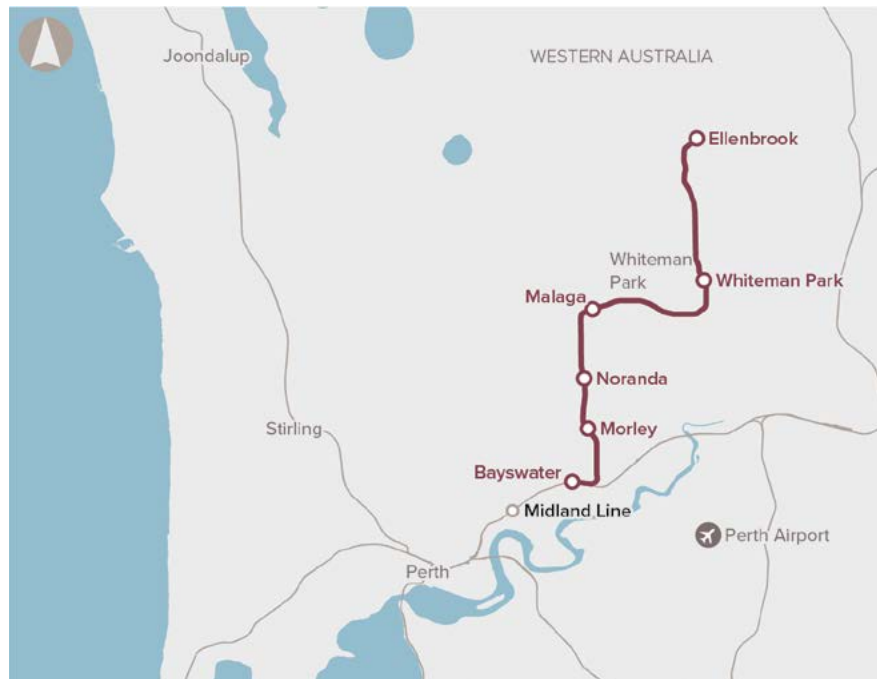
Geography
Fast-growing cities

Category
National Connectivity

Indicative delivery timeframe
Near term (0–5 years)

Proponent
Western Australian Government

Evaluation date
7 April 2020



Problem to be addressed

The corridor between Morley and Ellenbrook houses more than 150,000 residents and hosts more than 40,000 jobs. The area is experiencing rapid population growth and is expected to be one of the key areas to accommodate Perth's growing population over the next 10 years.

Current bus travel times between Morley, Ellenbrook and Perth CBD are relatively slow and require a transfer to existing rail services to reach the CBD. As a result, car use within the corridor continues to grow, placing pressure on the road network.

The combination of rapid population growth, low-density development and a high dependence on cars is increasing the risk of urban sprawl. This will worsen transport outcomes in the project area going forward.

Project description

The METRONET Morley–Ellenbrook Line is a 21 km at-grade heavy rail line using the median of the Tonkin Highway.

The project's key features include:

- six stations at Bayswater, Morley, Noranda, Malaga, Whiteman Park and Ellenbrook
- provision for a future station at Bennett Springs East
- predominately at-grade rail line from Malaga to Ellenbrook via Whiteman Park.

The project would allow for an approximately 30 minute one-way rail journey from Ellenbrook to the CBD. By 2031, train services would run every 10 minutes in the peak and every 15 minutes off-peak.

Economic, social and environmental value

Economic benefits of the project include travel-time savings for both public transport and private vehicle users. Other benefits include vehicle operating cost savings, road safety benefits and station amenity benefits.

The proponent's stated benefit-cost ratio is 1.1, with a net present value of \$208 million (7% real discount rate).

Priority Projects

METRONET

High Capacity Signalling

Location
Perth, WA



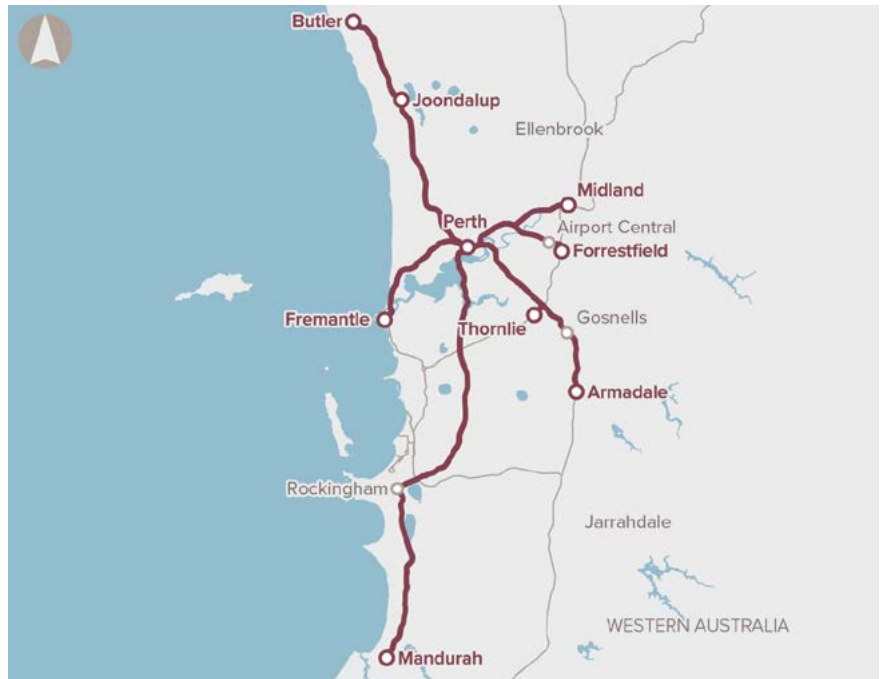
Geography
Fast-growing cities

Category
National Connectivity

Indicative delivery timeframe
Various (0–10 years)

Proponent
Western Australian Government

Evaluation date
7 April 2020



Problem to be addressed

Perth’s existing signalling and train control systems include ageing assets that are in some instances approaching life expiry and/or obsolescence.

The ageing infrastructure is currently causing safety, capacity and reliability issues on Perth’s rail network, and will be pressured by the anticipated population growth in Perth.

The Western Australian Government’s METRONET rail program aims to cater for this population growth by delivering new and extended railway lines and new stations. However, as the rail network expands, it will also increase pressure on the ageing signalling and train control systems will exacerbate the issues currently impacting the rail network.

Project description

The project will implement an Automatic Train Control system using modern, radio-based, high-capacity Communications-Based Train Control technology on all three line-groups of the Perth metropolitan railway network.

The scope of this project includes:

- replacing the existing ‘fixed block’ signalling system with a ‘moving-block’ Communications Based Train Control system
- replacing the life-expired Automatic Train Protection system
- implementing Automatic Train Operation
- implementing Automatic Train Supervision and Regulation to replace the existing Train Control System.

The project also includes the construction of a purpose-built Rail Operations Centre, a back-up Signalling Equipment Room and an upgrade of the existing Alternate Train Control facility.

Economic, social and environmental value

Economic benefits of the project include shorter wait times, reduced train crowding, and travel-time savings for public transport users. Other benefits include reduced vehicle emissions and operating costs, health benefits, and road-safety benefits.

The proponent’s stated benefit-cost ratio is 2.6, with a net present value of \$688 million (7% real discount rate).



Initiative summaries

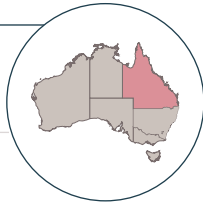




High Priority Initiatives

Queensland regional road network safety improvements

Location
Queensland



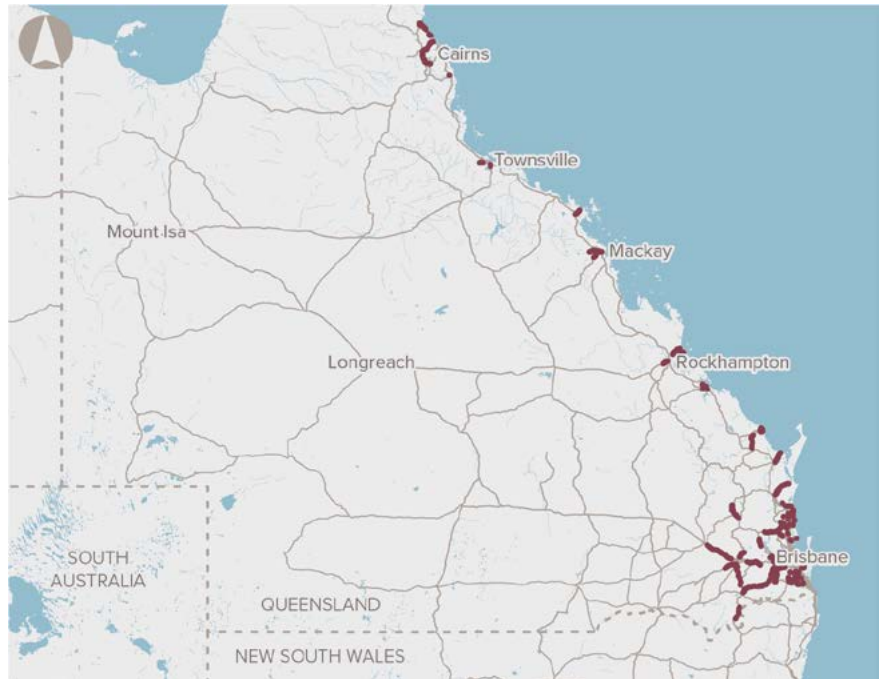
Geography
Small towns, rural communities and remote areas

Category
Road Safety

Problem timeframe
Near term (0–5 years)

Proponent
Queensland Government

Date added to the IPL
April 2020



Problem

Of the 245 lives lost on Queensland roads in 2018, over 65% of the crashes occurred in areas outside of the major cities.

The Queensland Government has identified sections of regional high speed, two-lane highways that mostly have narrow shoulders, minimal separation between traffic, minimal safety features (such as audio-tactile line markings) and unprotected roadsides.

These sections of road make up 3% of Queensland’s state-controlled road network by length, but 20% of vehicle kilometres travelled and 15% of ‘fatal and serious injury’ crashes.

Many of the identified roads are key freight routes servicing towns and cities along the coast. Growing populations in these towns and cities, along with rising freight demand, are likely to increase traffic volumes and potentially the number of crashes on these roads.

Proposed initiative

This initiative forms part of the national High Priority Initiative for Regional road network safety improvements.

Options to address the initiative could include:

- providing wider centrelines, centre barriers and increasing shoulder widths
- implementing audio-tactile line marking and roadside barriers
- improving the quality of high-risk intersections.

Options to improve each section of road in the program will need to take into account the unique characteristics and safety risks of those sections.

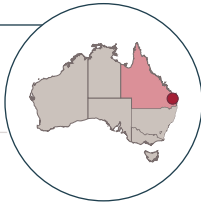
Next steps

Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia’s Assessment Framework).

High Priority Initiatives

Brisbane northern suburbs corridor capacity

Location
Brisbane, Qld



Geography
Fast-growing cities

Category
Urban Congestion

Problem timeframe
Near term (0–5 years)

Proponent
Queensland Government

Date added to the IPL
April 2020



Problem

Residential growth in northern Brisbane, combined with employment growth primarily in the Brisbane CBD, is straining capacity on Brisbane's northern transport corridors. By 2041, 46% of people living in the Moreton Bay area north of Brisbane (about 141,000 people) are expected to commute to Brisbane for work.

Gympie Arterial Road is the main link between the Brisbane CBD and northern suburbs. Joining with the Gateway Motorway to become the Bruce Highway, it also provides access to the Sunshine Coast, and further north. In 2019, some sections of the Gympie Arterial Road carried more than 150,000 vehicles per day. Average weekday travel speeds along the road were 36km/h and 32km/h in the AM and PM peak periods respectively, and this congestion is expected to worsen over time.

Many people also travel between Brisbane and its northern suburbs via Sandgate Road and the Gateway Motorway (to the east of the Gympie Arterial Road) and via Beckett Road (to its west). All three of these alternative north–south routes face similar congestion pressures to the Gympie Arterial Road, which will continue to worsen over time.

Proposed initiative

The initiative is to improve the capacity of the transport corridors between the Brisbane CBD and northern suburbs. Options to address the initiative could include:

- upgrading intersections
- enhancing existing roads through additional lanes and smart technologies
- improving public transport options.

Potential upgrades should be considered in the context of an overall integrated program, as improvements to any of the north–south routes may reduce pressure on others.

Next steps

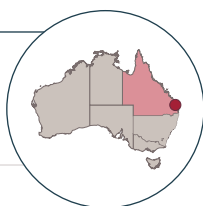
Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia's Assessment Framework).

High Priority Initiatives

M1 Pacific Motorway capacity

Eight Mile Plains to Tugun

Location
South East Queensland



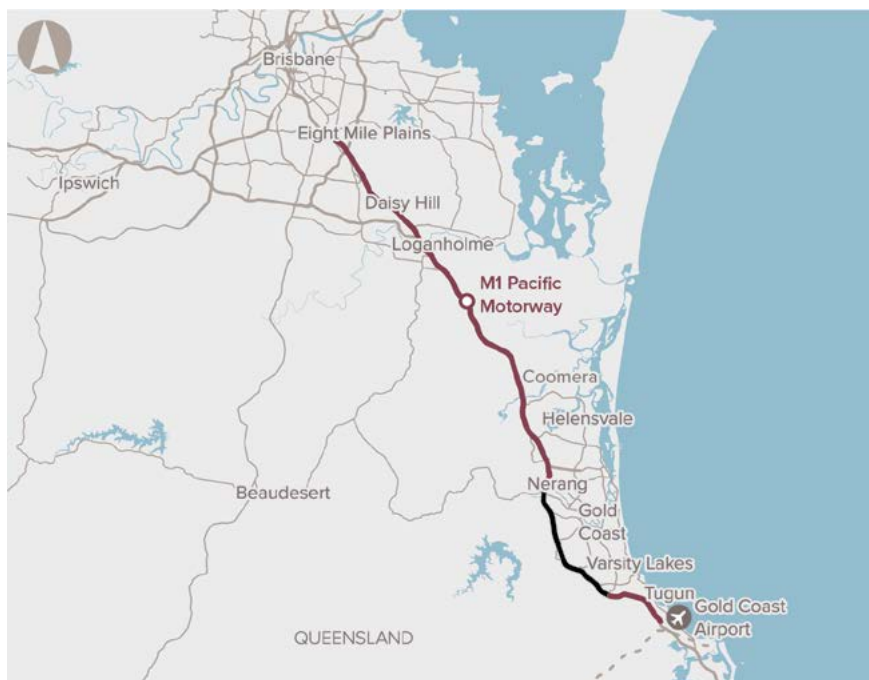
Geography
Smaller cities and regional centres

Category
National Connectivity

Problem timeframe
Near term (0–5 years)

Proponent
Queensland Government

Date added to the IPL
February 2019 (Updated June 2020)



Problem

The M1 Pacific Motorway is a vital component of the National Land Transport Network. It serves as the primary road corridor connecting Brisbane to the Gold Coast and south to New South Wales. The South East Queensland section of the M1 Pacific Motorway is the primary north–south arterial road that connects the key population and employment centres of Brisbane, Logan and the Gold Coast. The M1 also services and connects major transport hubs and industrial precincts, including the Gold Coast and Brisbane international airports, and the Port of Brisbane.

The M1 Motorway is one of the busiest roads in Australia. It carries in excess of 150,000 vehicles per day, including over 12,000 heavy vehicles. The section of the motorway between Eight Mile Plains and Tugun cannot currently accommodate this volume of traffic. As a result, it experiences frequent and prolonged periods of congestion and nationally significant impacts on productivity.

This is exacerbated as vehicles travel in and out of Brisbane from the rapidly growing Gold Coast, northern New South Wales, and the growth areas of Coomera, Pimpama and Ormeau. It is also worsened by the lack of an alternative route when there are incidents on the motorway. By 2036, congestion impacts are expected to worsen and result in over 89,767 vehicle hours of delay each day.

Over the medium- to long-term, population growth is expected to remain strong in the Gold Coast area, while employment growth is expected to be strongest in Brisbane. Given this projection, the Eight Mile Plains to Tugun section of the M1 corridor will remain critical to connecting residential areas in the south to job prospects in Brisbane.

Proposed initiative

This program initiative focuses on resolving capacity, efficiency and safety issues on the following four sections of the motorway between Eight Mile Plains and Tugun:

- between Eight Mile Plains and Daisy Hill
- between Daisy Hill and Loganholme
- between Loganholme and Nerang
- between Varsity Lakes and Tugun.

Business cases for the sections between Eight Mile Plains and Daisy Hill, and between Varsity Lakes and Tugun, have been assessed by Infrastructure Australia and are separately listed as Priority Projects on the *Infrastructure Priority List*.

In June 2020, Infrastructure Australia assessed and approved a Stage 2 submission from the Queensland Government for the section between Loganholme and Nerang, as part of the Coomera Connector Project.

Next steps

Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia's Assessment Framework), and complete business case development (Stage 3 of Infrastructure Australia's Assessment Framework).

Individual sections are at various stages of development.

Priority Initiatives

East coast deep water container port capacity

Location
East coast of Australia



Geography
National

Category
Efficient markets

Problem timeframe
Longer term (10–15 years)

Proponent
Infrastructure Australia identified initiative

Date added to the IPL
February 2020 (Updated June 2020)



Opportunity

Global shipping trends show a significant increase in the containerisation of cargo. This, in turn, is resulting in the size of container ships increasing. Globally, the capacity of container ships has increased to around 20,000 twenty-foot equivalent units (TEUs).

In the future, when container demands increase to appropriate levels, there is an opportunity for larger, more energy-efficient ships carrying more than 14,000 TEUs to serve Australian ports. This has the potential to create cost reductions and efficiency improvements.

As the vast majority of Australia's international freight is transported by ship, changes in supply chain efficiency would have a disproportionately large impact on competitiveness and consumers in Australia, compared with other countries.

While ports on the east coast of Australia have capacity to increase container throughput, investment will likely be required to ensure larger container ships can berth, transfer containers and have those containers taken to their destinations.

Given the complexity of port-related supply chains and the lead time to identify and implement infrastructure, it is important to start planning for these changes.

Shipping companies prefer to service multiple ports along a route, therefore the capacity of all ports along that route will influence the choice of vessel.

Proposed initiative

The initiative is for infrastructure improvements that enable larger vessels access to Australian ports on the east coast.

In the first instance, options to make better use of existing infrastructure should be considered, such as channel deepening and wharf upgrades to existing ports. These may need to be supported by improved land-side access infrastructure. In the longer term, alternative options could also be explored, such as new port developments or transshipment opportunities.

This proposed initiative is for the east coast of Australia, as there is limited overlap between the west and east coast shipping routes. Westport in Western Australia is also developing a long-term port strategy that is considering options for deep water port access.

Given the preference of cargo ships to make multiple stops on a route, a network of deep water ports will likely be required, rather than a single port at a given location. This incentivises shipping lines to provide larger vessels to service Australia, which may generate economic efficiencies subject to the investment costs required to service these larger vessels. Any capital investment should be considered in the context of pricing arrangements to avoid impeding competition.

Next steps

Proponent(s) to be identified.

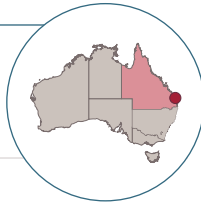
Priority Initiatives

Gold Coast rail line and station improvements

Kuraby to Beenleigh

Location

Kuraby to Beenleigh, Qld



Geography

Fast-growing cities

Category

Urban Congestion

Problem timeframe

Near term (0–5 years)

Proponent

Queensland Government

Date added to the IPL

March 2018 (Updated April 2020)



Problem

The Brisbane to Gold Coast rail line connects Gold Coast City and Logan City with the Brisbane CBD.

The rail line moves approximately 20,000 passengers during the combined morning and afternoon peaks each day. The rail line has seen strong growth in passenger demand, driven by population growth in the Brisbane to Gold Coast corridor.

The existing rail line is two tracks south of Kuraby station and three tracks to its north. This line is subject to a range of constraints, including tight curves that limit line speeds, and level crossings and station infrastructure that limit additional tracks.

Express services between the Gold Coast and Brisbane must share a single track with 'all stops trains' between Kuraby and Beenleigh. This limits the number of services that can be provided to support growth in travel demand between the cities of Brisbane, Logan and the Gold Coast. These infrastructure and operational constraints are resulting in overcrowding during peak periods.

Failure to address these capacity constraints could lead to potential rail users choosing to use the already congested M1 Motorway. This would result in additional travel times, with nationally significant impacts on productivity.

Proposed initiative

Options for this initiative could include:

- rail line and station improvements between Kuraby and Beenleigh to allow for the separation of express and all stops services
- increased frequency for Beenleigh and Gold Coast services in both directions.

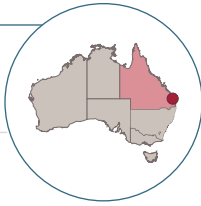
Next steps

Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia's Assessment Framework).

Priority Initiatives

Browns Plains to South East Busway public transport connectivity

Location
Brisbane, Qld



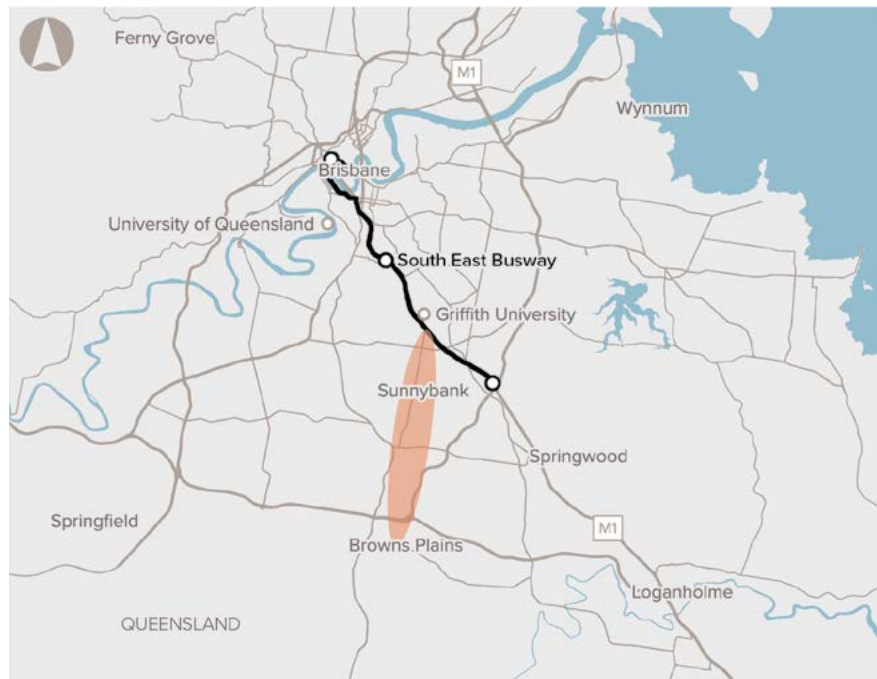
Geography
Fast-growing cities

Category
Urban Congestion

Problem timeframe
Near term (0–5 years)

Proponent
Queensland Government

Date added to the IPL
April 2020



Problem

The 14 km corridor between Browns Plains and the South East Busway is a major transport corridor for public transport, freight and private vehicle users.

Growing population and traffic demand will exacerbate capacity, reliability and safety issues currently impacting the corridor. This is partly due to the lack of bus priority infrastructure. There are only 3.3 km of inbound T3 lanes available for use in the northern section of the corridor and no bus priority infrastructure in the southern section. In 2019, the corridor carried an average of just over 140,000 vehicles each weekday. This included 18 buses per hour in the southern section of the corridor and up to 57 buses per hour in the northern section during peak periods. Apart from the grade separated busways in metropolitan Brisbane, the northern section is the busiest bus corridor in Brisbane.

This corridor connects people living south-west of Brisbane to Griffith University, the University of Queensland, major shopping centres and hospitals. It also provides access to the Brisbane CBD via the South East Busway.

Proposed initiative

The initiative aims to improve the capacity, safety and public transport connectivity of the corridor between Browns Plains and the South East Busway. Options to address the initiative could include:

- improving bus priority, such as through dedicated or priority lanes
- improving bus and pedestrian infrastructure to encourage public transport use
- upgrading intersections and key public transport interchanges and stations
- encouraging public transport use through traffic signalling, reduced car parking and other measures.

Next steps

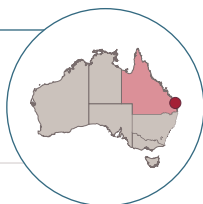
Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia's Assessment Framework).

Priority Initiatives

Browns Plains to Beaudesert road capacity and safety

Location

Browns Plains to Beaudesert, Qld



Geography

Fast-growing cities

Category

Urban Congestion

Problem timeframe

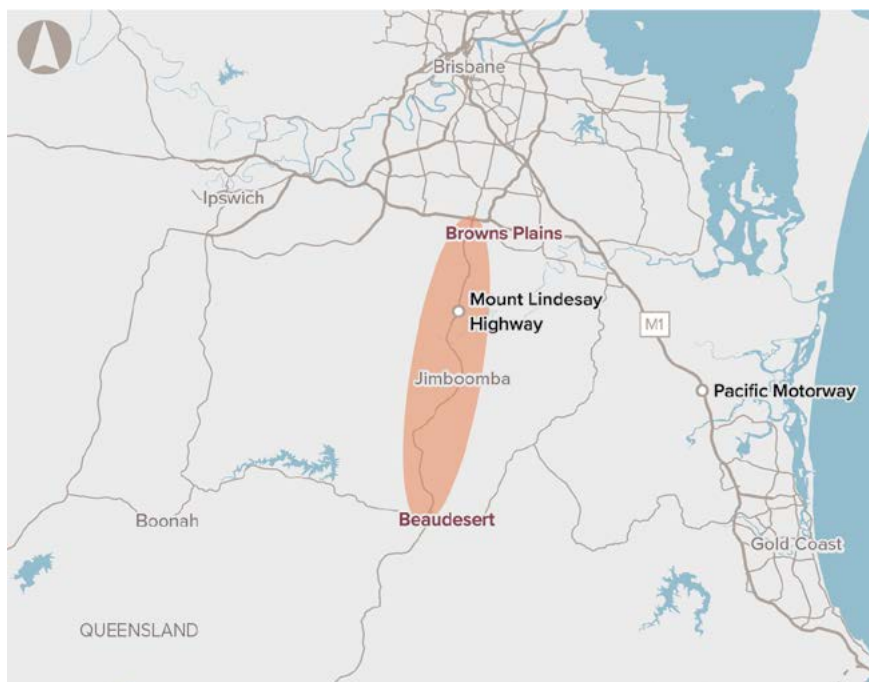
Near term (0–5 years)

Proponent

Queensland Government

Date added to the IPL

April 2020



Problem

The Mount Lindsey Highway is the primary corridor south-west of Brisbane between Browns Plains and Beaudesert. The standard and configuration of the highway is resulting in nationally significant capacity and safety issues.

Most of this 40 km route is a two-lane undivided highway, with only 7.5 km of dual carriageway. There are also sections of the highway that are vulnerable to flooding.

Traffic volumes vary along the highway, but are highest at the northern end where, in 2018, approximately 45,000 vehicles used the highway each day. During the AM peak periods in 2018, congestion delayed northbound traffic by an average of 27 minutes per vehicle. Between 2014 and 2018, there has been an average of 71 crashes, including 29 ‘fatal or serious injury’ crashes, each year.

Fast-growing populations in Jimboomba and Beaudesert, accompanied by a growing freight task, will exacerbate these issues if the capacity and safety of the corridor is not improved.

Proposed initiative

The initiative aims to improve the capacity and safety of the corridor between Browns Plains and Beaudesert. Options to address the initiative could include:

- widening existing lanes or constructing new lanes along the highway
- upgrading intersections
- improving the standard of the highway
- upgrading infrastructure for flood immunity.

The *Infrastructure Priority List* includes a separate Priority Initiative for corridor preservation for a Salisbury to Beaudesert rail connection, recognising the potential long-term transport options to service this region.

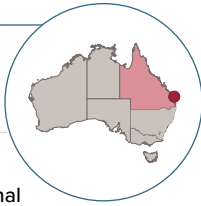
Next steps

Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia’s Assessment Framework).

Priority Initiatives

Mooloolah River Interchange capacity and safety

Location
Sunshine Coast, Qld



Geography
Smaller cities and regional centres

Category
National Connectivity

Problem timeframe
Near term (0–5 years)

Proponent
Queensland Government

Date added to the IPL
April 2020



Problem

The Sunshine Motorway, Brisbane Road and Nicklin Way intersect at the Mooloolah River Interchange, connecting major employment, residential and commercial precincts on the Sunshine Coast.

Traffic demand is exceeding the capacity of the interchange and surrounding road network during peak periods. This congestion is exacerbated by the configuration of the interchange, which causes some drivers to weave across multiple lanes or take less direct routes to reach their destination.

The configuration and growing number of vehicles using the interchange is reducing average peak period speeds, which were modelled at approximately 36 km/h in 2019, compared with free flow speeds of approximately 73 km/h. Between 2014 and 2018, 89 incidents were recorded at the intersection and access roads, including one fatality and 33 hospitalisations.

The 2019 *Australian Infrastructure Audit* estimated that the population of the Sunshine Coast would grow by around 120,000 people between 2016 and 2031, or 33% of its current population.

Proposed initiative

The initiative aims to improve the capacity and safety of the Mooloolah River Interchange, potentially through upgrading the access roads, entry/exit ramps and the configuration of the interchange. It could also include new road links or changes to local roads and the local public transport network if there is sufficient demand.

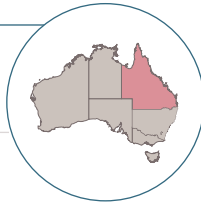
Next steps

Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia's Assessment Framework).

Priority Initiatives

Queensland inland freight route capacity and safety

Location
Queensland



Geography
Small towns, rural communities and remote areas

Category
National Connectivity

Problem timeframe
Longer term (10–15 years)

Proponent
Queensland Government

Date added to the IPL
April 2020



Problem

Queensland’s Inland Freight Route, from Mungindi (at the New South Wales border) to Charter Towers in North Queensland, is nearing capacity in some sections. In the long term, this route will struggle to meet the needs of the growing freight task, such as more frequent and heavier loads.

The 1,184 km Inland Freight Route is an important alternative north–south route to the Bruce Highway and North Coast rail line. It forms part of the Australian Government’s Key Freight Network.

Many sections of the corridor have aged pavement, narrow seal widths and flooding vulnerabilities. This reduces the efficiency, productivity and safety of the route. There are also several bridges along the route that constrain the types of heavy vehicles that can be used.

The *Infrastructure Priority List* also includes a broader Priority Initiative for an Inland Queensland road network upgrade, which includes the Inland Freight Route.

Proposed initiative

The initiative aims to improve the productive capacity and safety of the Inland Freight Route, enhancing its role as an alternative to the Bruce Highway. This initiative could be addressed through:

- improving pavement condition
- implementing safety measures, such as increasing centrelines and road shoulders
- upgrading the road and bridge standards to support higher-mass and higher-productivity vehicles
- constructing additional lanes for some sections
- upgrading infrastructure for flood immunity.

Next steps

Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia’s Assessment Framework).

Priority Initiatives

Australian Institute of Sport modernisation

Location
Canberra, ACT



Geography
Smaller cities and regional centres

Category
Social Infrastructure

Problem timeframe
Near term (0–5 years)

Proponent
Australian Sports Commission –
Australian Institute of Sport

Date added to the IPL
June 2020



Problem

The Australian Institute of Sport (AIS) is a centralised research and training hub centred in Canberra for Australia's elite and Olympic athletes.

The age and condition of the majority of facilities at the AIS do not meet modern-day requirements and are expensive to maintain. More than 15 of the facilities are over 30 years old and not fit for purpose.

The Australian Government's Sport 2030 strategy states that Australia is no longer at the cutting edge of sporting excellence and that this could be addressed by leveraging the AIS site.

In addition to supporting elite athletes, the AIS campus also benefits the local community, is a significant tourist attraction, and enables a range of partnerships and research programs involving the AIS, other government bodies, universities and industry.

These partnerships and programs could support advances in preventative health, medical research and disabilities, which can benefit other sporting bodies, as well as the broader Australian community.

Proposed initiative

The initiative is for redeveloping and modernising the AIS facilities. This could include improved or new facilities for athletes, coaches, researchers, visitors and tourists.

A broad range of infrastructure, technology and policy solutions should be explored to address the identified problems.

An AIS redevelopment should be supported by tailored programs for athletes, collaborative programs with universities and industry for innovation and research, as well as broader community programs to encourage sports participation.

Next steps

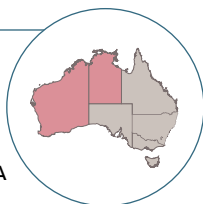
Proponent to identify initiatives and develop options (Stage 2 of Infrastructure Australia's Assessment Framework).

Priority Initiatives

Tanami Road upgrade

Location

Tanami Road links the Stuart Highway in the NT to the Great Northern Highway in WA



Geography

Small towns, rural communities and remote areas

Category

Remote infrastructure

Problem timeframe

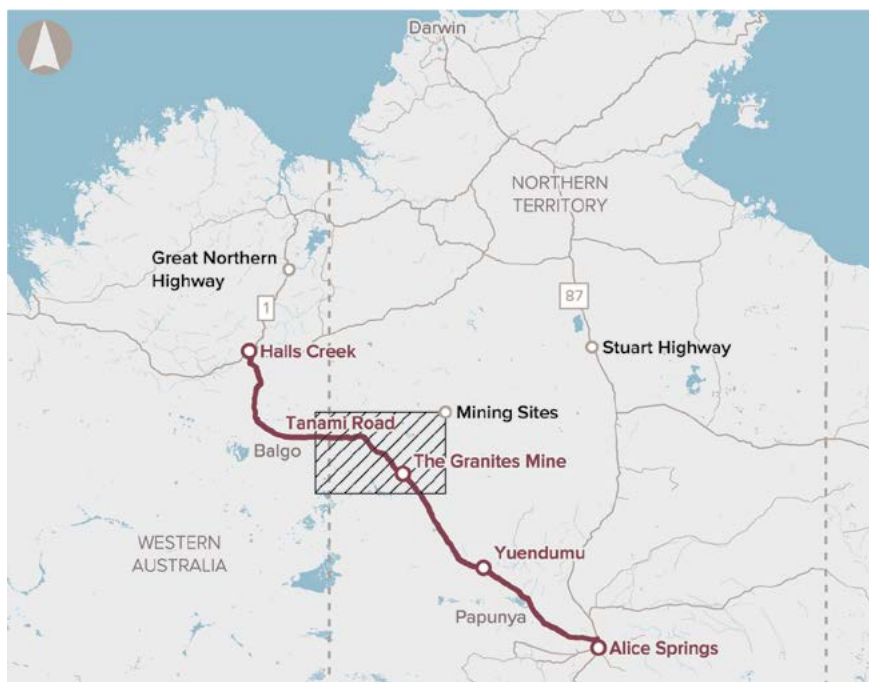
Near term (0–5 years)

Proponent

Northern Territory Government

Date added to the IPL

February 2016 (Updated June 2020)



Problem

The key problems identified in the region include:

- limited economic opportunities for communities in the region, including Aboriginal and Torres Strait Islander communities
- reduced opportunities for employment in remote areas
- reduced access to essential services for the Aboriginal and Torres Strait Islander communities, particularly during road closures
- limitations to development in mining, tourism and pastoral operations
- high vehicle operating costs
- poor flood immunity, resulting in lengthy road closures
- broader risks to health and safety for road users arising from poor road alignments, excessive corrugations and poor visibility.

A key cause of these problems is the poor quality of the road. Over two-thirds of Tanami Road is unsealed with substantial sections being unformed. This surface has led to the development of significant ruts and corrugations from heavy vehicles.

This initiative aligns with the findings from the 2019 *Australian Infrastructure Audit*, as well as with other government priorities, such as Closing the Gap targets. Further, the initiative was identified as an infrastructure gap in the 2015 *Northern Australia Audit*. The condition of the road also presents significant health and environmental risks, limits freight operations, and climate change is expected to worsen flooding outcomes in the near future.

Proposed initiative

The initiative proposes to upgrade and improve flood immunity and resilience for the Tanami Road between the Stuart Highway north of Alice Springs, and the Great Northern Highway at Halls Creek. Potential upgrades to Tanami Road could include:

- sealing key sections
- a mixture of sealing and gravelling particular sections
- sealing the entire route
- treatments at creek or river crossings to mitigate flooding impacts.

Next steps

Proponent to complete business case development (Stage 3 of Infrastructure Australia's Assessment Framework).

The Priority List

Below is the full list of projects and initiatives included on the August 2020 *Infrastructure Priority List*.

Each proposal has been categorised according to its priority, location, timeframe, the type of issue it concerns and, for initiatives, the stage the proposal has reached.

Category key and description

	Asset Renewal	Replacing or refurbishing an existing asset to return it to its original level of service and extend its life.
	Corridor Preservation	Protection and early acquisition of land needed for future infrastructure delivery, to save on land purchase and construction costs.
	Efficient Markets	Lowering barriers-to-entry and fostering competition to make better use of resources and minimise costs for businesses and consumers.
	National Connectivity	Improving the ease of movement from one part of Australia to another, for people, goods and services.
	Opportunity for Growth	An option that, if implemented, will unlock latent demand and enhance the total production of goods and services in the Australian economy.
	Remote Infrastructure	Delivery of quality services and infrastructure in remote areas of Australia to improve quality of life for residents and enhance opportunities for social and economic development.
	Resilience	Enhancing the capacity and reliability of Australia's infrastructure networks and the Australian economy to regenerate after a particular shock and recover rapidly to the previous level of service or better.
	Road Safety	Reducing the risk and number of crashes, injuries and deaths on Australia's roads.
	Social Infrastructure	The provision of facilities, spaces, services and networks that support the quality of life and wellbeing of our communities. This includes a variety of sectors: health and aged care; education; green and blue infrastructure (assets that incorporate natural vegetation and waterways), and recreation; arts and culture; social housing; justice and emergency services.
	Urban Congestion	Addressing excess traffic movements on transport networks in Australia's cities and regions.

High Priority Projects			
Project name	Problem/opportunity description	Delivery timeframe (years)	Category
New South Wales			
M4 Motorway upgrade Parramatta to Lapstone	Connectivity in outer Western Sydney	0-5	Road Safety
Sydney Metro: City and Southwest	Sydney rail network capacity	0-5	Road Safety
M12 Motorway	Motorway capacity in Western Sydney	0-5	Road Safety New project
Western Sydney Airport	Sydney aviation capacity	5-10	National Connectivity
Victoria			
M80 Ring Road upgrade	Melbourne M80 Western Ring Road congestion	0-5	Road Safety
North East Link	Connectivity between M80 and M3 in outer north-east Melbourne	5-10	Road Safety
Queensland			
Brisbane Metro	Brisbane inner-city public transport network capacity	0-5	Road Safety

Category











Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
Social Infrastructure	Urban Congestion		

Priority Projects			
Project name	Problem/opportunity description	Delivery timeframe (years)	Category
National			
Inland Rail Melbourne to Brisbane via inland NSW	Freight connectivity between Melbourne and Brisbane	5-10	
New South Wales			
Nowra Bridge	Shoalhaven River crossing capacity	0-5	
More Trains, More Services Stage 2	Sydney rail network capacity	0-5	New project
Port Botany Rail Line Duplication and Cabramatta Passing Loop	Sydney freight rail network capacity	0-5	New project
Queensland			
Gold Coast Light Rail Stage 3A	Public transport connectivity between Broadbeach and Burleigh Heads	0-5	
Beerburrum to Nambour rail upgrade	Queensland north coast rail congestion	0-5	
M1 Pacific Motorway Eight Mile Plains to Daisy Hill	Motorway capacity between Brisbane and the Gold Coast	0-5	
M1 Pacific Motorway Varsity Lakes to Tugun	Motorway capacity between Brisbane and the Gold Coast	0-5	
Bruce Highway Deception Bay Road Interchange	Road capacity at Deception Bay	0-5	











Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
Social Infrastructure	Urban Congestion		

Priority Projects

Project name	Problem/opportunity description	Delivery timeframe (years)	Category
Bruce Highway Caboolture-Bribie Island Road to Steve Irwin Way	Highway capacity between Brisbane and the Sunshine Coast	0-5	
Bruce Highway Maroochydore Road Interchange	Road capacity at Maroochydore on the Sunshine Coast	0-5	
Bruce Highway Cooroy to Curra Section D: Woondum to Curra	Highway capacity between Cooroy and Curra	0-5	
Bruce Highway Cairns Southern Access Corridor Stage 3: Edmonton to Gordonvale	Road network capacity south of Cairns	0-5	
Peak Downs Highway realignment Walkerston Bypass	Freight connectivity in north-east Queensland	0-5	
Western Australia			
METRONET Morley–Ellenbrook Line	Perth rail network capacity	0-5	 New project
METRONET High Capacity Signalling	Perth rail network capacity	0-10	 New project
Bindoon Bypass	Freight connectivity between Perth and north-west Western Australia	0-5	
Myalup–Wellington water project	Opportunity to develop industry and agriculture in south-west Western Australia	0-5	
South Australia			
Eyre Infrastructure Project Iron Road	Eyre Peninsula freight capacity	0-5	

Category

 Asset Renewal	 Corridor Preservation	 Efficient Markets	 National Connectivity
 Opportunity for Growth	 Remote Infrastructure	 Resilience	 Road Safety
 Social Infrastructure	 Urban Congestion		

Priority Projects

Project name	Problem/opportunity description	Delivery timeframe (years)	Category
Tasmania			
University of Tasmania Hobart Science and Technology Precinct	Opportunity to stimulate economic growth and productivity in Tasmania	0-5	
University of Tasmania Northern Transformation Program	Opportunity to stimulate economic growth and productivity in Tasmania	0-5	

High Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
National				
Regional road network safety improvements	Safety on regional roads	0-5		Proponent(s) to be identified
Town and city water security	Water supply and resilience for town and city populations	0-15		Proponent(s) to be identified
National water strategy	Strategic planning for water capture, use and management	0-5		Proponent(s) to be identified
Coastal inundation protection strategy	Sea-level rise and flooding impacts	10-15		Proponent(s) to be identified
National waste and recycling management	Waste management and recycling challenges	0-5		Proponent(s) to be identified
National road maintenance strategy	Maintenance backlog and preventative maintenance	0-5		Proponent(s) to be identified

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
Social Infrastructure	Urban Congestion		

High Priority Initiatives				
Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Network Optimisation Program Rail	National urban rail network congestion	0-5		Proponent(s) to be identified
Network Optimisation Program Roads	National urban road network congestion	0-5		Proponent(s) to be identified
National Freight and Supply Chain Strategy Implementation	National strategic planning for future freight initiatives	0-5		Initiative identification and options development
Corridor preservation for East Coast High Speed Rail	Future rail connectivity between east coast capital cities	0-5		Proponent(s) to be identified
Remote housing overcrowding	National remote housing conditions	0-5		Proponent(s) to be identified
National Electricity Market Future connectivity and reliability	Connectivity of the National Electricity Market regions	5-15		Proponent(s) to be identified
National electric vehicle fast-charging network	Enabling infrastructure for electric vehicles	0-5		Proponent(s) to be identified
New South Wales				
Regional NSW road network safety improvements	Safety on regional roads in New South Wales	0-10		Initiative identification and options development
Sydney Gateway Connection between WestConnex at St Peters and Sydney Airport/Port Botany	Sydney road network capacity	0-5		Business case development

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
Social Infrastructure	Urban Congestion		

High Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Public transport capacity Parramatta Road and Victoria Road corridors	Congestion on Sydney's Parramatta Road and Victoria Road corridors	0-5		Initiative identification and options development
Sydney rail network capacity	Sydney rail network capacity	0-5		Business case assessment
Southern Sydney to CBD public transport enhancement	Connectivity between inner south urban growth area and Sydney CBD	5-10		Initiative identification and options development
Sydney Metro West Mass transit between Parramatta and Sydney CBD	Connectivity between Parramatta and Sydney CBD	5-10		Business case development
Chullora Junction upgrade	Sydney freight rail network capacity	0-5		Initiative identification and options development
Corridor preservation for Western Sydney Airport fuel pipeline	Future fuel connection to Western Sydney Airport	0-5		Initiative identification and options development
Corridor preservation for Western Sydney Freight Line and Intermodal Terminal access	Future freight rail capacity to Eastern Creek intermodal and Sydney Main West Line	0-5		Business case development
Corridor preservation for Outer Sydney Orbital road and rail/M9, and Castlereagh connection	Future connectivity between Western Sydney and Central Coast/Illawarra	0-5		Initiative identification and options development
Corridor preservation for Western Sydney Airport rail connections	Future rail connections to Western Sydney Airport	0-5		Initiative identification and options development

Category

- Asset Renewal
- Corridor Preservation
- Efficient Markets
- National Connectivity
- Opportunity for Growth
- Remote Infrastructure
- Resilience
- Road Safety
- Social Infrastructure
- Urban Congestion

High Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Victoria				
Eastern Freeway and CityLink connection	Connectivity between Melbourne's Eastern Freeway and CityLink	0-5		Proponent(s) to be identified
Melbourne rail network capacity	Melbourne rail network capacity	5-10		Initiative identification and options development
Corridor preservation for Melbourne Outer Metropolitan Ring Road/E6	Future connectivity between Melbourne outer south-west and outer north	0-5		Proponent(s) to be identified
Queensland				
Queensland regional road network safety improvements	Safety on regional roads	0-5		Initiative identification and options development New initiative
Queensland National Land Transport Network maintenance	National Land Transport Network upgrade	0-5		Initiative identification and options development
Ipswich Motorway Upgrade Rocklea to Darra (remaining sections)	Southern Brisbane–Ipswich road network capacity	0-5		Business case development
Brisbane northern suburbs corridor capacity	Brisbane northern corridor capacity	0-5		Initiative identification and options development New initiative
M1 Pacific Motorway capacity Eight Mile Plains to Tugun	Motorway capacity between Brisbane and the Gold Coast	0-5		Various stages Updated initiative
Port of Brisbane dedicated freight rail connection	Freight rail access to Port of Brisbane	5-10		Proponent(s) to be identified

Category



Asset Renewal



Corridor Preservation



Efficient Markets



National Connectivity



Opportunity for Growth



Remote Infrastructure



Resilience



Road Safety



Social Infrastructure



Urban Congestion

High Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Western Australia				
Regional and rural WA road network safety improvements	Safety on regional and rural roads in Western Australia	0-5		Initiative identification and options development
Perth water security	Water supply and resilience for Perth	0-5		Initiative identification and options development
Perth CBD to north corridor capacity	Perth northern corridor capacity	0-5		Various stages
Mitchell and Kwinana freeways upgrade	Perth road network capacity	0-10		Initiative identification and options development

Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
National				
Indigenous art and cultural facilities program	Opportunity for a national program of Indigenous art and cultural centres	0-5		Proponent(s) to be identified
Mobile telecommunications coverage in regional and remote areas	Mobile telecommunications connectivity in regional and remote areas	0-5		Proponent(s) to be identified
Advanced Train Management System implementation on the interstate rail network	Rail freight capacity constraint on the interstate rail network	0-5		Business case development

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
Social Infrastructure	Urban Congestion		

Priority Initiatives					
Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps	
Sydney–Canberra rail connectivity and capacity	Rail connectivity between Sydney and Canberra	0-5		Initiative identification and options development	
Connection between eastern gas markets and gas suppliers	Constrained east coast gas supply	0-5		Proponent(s) to be identified	
National Electricity Market Near-term optimisation	Optimisation of the National Electricity Market	0-5		Proponent(s) to be identified	
East coast deep water container port capacity	Capacity for large container ships on the east coast of Australia	10-15		Proponent(s) to be identified	Updated initiative
New South Wales					
John Hunter Health and Innovation Precinct capacity	Capacity constraints and opportunity for new services	10-15		Initiative identification and options development	
Active transport (walking and cycling) access to Sydney CBD	Inner city access to Sydney CBD	0-5		Business case development	
Sydney CBD motorways optimisation	Inner Sydney road network capacity	0-5		Initiative identification and options development	
Prospect Highway capacity	Western Sydney road network capacity	0-5		Business case development	
A3 and A6 corridor capacity	Southern Sydney to Ryde road network capacity	0-5		Business case development	
Public transport access to Parramatta CBD	Public transport access to Parramatta CBD	0-10		Initiative identification and options development	

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
Social Infrastructure	Urban Congestion		

Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Central Station redevelopment Rail and station infrastructure	Redevelopment of rail and station infrastructure at Central Station	5-10		Initiative identification and options development
M6 Motorway Connection between the M1 Princes Motorway at Waterfall and the Sydney motorway network	Connectivity between Wollongong and Sydney	5-10		Business case development
Western Harbour Tunnel and Beaches Link	Sydney road network cross-harbour and Northern Beaches connectivity	5-10		Business case development
Newell Highway upgrade	Connectivity between Melbourne and Brisbane	0-5		Business case development
Pacific Highway (A1) Coffs Harbour bypass	Connectivity between Sydney and Brisbane	0-5		Business case development
Pacific Motorway (M1) Extension to Raymond Terrace	Connectivity between Sydney and Brisbane	0-5		Business case development
Freight rail access to Port Kembla	Freight rail access to Port Kembla	0-5		Initiative identification and options development
Moorebank Intermodal Terminal road connections upgrade	Road network connectivity to Moorebank Intermodal Terminal	0-5		Initiative identification and options development
Great Western Highway improvements Katoomba to Lithgow	Road connectivity between Katoomba and Lithgow	0-5		Initiative identification and options development
Princes Highway safety and capacity Nowra, NSW to Victorian border	Road connectivity between Nowra and Victorian border	0-5		Initiative identification and options development

Category



Asset Renewal



Corridor Preservation



Efficient Markets



National Connectivity



Opportunity for Growth



Remote Infrastructure



Resilience



Road Safety











Social Infrastructure





Urban Congestion











Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
New England Highway upgrade	Road connectivity between Sydney and Brisbane	5-10		Business case development
Picton Road safety and capacity	Road connectivity between Wollongong and south-west Sydney	5-10		Initiative identification and options development
Western Sydney Airport public transport connections	Access to Western Sydney Airport	5-10		Initiative identification and options development
Northern Sydney Freight Corridor Stage 2 Additional track West Ryde to Rhodes and Thornleigh to Hornsby	Sydney freight rail network capacity	5-10		Business case development
Newcastle–Sydney and Wollongong–Sydney rail line upgrades	Connectivity between Newcastle, Wollongong and Sydney CBD	10-15		Initiative identification and options development
Sydney cruise terminal capacity	Berthing capacity for cruise ships in Sydney	0-5		Business case development
South Creek integrated land use and water cycle management	Opportunity for integrated water cycle management benefits	0-5		Business case development
Hawkesbury-Nepean Valley flood management	Flood mitigation in Hawkesbury-Nepean Valley	0-5		Business case development

Victoria

Cycling access to Melbourne CBD	Cycling access to Melbourne CBD	0-5		Initiative identification and options development
Melbourne level crossings removal	Melbourne road network congestion	0-5		Various stages

Category

 Asset Renewal	 Corridor Preservation	 Efficient Markets	 National Connectivity
 Opportunity for Growth	 Remote Infrastructure	 Resilience	 Road Safety
 Social Infrastructure	 Urban Congestion		

Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Frankston public transport connectivity	Public transport connectivity to Frankston	0-5		Initiative identification and options development
Melbourne Airport to the CBD public transport capacity	Public transport access to Melbourne Airport	5-10		Initiative identification and options development
Melton Rail Line upgrade	Melbourne rail network capacity	5-10		Initiative identification and options development
Public transport access to Fishermans Bend	Connectivity between Fishermans Bend growth area and Melbourne CBD	5-10		Initiative identification and options development
Cranbourne Line capacity	Melbourne rail network capacity	5-10		Initiative identification and options development
Hurstbridge Line capacity	Melbourne rail network capacity	5-10		Business case development
Melbourne outer northern suburbs to CBD capacity upgrade	Melbourne outer northern suburbs access to CBD	10-15		Proponent(s) to be identified
Melbourne Airport third runway	Melbourne aviation capacity	0-5		Business case development
Melbourne container terminal capacity and land transport access	Melbourne container terminal capacity	0-15		Initiative identification and options development
Melbourne–Geelong rail capacity enhancement	Rail connectivity between Melbourne and Geelong	10-15		Initiative identification and options development

Category



Asset Renewal



Corridor Preservation



Efficient Markets



National Connectivity



Opportunity for Growth



Remote Infrastructure



Resilience



Road Safety



Social Infrastructure



Urban Congestion

Priority Initiatives				
Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Queensland				
Brisbane to Gold Coast transport corridor upgrades	Brisbane to Gold Coast transport capacity	0-5		Various stages
Gold Coast rail line and station improvements Kuraby to Beenleigh	Brisbane to Gold Coast rail network capacity	0-5		Initiative identification and options development Updated initiative
Centenary Motorway capacity	Southern Brisbane to CBD road network capacity	0-5		Initiative identification and options development
Browns Plains to South East Busway public transport connectivity	Brisbane public transport capacity	0-5		Initiative identification and options development New initiative
Browns Plains to Beaudesert road capacity and safety	Brisbane road network capacity	0-5		Initiative identification and options development New initiative
Cunningham Highway Yamanto Interchange to Ebenezer Creek	Cunningham Highway–Yamanto to Ebenezer/Amberley congestion	0-5		Business case development
Warrego Highway east corridor improvements	Road connectivity between Brisbane and Toowoomba	0-5		Initiative identification and options development
Bruce Highway upgrade	Queensland coastal cities connectivity	0-10		Various stages
Mount Isa–Townsville rail corridor upgrade	Mount Isa to Townsville rail capacity	5-10		Business case development
Port of Gladstone land and sea access upgrade	Land and sea access to Port of Gladstone	5-10		Initiative identification and options development

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
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Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Queensland inland road network upgrade	Improvements for national, state and local roads in inland Queensland	5-10		Proponent(s) to be identified
Mooloolah River Interchange capacity and safety	Sunshine Coast road network capacity	0-5		Initiative identification and options development New initiative
Queensland inland freight route capacity and safety	Queensland freight network improvements	10-15		Initiative identification and options development New initiative
Lower Fitzroy River water infrastructure development	Opportunity to develop industry and agriculture in Fitzroy region	0-5		Business case assessment completed in July 2018
Corridor preservation for Salisbury to Beaudesert rail connection	Future urban rail connection between Salisbury and Beaudesert	0-5		Business case development
Western Australia				
Armadale Road bridge	Perth road network capacity	0-5		Initiative identification and options development
Swan River crossing capacity	Perth road network capacity	0-5		Initiative identification and options development
Perth rail network capacity	Perth rail network capacity	0-5		Various stages
Canning Bridge crossing capacity and interchange	Perth transport network capacity	10-15		Proponent(s) to be identified
Great Northern Highway improvements Broome to Kununurra	Road connectivity between Broome and Kununurra	0-5		Initiative identification and options development

Category



Asset Renewal



Corridor Preservation



Efficient Markets



National Connectivity



Opportunity for Growth



Remote Infrastructure



Resilience



Road Safety



Social Infrastructure



Urban Congestion

Priority Initiatives				
Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Wheatbelt Secondary Freight Network improvements	Western Australia freight network capacity	0-5		Initiative identification and options development
Bunbury Outer Ring Road	Western Australia regional freight network capacity	5-10		Business case development
Perth Airport new runway	Perth Airport capacity	5-10		Initiative identification and options development
South Coast Highway improvements Albany to Esperance	Road connectivity between Albany and Esperance	5-10		Initiative identification and options development
Perth container terminal capacity and land transport access	Perth container terminal capacity	10-15		Initiative identification and options development
Perth south-east corridor capacity improvements	Perth road network capacity	0-15		Initiative identification and options development
Land transport access between Karratha and Tom Price	Road connectivity between Karratha and Tom Price	0-5		Initiative identification and options development
South West Interconnected System transformation	Provision of affordable and reliable electricity services	0-5		Initiative identification and options development
Liquefied natural gas research facility	LNG capability and innovation	0-5		Initiative identification and options development

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
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Priority Initiatives

Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Port Hedland port capacity	Opportunity for increased cargo imports and exports	5-10		Initiative identification and options development
Road access improvements for remote WA communities	Constrained road access to remote Western Australia communities	0-5		Initiative identification and options development
South Australia				
Adelaide North–South Corridor upgrade (remaining sections)	Adelaide north–south urban road network capacity	0-5		Business case development
AdeLINK tram network Adelaide tram network expansion	Adelaide public transport capacity	5-10		Business case development
Spencer Gulf crossing capacity	Road connectivity in Port Augusta	0-5		Initiative identification and options development
Strzelecki Track upgrade and mobile coverage	Access to Cooper Basin (South Australia)	0-5		Business case development
South Australian regional bulk port development	South Australia bulk port capacity	5-10		Business case development
Sturt Highway High Productivity Vehicle capacity enhancement, including Truro bypass	South Australia road freight network capacity	5-10		Initiative identification and options development
Gawler Craton rail access	Freight rail connection to Gawler Craton mineral province	10-15		Initiative identification and options development

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
Opportunity for Growth	Remote Infrastructure	Resilience	Road Safety
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Priority Initiatives				
Initiative name	Problem/opportunity description	Timeframe (years)	Category	Next steps
Tasmania				
Derwent River crossing capacity	Tasmania Derwent River crossing capacity	5-10		Business case development
Burnie to Hobart freight corridor improvement	Freight network planning	5-10		Business case development
Tasmanian sewerage infrastructure upgrades	Tasmanian waste-water treatment environmental compliance	0-5		Initiative identification and options development
Tasmanian irrigation schemes Tranche 3	Opportunity to develop industry and agriculture in Tasmania	5-10		Business case development
Australian Capital Territory				
Australian Institute of Sport modernisation	Sport and research social infrastructure	0-5		Initiative identification and options development New initiative
Canberra public transport improvements	Canberra public transport capacity	5-10		Initiative identification and options development
Northern Territory				
Enabling infrastructure and essential services for remote NT communities Wadeye, Tiwi Islands, Jabiru	Infrastructure services for remote Northern Territory communities	0-5		Business case development
Tanami Road upgrade	Constrained access to the Tanami region	0-5		Business case development Updated initiative
Darwin region water supply infrastructure upgrades	Darwin water supply security	5-10		Initiative identification and options development

Category

Asset Renewal	Corridor Preservation	Efficient Markets	National Connectivity
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Glossary

Term	Definition
Agglomeration	The benefits of clustering or high concentration of businesses and economic activity in a relatively small geographic area.
Appraisal	The process of determining impacts and overall merit of a proposal, including the presentation of relevant information for consideration by the decision-maker.
Appraisal period	The number of years over which the benefits and costs of an infrastructure proposal are assessed in a cost-benefit analysis. A default value of 30 operational years plus construction time is generally used for transport proposals.
Assessment Framework	<p>A publicly available document that details how Infrastructure Australia evaluates initiatives and business cases for inclusion in the <i>Infrastructure Priority List</i>. It provides structure to the identification, analysis, appraisal, and selection of initiatives and projects and advises proponents how to progress through the following five stages:</p> <ul style="list-style-type: none"> Stage 1: Problem Identification and Prioritisation Stage 2: Initiative Identification and Options Development Stage 3: Business Case Development Stage 4: Business Case Assessment Stage 5: Post Completion Review.
Australian Infrastructure Audit	Published in August 2019, the Audit is developed by Infrastructure Australia to provide a strategic assessment of Australia's infrastructure needs over the next 15 years. It examines the drivers of future infrastructure demand, particularly population and economic growth. Data from the Audit is an evidence base for the <i>Infrastructure Priority List</i> .
Australian Infrastructure Plan	Published in February 2016, the Plan provides a positive reform and investment roadmap for Australia. Building off the evidence base of the Audit (see Australian Infrastructure Audit), the Plan sets out solutions to the infrastructure challenges and opportunities Australia faces over the next 15 years, to drive productivity growth, maintain and enhance our standard of living, and ensure our cities remain world class. The <i>Infrastructure Priority List</i> performs part of this function, highlighting the investment solutions that support the Plan. The next Plan will be published in 2021.
Base case	The state of the world without the proposed initiative or project. A cost-benefit analysis compares the base case with the project case, which is the state of the world <i>with</i> the proposed initiative or project, to determine the net impacts. (See cost-benefit analysis).
Base year	The year to which all values are discounted when determining a present value. (See discounting and discount rate).
Benefit-cost ratio (BCR)	For a proposed initiative or project, this is the ratio of the present value of economic benefits to the present value of economic costs. It is an indicator of the economic merit of a proposal presented at the completion of a cost-benefit analysis. It is commonly used to aid comparison of proposals competing for limited funds. (See cost-benefit analysis).
Business case	A document that brings together the results of all the assessments of an infrastructure proposal. It is the formal means of presenting information about a proposal to aid decision-making. It includes all information needed to support a decision to proceed with the proposal and to secure necessary approvals from the relevant government agency.
Capital cost	The initial fixed costs required to create or upgrade an economic asset and bring it into operation. This includes expenses such as the procurement of land, buildings, construction, labour and equipment.

Term	Definition
Central Business District (CBD)	The commercial and business centre of a city.
Cost-benefit analysis (CBA)	An economic analysis technique for assessing the economic merit of an infrastructure proposal by assessing the benefits, costs, and net benefits to society it would deliver. It aims to attach a monetary value to the benefits and costs wherever possible and provide a summary indication of the net benefit. (See benefit-cost ratio).
Demand management	Deliberately managing the rate of use of an infrastructure network to improve its efficiency. This can be done through a variety of methods, such as structuring pricing for electricity consumption around peak periods or promoting water reuse.
Discount rate	The interest rate at which future dollar values are adjusted to represent their present value (that is, in today's dollars). This adjustment is made to account for the fact that money today is more valuable than money in the future. Cost-benefit analysis should use real social discount rates.
Discounting	The process of converting money values that occur in different years to a common year. This is done to convert the dollars in each year to present value dollars. (See discount rate).
Evaluation summary	Infrastructure Australia's published assessment of a proponent's business case. It summarises our review of the business case in accordance with our Assessment Framework and identifies whether or not it has been included as a project on the <i>Infrastructure Priority List</i> . (See Assessment Framework).
Firming capacity	Guaranteeing supply from other energy generation sources to support intermittent power output from renewable power generation (such as wind and solar power). ¹
Financial analysis	The evaluation of the benefits and costs, measured in financial cash-flow terms, to a single entity (that is, not the community or the economy).
Gross Domestic Product (GDP)	A monetary measure of the market value of all the final goods and services produced in a period of time, often annually or quarterly.
High Productivity Vehicles (HPVs)	A generic term used for all Performance-Based Standards (PBS) vehicles, as defined by the National Heavy Vehicle Regulator: 'vehicles ... designed to perform their tasks as productively, safely and sustainably as possible, and to operate on networks that are appropriate for their level of performance'. ² Various regulations apply to HPVs, depending on their PBS level (which reflects their configuration, length, and mass limits), including which roads they can access and driver licence requirements.
Impact	A generic term to describe any specific effect of an initiative or project. Impacts can be positive (a benefit) or negative (a cost).
Impact timeframe	For initiatives , this indicates when the problem or opportunity is likely to have a material impact on our cities and regions.
Indicative delivery timeframe	For projects, this provides the proponent's indication of when the project is likely to be delivered and operational.
Infrastructure operating costs	The costs of providing the infrastructure after the project has commenced operation (for example, maintenance and administration costs of a facility).
Initiative	Potential infrastructure problems or 'early-stage' solutions for which a business case has not yet been completed. Initiatives are identified through a collaborative process between proponents and Infrastructure Australia, using the <i>Australian Infrastructure Audit</i> and other data as evidence of infrastructure needs.
Intelligent Transport Systems (ITS)	ITS-Australia defines Intelligent Transport Systems as: 'The application of modern computer and communication technologies to transport systems, to increase efficiency, reduce pollution and other environmental effects of transport and to increase the safety of the travelling public.'

Term	Definition
Land use impacts	A change in the types of activities that occur in a section of land, or the intensity of those activities. Changes in activity may be caused by a change in use of the existing built form or a change in the built form itself. For example, an increase in the amount of high-density housing in the area around train station.
Maintenance	Incremental work to repair or restore infrastructure to an earlier condition or to slow the rate of deterioration. This is distinct from construction and upgrading, which seeks to extend infrastructure beyond its original condition.
Managed motorway	See smart freeway/smart motorway .
Mode share	Passengers using a particular type of transport as a percentage of all passengers in the network or region. For example, the rail mode share would be the percentage of passengers who use rail services to travel.
Nationally significant problem or opportunity	<p>The <i>Infrastructure Australia Act 2008</i> defines nationally significant infrastructure as infrastructure 'in which investment or further investment will materially improve national productivity'.</p> <p>An infrastructure investment is nationally significant if, based on the evidence presented, the Infrastructure Australia Board is of the opinion that the investment is expected to have a material impact on national output by:</p> <ol style="list-style-type: none"> 1. addressing a problem that would otherwise impose economic, social, and/or environmental costs; or 2. providing an opportunity for realising economic, social, or environmental benefits; or 3. both addressing a problem and providing an opportunity. <p>As a guide, for the purposes of assessing submissions to the <i>Infrastructure Priority List</i>, Infrastructure Australia has applied a threshold value of \$30 million per annum (nominal, undiscounted) in measuring material net benefit, taking potential unquantified quality-of-life considerations into account. Infrastructure Australia expects potential impacts cited in submissions to be quantified and supported by evidence, but recognises that some types of social and environmental impacts may not be readily quantifiable. (See nominal prices and discounting).</p>
Net present value (NPV)	The monetary value of benefits minus the monetary value of costs over the appraisal period, with discount rates applied (See discount rates and appraisal period).
Network	<p>Infrastructure networks are the physical assets that enable the provision of services such as transport connectivity, power, water and internet.</p> <p>In the context of the transport sector, a network refers to a collection of routes that provide interconnected pathways between multiple locations for similar traffic. This can be uni-modal (supporting one type of transport, for example, a rail network) or multi-modal (supporting multiple types of transport, for example, a road network).</p>
Network optimisation (transport)	Making better use of existing infrastructure assets and improving performance through low or non-capital cost actions. For example, using technology to improve corridor management, reallocating road space between modes of transport, or encouraging users to shift from congested modes and routes to those with more capacity.
Nominal prices	A value or price at a given time. Nominal prices rise with inflation. In contrast, real prices are prices after the effect of inflation has been removed. (See real prices).
Non-infrastructure options/solutions	Initiatives that avoid the need for significant expenditure on new or upgraded infrastructure. For example, changes to pricing or reforms to regulations.
Opportunity cost	<p>The value lost to society from using a resource in its next best alternative use, represented in dollars. Synonymous with 'resource cost' and 'social cost'.</p> <p>This cost reflects market prices where there is an absence of market failure. Where market failure exists, appropriate adjustments are required to estimate the true opportunity cost.</p>
Option	Possible solution to a problem, including base case options such as 'do nothing' or 'do minimum'. (See base case).

Term	Definition
Options assessment	The assessment of alternative options for solving an identified problem. (See option).
Post-completion review	A review of a completed set of actions to determine whether the desired objectives and/or forecast benefits and costs have been realised, and to explain the reasons for any differences between the expected and actual outcomes. The aim is to draw appropriate lessons for future project identification and assessment. A post-completion review is sometimes referred to as an 'ex-post evaluation'.
Priority or High Priority	Initiatives and projects are listed on the <i>Infrastructure Priority List</i> as either Priority or High Priority to indicate the comparative significance of the problems or opportunities they address. We use these categories in order to direct decision maker's attention to the most critical issues, while also offering a comprehensive view of all nationally significant problems and opportunities. Infrastructure Australia considers a range of factors in classifying a project or initiative as High Priority, including the scale of national productivity benefits the proposal will deliver – considering its economic, social and environmental value – and its strategic significance within networks.
Productivity	The efficiency with which industry and the economy as a whole convert inputs (labour, capital, and raw materials) into output. National productivity is commonly measured as Gross Domestic Product (GDP) per capita. (See Gross Domestic Product).
Project	In the context of this document, this is a solution to a defined problem or opportunity for which a full business case has been completed by the proponent and positively assessed by Infrastructure Australia.
Program	A suite of related initiatives to be delivered in a coordinated manner to obtain benefits not achievable from delivering them individually.
Proponent	A jurisdiction or private sector organisation that makes an initiative or project business case submission to Infrastructure Australia. To be a proponent of a business case, the organisation must be capable of delivering that proposal.
P50 cost	An estimate of project costs based on a 50% probability that the cost estimate will not be exceeded. Commonly known as the 'expected cost' of a project.
P90 cost	An estimate of project costs based on a 90% probability that the cost estimate will not be exceeded.
Real prices	Prices that have been adjusted to remove the effects of inflation. They must be stated for a specific base year, for example '2016 prices'. (See base year).
Smart freeway/ Smart motorway	Smart motorways comprise an integrated package of Intelligent Transport Systems (ITS) interventions. This includes coordinated ramp signalling, speed and lane use management, traveller information (using variable message signs) and network intelligence (such as from vehicle detection equipment). ³ (See Intelligent Transport Systems).
Social cost	See opportunity cost .
Social outcomes	An impact from a project or initiative that will change the quality of life of Australians. For example, health and wellbeing benefits that result from improved access to healthcare services and improved air quality.
Strategic merit	Evidence that the proposed initiative addresses a problem and/or opportunity of national significance and would deliver outcomes consistent with other government priorities and commitments.
Travel-time savings	The benefit of less time spent travelling as a result of a project. The number of hours saved is typically modelled for both personal and business travel across a network, then converted to a monetary value for use in cost-benefit analysis (see cost-benefit analysis).

Term	Definition
Twenty-Foot Equivalent Units (TEUs)	An inexact unit of cargo capacity often used to describe the capacity of container ships and container terminals. It is based on the volume of a 20-foot long (6.1 m) intermodal container, a standard-sized metal box that can be easily transferred between different modes of transportation, such as ships, trains and trucks.
Urban renewal	The Victorian Planning Authority defines urban renewal as: ‘...unlocking under-utilised areas for jobs, investment, and housing. It can often involve rezoning land, improving an area’s amenity and identifying transport and infrastructure needs.’
Vehicle operating costs	The costs associated with owning, driving and maintaining a vehicle. This includes the costs of fuel consumption, oil and lubrication, tire wear, repair and maintenance, depreciation, and license and insurance.
Wider economic benefits (WEBs)	Improvements in economic welfare from agglomeration, imperfect competition and labour supply effects that are acknowledged, but have not been typically captured in traditional cost-benefit analysis. (See cost-benefit analysis).

1 www.energycouncil.com.au/analysis/firming-renewables-the-market-delivers/

2 National Heavy Vehicle Regulator 2018, NHVR, Fortitude Valley, www.nhvr.gov.au/road-access/performance-based-standards

3 www.austroads.com.au/publications/traffic-management/agsm

Infrastructure Australia is an independent statutory body that is the key source of research and advice for governments, industry and the community on nationally significant infrastructure needs.

It leads reform on key issues including means of financing, delivering and operating infrastructure and how to better plan and utilise infrastructure networks.

Infrastructure Australia has responsibility to strategically audit Australia's nationally significant infrastructure, and develop 15-year rolling infrastructure plans that specify national and state level priorities.

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