

PRINCES

HIGHWAY

CORRIDOR

STRATEGY



Australian Government

**Department of Infrastructure, Transport,
Cities and Regional Development**

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Summary Report

Significance of the Princes Highway Corridor

The Princes Highway (the Highway) is a national road asset that traverses the southeast coast of Australia, beginning south of Sydney and ending in Port Augusta. Part of Australia's Highway One network, the route extends for over 2,000 kilometres through New South Wales (NSW), Victoria and South Australia (SA), serving as an important connection to and from the metropolitan centres of Sydney, Wollongong, Melbourne, Geelong and Adelaide.

Excluding capital cities, over one million people live in the local government areas (LGAs) along the Princes Highway, with an estimated 50 per cent in urban centres or townships. The Highway supports less than 1,000 vehicles per day in some rural sections to over 60,000 vehicles per day in urban centres.

The Highway is strategically important for freight movements, providing regional industries such as forestry, metal manufacturing, timber, beef, seafood and dairy producers with access to domestic markets and major ports. It is also an iconic tourist road, forming part of the Grand Pacific Drive along the south coast of NSW and links to the Great Ocean Road on the west Victorian coast.

Vision and Objectives

The Princes Highway Corridor Strategy (the Strategy) provides a 'whole-of-corridor' perspective of the current and future role of the Princes Highway Corridor (the Corridor), underpinned by economic, social and environmental factors as well as the principle of Movement and Place.

The Strategy integrates planning along the entire corridor to align asset management priorities and investments. It documents the approach and findings used to develop an evidence-based set of initiatives to ensure the Corridor can serve the needs of users in the longer term. It is designed to integrate further planning across the Princes Highway Corridor (the Corridor) to align priorities and streamline investment across Australian and State Governments.

The Department of Infrastructure, Transport, Cities and Regional Development (DITCRD) engaged GHD Advisory (GHD) to deliver technical analysis and stakeholder engagement to inform the development of the Strategy. The Strategy has been guided by a Steering Committee involving representatives from the Australian, NSW, Victorian and SA Governments.

The Vision for the Strategy is:

To enhance the Princes Highway Corridor as a corridor of national significance and economic importance, achieving improved safety and efficiency, and maximising access and connectivity for local communities and broader user groups.

The five Corridor objectives are:

- Improving safety and providing efficient driving conditions along the length of the Corridor
- Promoting better access and road connectivity along the Corridor
- Activating the Corridor to drive better regional development and industry performance
- Promoting more efficient and environmentally sustainable use of the Corridor
- Supporting Corridor investments, which add value, are well-informed and link together as part of an overarching vision for the Corridor.

For the purposes of the Strategy, the sections of the Princes Highway within the Greater Capital City Statistical Area for Sydney, Melbourne and Adelaide are excluded. In this document, Highway refers to the road known as the Princes Highway and Corridor refers to the broader road network and regions along the Highway.

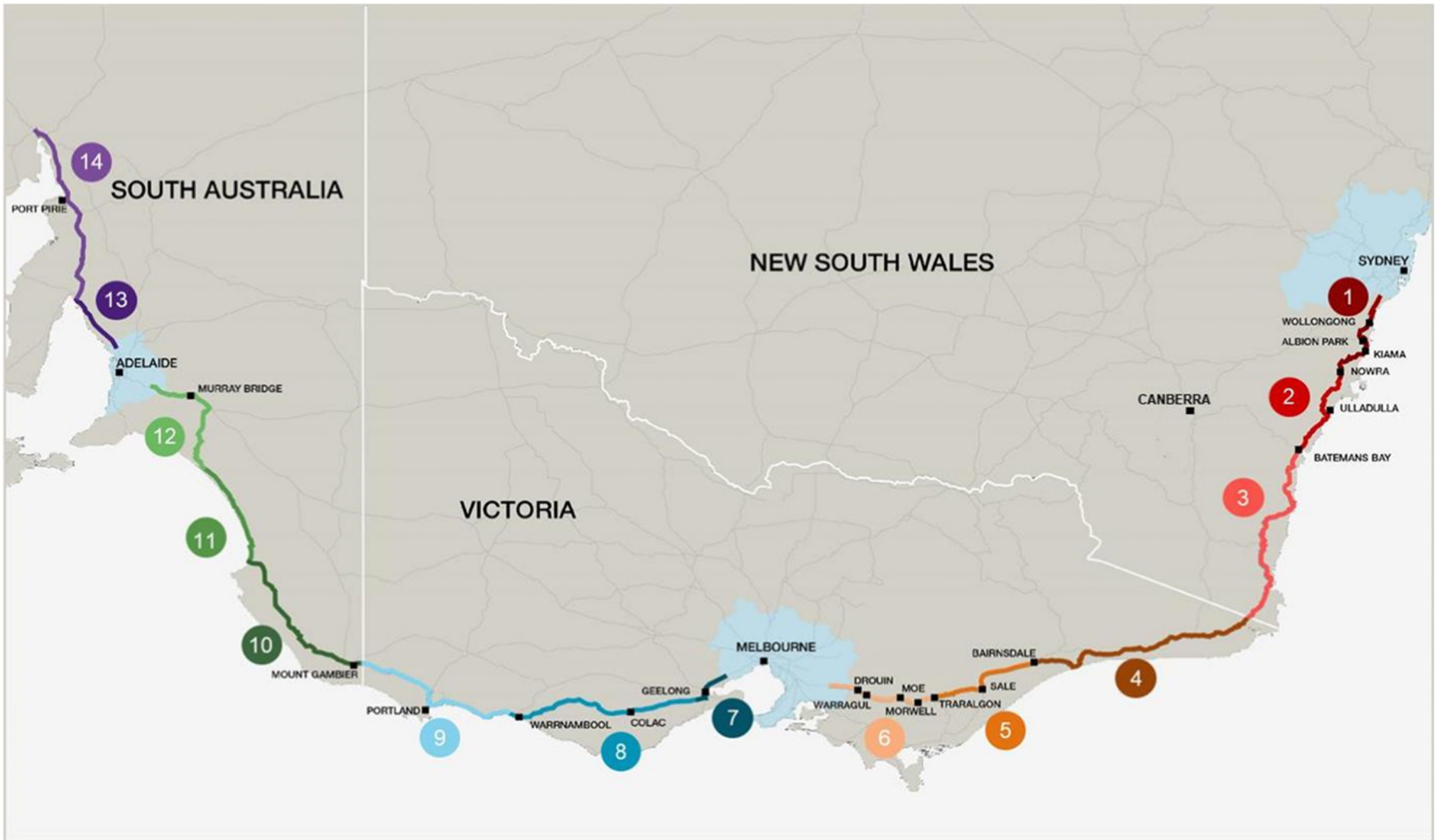


Figure 1 Princes Highway Study Area (GHD)

Methodology and Inputs

In developing the Strategy, a number of existing infrastructure and policy documents were considered, including national, state, regional and local strategic plans and policies. The key activities undertaken were:

- Implementation of governance arrangements, including setting up a Steering Committee with agreed Terms of Reference in July 2018
- Engagement of GHD Advisory to conduct technical analysis and stakeholder engagement to inform the Strategy
- Information and data gathering, including input from State governments
 - a) Publication of Issues Paper
 - b) Situational Analysis, including the current state of road assets and needs of the Corridor users
 - c) Performance Assessment Framework
 - d) Corridor Segmentation
 - e) Movement and Place Framework
- Identification of Corridor Issues
- Development of Initiatives to address the Corridor Issues
- Finalisation of the Strategy

a) Publication of Issues Paper

The Issues Paper summarised the issues and opportunities identified in Phase 1 of the stakeholder engagement and technical analysis.

On 5 March 2019, the Issues Paper was published on DITCRD's website, becoming a trigger for further input from LGAs and other interested parties. It was also provided to the full stakeholder engagement list consisting of more than 100 organisations.

The issues in the Paper were clustered against the five Corridor Objectives (see the *Corridor Issues* section below for further detail):

- Safety: options for reducing the number of collisions
- Access and connectivity: cross-regional connectivity, constraints for heavy vehicles, and road resilience and redundancy
- Efficiency and sustainability: transportation system effectiveness and efficiency, and environmental and climate change impacts
- Investment and vision: alignment of investments with the evolving needs of the Corridor
- Corridor activation: regional development supported by infrastructure, investment and employment.

b) Situational Analysis

A Situational Analysis was conducted by GHD to:

- Test alignment of current performance of the Princes Highway to appropriate standards
- Identify issues that need to be addressed
- Compile a list of corresponding actions that may be considered by Government

A literature review of documents and data was completed as part of the Situational Analysis. The high-level outcomes of the Situational Analysis included:

- Transport:
 - Safety issues
 - Heavy vehicle constraints
 - Needs of local users and the tourism/recreational sectors
 - Travel time analysis
 - Rail and other intermodal connections for freight and passengers.
- Infrastructure assets:
 - Varying landscapes and geography constraints for road infrastructure improvements
 - Impact of increasing traffic volumes
 - Variable condition of the Highway along its 2,000 km length.
- Industrial, agricultural and commercial sectors:
 - These vary along the length of the Corridor
 - Food and agribusiness
 - Energy and resources
 - Tourism and recreation
 - Manufacturing and heavy industries
 - Agriculture and forestry.
- Economic benefits of the Corridor:
 - Connections to employment, goods and services

- Critical freight route
- Tourism and recreational activities.
- Demographics:
 - More than 1 million people live along the Corridor, excluding the capital cities
 - Historic and projected population growth varies along the Corridor.
- Land use varies greatly along the Corridor :
 - Peri-urban communities
 - Extensive agricultural and forestry regions
 - Heavy industry and trade-enabling infrastructure.

c) Performance Assessment Framework

A Performance Assessment Framework was developed by GHD, taking into account the Australian Transport Assessment and Planning (ATAP) Guidelines, the study objectives of the Strategy and specific Corridor issues. It provided a framework for measuring how well the corridor meets the defined strategic objectives.

Performance measurements of the existing corridor were used to identify priority improvement areas relating to current and future corridor performance. A list of proposed Initiatives is at Table 3.

d) Corridor Segmentation

The Princes Highway Corridor is a near-coastal corridor connecting peri-urban, regional and rural communities. It navigates a range of geological conditions and topography with varying traffic volumes and road conditions. The Corridor supports a variety of communities, industries and tourism along its length. Examples of this variation include:

- High volume traffic areas within commuter distance to Sydney and Wollongong with access to Port Kembla leading to affluent agricultural and fishing areas heading south. Significant tourism is a feature in these areas.
- In south east NSW, the Corridor runs along the coast, to the east of the Great Dividing Range escarpment through hilly country and over many watercourses and coastal inlets.
- In southern NSW and eastern Victoria, it provides the only route through undulating forests before reaching plains and agricultural areas to the east of Melbourne.
- In the south west of Victoria and south east of SA, there are higher rainfall regions with plantation forests and increasing agricultural sector. There is also a renewable energy sector and a nationally significant dairy industry.
- To the north of Adelaide, broad cropping areas and mineral deposits support growing industries.

Along the Corridor, 14 road segments were defined based on the diversity of economic, transport and community needs. This allowed for the differing needs and requirements for each segment to be taken into consideration. Analysis of these sections was undertaken from publicly available information and data provided by State government agencies. This Strategy seeks to articulate these different uses and proposes Initiatives to address a diverse range of issues.

Segment	Segment Limits	Km Length	Indicative Travel Time*	Towns > 10,000 Population
1	Waterfall to Jervis Bay Road	132 km	1 hr 40 min	Waterfall Wollongong Nowra
2	Jervis Bay Rd to Batemans Bay	110 km	1 hr 27 min	Ulladulla Batemans Bay
3	Batemans Bay (south) to NSW /Victorian Border	245 km	3 hr 5 min	N/A
4	NSW / Victorian Border to Bairnsdale	225 km	2 hr 40 min	N/A
5	Bairnsdale (East) to Traralgon	119 km	1 hr 30 min	Bairnsdale Sale
6	Traralgon (East) to Nar Nar Goon Interchange	96 km	1 hr	Traralgon Morewell Moe Warragul Drouin
7	Little River interchange to Waurin Ponds	41 km	28 min	Greater Geelong
8	Waurin Ponds to Warrnambool	176 km	2 hr 6 min	Colac Warrnambool
9	Warrnambool (western LGA boundary) to Victorian Border	186 km	2 hr 12 min	Portland

10	Victorian Border to Kingston SE	175 km	1 hr 53 min	Mount Gambier
11	Kingston SE to Tailem Bend	199 km	2 hr 3 min	Tailem Bend
12	Tailem Bend to Mount Barker	66 km	44 min	Murray Bridge
13	Virginia to Port Wakefield	64 km	39 min	N/A
14	Port Wakefield to Port Augusta	209 km	2 hr 8 min	Port Pirie Port Augusta

Table 1 Segment Limits on Princes Highway Corridor (GHD)

* Note that changes to speed limits, road conditions and congestion can impact the travel time.

e) Movement and Place Framework

Movement and Place was a key consideration in the Strategy as a planning framework to understand the importance of the Highway as a through-corridor (Movement) and the destinations along its length (Places). Movement and Place takes into account land use, people and vehicle movements, streets and roads.

NSW, Victorian and SA Governments each have their own Movement and Place planning frameworks. To provide consistency, GHD developed a new framework for the Strategy both to enable a 'whole of corridor' assessment and to fit the Corridor's user types (see figure 2).

An assessment of towns and their interface with the Princes Highway was conducted using the Strategy's Movement and Place framework.

The 'Place' function is based on the degree of significance attached to a section of a street or road. This is determined by the number of visitors to the street (associated with retail, commercial and recreational activities), the local economy, the importance of residential living and/or the historical and cultural value of the buildings and places on the street.

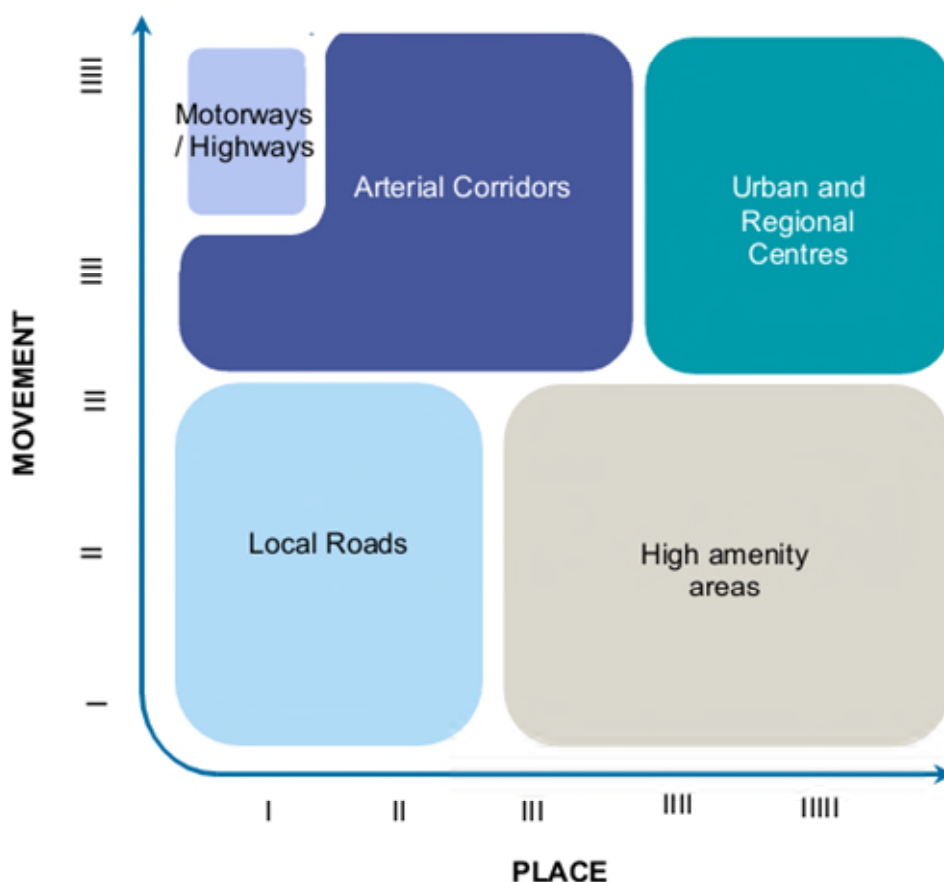


Figure 2 Movement and Place Matrix (GHD)

The 'Movement' function is based on the movement of people, vehicles and goods. The Movement function is determined by the number and types of users, speed limits, existing infrastructure and connections to the broader road network. This framework gives a better understanding of the Corridor's function and enables targeted solutions to address location-specific issues.

Case Study: Movement and Place – the Cann River streetscape upgrade

The Victorian town of Cann River is located at the junction of the Princes and Monaro Highways. It is a popular stopping point for travellers between Sydney and Melbourne and experiences a significant peak in visitors during the tourist season. In 2018, Regional Roads Victoria made changes and upgrades to the Cann River streetscape and road infrastructure which changed the way the township was used by vehicles and pedestrians. This enabled the East Gippsland Shire Council to undertake complementary works to further enhance the amenity ('place value') of the town.

Prior to the 2018 upgrade, the town experienced significant congestion during the tourist season. Vehicle parking was often at capacity by early morning and traffic frequently became gridlocked from the number of vehicles attempting to enter and exit the roadways during busy times. Pedestrian safety was compromised in these periods.

To address these issues, a roundabout was built in order to improve traffic flow and slow down vehicles as they entered the town. The updated streetscape also encouraged drivers to stop and take a break and visit the town before continuing on their journey. By considering movement and place in the planning and design process, local amenity has improved while at the same time easing congestion and improving safety for all road users and pedestrians.

Stakeholder Engagement

Stakeholder engagement was a critical part of the development of the Strategy, led by GHD.

An initial series of stakeholder engagement workshops was held in December 2018 across all three states. The purpose of these workshops was to:

- Introduce the Strategy
- Gain an understanding of the key 'whole of corridor' themes that are important to stakeholders
- Obtain local knowledge, data and information in order to build an evidence-based case to develop the Initiatives.

The identified issues were consolidated and aligned to key objectives of the Strategy. Following this, an Issues Paper was developed and published on the DITCRD website on 5 March 2019. Stakeholders were invited to provide written submissions to the Issues Paper during March and April 2019.

Further workshops were held in August 2019 across NSW, Victoria and SA to re-confirm the Strategy objectives and test the basis and validity of the suggested Initiatives. Additional stakeholder input was received via email, telephone calls and meetings.

Corridor Issues

Representatives from state and local governments, peak bodies and other key stakeholders raised a broad range of issues across the Corridor.

The identified issues under each objective were:

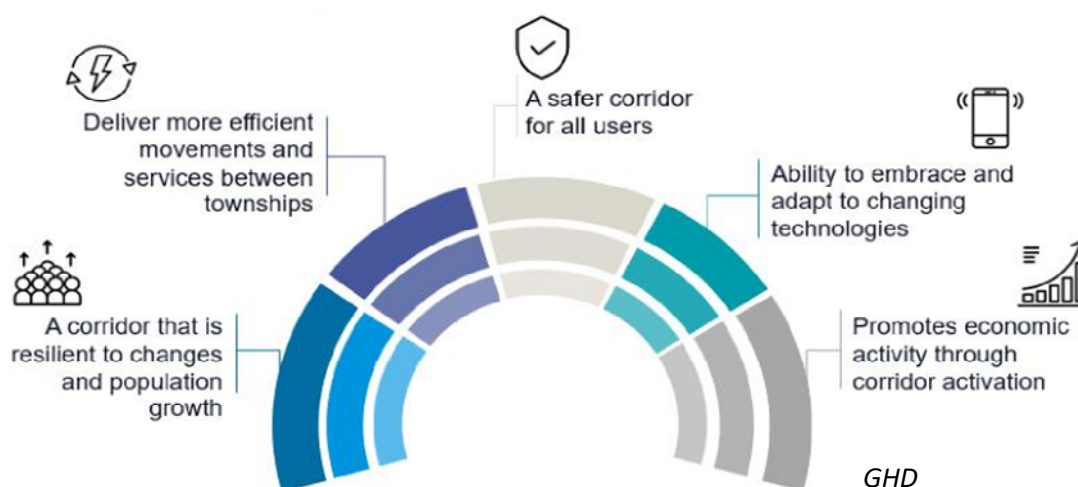
Improving safety and providing efficient driving conditions	<ul style="list-style-type: none"> • Road geometry, condition and infrastructure, including bridges/barriers • Information for a key tourist route used by people who may be unfamiliar with the road • Intersection safety, including where freight and other traffic intersect • Additional rest areas and passing lanes
Promoting better access and connectivity	<ul style="list-style-type: none"> • Bridge strength and accessibility issues • Cross-regional connectivity for regional towns including intersecting and alternate routes • Connectivity to rail, public transport, ports and airports • 'First and last mile' issues for passengers and freight • Better use of data and predictive analysis: freight demand, including major operators
Activating the Corridor to drive better regional development and industry performance	<ul style="list-style-type: none"> • Local community amenity, Movement and Place, by-pass options, local employment, new industries • Regional development supported by infrastructure, investment and employment • Improving the Corridor's impact and integration within local towns • Key roads other than Princes Highway play a role in facilitating tourism and freight • Options to manage peak periods such as holiday season traffic

Promoting more efficiency and environmentally sustainable use	<ul style="list-style-type: none"> • Road infrastructure and network use to enable efficient transport of goods and people • Poor network redundancy and limited alternate routes in some locations • Expansion of metro areas, changing commuter dynamics, new distribution hubs and contiguous roadside development, greater use of rail in commuter areas • Climate change impacts on infrastructure
Supporting Corridor investments to contribute to an overarching vision for the Corridor	<ul style="list-style-type: none"> • Recognition as a road of national significance • Better alignment and integration of state standards and approaches: safety, signage, road classifications and configurations • Leverage tourism and township service • Business/commercial opportunities • Rehabilitation and asset renewal • Combination of 'quick/easier fixes' and more 'complex/costly' transformative initiatives

Table 2 Princes Highway Corridor Objectives (GHD)

Strategy Outcomes

GHD developed a suite of Initiatives which aim to create a future Corridor that can achieve the following:



The Initiatives will be progressed by Australian and State Governments through the new Steering Committee and informed by local consultation as appropriate.

The intention is to consult with local actors and relevant peak bodies to inform the prioritisation, planning and design of these projects over the coming years. In order to not pre-empt any outcomes from this consultation process, projects have not been prioritised or funded at this stage.

These Strategy outcomes are a 'point in time' analysis and are intended to be a living document. The Initiatives should be reviewed from time to time to reflect any shifts in Australian or State Government priorities.

Initiatives

Initiative 1	Safe System processes	Agree on a framework for consistent use of assessments under the Safe System process and provide training programs to resource use of the system across all States.
Initiative 2	Application of Safe System tools	Apply Safe System tools along the length of the Corridor. For example, Audio Tactile Line Marking and wider sealed shoulder widths.
Initiative 3	Lane and bridge constraints	Progressively address narrow bridges as well as capacity constraints for structures to improve overall safety and allow for larger freight vehicle configurations.
Initiative 4	Increase bridge load capacities	Increase bridge load capacity to improve industry efficiency by enabling the movement of larger freight vehicle configurations.
Initiative 5	Additional passing opportunities	Development of additional passing opportunities in key areas, accelerating the ongoing programs in each state.
Initiative 6	Additional / improved rest areas	Development of additional / improved rest areas for light and heavy vehicles in key areas along the Corridor, accelerating the ongoing programs in each state.
Initiative 7	Intersection improvements	Progressively address interchanges / intersections to improve safety, efficiency and amenity for all users.
Initiative 8	Rehabilitation / asset renewal	Assess key areas in need of rehabilitation / asset renewal to address current road conditions.
Initiative 9	Digital Strategy	Develop a Digital Strategy for the Corridor.
Initiative 10	Future fleet considerations	Consideration of the physical infrastructure required to support a future fleet of vehicles of varying fuel source (electric, hydrogen), level of automation and digital connectivity.
Initiative 11	Future plans for Corridor activation	Support the preparation of plans for future Corridor activation and improvement incorporating key Strategy elements, major change impacts and road capacity needs.
Initiative 12	Movement and Place framework	Integrate a Movement and Place framework into road infrastructure planning to ensure local amenity is addressed in design and planning processes.
Initiative 13	Integration of rail and public transport services	Develop further rail and public transport services as an integrated element in Princes Highway planning.
Initiative 14	Ongoing governance arrangements	The current multi-state Steering Committee should continue to provide ongoing and aligned development of the Corridor.

Table 3 List of Proposed Initiatives (developed by GHD)

Some of the Initiatives are described in more detail below.

Safe System (Initiative 2)

[Safe System tools](#) should be applied along the length of the corridor as appropriate. Safe System tools include but are not restricted to:

- Shoulder treatments to enhance shoulders to a relevant level
- Line marking alternatives including audio-tactile line marking
- Separated carriageways
- Centre median safety barriers
- Off-road safety barriers (left side)
- A combination of these and other treatments.

Address narrow bridges and allow for larger freight vehicles (Initiative 3)

This includes addressing progressive remediation and replacement of bridges where the narrowness and geometry limits access for larger vehicles, including freight vehicles. Bridge upgrades will allow additional access for larger vehicles and reduce transport costs.

Priority locations that have been identified include (but are not restricted to):

- Between Nowra and Jervis Bay (NSW)

- Between Ulladulla and Batemans Bay (NSW)
- Between Batemans Bay and Narooma (NSW)
- Between Narooma and Bega (NSW)
- Between Merimbula and Eden (NSW)
- Sale (Victoria)
- Murray Bridge (SA)
- Between Kingston SE and Millicent (SA)

Increased bridge load capacity and strengthening (Initiative 4)

Improved connectivity for larger vehicles is essential for the efficient movement of freight. One way to help improve connectivity is to increase bridge load capacity to enable the movement of larger freight vehicle configurations.

A priority region that has been identified is western Victoria from Colac to Portland. Upgrading and strengthening bridges and other structures in this region will benefit various industries and agricultural producers, including the dairy industry. Other priority locations include the South Coast of NSW and Gawler (SA).

Development of additional passing opportunities (Initiative 5)

There are further opportunities to provide for more efficient movement along the Corridor through the implementation of additional passing opportunities in areas where safe passing is limited.

Priority locations include (but are not restricted to):

- Between NSW/Victorian border and Batemans Bay (NSW)
- Between NSW/Victorian border and Bairnsdale (Victoria)
- Between Bairnsdale and Sale (Victoria)
- East of Warrnambool (Victoria)
- West of Terang (Victoria)
- West of Camperdown (Victoria)
- West of Colac (Victoria)
- North of Heywood (Victoria)
- Between Port Fairy and Heywood (Victoria)
- Near Narrawong (Victoria)
- Near Codrington (Victoria)
- Between Mt Gambier and SA/Victorian border (SA)
- Between Millicent and Mt Gambier (SA)
- Between Kingston SE and Tailem Bend (SA)
- Between Millicent and Kingston (SA)
- Between Port Wakefield and Port Augusta (SA)

Development of additional / improved rest areas (Initiative 6)

Additional and improved rest areas will support safety outcomes along the Corridor. The location of any new rest areas will need to take into account other locations that attract drivers to stop, such as service stations.

Priority locations include (but are not restricted to):

- Between Moruya and Bega (NSW)
- Around Bomaderry (NSW)
- Between Broulee Road and Bewong (NSW)
- Between Bewong and Mt Ousley (NSW)
- Between Cann River and the Victorian/NSW border (Victoria)
- Around Nowa Nowa (Victoria)
- Around Stratford (Victoria)
- Around Yarragon, Trafalgar and Morwell (Victoria)
- Between Colac and Warrnambool (Victoria)
- Between Port Fairy, Portland and to the Victorian/SA border (Victoria)
- Tailem Bend to SA/Victorian border (SA)

Address interchanges / intersections to improve safety and efficiency (Initiative 7)

Where appropriate, local amenity and streetscaping should be taken into account in the design and planning process for intersection upgrades (Movement and Place). In addition, opportunities to improve connections with tourist routes should be taken into consideration.

Priority locations include (but are not restricted to):

- Important 'first mile/last mile' roads and intersections to support industrial, commercial and agricultural operations (for example, the Gippsland Logistics Precinct and the Latrobe City industrial area)

- Wollongong (NSW)
- South Coast locations, including Jervis Bay, Nowra, Narooma and Bega (NSW)
- Traralgon to Warragul (Victoria)
- Bairnsdale (Victoria)
- Sale (Victoria)
- Bunyip to Nar Nar Goon (Victoria)
- Little River (Victoria)
- Colac, including the Timboon–Colac Road intersection (Victoria)
- Stoneyford (Victoria)
- Moriac (Victoria)
- Between Port Fairy and Allansford (Victoria)
- Port Pirie (SA)
- Tailem Bend (SA)
- Mount Barker to Callington (SA)
- Virginia to Port Wakefield (SA)

Areas in need of rehabilitation or resurfacing (Initiative 8)

Priority locations include (but are not restricted to) parts of the Highway in these regions:

- Between Sale and Victorian/NSW border (Victoria)
- Colac to Warrnambool (Victoria)
- Between Portland and the Victorian/SA border (Victoria)
- Between Tower Hill and Warrnambool (Victoria)
- Between Mount Barker and Callington (SA)
- Between Virginia and Port Wakefield (SA)
- Between Mount Gambier and Millicent (SA)
- Between Millicent and Kingston SE (SA)
- Between Kingston SE and Meningie (SA)
- Between Meningie and Tailem Bend (SA)
- Near Lochiel (SA)

Priority Projects

The Priority Projects are a list of some of the Australian Government commitments along the Corridor, including Australian Government 2019 election commitments:

- Milton-Ulladulla bypass, NSW (\$400 million) *
- Princes Highway East Gippsland, Victoria (\$60 million) *
- Princes Highway between Warrnambool and Port Fairy - road upgrades, Victoria (\$60 million) *
- Green Triangle in Victoria under the Roads of Strategic Importance Initiative (\$80 million) *
- Duplication between Port Wakefield and Port Augusta, SA (\$64 million) *
- Overpass at Port Wakefield and Township duplication, SA (\$72 million)
- Duplication of the Joy Baluch AM Bridge at Port Augusta (\$160 million)

Note: the \$ amount is the Australian Government contribution. This is not an exhaustive list of jointly-funded projects.

* denotes Australian Government 2019 election commitments

Next steps

The Princes Highway Corridor Strategy Steering Committee agreed at its 13 September 2019 meeting that the Steering Committee would continue with new Terms of Reference. This will enable the Australian Government to continue working with the State Governments to prioritise a program of works aligned with the Strategy objectives and outcomes, local consultation and jurisdictional objectives. Implementation of the Strategy requires maintained focus on the longer-term vision to ensure the Corridor will meet the future needs of users.

