

Achieving Government Goals

Our commitment to delivering safe, reliable and sustainable transport services to the community is at the core of everything we do.

Our outcome-based framework uses a program management approach to deliver six Services aligned with four Government Goals. The strategic areas of focus in Keeping WA Moving guide delivery of our services:



Customers: Provide a transport network centred on what our customers need and value



Movement: Improve mobility of people and the efficiency of freight



Sustainability: Develop a sustainable transport network that meets social, economic and environmental needs



Safety: Provide improved safety outcomes for all users of the transport network

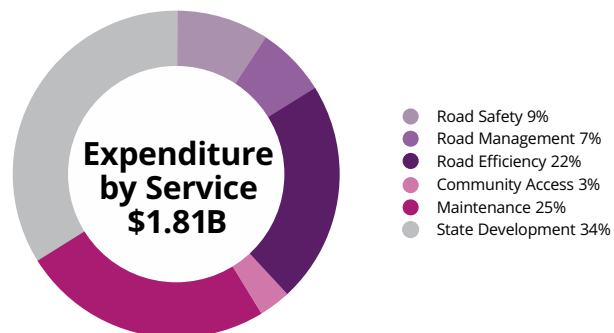
Services and outcomes aligned with the Governments Goals are shown in the table.

Government Goal	Main Roads Services	Main Roads Outcome
Future Jobs and Skills Grow and diversify the economy, create jobs and support skills development	State Development	Facilitation of economic and regional development
Strong Communities Safe communities and supported families	Road Safety Community Access	Provision of a safe road environment Improved community access and roadside amenity
Better Places A quality environment with liveable and affordable communities and vibrant regions	Road Maintenance Road Efficiency Road Management	A well-maintained road network Reliable and efficient movement of people and goods

Changes Since Last Report

Our service and outcomes remain consistent since our previous report. Road Maintenance and State Development continue to be the largest service provision areas.

Main Roads Service	Exp \$ Million
Road Safety	159.36
Road Management	128.12
Road Efficiency	411.37
Community Access	51.84
Road Maintenance	449.14
State Development	618.78
TOTAL	1,818.61



A scorecard providing a summary of how we are performing on a wide range of issues material to our business and our customers is available on pages 14-16.

Road Safety

Providing a Safe Road Environment

Government Goal







Strong Communities

Aim

Reduce the state's road fatalities to the lowest in Australia by minimising the road factors contributing to road trauma and reducing the serious crash injury rate.

About the Program

The program comprises initiatives and projects including state and national Black Spot projects, intersection improvements, overtaking lanes, rail crossings, bridge safety, shoulder sealing and audible edge lines.

Key Performance Indicators	Results
 Community satisfaction with road safety is performing well exceeding our target and improving on last year's results.	91 
 Contracts completed on time is below our target and has decreased from last year's result	80 
 Contracts completed on budget exceeded our target showing continued strong performance	100 

	2017	2018	2019
Program expenditure \$ million	283	163	159

Looking Ahead

Works planned for next financial year include the following:

- progress South Coast Highway road safety improvements and upgrade
- widen and seal shoulders on Pinjarra Williams Road
- upgrade Guildford Road and King William Street intersection including modifications to signals and streetlights
- widen and seal shoulders and continue safety improvements on South Western Highway from Harvey to Wokalup
- progress widening pavement and seal on Albany Highway, Kojonup South
- upgrade Albany Highway and Fremantle Road intersection
- widen pavement and construct passing lanes on South Coast Highway, Kojaneerup
- advance Orrong Road and Francisco Street intersection upgrade
- widen Indian Ocean Drive between Break Water Drive and Lancelin Road
- widen and seal shoulders on South Western Highway, Middleton Road North
- overlay and widen seal to complete road safety improvements on Boyanup Capel Road.

Some of these are already underway; visit our Projects website to find out more.

Key Projects

Project	Total Project Cost (\$ million)	2018-19 Cost (\$ million)	Completion Date	Description
Great Southern Region				
South Coast Highway – Mead Road Passing Lane	30.0	8.0	May 2019	Construction of a passing lane
Northam Cranbrook Road – Katanning South	2.5	3.5	April 2019	Widening pavement and seal
Metropolitan Region				
Mount Street Pedestrian Overpass	2.6	1.5	September 2019	Replacement of mast and additional lighting
Nicholson Road Bridge over Rail	27.3	1.7	July 2018	Construction of grade separation rail
Mid West – Gascoyne Region				
Indian Ocean Drive – Breakwater Drive to Wilbinga	4.8	3.7	May 2019	Widen pavement and seal with wide centre-line treatment
Great Northern Highway – Tuckanarra – Lake Annean	2.4	2.4	July 2019	Widen pavement and seal
Pilbara Region				
Great Northern Highway	2.0	2.0	March 2019	Construct new overtaking lane, delivered in conjunction with Roy Hill Rail Bridge
South West Region				
Boyanup Capel Road	2.1	1.8	May 2019	Widen and seal shoulders
Pinjarra Williams Road	8.4	1.3	June 2019	Widening and recovery zone
Wheatbelt Region				
Collie Lake King Road	13.0	8.4	December 2019	Bowelling Curves section realignment
York – Merredin Road	3.3	2.8	April 2019	Realignment of Ashton Street and Junction Street
Great Eastern Highway	4.6	4.5	March 2019	Widen, overlay and seal

Black Spot Programs

There are 119 projects funded by the State Black Spot Program. This represents a \$20.0 million investment and includes:

- 25 projects on State Roads
- 94 projects on local roads.

In addition, the Australian Government Black Spot Program funds 28 projects, representing a \$5.2 million investment.

Railway Level Crossing Upgrade Program

The State has invested \$4.7 million to improve the safety of railway level crossings. Works include:

- installing boom gates at four crossings
- installing LED lights at five crossings
- upgrading nine existing active crossings to meet current technical standards.



OUR STORIES

SAFETY UPGRADES IMPROVE SOUTH WESTERN HIGHWAY

The South Western Highway is a key route connecting Perth with south-west communities including Pinjarra, Harvey, Donnybrook and Walpole.

Accessed by an average 4,000 vehicles per day, the section of highway between Waroona and Brunswick was narrow, and its poor geometry posed safety issues for the type and volume of traffic. Poor configuration contributed to road hazards and significant crash frequency.

In response to these safety concerns, we undertook significant improvement works on two sections of the highway – between Wokalup and Brunswick, and from Waroona to Yarloop.

Twenty-six kilometres of sealed shoulders are now widened to the edge of the road formation, helping reduce run-off-road crashes. Safety barriers are installed to help prevent run-off-road crashes at large culverts or high embankments.

Installing audible edge lines and a 600-mm wide centre-line treatment now increases vehicle separation and alerts drivers who cross the centre-line, reducing potential for head-on collisions.

Improvements to the roadside batters help mitigate the risk of serious crashes, whilst the removal of vegetation in discrete locations has improved sightlines to oncoming and through traffic.

The objectives for these improvements are reducing the number of killed and seriously injured road users on this section of highway along with improving the travel journey for all road users.

In addition to these upgrades, a budget allocation allows for planning and development work for future improvements at selected highway locations.

Road Efficiency

Providing Reliable and Efficient Movement of People and Goods

Government Goal







Better places

Aim

Improve the efficiency, capacity and utilisation of the existing road network as part of a total transport network.

About the Program

The program includes projects that deliver geometric improvements, road widening, bridge strengthening and retrofitting to incorporate intelligent transport capabilities.

Key Performance Indicators	Results
 Travel on our Network meeting configuration standards for width and curve rating exceeded the target and is consistent with previous year's results	92 
 Contracts completed on time exceeded our target and has improved compared to last year	100 
 Contracts completed on budget exceeded our target however was a small decrease on last year's result	97 

	2017	2018	2019
Program expenditure \$ million	358	330	411

Looking Ahead

Works planned for next financial year include the following:

- commence preloading of Bussell Highway widening project
- continue construction of Mitchell Freeway widening southbound from Cedric Street to Vincent Street
- complete construction on Great Northern Highway of Wyndham Spur and Maggies Jump Up sections
- continue improvements to the Marble Bar Road, including the upgrade of the Coongan Gorge section
- continue construction of NorthLink WA (Swan Valley Bypass) from Reid Highway and Tonkin Highway to Muchea
- continue construction of the Armadale Road upgrade from Tapper Road to Anstey Road
- continue construction of Reid Highway dual carriageway between Altone Road and West Swan Road
- continue works at various locations under the Traffic Congestion Management Program
- continue delivering the Smart Freeways Kwinana Freeway Northbound project, Roe Highway to the Narrows
- continue delivering the Great Northern Highway – Ord River North (Section 1) project
- award and commence construction on the High Street Upgrade – Stirling Highway to Carrington Street

Some of these are already underway; visit our Projects website to find out more.

Key Projects

Project	Total Project Cost (\$ million)	2018-19 Cost (\$ million)	Completion Date	Description
Kimberley Region				
Bow River Bridge	23.2	11.7	October 2018	Construct bridge and approaches
Great Northern Highway – Wyndham Spur and Maggie's Jump Up	48.1	27.1	July 2019	Upgrade and widen seal
Ord River North – Stage 1	58.3	4.0	December 2019	Reconstruct and seal
Metropolitan Region				
Armadale Road widening – Anstey Road to Tapper Road	145.0	61.2	November 2019	Upgrade four-lane dual carriage
High Street – Leach Highway Upgrade	120.3	1.6	Early 2021	Leach Highway upgrade – High Street to Carrington Street – Stirling Highway
Roe Highway and Kalamunda Road Interchange	86.0	1.9	Mid 2021	Grade separated interchange
Reid Highway	70.0	16.0	Mid 2020	Reid Highway duplication – Altone Road to West Swan Road
Mid West – Gascoyne Region				
Brand Highway – Minyulo Bridge Upgrade	2.0	1.9	July 2019	Strengthening – Reinforced Concrete Overlay
Brand Highway – Hill River Bridge Upgrade	0.1	0.1	Mid 2020	Strengthening – Reinforced Concrete Overlay
Pilbara Region				
Great Northern Highway	20.0	18.3	March 2019	Construction of new bridge over Roy Hill Iron Ore Rail Line
South West Region				
Bussell Highway – Fairway Drive	7.4	6.6	January 2019	Roundabout including extension of dual carriageway
South Western Highway – Balingup South, Padbury Stage 3	3.2	2.6	February 2019	Passing lane extension, South Western Highway
Margaret River Perimeter Road – Stage 2	48.0	7.1	December 2018	Construction of 5.2 km of Perimeter Road, connecting to Rosa Brook intersection; 2.3 km of Archibald Drive and roundabout connection; a sealed entrance road to the Airport; 96m road bridge and separate footbridge on the Darch Trail
Wheatbelt Region				
Great Northern Highway – Pithara Section	42.3	25.4	July 2019	Great Northern Highway Stage 2 Muchea to Wubin
Great Northern Highway – Muchea North section	64.2	18.7	Mid 2020	Great Northern Highway Stage 2 Muchea to Wubin
Great Northern Highway – Miling Bypass section	29.3	18.3	April 2019	Great Northern Highway Stage 2 Muchea to Wubin

OUR STORIES

IMPROVED TRAFFIC FLOW AND SAFETY IN MARGARET RIVER

Construction of the seven-kilometre Margaret River Perimeter Road was completed in early February 2019.

Extending from north of the Margaret River townsite and linking back to Bussell Highway south of Margaret River, the road provides an alternative, high-standard, free-flowing route for heavy vehicles around the town, reducing congestion and enhancing safety for pedestrians and local traffic.

With 2.5 million visitors to the region each year, the perimeter road is the catalyst for the future renewal of the main street into a modern and attractive tourist destination.

The perimeter road has improved traffic flow and efficiency on Bussell Highway through the town and reduced conflict between light and heavy vehicles in the main street.

Approximately 1,400 vehicles use the perimeter road each day and indicative counts show more than 20 per cent of these are classed as heavy vehicles. Consequently, the project is already meeting the key objective of improving safety by removing the majority of heavy vehicles from the town and, in turn, increasing transport efficiency for industry.

A one-metre wide painted central median on the new perimeter road offers additional safety with greater distance between opposing directions of traffic.

From 2012, a community reference group provided input into the project, and was responsible for the inclusion of a pedestrian footbridge over the Margaret River.

The project subsequently included: a large roundabout at the northern entrance to town, a new roundabout at John Archibald Drive, construction of a new 96-metre long road bridge and separate footbridge on the Darch Trail, a new entrance road to the airstrip, and a wide sealed shoulder for cyclists.

During construction more than 20 local businesses were engaged, 120 local workers employed and 20 traineeships created. More than 60 local primary students were also involved in planting more than 1,200 seedlings along the road. Planting and landscaping works will continue over the next four years. A video of the works that were carried out is available on our YouTube channel.

State Development

Facilitating Economic and Regional Development

Government Goal







Future jobs and skills

Aim

Expand the road network in accordance with State and Commonwealth governments' transport and land use strategies to support the state's economic and regional development.

About the Program

The program includes most expansion, major infrastructure and bypass projects – predominantly the most complex works we deliver.

Key Performance Indicators	Results
 Our target for the average return on which road and bridge construction expenditure will deliver future economic benefits to the community was exceeded and continues to improve	
 Contracts completed on time came in below target but remained stable compared to last year	
 Contracts completed on budget exceeded our target but was lower than last year	

	2017	2018	2019
Program expenditure \$ million	360	467	619

Looking Ahead

Works planned for next financial year include the following:

- continue works on NorthLink WA Project
- provide an on-ramp from Manning Road to Kwinana Freeway southbound
- continue sealing and improvements on the remaining 90 kilometre unsealed section of the Broome – Cape Leveque Road
- commence work upgrading Duncan Road and Gordon Downs Road, sealing floodways, gravel sheeting, drainage and geometry improvements
- widening Kwinana Freeway northbound, Russell Road to Roe Highway
- complete works on the New Lord Street Project
- commence construction of the Karel Avenue upgrade
- progress Murdoch Drive Connection Project
- initiate Armadale Road Bridge Project
- continue works on the Wanneroo Road and Joondalup Drive Interchange Project

Some of these are already underway; visit our Projects website to find out more.

Key Projects

Project	Total Project Cost (\$ million)	2018-19 Cost (\$ million)	Completion Date	Description
Kimberley Region				
Broome – Cape Leveque Road	65.0	14.0	Mid 2021	Reconstruction of carriageway and sealing of remaining unsealed section
Duncan Road and Gordon Downs Road	51.0	0.3	Mid 2021	Upgrade roads to provide improved access to an Aboriginal Community and new mine South East of Halls Creek
Metropolitan Region				
Great Eastern Highway Upgrade Stage 2 – Bilgoman Road to Mann Street	34.6	12.6	September 2019	Widening to provide sealed shoulders and upgrade of intersections. Works include upgrade of drainage and street lighting and provision of pedestrian facilities
New Lord Street	57.1	8.4	August 2019	Dual carriageway to connect Reid Highway and Gngangara Road
NorthLink – Tonkin Highway – Section 1	231.2	12.9	July 2018	Construct the Tonkin Highway Collier Road and Morley Drive interchanges and Benara Road over Tonkin Highway flyover
NorthLink – Swan Valley Bypass – Section 2	514.8	187.0	August 2019	Swan Valley Bypass – Reid Highway to Marella Road
NorthLink – Swan Valley Bypass – Section 3	272.9	147.9	December 2019	Swan Valley Bypass – Marella Road to Muchea
Armadale Road Bridge	237.0	65.2	Late 2021	Bridge over Kwinana Freeway and extension of Armadale Road to Northlake Road
Mid West – Gascoyne Region				
Indian Ocean Drive Lancelin Road	1.9	0.3	Mid 2020	Upgrade intersections for Aglime Route
Pilbara Region				
Onslow Road	48.7	17.1	April 2019	Upgrade Stage 1 to widen, overlay and make intersection improvements on North West Coastal Highway
Karratha – Tom Price Road Stage 3	50.0	4.8	Mid 2020	Asbestos removal and other development and preconstruction activities completed. Improve geometry and seal overlay
Marble Bar Road	34.8	30.4	April 2019	Realignment of existing road to allow safe movement of road-trains and public traffic. Upgrade to Limestone Marble Bar Road intersection for higher volume road-train traffic.



OUR STORIES

NORTHLINK WA NOW IN FINAL STAGES

NorthLink WA is now in its final stages with the southern section, one of the three projects making up this \$1.02 billion initiative, now complete and the central section on track to finish mid-2019. The northern section is due to open at the end of 2019.

NorthLink WA will provide an efficient alternative freight route, taking about 80 per cent of trucks away from the Great Northern Highway, reducing travel time and congestion for commuters and freeing local roads for local traffic.

Activity by central section contractor Great Northern Connect, a joint venture between BGC Contracting and Laing O'Rourke, has been intense throughout the year.

A major milestone was the opening of Western Australia's biggest freeway-to-freeway interchange at Tonkin and Reid Highway in March 2019.

A second interchange at Gngangara Road partially opened in May and the third interchange at The Promenade in Ellenbrook is on track for completion mid-2019.

Three new pedestrian footbridges were installed over Tonkin Highway, Hepburn Avenue and Gngangara Road; and a four-metre-wide principal shared path, connecting Morley to Ellenbrook, will also open mid-year.

On the northern section between Ellenbrook and Muchea, the highway has become clearly visible with more than six million tonnes of earth hauled to site.

This project, being constructed by CPB Contractors, features more than 150 drainage culverts, including six dual-use culverts with fauna underpasses.

In May, 24 tee-roff beams for the bridge across Muchea South Road and the railway line were installed. The beams ranged from 24 to 40 metres and weighed from 114 to 180 tonnes. The complex manoeuvre involved a 13-day road closure, as the beams could not be installed over live traffic.

At almost 70 per cent complete, work on three grade-separated interchanges with roundabouts at Neaves Road, Stock Road and Brand Highway is well underway.

Thirteen structures in this section are almost complete including 11 road bridges, a footbridge at Neaves Road and a pedestrian underpass at Stock West Road. As part of our ongoing commitment to keep the community informed we are doing regular updates on the Project website. This includes video footage of the works as they progress.

Road Maintenance

Providing a Well-Maintained Road Network

Government Goal







Better places

Aim

Maintain the existing road and bridge network in a safe and serviceable condition whilst maximising asset life and minimising whole-of-life costs.

About the Program

The program covers the maintenance of all road, bridge and ancillary assets, road verges and reserves. Works include routine and periodic maintenance and reconstruction when the primary reason for maintenance is due to pavement failure.

Key Performance Indicators	Results
 Community satisfaction with road maintenance came in within our target and has improved since last year	 87
 Preventative and proactive maintenance undertaken on the network came within our target and is consistent with previous year's results	 84
 Average cost of network maintenance per lane-kilometre of road network was higher than our target due to the impact of natural disasters	 9,428

	2017	2018	2019
Program expenditure \$ million	399	491	449

Looking Ahead

Works planned for next financial year include the following:

- improve height clearance on the Hay Street Bridge
- progress expansion joint and approach slab replacements on Bridge 0955 on Albany Highway
- progress various resurfacing and rehabilitation works
- progress various shoulder reconditioning and sealing works.

Some of these are already underway; visit our Projects website to find out more.

Key Projects

Project	Total Project Cost (\$ million)	2017-18 Cost (\$ million)	Completion Date	Description
Goldfields-Esperance Region				
Regional Project Maintenance	33.4	34.7	June 2019	Maintenance of the network
Maintenance Delivery – Roads	18.4	19.6	June 2019	Delivery of road maintenance
Reseal Program	12.8	13.3	June 2019	Goldfields-Esperance Region resurfacing program
Great Southern Region				
Regional Project Maintenance	25.6	26.0	June 2019	Maintenance of the network
Maintenance Delivery – Roads	19.3	19.8	June 2019	Delivery of road maintenance
Reseal Program	4.2	4.1	June 2019	Great Southern Region resurfacing program
Kimberley Region				
Regional Project Maintenance	21.5	22.9	June 2019	Maintenance of the network
Maintenance Delivery – Roads	15.7	16.6	June 2019	Delivery of road maintenance
Reseal Program	5.8	6.3	June 2019	Kimberley Region resurfacing program
Metropolitan Region				
Regional Project Maintenance	58.5	52.9	June 2019	Maintenance of the network
Maintenance Delivery – Roads	30.3	24.7	June 2019	Delivery of road maintenance
Reseal Program	27.0	27.0	June 2019	Metropolitan Region resurfacing program
Mid West – Gascoyne Region				
Regional Project Maintenance	30.3	30.2	June 2019	Maintenance of the network
Maintenance Delivery – Roads	17.5	17.6	June 2019	Delivery of road maintenance
Reseal Program	11.0	10.8	June 2019	Mid West – Gascoyne Region resurfacing program
Pilbara Region				
Regional Project Maintenance	24.0	25.9	June 2019	Maintenance of the network
Maintenance Delivery – Roads	18.8	17.3	June 2019	Delivery of road maintenance
Reseal Program	5.2	8.6	June 2019	Pilbara Region resurfacing program
Tropical Cyclone Veronica repairs	5.0	0.82	September 2019	Repairs to road network damage from Tropical Cyclone Veronica
South West Region				
Regional Project Maintenance	27.0	27.4	June 2019	Maintenance of the network
Maintenance Delivery – Roads	15.6	16.3	June 2019	Delivery of road maintenance
Reseal Program	11.4	11.1	June 2019	South West Region resurfacing program
Wheatbelt Region				
Regional Project Maintenance	43.5	49.2	June 2019	Maintenance of the network
Maintenance Delivery – Roads	22.7	22.8	June 2019	Delivery of road maintenance
Reseal Program	11.9	16.5	June 2019	Wheatbelt Region resurfacing program

OUR STORIES

LARGEST GEOTEXTILE-REINFORCED SEAL IN OUR HISTORY

The Wheatbelt Region can now lay claim to completion of our largest Geotextile-Reinforced Seal (GRS) campaign to date. The region has some of the oldest roads in Western Australia, damaged through age and weathering.

GRSs are created by spraying a layer of bitumen onto a pavement then covering the bitumen with a layer of geotextile, a permeable fabric, and lightly rolling.

The treatment can be used to provide more robust waterproofing. Applying GRS on the Wheatbelt road network has helped seal cracks and its use can significantly reduce maintenance costs and improves the life of the road.

In total, 1.53 million square metres of GRS was laid equating to approximately 170 kilometres of the road network.

GRS is an engineering tool to prevent cracks being exposed to wet weather. It creates a very tough, bitumen rich waterproof membrane that resists the tendency for cracks to open up and become exposed to the elements.

The product was used on priority roads identified as having cracked pavements, and where standard single and double-coat seals had previously failed to adequately waterproof.

For the region to apply GRS, the road surface was cleaned then a bond coat of bitumen applied that the geotextile sticks to. The geotextile is rolled out and any creases are removed. Additional bitumen is then applied on top of the geotextile, followed by a spread of 14 mm aggregate then rolled. A final light coat of bitumen is applied to the 14 mm followed by a spread of 7 mm of sealing aggregate. Rollers then go over the entire section to secure the seal. Once completed, the road is open to traffic at low speed, until the seal has settled under heat and traffic.

This treatment is an innovative and cost effective way to increase the life and improve the safety of some of our ageing roads without having to completely reconstruct them. A video showing the region laying the GRS onto the bond coat can be viewed on our website.

Community Access

Improved Community Access and Roadside Amenity

Government Goal







Strong communities

Aim

Improve personal mobility and access needs on the road network.

About the Program

The program provides infrastructure including: remote access roads; access for walking and cycling; improved access and mobility for people with a disability; integrated public transport; and improved amenities such as information bays, noise attenuation and landscaping.

Key Performance Indicators	Results
 Community satisfaction with cycleways and pedestrian facilities was above our target and is continuing on an upward trend	91 
 Percentage of the year that 100 per cent of the state Road Network was available came in under our target but has improved from last year's result	91 
 Contracts completed on budget exceeded our target showing continued strong performance	100 

	2017	2018	2019
Program expenditure \$ million	48	137	52

Looking Ahead

Works planned for next financial year include the following:

- commence planning and development activities on the Tanami Road
- continue undertaking improvement works on the Gibb River Road including gravel re-sheeting and drainage improvements
- continue sealing and improvements on Great Central Road between Laverton and the Western Australia and Northern Territory border
- provide a Principal Shared Path from Success Hill Station to Railway Parade (Midland line)
- continue upgrade works on remote access roads
- improve pedestrian and cycling facilities.

Some of these are already underway; visit our Projects website to find out more.

Key Projects

Project	Total Project Cost (\$ million)	2018-19 Cost (\$ million)	Completion Date	Description
Goldfields-Esperance Region				
Outback Way	15.0	4.6	Late 2019	Shire of Laverton – improve formation and gravel
Outback Way	46.5	0.1	Late 2019	Shire of Ngaanyatjaraku – improve formation and gravel
Mid West – Gascoyne Region				
Square Kilometre Array Project	37.2	1.0	Mid 2024	Construction and maintenance of access roads to the SKA project site
Kimberley Region				
Bidyadanga Road	3.8	4.1	May 2019	Construction and seal including improving drainage, construction of a parking bay and sealing of the airstrip
Metropolitan Region				
Hepburn Avenue	5.0	3.8	August 2019	Hepburn Avenue Noisewall
Bridge 904 Hamilton Street – Bridge Replacement	10.4	4.2	September 2019	Replacement of existing timber bridge with a new composite concrete and steel bridge
Fremantle Railway Line – Grant Street to Cottesloe Station and Jarrad Street to Victoria Station	9.9	5.4	August 2019	Provision of a Principal Shared Path including street lighting
South West Region				
Collie Mumballup Road	10.1	1.6	May 2019	Widen to 9 metre seal

OUR STORIES

BUILT BY LOCALS, FOR LOCALS

Sealing of the Bidyadanga Road and Airstrip has provided vital connectivity to Western Australia's largest remote Aboriginal community and has helped boost employment and training for local residents.

Bidyadanga Community lacked all-weather access via road and air, resulting in periods of inaccessibility. This meant no access for emergency and primary health workers and significant health consequences for the locals.

While the approximately 12-kilometre access road was adequate in dry conditions, it was often closed in wet weather. Four million dollars of funding was committed for the project to seal the remainder of the access road.

Developing a community-centric partnership with Kullarri Regional Communities Incorporated for this project helped create employment and training opportunities for local Aboriginal people from the Bidyadanga Community.

D'Antoine, a Derby-based Aboriginal registered business, in partnership with Gungulla Mackay provided the majority of machinery for the delivery of works. Twenty-five Aboriginal people worked on the project including 12 employees from the local community, five employees from Derby and four employees working as cultural monitors for vegetation clearing operations.

Additionally, traffic management training was held onsite in the community providing an accessible, on-the-job experience increasing Aboriginal participation in delivery of the works. This gave the opportunity for further collaboration with Aboriginal businesses and resource provision for Kimberley projects.

During construction we worked with a number of organisations to ensure essential services continued. Kimberley Aboriginal Medical Services needed to maintain medical and evacuation services, so regular communication with them meant interruption was minimised. We also worked with the Water Corporation who allowed access to water bores.

A multi-agency approach ensured ongoing maintenance of the road and airstrip during construction. Agencies included the Department of Communities, responsible for ongoing asset management of the airstrip, and the Department of Planning, Lands and Heritage, which arranges the road reservation.

This upgrade now provides all-weather access for critical medical services including health clinic visits, access to primary care workers and medical evacuations. Video footage of the project can be viewed on our YouTube channel.

Road Management

Providing Reliable and Efficient Movement of People and Goods

Government Goal







Better Places

Aim

Optimise real-time traffic management of the network, provide traveller information, improve asset management planning and support service delivery.

About the Program

The program includes activities associated with the management and operation of the road network, the Traffic Operations Centre, road safety support, Heavy Vehicle Services, Network Operations and Planning and Technical Services.

Key Performance Indicators	Results
 Community satisfaction with Main Roads target was achieved and has increased slightly since last year	90 
 Percentage of the Network permitted for use by heavy vehicles B-Double – 27.5 m target was met	97 
 We exceeded our target for percentage of the Networks bridges that met standard criteria for strength target	94 

	2017	2018	2019
Program expenditure \$ million	125	136	128

Looking Ahead

Projects and activities planned for next financial year, some of which have already commenced, include the following:

- complete the development and agree on a consolidated five-year Congestion Strategy and Movement Program
- manage Smart Freeway operations
- improve network performance monitoring and reporting, by expanding the Addinsight system
- complete Selective Vehicle Detection proof of concept for buses and emergency vehicle priority at traffic signals
- undertake the Heavy Vehicle Compliance Automation Project
- examine recommendations from the WA Heavy Vehicle Accreditation Scheme Operational Review
- develop a Chain of Responsibility gap analysis tool
- work with Industry to minimise the environmental impact and improve the whole-of-life sustainability of our construction projects, including greater use of crushed recycled concrete, reclaimed asphalt pavement and crumb rubber modified seals and asphalt
- engage with Infrastructure WA on future planning for the state, including the development of the State Infrastructure Strategy
- develop a Main Roads approach to achieve better outcomes that align with the new State Road Safety Strategy.

Some of these are already underway; visit our Projects website to find out more.

Network Operations Achievements

Traffic Signal Timing Improvement Project

Our Road Network Operations Centre (RNOC) delivers projects and programs for managing congestion and improving journey times and reliability. A major success is the project reviewing traffic signal timing efficiency at all traffic signals on the State road network. Over the last four years this program has successfully demonstrated that slight changes to signal timings and better coordination can significantly improve journey times along key signalised routes.

This year we optimised traffic signal timings on one-third of our metropolitan State road network (131 signals) and reviewed 100 signals in the South West, Pilbara, Wheatbelt, Mid West – Gascoyne and Goldfields–Esperance regions.

The project has delivered up to 22 per cent journey-time improvements on some routes during peak periods, with examples below:

- Bussell Highway (Busselton): In the AM peak, travel time through the study area has improved by 2 minutes and 39 seconds (22 per cent improvement) in westbound direction.
- Tonkin Highway South (Perth): In the AM peak, travel time through the study area has improved by 2 minutes and 30 seconds (10 per cent improvement) in northbound direction (direction of peak traffic flow).
- West Coast Highway (Perth): In the PM peak, travel time through the study area has improved by 2 minutes and 47 seconds (16 per cent improvement) in northbound direction (direction of peak traffic flow).
- Great Eastern Highway Outer (Perth): In the PM peak, travel time through the study area has improved by 1 minute and 38 seconds (11 per cent improvement) in eastbound direction (direction of peak traffic flow).

Some local roads are better shared

As part of providing world-class outcomes for our customers through a safe, reliable and sustainable road-based transport system, we work closely with local government to develop and deliver shared spaces within key activity areas at town centres. Using shared spaces for managing competing demands can improve street-front activity, support sustainability and give an alternative to traditional traffic signals resulting in lower maintenance costs.

We have been working with representatives from metropolitan local government, to promote the concept of shared space as an alternative street design approach in urban activity centres. The City of Perth has been using the shared space guidelines for some sites. The most evolved of these concepts is Hay Street, between Pier Street and Irwin Street, allowing the City to consider removing two sets of traffic signals. Further expansion of the initiative is under consideration.

Pedestrian Safety Initiatives at Traffic Signals

We are updating pedestrian crossings at traffic signals to operate as ‘parallel walk’ crossings. The update benefits both pedestrians and vehicles using the road network. These crossings allow vehicles to travel through an intersection while pedestrians are crossing the road in a parallel direction to the vehicle movement.

Compliance with the give way rule, where turning motorists must give way to any pedestrians crossing the road into which they are turning, is fundamental to the effectiveness and safe operation of these crossings.

One of the initiatives we have undertaken in an effort to improve driver awareness and compliance and to support pedestrian confidence with the rule, is to install ‘Give Way to Pedestrians’ signs at all traffic signal approaches with these parallel walk crossing facilities.

The project, for all parallel walk crossings in the Perth Metropolitan Region, has been completed and a ‘Give Way to Pedestrians’ public information video is available. The video explains correct operation of parallel walk crossings and can be viewed on our YouTube channel.

Incident Management

Managing incidents is a key function in providing a safe and efficient road network for our customers. Traffic incidents and unwanted debris can cause congestion at any time of the day. Demand on existing emergency services to aid in managing these incidents has grown. To help keep traffic moving our Incident Response Service provides quick clearance solutions by safely reinstating roads to normal conditions as quickly as possible after an incident. Following is a summary of incidents from across the state over the past 12 months.

Nature of incident	Goldfields-Esperance	Great Southern	Kimberley	Metro	Mid West - Gascoyne	Pilbara	South West	Wheatbelt	Total
Road crash	22	38	11	2080	53	24	85	66	2379
Breakdown / tow away	3	0	0	2439	7	11	10	12	2482
Debris / trees / lost loads	5	21	2	1904	7	7	56	27	2029
Flooding	6	0	2	41	9	8	2	9	77
Public utilities (gas, water, power)	3	1	1	99	0	0	3	2	109
Bushfire	6	9	13	29	4	13	10	9	93
Animal / livestock	5	2	3	189	4	5	18	7	233
Hazmat (including spills)	4	3	0	71	0	3	7	2	90
Vehicle fire	3	2	2	40	4	2	1	4	58

Heavy Vehicle Services Achievements

Access and Permits

Our Heavy Vehicle Services area is responsible for improving heavy vehicle safety, productivity and equity of services across the transport industry in Western Australia through compliance, innovation and road asset sustainability. This area: facilitates and regulates the movement of restricted access vehicles in WA; provides traffic escort services for oversize, overmass movements; and works with industry groups and other government agencies at a state and national level.

Total Number of Permits Issued		
	2018	2019
Single Trip Permits	10,634	10,657
Period Permits	14,786	16,585
Special Purpose Vehicle Permits	2,394	2,430
Total	27,814	29,675

Joint Border Operations

We continue to lead the way in heavy vehicle safety by coordinating or participating in multi-agency operations. We have worked with: Western Australia Police Force; Department of Transport; Worksafe; Department of Mines, Industry Regulation and Safety; and, for the first time, Department of Primary Industries and Regional Development's Livestock Compliance Unit. Additionally, cross border operations saw us collaborating with the South Australia Police and the National Heavy Vehicle Regulator.

Our Transport Inspectors check for compliance with mass and dimension limits, ensuring high productivity and oversize vehicles entering our state are operating in accordance with conditions set under Main Roads' permits and orders; they also check for currency of heavy vehicle accreditation for Western Australia.

There is additional monitoring of dangerous goods and for fatigue, followed by reporting to relevant state government agencies as required. Department of Transport inspect roadworthiness and licensing requirements and the local police check for drug and alcohol offences.

Western Australia Heavy Vehicle Accreditation Scheme Operational Review

WA Heavy Vehicle Accreditation (WAHVA) is mandatory for individuals and organisations requiring a permit or order for a transport task within Western Australia for profit or part of a commercial business, including interstate operators. Introduced in 2002, WAHVA involves three mandatory modules Fatigue, Maintenance and Dimension and Loading, which operators are expected to incorporate into their daily work practices. The Mass Management module is compulsory for those wishing to operate under the Accredited Mass Management Scheme.

The Operational Review of the WAHVA Scheme, looking at effectiveness of the scheme and potential changes, was completed in January 2019.

Extensive stakeholder engagement included more than 27 face-to-face interviews, three surveys generating 242 responses and a number of stakeholder workshops. The review report detailed 24 recommendations across four streams: policy, legislation, administration and audit management.

Weigh In Motion Scales and Mobile Vehicle Inspection Station Trailer

In mid-2018 we purchased our first fully mobile, self-contained Vehicle Inspection Station, also known as a Shaker. The unit can:

- check truck and trailer brakes and suspension
- test vehicle brake force, brake balance, wheel rolling resistance
- test vehicle deceleration to determine braking performance and efficiency
- identify wear and drag on the wheels.

The Shaker has aluminium access ramps leading up to the unit giving a vehicle a smooth transition over the Shaker. The inspection is conducted when driving the vehicle, axle by axle, over the device allowing a Transport Inspector to examine the vehicle's steering and suspension components.

Weigh-in-motion scales are now used, giving a preliminary measurement of the weight of each individual axle group and the total mass of a heavy vehicle without the need for more accurate but time-consuming traditional scales. The inspector can assess whether further measurement is required to determine the level of any overload. When used collectively at a roadblock, this new equipment helps make the inspection process more efficient, allowing compliant drivers to get back on the road more quickly.

Planning and Technical Services Achievements

Household Travel and Commercial Vehicle Surveys

On behalf of the Transport Portfolio we are responsible for the delivery of the Perth Area Travel Household (PATHS) and the Commercial Vehicle Surveys. The PATHS is an innovative transport data survey where householders are randomly selected and invited to participate in a survey to capture their travel behaviour. The survey participants are interviewed and invited to carry a GPS logger to capture their travel movements over the working week.

This approach is a world-first. Perth metropolitan residents had a high response rate of 43 per cent; more than 1,600 households voluntarily had their travel data recorded over the last 12 months. This data is currently being analysed, and collection of Year Two data has begun.

We have also developed an innovative methodology for capturing a snapshot of freight movements across the Perth metropolitan area. The Commercial Vehicle Survey methodology will be a world-first, a result of close collaboration between Main Roads, the Department of Transport and the Department of Planning, Lands and Heritage.

The survey will capture freight movements at both the business premises and vehicle level, integrating to provide more detailed freight data. Surveys will commence next year with the data used to better model Perth's future freight movements, enabling more effective transport infrastructure planning and decision-making.

Remotely Piloted Aircraft Systems

Remotely Piloted Aircraft Systems (RPAS), or drones, have become low-cost devices for capturing information and offer increased availability and connectivity with available sensors; their deployment is becoming more affordable and desirable. We have activities that will be complemented, enhanced and perhaps one day replaced by the operation of remote devices such as RPAS. Benefits of this technology are delivering positive outcomes for staff safety, data capture, automation and asset awareness.

In May 2019, the Civil Aviation Safety Authority granted a Remotely Piloted Aircraft/Drones (RPA) Operators Certification to Main Roads. This allows us to conduct authorised operations of RPA aircraft.

Road Safety Management System Progress

Our Road Safety Management System (ROSMA) integration process took place in all operational and high priority branches across Main Roads. This process of meeting with each area to ensure Safe System principles are embedded in each of our priority areas led to a business case for further enhancements. This will ensure ROSMA is fit for purpose whilst reducing the need for ongoing support and having a more integrated tool for ease of use. It is envisaged streamlining and integrating the tools into one system will reduce the time undertaking ROSMA on a project and improve compliance and overall road safety benefits.

Towards Zero and the Safe System approach highlight the importance of managing the interaction of road users, roads and roadsides, travel speeds and vehicles for preventing crashes and serious-injury crash outcomes. The Safe System acknowledges that even the most compliant road users make mistakes, so the road system needs to be forgiving and cater for these errors. The strategic approach is to take a longer view – developing a 12-year strategy, looking at the research, partnering with key stakeholders and encouraging a shared implementation. Our road traffic safety management system is based on the belief that no one should die or be seriously injured on the State road network and we are committed to managing the network to minimise likelihood of road trauma to all road users.

OUR STORIES

COLLABORATIVE APPROACH TO MANAGING LOCAL ROADS

Our commitment to managing an efficient, reliable and safe road network was reinforced when we renewed, for the fifth time, the State Road Funds to Local Government Agreement (SRFLGA) in collaboration with WA Local Government Association (WALGA).

The agreement provides an allocation of funds to local governments for the improvement and maintenance of our state's roads and bridges and aims to provide certainty of funding for local government.

The SRFLGA also highlights the strong working relationship between local and state government and provides a collaborative approach in the way both levels of government meet the challenge of maintaining and improving more than 150,000 kilometres of road networks.

While there has been significant State Government investment on local road election commitment projects outside of the agreement, it is anticipated that this funding will contribute \$966 million to the local road network. Funding is based on 20 per cent of the state's vehicle licence fee collections.

The agreement recognises the importance of improving road safety, providing opportunities for Aboriginal employment, facilitating local economic development through local employment and encouraging more sustainable road construction practices through the use of recycled materials.

This builds upon the previous agreements negotiated in 1995, 2000, 2005 and 2011 and reinforces the strong working relationship between local government and the state government.

Funding also supports tourism, via the agreement's State Initiatives Program, for National Park roads and upgrades on Rottnest Island and on Kings Park roads.