Roads and Maritime Services in regional NSW
NSW is in the midst of delivering unprecedented investment in our State’s road networks with more than $39 billion spent on the delivery and maintenance of infrastructure and services since 2011.

This targeted investment has already provided immense benefit to regional communities and will continue with the allocation of an additional $4.88 billion – more than half of this year’s annual roads budget – towards building and upgrading roads in regional areas, and providing the critical freight infrastructure improvements needed to support its growing businesses and communities.

With an additional 240,000 customers using our regional roads over the next decade and the NSW freight task expected to more than double by 2031, providing people with better access to work opportunities, reduced travel times and safe and efficient journeys – whether they live in Bourke or Bankstown, Cooma or Camden – is paramount to this Government.

The upgrade of regional roads in NSW is crucial to the nation’s infrastructure and economic development and will make a big difference to the people of NSW living in and moving to regional communities.

I am proud to say our work in the regions contributes to building sustainable communities by boosting local economies, supporting local industry and local jobs as well as providing meaningful training and apprenticeship opportunities.

It’s an exciting time to be part of infrastructure and I’m delighted to be part of a Government that is prioritising NSW regional communities and strengthening our road and freight infrastructure like never before.

The Hon. Melinda Pavey MP
Minister for Roads, Maritime and Freight
Roads and Maritime Services’ regional teams are committed to building and maintaining thousands of major and minor road projects across regional NSW in any given year.

The agency is fast tracking major upgrades of key regional highways to better connect communities and plan for the future to support the ever increasing needs of the travelling public, including local commuters, communities and growing tourist and freight movements.

In the north, Roads and Maritime is upgrading the Pacific Highway to a four-lane divided road from Hexham to the Queensland border with full duplication targeted for opening by 2020. The Australian and NSW governments have invested $11.4 billion on the highway since the upgrade started in 1996.

In the south, the $580 million Foxground and Berry bypass is six months ahead of schedule, with the Foxground bypass opening before Easter in 2017 and the Berry bypass opening to motorists on 14 July 2017.

Planning for the Berry to Bomaderry upgrade is well advanced with major work to commence next year after the NSW Government allocated $19 million in the 2017/18 Budget to start work.

In western NSW Roads and Maritime is upgrading the Cobb, Silver City, Great Western, Mitchell and Newell highways. We are working with local government and regionally based contractors on these important projects.

We have also invested more than $100 million in each region in maintenance activities to ensure the continuing safety and efficiency of the road network across the State.

Roads and Maritime teams live and work throughout regional NSW and we are committed to supporting local communities through our work.

We are focusing on increasing skills in the regions through apprenticeship and trainee programs and continue to support and work with our industry partners to increase Aboriginal Participation in Construction (APiC).

The regional budget this year of $4.88 billion will support thousands of workers on our projects. Safety remains a major priority for us and we will continue our collaboration with industry partners to improve safety in our industry and ensure our workers get home safely every day.

Message from Roy Wakelin-King
Executive Director Regional and Freight
Roads and Maritime Services
Roads and Maritime Services is a delivery agency within the NSW Transport cluster responsible for delivering safe and efficient journeys throughout the State and managing road and waterway operations and infrastructure programs.

Our core services

- Build and maintain infrastructure
- Provide licence and registration services
- Manage compliance to rules and regulations
- Provide safety management services
- Deliver traffic management services
- Deliver environmental solutions
- Manage tolling services
- Regulate users of roads and waterways.

Our role

1. To build, manage and maintain the State’s road and waterway network and assets
2. To maximise the customer benefits and service potential of our networks
3. To integrate our networks with private motorways, local roads and the broader transport system
4. To use our networks to facilitate economic and social development and growth in NSW.

Our values

Customer Focus
We place the customer at the centre of everything we do

Collaboration
We value each other and create better outcomes by working together

Solutions
We deliver sustainable and innovative solutions to NSW’s transport needs

Integrity
We take responsibility and communicate openly

Safety
We prioritise safety for our people and our customers
Our network

- 17,719 km of State roads
- 4,121 traffic signals
- 2,876 km of regional and local roads in the unincorporated area of NSW
- 2,137 km of coastline and 12,847 km² of navigable waterways
- 5,623 bridges
- 49 commuter wharves
- 28 tunnels
- 3,873 maritime navigational aids
We live locally and work locally

3500+ people working in our regional offices

Our work in the regional space is focused on:

- **Network planning** – we plan projects that will improve connectivity, capacity and safety on the regional network
- **Major projects** – we deliver our major projects on the network to improve safety, reduce travel times and connect communities
- **Maintenance and minor work projects** – we maintain and reconstruct the main road network in rural and regional NSW by working with council and industry partners.
While our customers are at the centre of everything we do, our people are at the heart.

One of the great benefits of working regionally is that our teams plan, build and maintain the roads they and their families use every day. Our people understand the communities they live and work in and they are proud to be a part of them.
Keeping our people and our customers safe

We are focused on reducing fatalities on regional and remote roads where around two thirds of road deaths occur. Our target is to reduce road fatalities and serious injuries by at least 30 per cent by 2021.

The NSW Government’s Safer Roads Program is a key initiative of the NSW Road Safety Strategy, which aims to make state roads safer and reduce crashes on the road network. This program provides treatments where there are clusters of casualty crashes on local and regional roads.

This is achieved by implementing low cost engineering treatments and safety improvements to help reduce the severity of crashes, as well as those that involve vulnerable road users. Road infrastructure improvements, such as safety barriers, help to reduce the number and severity of run-off road and head-on crashes and improve the safety of intersections with infrastructure treatments.

Some recent regional examples include:

- North Wollongong interchange upgrade – we are planning an upgrade of the northbound exit ramp from Memorial Drive to the Princes Highway. $6.73 million has been allocated to improve traffic efficiency and road user safety by widening the existing ramp from three to four lanes and reconfiguring the intersection to allow dual right and left turns onto the Princes Highway from Memorial Drive. The work will improve safety at the University Avenue on ramp and queue lengths will be reduced, lowering the risk of end of queue collisions.

- Mitchell Highway, Shadforth – we are widening the Mitchell Highway to allow for an acceleration lane for motorists turning left out of Milthorpe Road to merge safely with highway traffic. Safety barriers are also being installed which aim to reduce off-road crashes into nearby large drains.

- Newell Highway, Finley – we are providing a new northbound overtaking lane on the Newell Highway, a smoother road surface, wider lanes and safer turns at intersections for northbound traffic along a two kilometre stretch of the Newell Highway, near Baxters Lane. The new lane will allow northbound motorists to safely overtake slower vehicles while the wider road will create enough room for larger vehicles to pass each other with ease. This work is part of the NSW Government’s $500 million upgrade of the Newell Highway and will deliver major improvements to the main inland road and freight route in NSW which stretches from the Queensland to the Victorian borders.
We work with industry partners to manage safety on our infrastructure projects to ensure everyone goes home safely every day.

One of our key areas of focus this past year has been our collaboration with industry partners.

We are continuously working to improve safety and we strongly believe safety is about collaboration, not competition.

Internally, we are developing a strong team safety culture. We heavily invest in the training and support of our people to ensure we all get home safely every day.

Some of our safety initiatives include:

• Hosting work health and safety forums with industry to identify new safety opportunities, share lessons learnt and best practice initiatives across industry so that all our partners can learn, grow and improve together
• Delivering safety leadership and due diligence training for our teams
• Funding more innovative pilot programs, especially where they have statewide relevance. Current pilot projects underway include:
  - working near traffic
  - wearable safety technology
  - automated traffic controls
• Carrying out safety in design workshop assessments to help eliminate risks in the planning stages of a project.

Safety in practice: Separate Yourself

On the Pacific Highway upgrade we have been trialling consistent approaches and controls around delineation and signage on project sites.

By giving each worksite a similar look and feel, the ‘Separate Yourself’ program aims to reduce potential confusion for a person unfamiliar with a site, allowing them to navigate their way safely into and through a worksite based solely on the controls on the ground.

The Pacific Highway Project Office worked closely with industry on nine risk areas to trial, including entrance signage, site risk information and delineation of paths of travel for vehicles.

The risk areas and controls were agreed by industry and endorsed at a safety forum in December 2016. Monitoring of the application of these standards by our contractors onsite will be completed by principal contractors and our work health and safety partners. It is expected hazards and near misses reporting will increase due to increased awareness of the standards, while total frequency and severity of occurrences will decrease due to increased separation.
Respecting our environment

We carry out activities in a safe and environmentally responsible manner while effectively managing any risks that may lead to an impact on the environment. Our benchmark is best practice, cost effective environmental performance for our road and maritime network.

Environmental management is a crucial component of – and is integrated in – all phases of the project life cycle from early strategic design through to the construction and operation of our network.

Our environment staff work across a range of disciplines and technical areas in close collaboration with project and regional staff to minimise environmental impacts in all aspects of our work.

Some of the recent work we are proud of includes:

- Creating habitats for microbats in new bridge structures at Sportsmans Creek Bridge in the Clarence Valley
- Maintaining habitat connectivity for the local koala population during upgrade work on the Pacific Highway
- Reducing our use of natural resources by implementing initiatives to use recycled waste material locally
- Re-using trees trunks, removed as part of road projects, in waterways to create habitats for native fish.

BioBanking

We seek to avoid, minimise and mitigate the impact of roads and other infrastructure on biodiversity during the development and design of projects. Where impacts cannot be avoided or mitigated, we look to offset these impacts using the NSW BioBanking and Offset Scheme administered by the Office of Environment and Heritage. BioBanking is a market-based scheme that provides:

- A consistent biodiversity assessment process for development
- A rigorous and credible offsetting scheme
- An opportunity for rural property owners to generate income by managing land for conservation.

Heritage

The ongoing maintenance of heritage timber bridges requires a supply of increasingly scarce high-grade hardwood. Up to 150 timber logs cleared as part of the Pacific Highway, Nambucca Heads to Urunga upgrade were recycled and made available for use in the heritage timber bridge maintenance program.

Environment staff worked closely with timber consultants to identify trees suitable for timber before major work started on the project. Suitable logs were transported to local mills for processing into valuable products for use in maintaining the State’s timber bridges.
Engaging the customers and communities we serve

We engage with customers and the community so we can understand and consider their needs when making decisions. We believe that input from our customers improves project outcomes.

In the regions, we engage with the community in a variety of ways to ensure everyone has an opportunity to have their say and understand the work we do.

Community engagement in practice: Clarence Science Initiative

Groups of year five and six students from schools throughout the Clarence Valley were given a rare insight into how Roads and Maritime builds bridges and what is involved in becoming an engineer.

Students participating in the Clarence Science Initiative had the opportunity to visit the sites where two new bridges are being built in Grafton and Lawrence. During these visits the students heard from the engineers responsible for building the bridges. One group of students also visited the Northern Region office, where they learned about the Country Bridge Solutions initiative from Project Director David Andrews.

The presenters were extremely impressed with the quality and number of questions from the talented students.

Community engagement in practice: Dubbo Bridge

The Newell Highway is the longest highway in NSW, stretching 1058 kilometres from the Victoria border at Tocumwal to the Queensland border at Goondiwindi. As part of the National Land Transport Network, the Newell Highway has national significance. This main north-south route runs through Dubbo, including crossing the Macquarie River over the Emile Serisier Bridge. The Serisier Bridge crosses the river at a low level and is under water when the river floods, causing the bridge to close.

In March 2015 the NSW State Government announced the duplication of LH Ford Bridge in Dubbo as part of a $500 million Newell Highway Upgrade Program. This project has had, and continues to have, a high degree of political and community interest.

In May 2016 the community was invited to have their say on six possible options and following consultation, these six options were narrowed to three. On 2 June 2017 the Premier announced that River Street was the preferred route for a new bridge to cross the Macquarie River at Dubbo.

We consulted the Dubbo community in 2017 through digital, radio and print advertising. Over 17,000 post cards were mailed to residents and businesses and 1050 community updates distributed. 856 people attended drop in sessions and information was provided on our project website and at project displays.
Innovation in the regions

As we work towards delivering our large program of work across the State, we know that driving innovation and efficiency will help us deliver better project outcomes, value for money and a legacy for the people of NSW.

Innovation in practice: 'Winged planks' bridge design

Our new 'winged planks' design on the Pacific Highway upgrade improves safety in construction by reducing gaps between planks, and potentially saving money by reducing the number of planks required.

About 2300 of the innovative 'winged planks' will be used to build more than 100 bridges for the upgrade. Normal bridge planks have 30 centimetre gaps between them but the project team is using a plank with a precast wing that spans the gap, eliminating the safety hazard and reducing the number of planks needed to build each bridge.

The 'winged planks' innovation was the work of a number of our people including the Pacific Highway team, the Bridge Engineering team and industry partners, Pacific Complete.

Innovation in practice: State of the art purpose built line marking truck

Designed by one of our workshop supervisors in Bega, a new purpose-built line marking truck has improved both operation and maintenance features to provide more reliable and accurate line marking.

Aside from increasing the quality and accuracy of line marking, the machine reduces the exposure of our workers to traffic, increasing safety.

Some of the technical features include:

- A variable message sign board on the rear of the machine for clearer communication with motorists
- Height adjustable marking runners to allow fine tuning of line widths from the cab of the truck to reduce the amount of time the operator spends making manual adjustments near live traffic
- The addition of a paint flow meter, to accurately gauge paint usage
- A data logging system to gather information including paint used, distance of each line type sprayed, start location/stop location and travel speed.
Industry in the regions

We support local contractors and suppliers on our projects where we can. Current projects, Guanna Hill in the western region and Burrill Lake in the southern region, have both attracted local contractors and suppliers.

Locations shown on map are a guide only. Drawing not to scale.

Burrill Lake

1. McConnell Steel and Fabricators – Milton NSW – Fabrication of various bridge components such as pedestrian handrails and traffic barriers
2. Stop/Slow Traffic Control – South Nowra/Wollongong NSW – Site traffic control
3. Boral Concrete – Milton NSW – Concrete supplier
4. Downer Group – Mogo NSW – Asphalt and spray sealing subcontractor
5. Malleycrete Constructions – Ulladulla NSW – Concrete subcontractor used for bridge decks
6. Schmidt Quarries – Nerriga NSW – Drainage layer/temporary working platform rock supplier and haulage
7. SCCCR Quarries – South Nowra NSW – Supplier of general fill earthworks material and haulage
8. Alstain Sheet Metal – Ulladulla NSW – Welding/fabrication services
9. South Coast under Road Borers – Termeil NSW – Underboring services

Guanna Hill

10. MTM (Midwest Traffic Management) – Bathurst – Site traffic control
11. Boral Concrete – Orange NSW – Concrete supplier
12. Beecham Concreting – Bathurst NSW – Concrete subcontractor used for culverts
13. Boral Shadforth Quarry – Orange NSW – DGS and DGB material
14. Central West Quarries – Molong NSW – Supplier of general fill, SMZ and drainage rock
15. Central West Civil – Bathurst NSW – Lime stabilisation and plant hire
16. INCO – Molong NSW – Plant hire
17. Spinifex – Parkes & Orange NSW – Labour Hire

Roads and Maritime Services in regional NSW
The Pacific Highway team organised a roadshow with their delivery partner, Pacific Complete to talk to people in the north coast area about work opportunities.

The team, education providers, job supply agencies and contractors travelled to towns along the Pacific Highway corridor including Grafton, Woodburn, Casino, Corindi, Maclean, Ballina and Lismore. They provided information on the types of work being carried out, employment opportunities (both direct and indirect), work hours, training and support mechanisms as well as their experience of the construction industry and how to get involved.

Visitors were positive about the experience and had the opportunity to ask questions in person.

The Woolgoolga to Ballina team recently awarded two contracts that included a mandatory 7.5 per cent Aboriginal Participation in Construction requirement, well above the standard 1.5 per cent mandatory requirement. These are contracts with:

- GMC Environmental Consulting for koala revegetation in the section between Richmond River and Ballina (awarded October 2016)
- CBC Facilities Management for operation and maintenance of site compounds along the entire corridor (awarded January 2017).
Projects by region

- Hunter region 16
- Northern region and Pacific Highway 18
- Western region 20
- South West region 22
- Southern region 24

Cane field, Woolgoolga to Ballina upgrade.
Hunter region

Key
- In construction
- In planning
- Recently completed

Locations shown on map are a guide only. Drawing not to scale.

- **16 State electorates**
- **Over one million people**
- **11 local government areas**
- **1398km of state roads**
  controlled by Roads and Maritime Services
- **Covers an area of 34,388km²**
- **1241km of regional roads**
  maintained by council
New England Highway, Scone bypass

The New England Highway is being upgraded to bypass Scone.

**Kilometres:** Four kilometres of a new two-lane highway including two bridges.

**Value:** $120 million

**Benefits:**
- Removes heavy vehicles from the town centre
- Improves traffic flow and amenity for local traffic
- Provides an alternative route for road users wanting to travel across town uninterrupted.

**Progress:** The environmental assessment for the bypass was finalised in April 2016. Detailed design is progressing. Shortlisted companies will be invited to submit tenders by August 2017.
Northern region and Pacific Highway

Key
- In construction
- In planning
- Recently completed

Locations shown on map are a guide only. Drawing not to scale. Please note the Newcastle, Wollongong and Blue Mountains Local Government Areas are not included in the NSW regional budget total.

10 State electorates

3226 km of regional roads maintained by council

22 local government areas

1185 bridges

Covers about 12.3% of the State

Three tunnels

Contains over 10% of the State’s population

Three ferry crossings

2510 km of State roads controlled by Roads and Maritime Services

Roads and Maritime Services in regional NSW
Project profile
Pacific Highway and Woolgoolga to Ballina

The Pacific Highway upgrade project is Australia’s largest regional infrastructure project. It will complete the four-lane divided highway between Sydney and Brisbane, and result in a continuous four-lane divided road between Brisbane and Melbourne.

Woolgoolga to Ballina:
Kilometres: 155 kilometres of highway
Total value: $4.36 billion
Jobs: At its peak the Woolgoolga to Ballina project will create 2500 direct and 7500 indirect jobs.

Major roads in the region:
- Pacific Highway
- New England Highway
- Bruxner Highway
- Gwydir Highway
- Oxley Highway
- Waterfall Way
- Fossickers Way
- Summerland Way
- Gold Coast Highway
- Kamilaroi Highway
- Bangalow Road/Lismore Road.

Northern

In construction
1. Sportsmans Creek Bridge, Lawrence
2. New Grafton bridge
3. New Bridge over Clarence River at Tabulam

In planning
4. New England Highway, Bolivia Hill upgrade
5. Oxley Highway improvements at Spencers Cutting
6. Gunnedah second road over rail bridge
7. Tenterfield heavy vehicle bypass

Pacific Highway

In construction
8. Kundabung to Kempsey upgrade
9. Oxley Highway to Kundabung upgrade
10. Warrell Creek to Nambucca Heads upgrade
11. Woolgoolga to Ballina upgrade

In planning
12. Coffs Harbour bypass

Some recently completed projects
13. Frederickton to Eungai upgrade
14. Nambucca Heads to Urunga upgrade

Roads and Maritime Services in regional NSW
Western region

Key

- In construction
- In planning
- Recently completed

Locations shown on map are a guide only. Drawing not to scale. Please note the Newcastle, Wollongong and Blue Mountains Local Government Areas are not included in the NSW regional budget total.

- **6 State electorates**
- **28 local government areas**
- **431,964 km² of NSW**
- **Covers about 54% of the State**
- **6286 km of State roads** controlled by Roads and Maritime Services
- **7216 km of regional roads** maintained by council
Project profile
Newell Highway

The Newell Highway is being upgraded along its entire length from Tocumwal to Boggabilla. The work began in 2011 and is part of the 20 year Newell Highway Corridor Strategy. It is the longest highway in NSW, running south to north through the state. It provides an essential road connection for central western NSW.

Kilometres: 1060 kilometres
Value: $500 million
Benefits:
• Increased efficiency and safety for freight movements
• Improved road safety by providing overtaking lanes and more rest opportunities for drivers.

Project profile
Silver City Highway

The Silver City project involves sealing a section of the Silver City Highway from 181 to 186 kilometres north of Broken Hill, closing a gap between previously sealed sections north of Barons Creek.

Kilometres: Five kilometres
Value: $2.48 million (total value of stages 1-3)
Benefits: Prioritising the sealing of sections of the highway most prone to closure during wet weather has improved the safety and efficiency of journeys for motorists in south western NSW.
Progress: Stages 1 and 3 of the Silver City Highway sealing project have been completed and Stage 2 is due to be completed in the coming months.

In construction
1. Mitchell Highway, Guanna Hill realignment
2. Newell Highway realignment at Trewilga
3. Great Western Highway – Hartley Valley to Forty Bends safety upgrade
4. Golden Highway safety and capacity upgrades for freight – Belford to Dubbo
5. Silver City Highway, Barons Creek initial road sealing
6. Cobb Highway, Eurella initial road sealing
7. Overtaking lanes between Gilgandra and Coonabarabran

In planning
8. Newell Highway Mungle Back Creek to Boggabilla heavy duty pavement
9. Newell Highway, Parkes bypass
10. Newell Highway, New Dubbo Bridge
11. Newell Highway upgrade at Coonabarabran
12. Newell Highway, North Moree heavy duty pavement
13. Bells Line of Road – Chifley Road upgrade

Some recently completed projects
14. Great Western Highway upgrade at Kelso
15. Holman Bridge replacement (Gooloogong Bridge)
16. Kamilaroi Highway, Tulladunna Bridge replacement
17. Newell Highway overtaking lanes (17 completed since 2011)

Major roads in the region include:
• Newell Highway
• Great Western Highway
• Castlereagh Highway
• Carnarvon Highway
• Oxley Highway
• Kamilaroi Highway
• Mid Western Highway
• Mitchell Highway
• Silver City Highway
• Barrier Highway
• Cobb Highway.

Roads and Maritime Services in regional NSW
South West region

Key
- In construction
- In planning
- Recently completed

Locations shown on map are a guide only. Drawing not to scale.

- **5 State electorates**
- **4082 km of regional roads** maintained by council
- **24 local government areas**
- **687 bridges and bridge-sized culverts**
- **3867 km of State roads** controlled by Roads and Maritime Services
- **69 sets of traffic lights**

Roads and Maritime Services in regional NSW
Barton Highway

The Barton Highway Improvement Strategy will guide ongoing safety and travel efficiency improvements along this important corridor. Initial actions include more overtaking lanes along the southern section, upgrading the road surface and carrying out safety improvements at various intersections. Safety work including better road delineation, widening clear zones in high crash areas, and improving access and safety for cyclists and pedestrians within Murrumbateman village are also recommended.

Kilometres: 52 kilometres

Benefits: The aim of the project will be to improve safety, traffic efficiency and sustainability.

Progress: The Barton Highway Improvement Strategy has been completed.

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Major roads in the region:

- Barton Highway
- Hume Highway
- Newell Highway
- Riverina Highway
- Sturt Highway

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In construction

1. Gocup Road upgrade
2. Newell Highway, Grong Grong realignment
3. MR54 Initial road sealing

In planning

4. Barton Highway improvements
5. Echuca-Moama Bridge
6. Gee Gee Bridge
7. Tooleybuc Bridge replacement
8. Yoogali intersection treatment

Some recently completed projects

9. Hume Highway, Holbrook bypass
10. Olympic Highway realignment and Kapooka Bridge replacement

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Roads and Maritime Services in regional NSW
Southern region

Locations shown on map are a guide only. Drawing not to scale. Please note the Newcastle, Wollongong and Blue Mountains Local Government Areas are not included in the NSW regional budget total.

10 State electorates
12 local government areas
Covers about 6% of the State
676,000 people live in the region
694,000 registered vehicles

1882 km of State roads controlled by Roads and Maritime Services
1875 km of regional roads maintained by council
947 bridges
259 sets of traffic lights

676,000 people live in the region
694,000 registered vehicles

Roads and Maritime Services in regional NSW
The Princes Highway is being upgraded from Berry to Bomaderry and a bypass will be built at Albion Park Rail. This work will deliver four lanes of divided highway between Waterfall and Jervis Bay Road at Falls Creek. Work is also underway to build a new bridge at Falls Creek, construction work is progressing on the Dignams Creek upgrade and plans are underway for a replacement bridge at Batemans Bay.

Kilometres: 133 kilometres

Value: $1.2 billion over four years ($137 million – FY17/18)

Benefits:
- Create new jobs
- Reduce congestion
- Improve safety and freight productivity.

The projects will deliver an important economic boost to the region.

Jobs: Creating in excess of 2265 direct and indirect jobs.

Major roads in the region:
- Princes Highway
- Kings Highway
- Monaro Highway
- Hume Highway.