

# Gascoyne Regional Profile

## 2013



## Overview of the Region

The Gascoyne road network is under increasing pressure from fast growing industries in the Region. Forming the main link between the regional centres of Geraldton, Carnarvon, Karratha and Port Hedland, North West Coastal Highway is a strategically important land transport corridor for industry, defence, freight and tourism.

### Area

The Gascoyne Responsibility Area covers an area of approximately 135,277 square km (5.3% of the State) and comprises 5 local Government authorities.

### Road Length

Road Type	Road Length (km)	% of State
National Land Transport Route	0	0.00%
State Road	1,588	11.85%
Local Road	4,346	3.31%
<b>Total</b>	<b>5,934</b>	<b>3.97%</b>

### Population

The Region's population was estimated as 9,621 in 2011 (0.4% of the State). The Shire of Carnarvon is the most populated of the four local government areas with 5,347 residents representing two third of the region's population. (Source: Main Roads Western Australia Regional Digest 2011-12 and 2011 ABS census – 10 September 2012).

### Economic Activity

The region boasts a diverse, balanced economy which is supported by a strong network of retail, administrative and trade services. The major industries are tourism, retail, horticulture, mining, fishing, and pastoralism.

The estimated value of Gross Regional Product for the Gascoyne Region in 2010-11 was \$824 million which represents 0.4% of Gross State Product. (Source: Main Roads Western Australia Regional Digest 2011-12).

### Strategic View of Road Use

**Mining/Industry** – The south Pilbara has well established industrial sites at Maitland, the Burrup Peninsula and Cape Lambert. Significant investment has also been made into Paulsen's Gold Mine along Nanutarra-Munjina Road, Onslow Salt, Useless Loop Salt and Dampier Salt at Cape Cuvier. These areas rely significantly on the freight service route along North West Coastal Highway.

**Pastoral/Agricultural** – As the Region does not have a deep water port, industry is heavily reliant on the roads for transport of produce and livestock to markets, abattoirs and ports, with the vast majority being transported to Perth along the North West Coastal Highway.

**Tourism** – Tourism has developed into one of the key industries within the Gascoyne Region, and it continues to grow rapidly. Several of the State's priority tourist destinations are located within the Region, and access through the Region leads tourists to several others close by. Large areas of the Gascoyne have been set aside as National Parks, including the major parks of Cape Range, the Kennedy Ranges and Mt Augustus. There are two World Heritage Areas and Marine Reserves, the Shark Bay and the Ningaloo Marine Park.

**Regional Travel and Social** – Due to the isolation of communities, residents of the Region rely on a safe and reliable road network for services such as health and education. Roads are fundamental as there are no other modes of transport in the Gascoyne.

# Gascoyne Region Priority Projects

## Regional Priority Projects Gascoyne Region

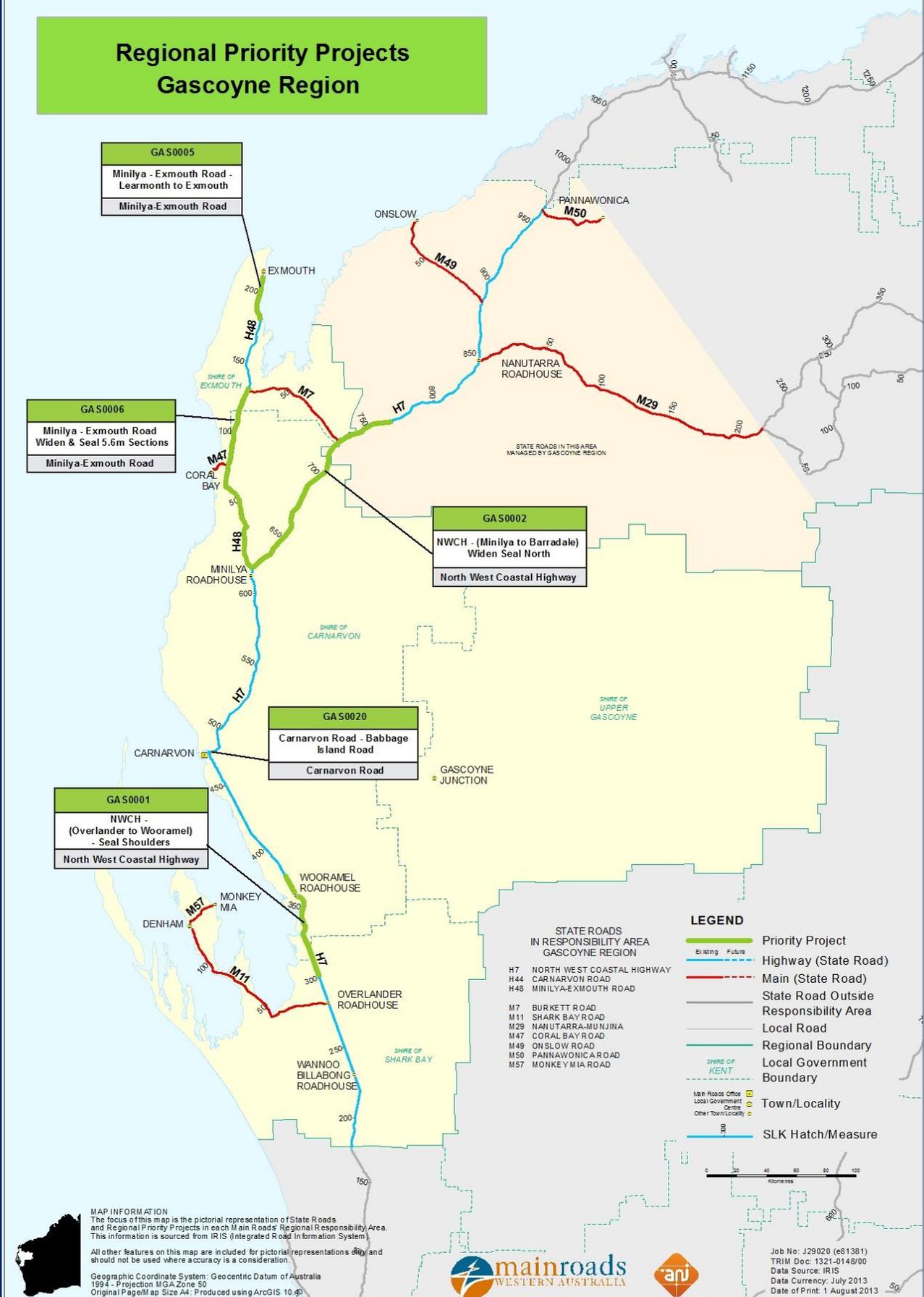
**GAS0005**  
Minilya - Exmouth Road -  
Learnmouth to Exmouth  
Minilya-Exmouth Road

**GAS0006**  
Minilya - Exmouth Road  
Widen & Seal 5.6m Sections  
Minilya-Exmouth Road

**GAS0002**  
NWCH - (Minilya to Barradale)  
Widen Seal North  
North West Coastal Highway

**GAS0020**  
Carnarvon Road - Babbage  
Island Road  
Carnarvon Road

**GAS0001**  
NWCH -  
(Overlander to Wooramel)  
- Seal Shoulders  
North West Coastal Highway



- STATE ROADS IN RESPONSIBILITY AREA GASCOYNE REGION**
- H7 NORTH WEST COASTAL HIGHWAY
  - H44 CARNARVON ROAD
  - H48 MINILYA-EXMOUTH ROAD
  - M7 BURKE TT ROAD
  - M11 SHARK BAY ROAD
  - M29 NANUTARRA-MUNJINA
  - M47 CORAL BAY ROAD
  - M49 ONSLOW ROAD
  - M50 PANNAWONICA ROAD
  - M57 MONKEY MIA ROAD

**LEGEND**

- Priority Project
- Existing — Future Highway (State Road)
- Main (State Road)
- State Road Outside Responsibility Area
- Local Road
- Regional Boundary
- Local Government Boundary
- Main Roads Office
- Local Government Centre
- Other Town/Locality
- SLK Hatch/Measure



**MAP INFORMATION**  
The focus of this map is the pictorial representation of State Roads and Regional Priority Projects in each Main Roads' Regional Responsibility Area. This information is sourced from IRIS (Integrated Road Information System).  
All other features on this map are included for pictorial representations only and should not be used where accuracy is a consideration.  
Geographic Coordinate System: Geocentric Datum of Australia 1994 - Projection: MGA Zone 50  
Original Page/Map Size A4: Produced using ArcGIS 10.4



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## North West Coastal Highway – Minilya to Barradale

### Project Description

Widen seal and seal shoulders.

### Program Outcome

Road Efficiency Improvements

### Local Government

Various Gascoyne Region

### Electoral District

North West

### Project Location

North West Coastal Highway 620.5 SLK – 767.39 SLK.

### Background

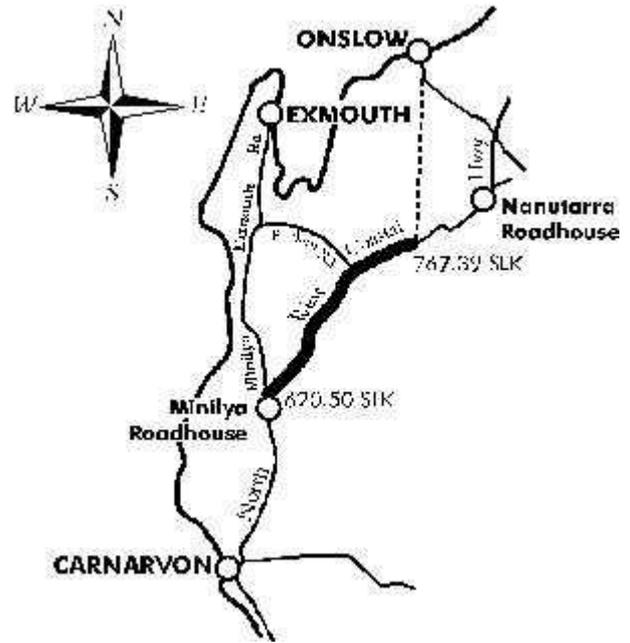
North West Coastal Highway is the main link between regional centres at Geraldton, Carnarvon, Karratha and Port Hedland and provides access to various tourist destinations, mining operations and pastoral communities. It is also a main freight route with triple road trains operating north of Carnarvon. It is anticipated that the demand for the movement of freight will increase with significant industry expansions and new mining developments in the Northern Gascoyne and Western Pilbara.

### Current Status

This narrow section of North West Coastal Highway has safety issues with current and expected future traffic volumes. In recent years there has been a significant growth in traffic. The average annual daily traffic count on this section is 278. Even where site distance is adequate, overtaking within this section is hazardous especially when considering the mix of vehicle types. During the peak tourist season many of the road users on this link are towing boats & caravans and have varying degrees of country driving experience. They are attempting to overtake heavy vehicles (often triple road trains) and conversely are also being passed by these vehicles. Because of the narrow seal width the condition of the shoulders can be poor adding to the danger of overtaking movements.

### Benefits and Justification

The widening of the road will provide a safer environment for road users. The wider surface will provide greater separation between vehicles and reduce the deterioration of the shoulders. Transport operators and motorists will not be compelled to utilise the unsealed shoulder which will save on vehicle wear and damage and decrease fatigue issues for drivers. Also, the sealing of the shoulders will significantly reduce the requirement for routine and specific shoulder maintenance and therefore reduce the demand for scarce naturally occurring shouldering materials. The project will also result in an increase in travel and freight efficiency.



# Onslow Road Improvement

## Project Description

Onslow Road Improvement

## Program Outcome

Road Efficiency Improvements

## Local Government

Ashburton

## Electoral District

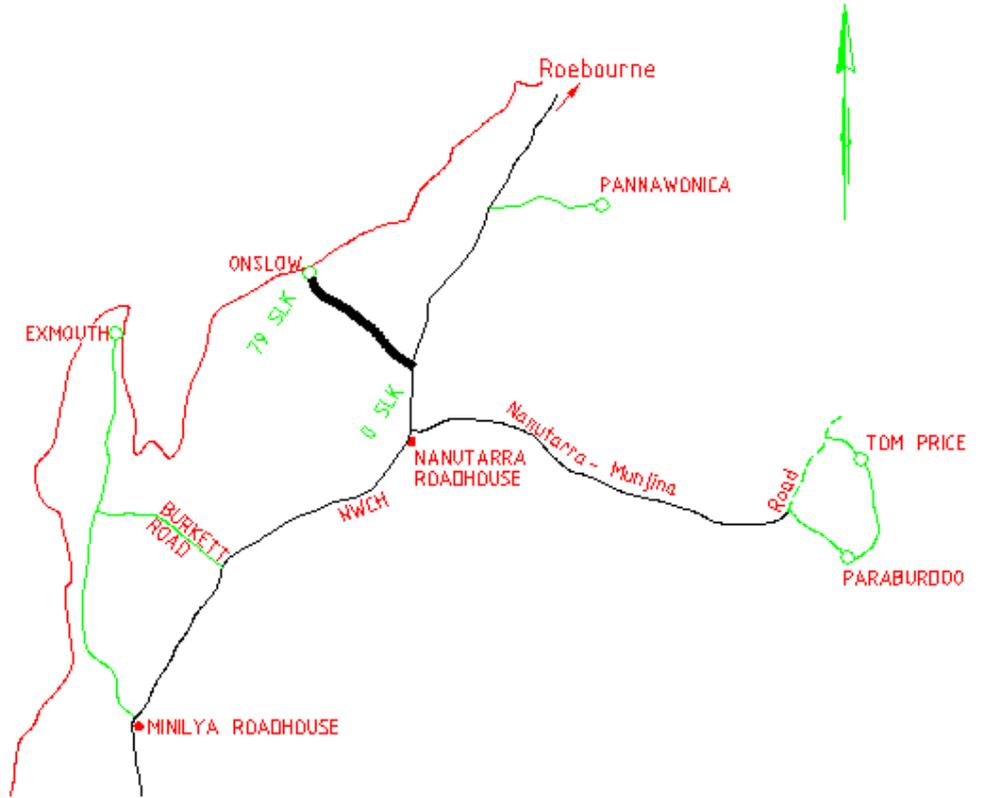
North West

## Project Location

Onslow Road 0 SLK – 79.4 SLK

## Background

Onslow Road is the main arterial and freight transport route to Onslow from North West Coastal Highway. The route traverses a number of low level floodways and was built in the 1980's to service the Onslow community and Onslow Salt venture and was not designed to cater for the resource industry expansion that is currently been planned.



## Current Status

Chevron has commenced with its construction activity at Ashburton North Industrial Area (ANSIA) in Onslow. Early indications from the project proponents is there could be up to 30,000 truck movements on Onslow Road in the first year of the construction phase many of these overwidth with concessional loading permits. This impact will have an adverse effect on the pavement with increased shoulder wear and create additional safety conflicts.

## Benefits and Justification

The widening of the road will provide a safer environment for road users. The wider surface will provide greater separation between vehicles and eliminate the deterioration of the shoulders (a particular concern as many vehicles are towing caravans). Construction of a new truck staging area and installation of solar lights at key intersections would improve the overall safety of the road with the expected increase of heavy vehicles.

## North West Coastal Highway - Overlander – Wooramel

### Project Description

Seal shoulders between Overlander and Wooramel.

### Program Outcome

Road Efficiency Improvements

### Local Government

Shark Bay and Carnarvon

### Electoral District

North West Coastal

### Project Location

North West Coastal Highway 300.28 SLK – 376.27 SLK

### Background

North West Coastal Highway, together with Brand Highway, forms the main freight haul route between Perth and the North West and is also the main link between regional centres at Geraldton, Carnarvon, Karratha and Port Hedland. This link provides access to the expanding coastal tourist areas north of Carnarvon including the Quobba-Gnaraloo coast, Coral Bay, Exmouth and islands off the Pilbara. The link is also the main route to inland attractions such as Mt Augustus and the Karajini National Park.

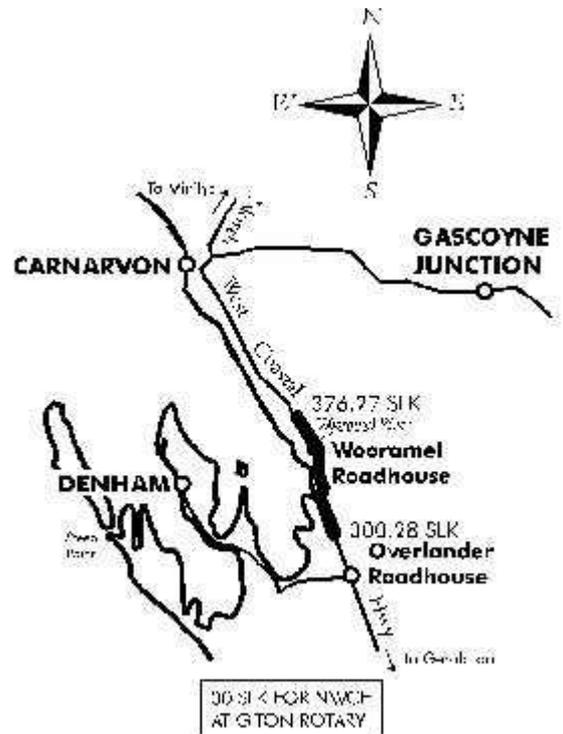
### Current Status

It is anticipated that the demand for the movement of freight will increase with proposed industry expansions and new mining developments in the Northern Gascoyne and Western Pilbara. There is a major expansion currently underway of offshore gas exploration and production off Onslow and Cape Preston. This is a remote section of road which has seen 14 crashes since 2007 to the end of 2011. Of these, 50% are non-collision crashes which would suggest that run off road crashes probably as a result of fatigue are an issue. The average annual daily traffic count is 538, of which 30% make up heavy vehicles.

### Benefits and Justification

The sealing of the shoulders on this link of North West Coastal Highway will reduce vehicle wear and damage and decrease fatigue issues for drivers. As a consequence transport and economic efficiency will be improved and the road will operate at an improved service level, thus encouraging further economic development. Sealing of the shoulders will also significantly reduce the requirement for routine and specific shoulder maintenance. As a result the demand for scarce naturally occurring shouldering materials will also be reduced allowing for much cheaper materials extraction and rehabilitation.

This project will provide a safer environment for road users. The wider surface will allow for greater separation between vehicles and eliminate the deterioration of the shoulders (a particular concern as many vehicles are towing boats and caravans). Transport operators and motorists will not be compelled to utilise the unsealed shoulder. This will reduce vehicle wear and damage and decrease fatigue issues for drivers. The project will also greatly alleviate the incidence of shoulder scouring which will reduce the likelihood of loss of control crashes if drivers leave the vehicle path.



## Minilya-Exmouth Road – Learmonth – Exmouth

### Project Description

Widen seal and seal shoulders.

### Program Outcome

Road Efficiency Improvements

### Local Government

Exmouth

### Electoral District

North West Coastal

### Project Location

Minilya-Exmouth Road 180.84 SLK – 211.75 SLK.

### Background

Minilya Exmouth Road is the only road linking Exmouth to other major regional centres and main highways. This road is primarily a tourist function, providing access to the Exmouth area, Coral Bay and other coastal destinations. It is also part of the major freight route linking Perth and Exmouth.

The existing road is generally in good condition but has an inadequate seal width for the volume of traffic travelling between the new Exmouth International airport and Exmouth town.

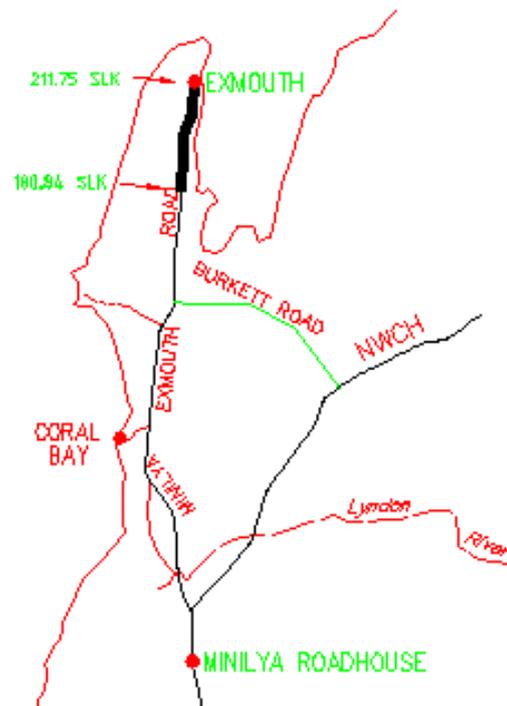
### Current Status

This project will be focusing on the section between Learmonth to Exmouth where the nominal seal width is 6.2m and is subject to road closures from flood events. Oil and gas resources in Commonwealth waters are reliant on Learmonth Airport for transit from all over Australia to the oil and gas platforms. During a road closure due to a flood event, the Exmouth town site is isolated from these air fields. The significance of this section was highlighted in 2008 when a Qantas passenger jet made an emergency landing at Learmonth Airport due to sudden loss of altitude and several passengers were transported to Exmouth hospital.

Exmouth is strategically located to provide service to oil and gas industries, which have resulted in an increase of heavy vehicles, especially triple road trains utilising this section of the road. This resulted in the increase of edge wear and pavement drop off that can compromise safety.

### Benefits and Justification

Safety will be improved by providing for greater separation of traffic, and an increased seal width will result in less shoulder wear with a resultant reduction in shoulder maintenance costs. This project will lead to a uniform standard along the entire length of Minilya - Exmouth Road for all road users. The environmental integrity of this road will be improved through reduced shoulder maintenance works. Hence less pavement material required to be excavated from gravel/borrow pits in the future. It will also minimise isolation impact of a road closure due to a flood event to the community in the Exmouth. This is significant due to the location of a RAAF base at Learmonth.



## Minilya to Burkett Road – Widen and Seal

### Project Description

Widen and seal two under width sections between Minilya and Burkett Road and seal shoulders.

### Program Outcome

Road Efficiency Improvements

### Local Government

Carnarvon and Exmouth

### Electoral District

North West Coastal

### Project Location

Minilya-Exmouth Road 0 SLK – 131.67 SLK.

### Background

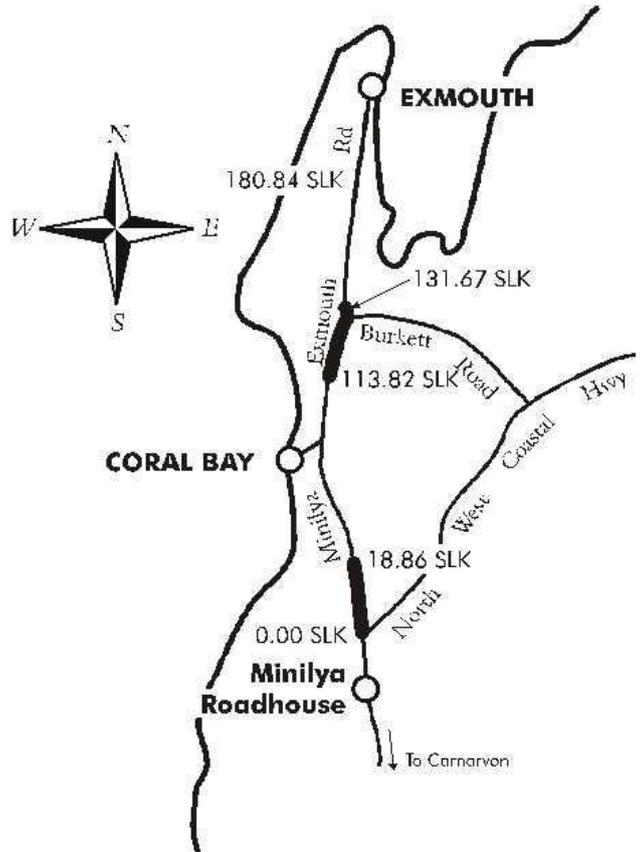
This road is primarily a tourist road, providing access to the Exmouth area, Coral Bay and other coastal destinations. It is also part of the freight route linking Perth and Exmouth.

### Current Status

The current seal width in these areas is 5.6m, with substandard shoulders. Widening of the existing seal is proposed to provide a safer and more appropriate seal width of 7.0m, with 1.0m sealed shoulders to improve safety and reduce shoulder maintenance costs.

### Benefits and Justification

Safety will be improved by providing for greater separation of traffic which includes 31% heavy vehicles. An increased seal width will result in less shoulder wear with a resultant reduction in shoulder maintenance costs. This project will lead to a uniform standard along the entire length of Minilya-Exmouth Road for all road users. The environmental integrity of this road will be improved through reduced shoulder maintenance works, hence less pavement material will be required to be excavated from gravel and borrow pits in the future.



## Overtaking Lanes Opportunity

### Project Description

Construct one set of overtaking lanes

### Program Outcome

Road Efficiency Improvements

### Local Government

Ashburton

### Electoral District

North West Coastal

### Project Location

North West Coastal Highway 788 SLK  
– 792 SLK

### Background

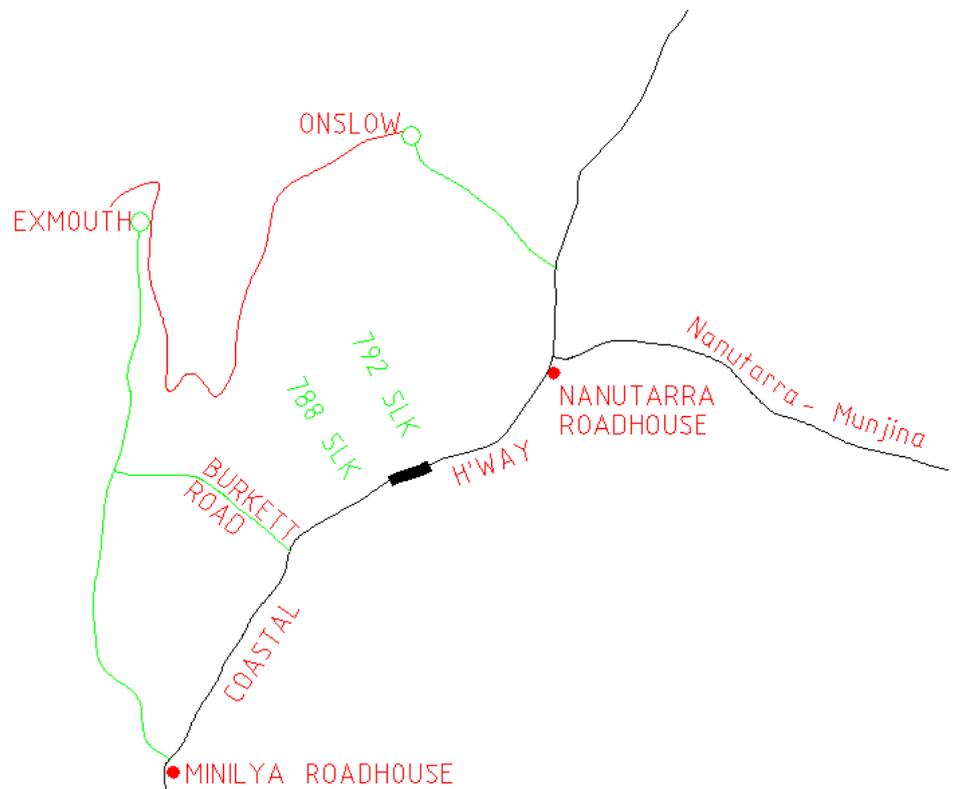
North West Coastal Highway is the main link between regional centres at Geraldton, Carnarvon, Karratha and Port Hedland and provides access to various tourist destinations, mining operations and pastoral communities. It is also a main freight route with triple road trains operating north of Carnarvon. It is anticipated that the demand for the movement of freight will increase with significant industry expansions and new mining developments in the Northern Gascoyne and Western Pilbara.

### Current Status

Much of the current formation of NWCH within the Gascoyne Responsibility Area was constructed in the 1960s and some sections have nominal width of 7.4m with 2x 1.0m unsealed shoulders. As a consequence some sections of the highway are now considered inadequate in terms of geometry and seal width. There are only limited overtaking opportunities on stretches of NWCH.

### Benefits and Justification

Even where site distance is adequate overtaking is hazardous when considering the mix of vehicle types. During peak tourist season many of the road users on this link are towing boats & caravans and have varying degrees of country driving experience. They are attempting to overtake heavy vehicles (often triple road trains) and conversely are also being passed by these vehicles



## Seal Shoulders – Nanutarra to end of RA3 Boundary

### Project Description

Seal shoulders

### Program Outcome

Road Efficiency Improvements

### Local Government

Ashburton

### Electoral District

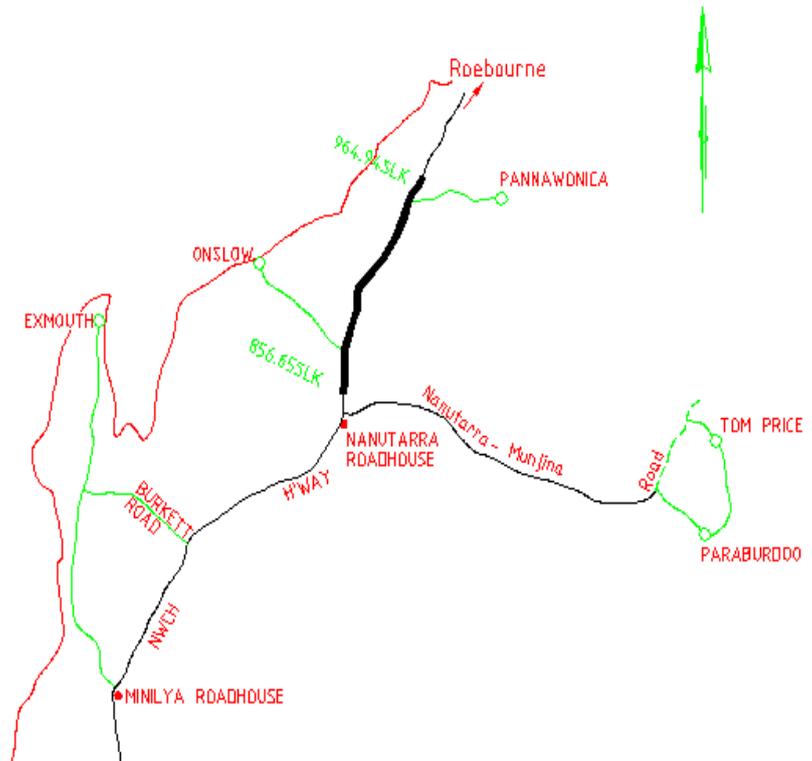
North West Coastal

### Project Location

North West Coastal Highway 856.65 SLK – 964.94 SLK

### Background

North West Coastal Highway is the main link between regional centres at Geraldton, Carnarvon, Karratha and Port Hedland and provides access to various tourist destinations, mining operations and pastoral communities. It is also a main freight route with triple road trains operating north of Carnarvon. It is anticipated that the demand for the movement of freight will increase with significant industry expansions and new mining developments in the Northern Gascoyne and Western Pilbara.



### Current Status

This project is the continuation of Stage 1 & 2 that has been completed in 2012 bringing the sealed shoulders up to SLK 856. The current seal width in these areas is 7.4m, with substandard shoulders. Widening of the existing seal is proposed to provide a safer and more appropriate seal width of 7.0m, with 0.5m sealed shoulders to improve safety and reduce shoulder maintenance costs. Currently the section covered by the project does not have sealed shoulders.

### Benefits and Justification

Sealing of the shoulders will significantly reduce the requirement for routine and specific shoulder maintenance. As a result the demand for scarce naturally occurring shouldering materials will also be reduced allowing for much cheaper materials extraction and rehabilitation. These factors will provide significant savings allowing limited funding to be utilised elsewhere.

## Rest Area Improvements

### Project Description

Seal rest areas

### Program Outcome

Road Efficiency Improvements

### Local Government

Various

### Electoral District

North West Coastal

### Project Location

State and Main Roads within Gascoyne Responsibility Area

### Background

NWCH, together with Brand Highway, forms the main freight haul route between Perth and the North West and is also the main link between regional centres at Geraldton, Carnarvon, Karratha and Port Hedland. This link provides access to the expanding coastal tourist area in the Ningaloo Coast, inland at Karajini and the North West of the State.

### Current Status

Main Roads provided road side stopping places at various areas on State and Main Highways. The road side stopping places are important to alleviate fatigue issues related to long distance driving. Most of the stopping places are well utilised by light and heavy vehicles. One of the requirements of MWGas ISA KPI is improvements to roadside stopping places. Upgrades will improve road user amenity such as public toilet. The improvement will commence in 2013/14 financial year and continue for the next 4 years.

### Benefits and Justification

The primary objective of the project is to alleviate fatigue and stress related by long distance driving by providing an improved road side stopping places.

