

# Pacific Highway upgrade

## Monthly achievement report

APRIL 2011



This achievement report will provide you with information about Pacific Highway upgrade projects, including the current status and key activities carried out on construction projects over the last month.

As at 30 April 2011, 337 kilometres are completed dual carriageway, 67 kilometres are under construction, and about 128 kilometres are being prepared for construction. Planning is also being progressed on the remaining single carriageway sections of highway.

About 51 per cent of the final highway length of 664 kilometres is now dual carriageway.



# Bulahdelah upgrade

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** Boulderstone Pty Ltd.

**Form of contract:** Construction contract

**Workers on site:** 250

**Pieces of large plant:** 95

**Start date of major construction:** August 2010

**Expected completion date:** late 2012  
(weather permitting)

**Project value:** \$315 million

## Background

The Bulahdelah upgrade project was approved by the NSW Minister for Planning on 9 July 2007.

The Bulahdelah upgrade project is jointly funded by the Australian and NSW governments.

The upgrade of the Pacific Highway at Bulahdelah will involve the construction of about 8.6 kilometres of four lane divided road with an eastern bypass of the Bulahdelah township.

## Key construction activities during April 2011

- Erection of the girders for the wastewater bridge were completed.
- Steel trusses continued to be assembled for the Mountain Park bridge.
- Concrete pours for piers at the Myall River bridges, floodplain bridges and Bombah Point Road continued.
- Earthwork settlement at Fry's Creek and the southern interchange continued.
- Squirrel Glider rope crossings were installed.
- Construction of the noise wall near Mountain Park continued.
- Blasting and processing of material immediately north of Bombah Point road continued.
- First blast at the site of the future northern interchange occurred.
- First acid sulphate rock processing and lime treatment started. This is a process where rock is treated with lime until the rock is neutralised so that it can then be used as fill throughout the project.



Looking south at the site of the Myall River bridge - piers are 50% completed



## Bulahdelah upgrade



Girders for wastewater bridge (opposite the golf course) being lowered into place



Squirrel Glider crossings installed on the new highway corridor



The noise wall and steel truss bridge being assembled at the Mountain Park area



Earthworks looking north from the northern side of the Myall River



# Hérons Creek to Stills Road upgrade

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** BMD Constructions Pty Ltd.

**Form of contract:** Construction contract

**Workers on site:** 35

**Pieces of large plant:** 17

**Start date of major construction:** March 2011

**Expected completion date:** late 2012  
(weather permitting)

**Project value:** \$60 million

## Background

The Herons Creek to Stills Road upgrade project was approved to proceed on 5 October 2007.

The Herons Creek to Stills Road upgrade project is jointly funded by the Australian and NSW governments.

The upgrade of the Pacific Highway between Herons Creek and Stills Road will upgrade 3.5 kilometres of highway. The majority of the existing northbound carriageway will become a two-way local service road, linking Bago Road, Burrawan Forest Drive, Herons Creek and local properties to the Bago Road interchange.

## Key construction activities during April 2011

- Clearing and grubbing work on site continued.
- Mulching of timber from the site continued.
- Timber to be recycled for other purposes was removed from site.
- Construction of clean water drains started.
- Construction of sedimentation basins started.
- Nesting boxes were installed.
- Environmental sedimentation controls were put in place.
- Bobs Creek Road was closed to traffic permanently on 5 April 2011.
- The bus stop at Bobs Creek Road was relocated to Herons Creek Road intersection on 5 April 2011.



Construction of clean water drains south of Bago Road



# Herons Creek to Stills Road upgrade



Surveyors on site setting out clean water drain south of Boyds Road



Construction of sedimentation basins south of Boyds Road



Installation of concrete barriers on the existing highway north of Herons Creek bridge



Construction of sedimentation basins adjacent the newly aligned Bobs Creek Road



Clearing and grubbing adjacent to the existing highway south of Boyds Road



# Kempsey bypass

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** The RTA has formed an alliance with Leighton Contractors, AECOM and Coffey Geotechnics to build the Kempsey bypass.

The bridge over the Macleay River is being built by Abigroup Contractors under a separate design and construct contract.

**Form of contract:** Alliance design and construct contract

**Workers on site:** 418

**Pieces of large plant:** 86

**Start date of major construction:** June 2010

**Expected completion date:** by mid 2013  
(weather permitting)

**Project value:** \$618 million



Construction of the northern interchange bridge abutment

## Background

The Kempsey bypass project was approved by the NSW Minister for Planning on 10 July 2008.

As part of the Building Australia Fund, the Australian Government announced that it would provide \$618 million for the construction of the Kempsey bypass.

The 14.5 kilometre Kempsey bypass project is part of the 40 kilometre Kempsey to Eungai project, which extends from the existing dual carriageway south of Kempsey to the existing dual carriageway at Eungai Rail.

The bridge over the Macleay River will be 3.2 kilometres long and on completion, making it the longest bridge in Australia.

## Key construction activities during April 2011

- The site was visited by The Hon Andrew Stoner MP, Deputy Premier; Minister for Trade and Investment, Minister for Regional Infrastructure and Services and Member for Oxley, the RTA Chief Executive Michael Bushby, and Member for Port Macquarie Leslie Williams to view the installation of the first girder over Crescent Head Road on Saturday 16 April.
- General earthwork, foundation layers and transverse drainage installation between the southern Kempsey interchange and the Macleay River floodplain at Frogmore continued.
- Construction of the side track at Old Station Road was completed.
- Construction of the North Coast Rail Line bridge continued with the extension piles and retaining wall foundations completed and retaining wall components delivered to site.
- Support girders were installed at the Crescent Head overbridge.
- Piling platforms are ready at Pola Creek and work has started on the piling platforms at Boat Harbour Creek.
- Material is being sought from south of Crescent Head Road to be used on the fills adjacent to Shannon Close and south of Boat Harbour Creek.
- Utility relocations continued at the northern and southern interchanges with water main relocations nearing completion at Crescent Head Road.
- Levee wall construction at the Frederickton interchange started.
- Flood mitigation work in the form of house raising and stock mound construction continued across the floodplain at Frogmore. To date, 12 houses have been raised and 18 stock mounds have been built.
- The alliance continued investigating boat ramp designs at Frederickton.
- Geotechnical investigations continued for the 3.2 kilometre bridge over the Macleay River.



# Kempsey bypass



Looking south towards Old Station Road



Kempsey bypass team and machinery on site



Preparation of pier formwork for the twin bridges over the North Coast Railway



Girder installation at Crescent Head Road



# Sapphire to Woolgoolga upgrade

## Upgrading the Pacific Highway



### UNDER CONSTRUCTION

**Contractors:** Leighton Fulton Hogan Joint Venture

**Form of contract:** Design and construct contract

**Workers on site:** 234

**Pieces of large plant:** 60

**Start date of major construction:** August 2010

**Expected completion date:** early 2014  
(weather permitting)

**Project value:** \$705 million

## Background

The NSW Minister for Planning approved the project on 13 January 2009 which did not include a rest area. The RTA's rest area strategy for the Pacific Highway aims to provide rest areas at about 50 kilometre intervals.

The preferred location for the rest area is proposed at the Arrawarra interchange. An environmental assessment of the proposed rest area location was on display in April 2011 and a submissions report is currently being prepared.

The Sapphire to Woolgoolga Pacific Highway upgrade project is jointly funded by the Australian and NSW governments.

This project will deliver a four-lane divided highway extending approximately 25 kilometres from Campbell Close, Sapphire, to Arrawarra Beach Road, Arrawarra.

## Key construction activities during April 2011

- Fenceline clearing and fence installation continued.
- Installation of erosion and sediment controls continued.
- Placement of concrete barriers continued.
- Property adjustments continued.
- Drainage work on the upgrade section continued.
- Construction of Gaudrons Road realignment continued.
- Piling for Hoys Road bridge continued.
- Earthworks and drainage between Unwins Road and Woolgoolga Creek Road on the bypass section continued.
- Earthworks from Woolgoolga Creek Road to Bark Hut Road on the bypass section continued.
- Blasting continued about 1 kilometre southwest of Woolgoolga near Unwins Road.



Highway under construction at Emerald Beach



# Sapphire to Woolgoolga upgrade



Preparation work for Moonee Beach interchange



Earthwork from Unwins Road to Greys Road on the bypass



Drainage work at Bark Hut Road on the bypass



Looking south from Newmans Road on the Woolgoolga bypass



# Glenugie upgrade

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** The RTA has formed an alliance with Macmahon Contractors and Arup

**Form of contract:** Alliance design and construct contract

**Workers on site:** 80

**Pieces of large plant:** 55

**Start date of major construction:** March 2010

**Expected completion date:** late 2011  
(weather permitting)

**Project value:** \$60 million



The stockpile site of material being reused in the Select Material Zone and installation of fauna aerial crossing poles in the background

## Background

The NSW Minister for Planning approved the Glenugie upgrade project on 17 December 2009.

The Glenugie upgrade project is jointly funded by the Australian and NSW governments.

The seven kilometre Glenugie upgrade forms part of the larger Woolgoolga to Ballina project. This section extends from Franklins Road to Eight Mile Lane, approximately 15 kilometres south of Grafton.

## Key construction activities during April 2011

- General earthwork at the southern end of the project continued.
- General earthwork at the northern end of the project commenced.
- Processing the site for materials to be used in as Select Material Zone\* material continued.
- Placement of the Select Material Zone\* material continued.
- Permanent drainage construction and lining of open drains continued.
- Kerb and guttering installation works continued.
- Subsoil drainage continued.
- Longitudinal drainage installation continued.
- Heavy duty base pavement material continued to be manufactured offsite.
- Landscaping and topsoiling of the completed batters and medians continued.
- Final box culvert backfilling was completed.
- Fencing on the eastern side of the project continued.
- Installation of aerial fauna crossing poles was completed.
- Installation of steel wire rope barrier posts started.

\*The road is broken up into a number of specified layers. The top layers are classified as 'base' and 'sub base' layers. The next level down is classified as a 'select material zone' (SMZ), which is a selection of material from the site that has higher strength qualities. The 'upper zone of formation' (UZF), includes the 'select material zone' and the next layer below, which is often called the 'capping layer'.



## Glenugie upgrade



Installation of poles for fauna aerial crossings



Longitudinal drainage line

Steel wire rope safety barrier installation



# Ballina bypass

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** The RTA has formed an alliance with Leighton Contractors, AECOM, SMEC and Coffey Geotechnics

**Form of contract:** Alliance design and construct contract

**Workers on site:** 234

**Pieces of large plant:** 94

**Start date of major construction:** May 2008

**Expected completion date:** mid 2012  
(weather permitting)

**Project value:** \$640 million

## Background

The NSW Minister for Planning approved the Ballina bypass project on 22 May 2003.

The \$640 million Ballina bypass project is jointly funded by the Australian and NSW governments.

The project will provide 12 kilometres of dual carriageway, extending from south of Ballina at the intersection of the Bruxner and Pacific highways to north of Ballina at the intersection of Ross Lane at Tintenbar. The project is being opened in two stages. The first stage from Cumbalum to Ross Lane was opened on 1 March 2011. The second stage from the Bruxner Highway to Cumbalum interchange will be open by mid 2012 (weather permitting).

## Key construction activities during April 2011

- Completed piling work and one abutment on the Cumbalum bridge on the old Pacific Highway.
- Demolition of a culvert at Sandy Flat continued and piling works commenced.
- Construction of the eastern side of the Teven Road roundabout continued.
- Sealing and line marking of all constructed local roads associated with the Cumbalum to Ross Lane section continued and is programmed for completion in early May 2011.
- Teven gateway landscaping continued including the installation of imported rock, construction of garden beds, mulching and planting.



Ross Lane interchange and northern tie-in



# Ballina bypass



Construction of the Teven Road bridge approach



Teven Road roundabout



Bruxner Highway to Teven Road



Installation of bored piles for plank bridge at Sandy Flat



# Banora Point upgrade

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** The RTA has formed an alliance with Abigroup Contractors, Seymour Whyte and SMEC.

**Form of contract:** Alliance design and construct contract

**Workers on site:** 175

**Pieces of large plant:** 76

**Start date of major construction:** December 2009

**Expected completion date:** Late 2012  
(weather permitting)

**Project value:** \$359 million

## Background

The NSW Minister for Planning approved the Pacific Highway upgrade at Banora Point on 26 February 2009.

The Banora Point upgrade project is jointly funded by the Australian and NSW governments.

The upgrade extends over approximately 2.5 kilometres from the northern end of Barneys Point bridge to the southern end of the Tweed Heads bypass.

## Key construction activities during April 2011

- Micro-tunnelling and pipe jacking under the Pacific Highway beside the existing Lake Kimberly culverts was carried out.
- Relocation of the electricity transmission lines started.
- Access to and from Laura Street from the highway was closed on 6 April to assist building the new Laura Street bridge.
- The southbound highway traffic switch was completed.
- Earthwork along the southbound carriageway alignment started.
- A temporary slip lane was added to the southbound off ramp to improve traffic flow.
- A new border camera was put in place south of Barneys Point bridge.
- The southbound off ramp was permanently closed at Barneys Point to allow for construction of the new southern highway.



Aerial view of the project under construction looking south



## Banora Point upgrade



Looking west of the southern valley where the new highway will bypass Sexton Hill



SuperT girders being lifted into place at Sexton Hill



Looking north towards the Gold Coast



# Safety improvement works

## Upgrading the Pacific Highway

### UNDER CONSTRUCTION

**Contractors:** RTA Road and Fleet Services

**Workers on site:** 20

**Pieces of large plant:** 8

**Start date of major construction:** November 2009

**Expected completion date:** mid 2014  
(weather permitting)

**Project value:** \$55 million

### Background

A program of safety improvement works has been developed as part of the Australian and NSW governments \$3.65 billion commitment to upgrade the Pacific Highway over the next five years to mid 2014 as part of the Nation Building Program and the Building Australia Fund.

While most of this funding will be directed to upgrading the highway to dual carriageway, there is a need to address road safety and traffic issues on sections of two-lane highway that will not be upgraded to dual carriageway over the next five years.

A package of smaller works is being delivered to keep these sections safe and serviceable until upgrades can be completed. This work is also aimed at reducing the delays caused by local and major flood events.

### Key construction activities during April 2011

- Work continued on the realignment of the Pacific Highway at Blackadder Creek near Corindi Beach. Installation of drainage culverts continued with two out of the required six completed.
- Pre-construction activities on the Martells Road widening project continued including drainage kerb and guttering works which are now 90% completed at southern end. Earthwork also commenced.



Installation of drainage culverts at Blackadder Creek was affected by wet weather in April

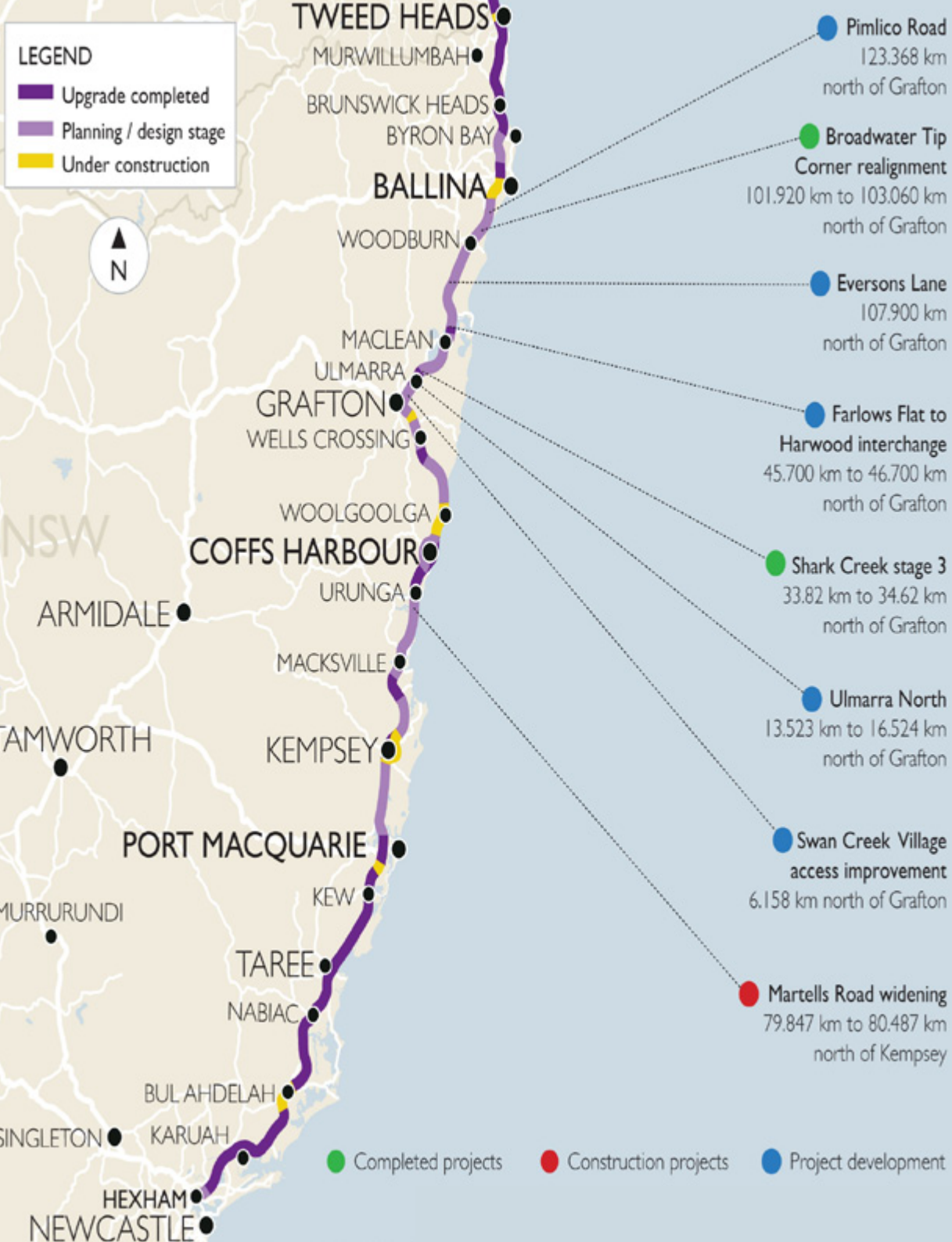


Installation of two out of the six required culverts have been completed to date



Machinery next to the existing highway to assist with earthwork and installation of the drainage culverts





## Safety improvement works

As of 30 April 2011, two safety improvement projects under this program have been completed, one is under construction and a further five are in various stages of development.





# Environment

## Upgrading the Pacific Highway

### TWO-STAGE CLEARING REDUCES FAUNA IMPACTS ON THE SAPPHIRE TO WOOLGOOLGA PROJECT

**Contractors:** Leighton Fulton  
Hogan Joint Venture

**Form of contract:** Design and  
construct contract

**Start date of major  
construction:** August 2010

**Expected completion date:** early  
2014 (weather permitting)

**Project value:** \$705 million

The implementation of a two-stage clearing process at the Sapphire to Woolgoolga Pacific Highway upgrade has resulted in a high rate of fauna being relocated uninjured.

The upgrade goes through an area which contains endangered ecological communities, threatened species and wildlife corridors. Clearing vegetation may result in injury or death to resident fauna, however initial results show that of 39 animals detected after clearing, there was only one mortality and one injury.

Many of the animals were found still within their hollow bearing tree, but others were found hiding in leaf litter and species found by ecologists have included feathertail glider (*Cercartetus nanus*), carpet python (*Morelia spilota*), giant barred frog (*Mixophyes iterates*) and scaly-breasted lorikeet (*Trichoglossus chlorolepidotus*). Once detected, the animals are either relocated by an ecologist or if necessary housed with a WIRES (NSW Wildlife Information, Rescue and Education Service) representative until they can be relocated.

The two-stage clearing process involves clearing non-habitat trees first and then waiting 48 hours before clearing habitat trees. This gives fauna the opportunity to move from the habitat before the habitat trees are removed. The project ecologist was on site for the felling of all habitat trees.

Where possible, habitat trees were knocked over with an excavator bucket or other machinery used for clearing to create only enough disturbance for fauna to move from the tree. The felled habitat trees were then inspected as soon as possible by the project ecologist for the presence of fauna.

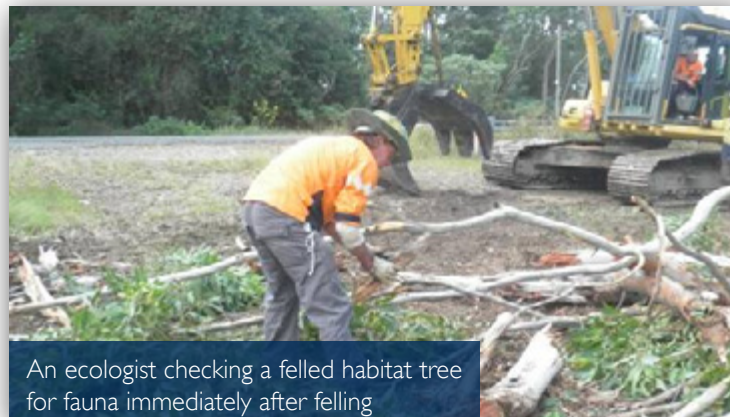
A clearing work method statement that identifies who is responsible for implementing these measures was developed. It also explains the process and measures to be implemented prior to, during, and after vegetation clearing for construction activities.

Prior to undertaking clearing, a pre-clearing assessment was undertaken by the fauna specialists to identify the presence, or evidence of the presence (including fresh scats, scratches and remains of prey) of fauna. The assessment included processes and actions to protect or rescue the identified fauna, including koalas, bat colonies and roosts and glider dens.

There is also a fauna handling and rescue procedure used on the project.



The two stage clearing process used at Sapphire to Woolgoolga means that habitat trees are retained for 24 to 48 hours after initial clearing to allow ecologists time to check trees for fauna.



An ecologist checking a felled habitat tree for fauna immediately after felling



An ecologist checking a felled habitat tree for fauna immediately after felling using a torch



# The \$3.65 billion plan (2009/10 to 2013/14)

## Upgrading the Pacific Highway



Transport  
Roads & Traffic  
Authority

VEHICLES PER DAY USING THE PACIFIC HIGHWAY

