

## **2. Strategic transport and planning context**

### **2.1 Transport planning context**

#### **2.1.1 Federal Government objectives and policy initiatives**

In June 2004, the Federal Government released AusLink as its new national transport plan. The Pacific Highway between Newcastle and Brisbane forms part of the Australian Government's AusLink National Network. The AusLink National Network is based on national, regional and urban transport corridors, links to ports and airports, and intermodal connections between road and rail.

#### **2.1.2 NSW Government objectives and policy initiatives**

The Pacific Highway is a major interstate and regional route connecting Sydney to Brisbane along the NSW coastline. The Main Northern Railway and New England Highway are the main alternative land transport links to the northern parts of NSW and between NSW and Queensland.

The Pacific Highway Office of the RTA is coordinating implementation of the joint Federal and NSW Government Pacific Highway Upgrade Program. The ten year program has dedicated funding of \$2.2 billion making it the largest civil construction project undertaken in the past 40 years. \$1.6 billion of this total funding for the original program has been committed by the NSW Government.

The objectives of the Pacific Highway Upgrade Program are included in **Section 3.1**. They relate to road safety, transport efficiency, economic development, community interests, ecologically sustainable development and value for money.

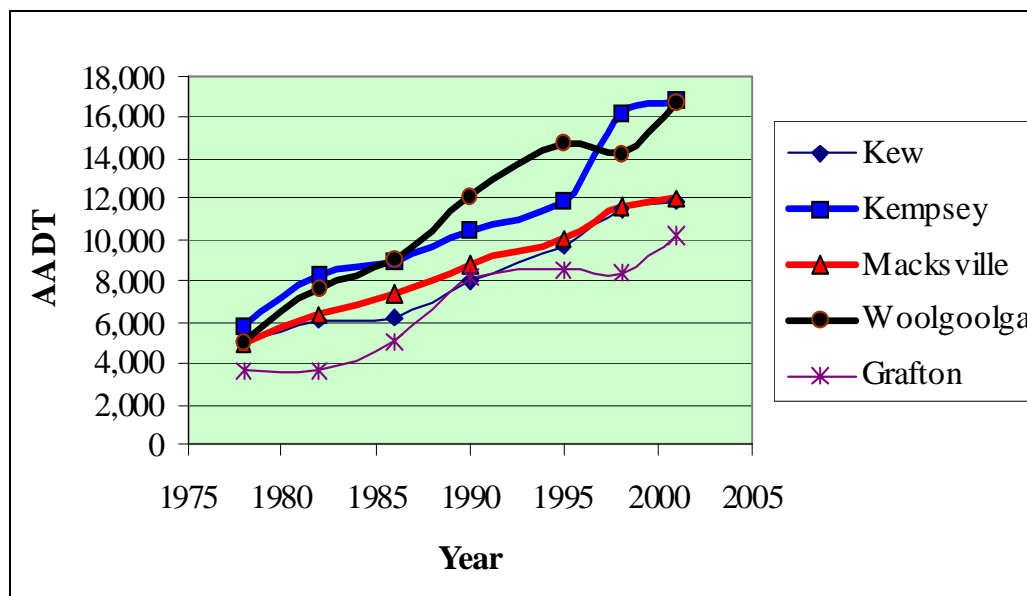
The progressive upgrading of the Pacific Highway to meet increased travel demand and provide a safer, more efficient travel route, has contributed to the continued development of the communities and towns along the highway. The highway has also become the preferred route for long-distance heavy vehicles compared with the New England Highway.

#### **2.1.3 General traffic characteristics**

The Pacific Highway serves the major centres in the Clarence Valley: Grafton, Maclean, Yamba and Iluka. Other towns in the study area served by the Pacific Highway include South Grafton, Swan Creek, Ulmarra and Tyndale. Grafton is the administrative and economic centre with a population of close to 19,000. Grafton is also at the crossroads of the Summerland Way, Gwydir Highway and the Pacific Highway and is an important rail head and freight centre serving the region. The Clarence River and its surrounding topography has historically influenced the alignment of the major roads and restricts access within the study area.

**Figure 2-1** provides some indications of the growth in Annual Average Daily Traffic<sup>3</sup> (AADT) volumes at key selected locations along the Pacific Highway. AADT volumes have grown steadily over the last 30 years. The traffic volumes on the Pacific Highway at Grafton are lower than other sections of the highway, but show similar trends in growth. This growth in traffic is a key driver of the need to upgrade the Pacific Highway.

**Figure 2-1 Traffic growth on Pacific Highway from Kew to Grafton, 1975 to 2001**



Source: Based on RTA Traffic Volume Data for Northern Region, 2001.

NB: AADT is presented as axle-pairs.

This section of the Pacific Highway has the lowest traffic volumes of any section of the highway. Daily traffic volumes range from 7500 to 8000 vehicles per day (AADT). The proportion of through traffic using the highway is about 35 per cent of the total volume.

#### 2.1.4 Characteristics of heavy vehicle usage

Since improvements to the highway have reduced travel times, heavy vehicle growth on the Pacific Highway has increased. Long distance heavy vehicles (eg. between Sydney and Brisbane) generally either use the Pacific Highway or the New England Highway. Traditionally, long distance heavy vehicles had preferred the New England Highway. However, the Pacific Highway is becoming increasingly attractive as a heavy vehicle route as more towns are bypassed and distances are reduced, leading to travel time and fuel cost savings.

<sup>3</sup> Average Annual Daily Traffic (AADT) is the total volume of traffic in a calendar year, divided by 365.

The number of heavy vehicles on the highway has been growing at between 3-5 per cent per annum over the last 10 years. The Pacific Highway was approved as a full B-Double route from Hexham to the Queensland border in 2002. Since this change there has been a noticeable increase in B-Double traffic on the Pacific Highway. There are currently more than 1000 long distance heavy vehicles using the Pacific Highway each day. Heavy vehicle volumes on the existing highway are discussed further in **Section 5.2**.

Heavy vehicles are a significant component of the overall traffic profile of the highway. Freight growth is projected to increase since it is related to economic development, particularly growth in consumer demand. In addition to long distance heavy vehicles that use the highway as a route between capital cities, increased demand for heavy vehicle movements with local destinations will be driven by population growth along the north coast. The Pacific Highway is therefore important for freight movement both through the area and to service population centres along the highway. Greater heavy vehicle volumes and the increasing size of heavy vehicles (more B-doubles and other articulated heavy vehicles are using the highway) are a key driver of the need to upgrade the Pacific Highway.

### **2.1.5 Performance of the existing transport network**

The Pacific Highway in the study area varies in capacity between one lane and two lanes in each direction. The theoretical capacity based on the limiting single lane sections is about 1,200 vehicles per hour. The Level of Service (LoS) of a road varies from A (good) to E (poor), depending on the number of lanes, traffic volume, and the frequency of intersections and junctions<sup>4</sup>. The LoS of the highway is typically at values B to C with lower levels during summer holidays and some busy weekends.

Overall, the performance of the Pacific Highway in terms of travel time, safety and transport costs is influenced by a wide range of factors. These include:

- Sections that pass through towns where local traffic and through traffic mix and reduced speed limits are required for safety reasons.
- Poor alignments or road condition in some sections, requiring reduced speed limits or advisory speed signs.

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<sup>4</sup> A roadway with Level of Service D is operating close to its limit of stable flow, with all drivers being severely restricted and their freedom to select their desired speed and to manoeuvre in the traffic stream. At Level of Service E traffic volumes are close to or at capacity and there is virtually no freedom to select desired speeds or manoeuvre in the traffic stream.

- Conflicts between local and through traffic as the Pacific Highway is the main access route between many towns along the route.
- Congestion in peak holiday periods, particularly in and around towns that the highway still passes through.
- Poor capacity to manage and respond to delays caused by incidents such as flooding, accidents, and bridge openings (eg. Harwood Bridge).
- Indirect routes between some destinations, due to the historical development of the alignment of the highway, which can add substantially to the length of long distance journeys on the highway.

All the above factors contribute to the need to upgrade the Pacific Highway to meet the strategic objectives established for the corridor.

### **2.1.6 Future travel demand**

#### **Overall travel demand on the Pacific Highway**

Different factors effect the growth of heavy vehicles and light vehicles, and of through traffic as opposed to local traffic. Growth in local light vehicles is mainly influenced by local population growth. Growth in through traffic may be expected to follow long-term growth rates, while a key driver of truck volume growth is economic development, commonly indicated by Gross Domestic Product (GDP).

Projected traffic growth for local and through traffic in the study area is discussed in **Section 5.2**. That analysis concludes that continued growth in all traffic (local and long distance) is projected in the study area over the next 20-40 years.

#### **Freight movement**

Future freight vehicle volumes on the Pacific Highway will be influenced by a number of factors, including mode split between road, sea and rail, and growth in demand for goods and services, both by populations along the highway, and demand at either end of the corridor (Sydney-Newcastle and South East Queensland).

In order for rail to compete with effectively road freight, significant investment in track and signalling would be required to reduce travel times and offset the double handling of containers at final destinations would be required. There are no NSW Government plans to significantly invest in the Main Northern Line. It is therefore unlikely the existing mode share would change into the

future in favour of rail<sup>5</sup>. Growth in rail freight is likely to continue at the present rate of 2-3 per cent per annum. The proportion of total freight carried by rail is likely to decrease over the long term, as road transport becomes more attractive due to infrastructure improvements.

**Section 5.2** includes discussion of the projected growth in heavy vehicles in the study area. That assessment concludes that the volume of heavy vehicles is projected to increase substantially into the future. Heavy vehicle trips, both interstate trips and to service populations on the north coast, are both predicted to grow strongly, as a result of north coast population growth and general growth in freight transport demand.

## **2.2 Strategic land use planning context**

The investigation area is within the area to which the *North Coast Regional Environmental Plan No.1* (NCREP) applies. The NCREP is a strategic planning document and does not influence the permissibility of the project. Consistency with the strategic objectives and policies of NCREP forms part of the assessment of feasible route options.

The *North Coast Urban Planning Strategy* (Department of Planning, 1995) identifies Grafton as the major sub-regional centre in this part of the mid-north coast. Grafton serves administrative, employment, retail and social services functions for the population of the surrounding sub-region, generally consisting of the Clarence Valley area.

The *Clarence Valley Settlement Strategy* (Copmanhurst Shire Council et al. 1999) establishes a strategic framework for the management of residential development in response to projected population growth across the former local government areas of Copmanhurst, Grafton, Maclean, Nymboida and Ulmarra (Pristine Waters). The Settlement Strategy forecasts that the population of the area will be between 57,000 to 61,000 in 2016. The Settlement Strategy estimates that 8,000 additional dwellings will be required by 2016 to cater for projected population growth. However, Council has suggested that recent high growth rates, evidenced by subdivision and housing approvals, may be indicative that previous projections of population growth are under-estimates. Rapid growth trends post-date the 2001 census and are therefore not likely to be captured until the 2006 census. Actual population growth is likely to be significantly higher.

Local population growth is relevant to the upgrade of the Pacific Highway between Wells Crossing and Iluka Road because local traffic growth will occur in line with population growth. Grafton will

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<sup>5</sup> The future mode share to rail is likely to fall over time as expected growth in road transport is likely to be higher than for rail. Significant investment in rail would be required to reduce rail transit times to equal road transit times, in order to increase the mode share to rail freight. Current funding commitments by all levels of government would not be sufficient to result in a major shift in modal split to rail.

continue to be the major administrative centre for the Clarence Valley, and will attract increasing volumes of local traffic. The majority of population growth in the Clarence Valley is projected to occur in coastal areas and within the study area. The majority of growth in local traffic is therefore expected to be reliant on the existing Pacific Highway to access Grafton, for at least part of the journey. Growth in local traffic, combined with through traffic increases, will continue to place pressure on the highway, and heighten the potential for conflicts between vehicles using the highway for short trips and long distance through traffic.

### **2.3 Statutory planning considerations**

Preliminary consideration has been made of the likely statutory assessment and approval processes for the Wells Crossing to Iluka Road project. Further discussion of the permissibility of route options under relevant planning controls is provided in **Section 7.1.5**.

The project is generally anticipated to be permissible without development consent under planning controls that currently apply in the study area.

The NSW Parliament passed the *Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reform) Act 2005 No 43* on 16 June 2005. This amendment came into force on 1 August 2005. The amendment introduces a new Part 3A to the *Environmental Planning and Assessment Act 1979* (EP&A Act) to cover the assessment of major infrastructure development. This type of development was previously assessed under Part 4 and/or Part 5 of the EP&A Act.

By an order gazetted on 29 July 2005, the Minister for Planning declared that Part 3A applies to all projects for which the proponent is also the determining authority and which otherwise would have required an EIS to be obtained under Part 5.

Within the meaning of Part 5 of the EP&A Act, the RTA is both the proponent and the determining authority for the Wells Crossing to Iluka Road Project. However, the RTA has not yet determined whether an EIS under Part 5 of the Act would be required for this project, and will not make that decision until a preferred route is selected. It is therefore too early to say whether Part 3A would apply to this project. If Part 3A does apply, the level of environmental assessment (EA) would be determined by the Director-General of Planning, who issues EA requirements after consultation with the relevant public authorities and local council. If Part 3A does not apply, the project would be assessed under Parts 4 or 5 of the EP&A Act.

Assessment of the likely significance of impacts on matters of national environmental significance is required as early as possible in the project, to enable a clear, defensible decision to be reached on the need for assessment and/or approval under the *Environmental Protection and Biodiversity*

*Conservation Act, 1999* (EPBC Act). Preliminary assessment indicates that significant impacts on matters of national environmental significance are not likely.

In the absence of a preferred route, it is not possible to provide definitive advice on approval requirements. This advice will be reviewed and refined further as the project progresses, to fulfil statutory reporting processes under NSW and Commonwealth legislation. Further consideration of permissibility and the need for other approvals will be undertaken following public display of the route options, to enable consideration of statutory matters when deciding on the preferred route.

#### **2.4 Need for the project**

The upgrade of the Pacific Highway between Wells Crossing and Iluka Road is needed to improve road safety and to reduce travel times. Cumulatively, the projects that make up the Pacific Highway Upgrade Program are intended to achieve these core objectives. Each project therefore contributes to achievement of the overall strategic objectives of the Program. Progressive development of the highway has led to changes in traffic profile. Enhancement has improved travel time on the Sydney-Brisbane trip for commercial travel, offering an attractive alternative to the national route via the New England Highway. Completion of the Pacific Highway Upgrade Program would further reduce travel times, resulting in benefits for both passenger vehicles and freight transport.

The existing Pacific Highway through the investigation area is primarily a two-lane road with occasional overtaking lanes and some short sections of divided road. In some locations the alignment does not meet the design standards established for the Pacific Highway Upgrade Program. The highway currently passes through numerous towns, villages and other settlements. As vehicle volumes and the number of heavy vehicles have increased, the potential for conflicts between highway traffic (in particular heavy vehicles) and the amenity of settlements has also increased.

Road safety is a primary objective of the Pacific Highway Upgrade Program. The current accident rate between Wells Crossing and Iluka Road is approximately 32 accidents per million vehicle kilometres travelled (MVKT). This rate is high when considered in relation to the RTA objective for the Pacific Highway Upgrade Program of 15 accidents per MVKT. The Grafton bus crash in 1989 was a major incident within the study area, which elevated public concern about the safety of the Pacific Highway.

There is a need to provide a higher standard road to better serve existing and future road users. The upgrading of this section of the Highway forms an essential part of the overall upgrade of the highway between Hexham and the Queensland border.

## **2.5 Implications of doing nothing**

If the Wells Crossing to Iluka Road section of the Pacific Highway is not upgraded, the RTA would undertake appropriate remediation and maintenance works on the existing road. However, these works would not be sufficient to meet the current Pacific Highway Upgrade Program and project objectives. Traffic volumes along the highway would increase, resulting in more heavy vehicle traffic without separation of through and local traffic. This section of the highway would become a 'bottleneck' in peak holiday periods with longer travel times. There would be greater safety risks and consequently more road crashes.