

# **1. Introduction**

## **1.1 Preamble**

The Coffs Harbour Highway Planning Strategy (CHHPS) is being developed to address the need to upgrade the Pacific Highway between Sapphire and Woolgoolga while planning for future traffic needs within the Coffs Harbour area. The CHHPS covers a study area from Sawtell in the south to Arrawarra in the north.

The CHHPS is being developed by the Roads and Traffic Authority of New South Wales (RTA) in association with the Department for Infrastructure Planning and Natural Resources (DIPNR). The project is being funded by the NSW Government as part of its \$1.6 billion commitment to the 10 year Pacific Highway Upgrading Program.

Planning for the CHHPS began in September 2001. Since then a wide range of potential corridor and route options have been investigated including options proposed by Coffs Harbour City Council (CHCC) and the community. The project has evolved and expanded over this period from its original intent and scope.

A preferred option for the CHHPS has now been identified and is presented within this report for consideration by the NSW Minister for Roads. A decision on the preferred option and public exhibition of the CHHPS is expected within the second half of 2004.

## **1.2 Strategy justification**

### **1.2.1 Need for the strategy**

Developing a planning strategy for the Pacific Highway in the Coffs Harbour area is not a new concept. A western bypass of Coffs Harbour has been advanced within the community generally and in various land use and transport strategies for over 20 years. Potential options have ranged from inner corridors through the Coffs Creek valley to as far west as the Orara Valley through Coramba and Glenreagh up to Halfway Creek. There are many constraints to route planning (and ultimately to highway development) within the Coffs Harbour area. Topographical constraints to the west of Coffs Harbour and Woolgoolga severely limit the range of feasible bypass corridors with a number of east-west ridges extending from the escarpment across the coastal plain.

The need to improve the Pacific Highway varies according to the different functions, capacity and priorities of the highway in the southern (Coffs Harbour) section and the northern (Sapphire to Woolgoolga) section of the CHHPS. However, since the route of any bypass of Coffs Harbour in the southern section will influence the planning for the Sapphire-Woolgoolga upgrade, there is a clear need to plan both sections simultaneously. This will ensure a compatible long-term strategy is in place to resolve future traffic demands throughout the Coffs Harbour local government area.

### **Southern (Coffs Harbour) section**

In the southern section, the Pacific Highway between Sawtell and Sapphire has been extensively upgraded and is already dual carriageway. Together with recent and proposed intersection works and local road improvements on the eastern and western distributors, the capacity of the highway through the main Coffs Harbour area is likely to be adequate for many years. However, given the high population growth rate and demand for additional residential land, a strategic approach to land use and transport planning is necessary to ensure that provision is made for future highway needs through the Coffs Harbour urban area.

There are numerous at-grade intersections with local roads and urban streets (including 11 intersections controlled by traffic signals) and numerous private property access points. These intersections (especially those controlled by traffic signals) and property accesses disrupt the flow of traffic along the highway with a resulting increase in travel times and decrease in transport efficiency. Surveys undertaken by the RTA in November 2003 have indicated that the average travel time through the dual carriageway has diminished by approximately one minute per year.

### **Northern (Sapphire to Woolgoolga) section**

In the northern section of the strategy area, the coastal strip between Sapphire and Woolgoolga has continued to change over recent years as a result of land-use changes and a growing population. In terms of road and traffic conditions, this section of the highway shows a number of deficiencies. It is currently a two-lane single carriageway, with overtaking opportunities approximately every 5km. There are a number of key intersections with various local roads servicing coastal communities such as Sapphire, Moonee, Emerald Beach, Sandy Beach and Woolgoolga, several rural residential communities and numerous private property access points. Many of the intersections have poor sight lines, inadequate provision for turning traffic and a high accident rate. The highway is the only arterial road available to serve the existing residential settlements located at Sapphire, Moonee, Emerald Beach, Sandy Beach and Mullaway and to access the town centres at Coffs Harbour and Woolgoolga. A detailed consideration of traffic issues and conditions, including predicted growth and change has been addressed during the route options development stage (Connell Wagner, 2002).

Predicted population growth on the northern beaches and the LGA in general will result in increased traffic volumes on the road network. Through traffic is also expected to increase as the Pacific Highway Upgrading Program proceeds. Dual carriageways, together with upgraded access arrangements, will improve transport efficiency by reducing travel time and costs, and will significantly reduce the number and severity of accidents.

The need to upgrade the Pacific Highway between Sapphire and Woolgoolga can be substantiated by both the strategic planning objectives of the NSW Government – specifically its \$1.6 billion commitment to the Pacific Highway Upgrading Program - as well as the existing and predicted road and traffic deficiencies of this section of highway through the northern part of the Coffs Harbour local government area. The strategic need was strengthened in early June 2004 by the Federal Government's announcement of its objective to duplicate the Pacific Highway by 2016 and the AusLink funding commitment of \$765 million to the highway over the next 5 years.

### **1.2.2 Implications of doing nothing**

The implications of the do nothing option can be described separately for the southern and northern sections of the CHHPS area.

### **Southern (Coffs Harbour) section**

The capacity of the existing highway through Coffs Harbour urban area is governed by the capacity of intersections through the CBD. Recent and planned improvements to intersections and alternative north-south routes will redirect a substantial volume of local traffic off the highway and defer the need for further improvements to the Pacific Highway through the town. Traffic growth predictions indicate that while the current highway through the main Coffs Harbour urban area will be adequate for many years, it is unlikely that the localised improvements will be sufficient to meet future road traffic demands.

The retention of the at-grade intersections with local roads and urban streets (especially those controlled by traffic signals) and the numerous private property access points would result in increasing travel times and decreasing transport efficiency as traffic volumes increase.

Investigations carried out to identify, develop and evaluate route options for the southern section concluded that there would be major adverse social impacts with a major upgrade of the existing highway corridor through Coffs Harbour.

The combination of topographic constraints and increasing development pressures in North Boambee and West Coffs Harbour reinforces the need to plan now for a future bypass corridor. While the cost of developing a bypass of Coffs Harbour urban area is not justified in terms of road user benefits in the near future, the identification and reservation of land in the short term is necessary as expected high rates of urban growth are likely to preclude this option within the next few years. It is recognised that such a strategy would require integration of a new bypass corridor into revised land use plans for future urban and rural residential release areas.

### **Northern (Sapphire to Woolgoolga) section**

The implications of no action or deferral of the strategy would be ongoing and result in declining traffic and safety conditions and deteriorating community amenity along the existing highway between Sapphire and Woolgoolga. Predicted traffic growth would further exacerbate the problems currently experienced with the existing road and traffic environment.

Without major upgrading of the highway in the northern section between Sapphire and Woolgoolga, the predicted traffic growth would increasingly expose the deficiencies of the existing road environment over the forecast period. Specific consequences would include:

- the deterioration of traffic conditions to unacceptable levels particularly at holiday times
- a likely increase in vehicle accidents
- a gradual increase in travel times
- increased conflict between local and through traffic
- inconsistency in road standard between the section of highway within the study area and the remainder of the Pacific Highway
- worsening road and traffic conditions with consequent adverse environmental effects such as noise, vibration, community disruption
- increased limitations for pedestrian access and risk of pedestrian accidents associated with traffic growth
- exacerbation of community severance as access across the highway deteriorates
- failure to achieve the objectives of planning and transport strategies, in particular the Pacific Highway Upgrading Program

In the longer term, even with the planned alternative local traffic routes through Coffs Harbour, similar consequences would also be applicable to the southern section of the Strategy.

The consequences of no action or deferral of the CHHPS would clearly negate or delay fulfilment of the objectives of both the CHHPS and the Pacific Highway Upgrading Program described below and the opportunity to achieve numerous strategic planning, traffic safety and environmental benefits for Coffs Harbour.

## **1.3 Strategy objectives**

### **1.3.1 Pacific Highway Upgrade Program**

In January 1996, the NSW State Government and the Commonwealth Government announced a joint commitment to a 10-year program to upgrade the Pacific Highway between Hexham and the Queensland border. Funding of \$2.2 billion was allocated to improve the standard of the highway with projects being justified on an individual basis. The NSW State Government committed \$1.6 billion to the program and the Commonwealth Government committed \$600M.

The RTA Discussion Paper on upgrading the Pacific Highway was released in 1997 and contained details of the proposed funding and management arrangements for the Pacific Highway Upgrade Program. The Discussion Paper identified priorities for the first three years and a draft 10-year strategy for the upgrade of the entire highway. The program contained in the Discussion Paper has been revised and updated since its release with the Final Draft Pacific Highway Strategic Assessment assisting development of the program now being implemented.

The principal objectives of the Pacific Highway Upgrading Program are to:

- significantly reduce road accidents and injuries
- improve transport efficiency by reducing travel times and freight costs
- have a community satisfied with the physical development of the route
- have a route that supports economic development
- manage the development of the route in accordance with Ecologically Sustainable Development (ESD) principles
- maximise effectiveness of expenditure

### ***1.3.2 Coffs Harbour Highway Planning Strategy***

The CHHPS is being developed to address the need to upgrade the Pacific Highway between Sapphire and Woolgoolga while planning for future traffic needs within the Coffs Harbour urban area. The specific objectives for the CHHPS are listed in Table 1.1 as they relate to the principal objectives of the Pacific Highway Upgrading Program.

Table 1.1 Project objectives

Pacific Highway Upgrade Program objectives	Coffs Harbour Highway Planning Strategy objectives
Significantly reduced road accidents and Injuries	<ul style="list-style-type: none"> <li>A dual carriageway road with potential to reduce crash rates to 15 crashes per 100MVK over the project length.</li> </ul>
Reduced travel times	<ul style="list-style-type: none"> <li>A design which would allow sign posting at a minimum of 100km/h in rural areas and 80km/h in urban areas.</li> <li>Provide flood immunity on at least one carriageway for a 1: 100 year flood event</li> </ul>
Reduced freight transport costs	<ul style="list-style-type: none"> <li>A design that minimises vehicle operating costs.</li> <li>A design that meets or exceeds B-Double requirements, including at intersections where required.</li> </ul>
A community satisfied with physical development of the route	<ul style="list-style-type: none"> <li>Integrate input from local communities into development of the Project through the implementation of a comprehensive program of community consultation and participation</li> <li>A solution at all potential conflict points with local traffic that meets community expectations and maintains local connectivity.</li> </ul>
A route that supports economic development.	<ul style="list-style-type: none"> <li>Provide transport developments that are complementary with land use</li> <li>Consider delay management strategies to minimise disruption to local and through traffic and maintain access to affected properties and land during construction</li> </ul>
Upgrading of the route managed in accordance with Ecologically Sustainable Development principles.	<ul style="list-style-type: none"> <li>Cumulative impacts assessed and addressed</li> <li>Best environmental practical incorporated.</li> <li>RTA Guidelines for managing environmental issues (biodiversity, noise impacts, water quality, acid sulphate soils, etc) are met.</li> </ul>
Maximum effectiveness of expenditure objectives	<ul style="list-style-type: none"> <li>Maximise the use of the existing road asset where consistent with the Project</li> <li>Ensure the project outcomes achieve value for money</li> </ul>

#### 1.4 Strategy area

The original study area for the CHHPS identified in September 2001 covered an area from south of Sawtell to north of Woolgoolga and as far west as Coramba. The eastern extent of the study area is the existing Pacific Highway corridor. The strategy area has been divided into two broad investigation areas to facilitate the CHHPS intent of addressing the need to upgrade the Pacific Highway between Sapphire and Woolgoolga while planning for future traffic needs within the Coffs Harbour urban area:

- the **southern section** extending from Sawtell to Sapphire / Moonee
- the **northern section** from Sapphire to north of Woolgoolga

The study area was subsequently been expanded westwards to enable a review of potential options through the Bucca and Orara Valleys and northwards to incorporate a section through the Clarence Valley local government area to enable assessment of new options that were identified during consultation with CHCC and the community. The northern limit extends to the recently completed highway upgrade at Halfway Creek.

The strategy area is shown in Figure 1.1.

#### 1.5 Strategy development process

While the broad intention of the strategy planning process remains consistent with the original approach, it has necessarily evolved during the three years since investigations commenced. This is

partly due to the complexity of coordinating the different upgrading priorities and functional requirements of the highway through the local government area and the disparate physical and environmental constraints and social issues in the two broad sections of the strategy area. Another reason is the ongoing community and stakeholder consultation process, which has strongly influenced development of the strategy and resulted in an extension of the original timeframe by at least 1 year. Most notably, the circumstances leading to reassessment of previous technical work and additional investigations by the project team included:

- strong community support for investigating an upgrade of the existing highway through the main Coffs Harbour urban area as an alternative to a bypass
- public submissions requesting investigation of a far western bypass running through the Orara Valley to Halfway Creek or Grafton
- an independent peer review commissioned by CHCC of the planning process for the highway south of Sapphire (including a possible future bypass of Coffs Harbour)
- a review of the community-generated western bypass option known as the Coastal Ridge Way
- CHCC adoption of a preferred corridor focused on the Bucca Valley for a bypass of Coffs Harbour and Woolgoolga and a commitment by the Minister for Roads to investigate the feasibility of route options within this corridor

The planning process undertaken for development of the strategy is illustrated in Figure 1.2. A summary of the key milestones in the strategy development process is presented in Table 1.2 over.

**Table 1.2 Project milestones**

Date	Milestone
Early 2000	RTA calls tenders for the development of the upgrading of the Pacific Highway between Sapphire and Woolgoolga.
Mid 2000	In response to requests from Council and DUAP the RTA expands study area to include investigations of future traffic needs for the Coffs Harbour urban area and develop a highway planning strategy for both Coffs Harbour and Woolgoolga. Steering Committee with representatives from Council, DUAP and RTA formed to manage the development of the Coffs Harbour Highway Planning Strategy.
September 2001	Summary brochure released : <ul style="list-style-type: none"> <li>• strategy announced</li> <li>• corridor options for a bypass of Coffs Harbour identified</li> <li>• study area for the Sapphire to Woolgoolga project identified</li> <li>• community comment invited</li> </ul>
March 2002	Information Sheet No.2 released : <ul style="list-style-type: none"> <li>• advice that in response to community requests a Far Western Corridor (through the Orara Valley) was also investigated</li> <li>• announcement that the Central, Outer and Far Western Corridors for a bypass of Coffs Harbour are not worthy of further consideration</li> <li>• announcement that options within the Inner Corridor would be identified and evaluated against the upgrading of the existing highway through Coffs Harbour</li> <li>• corridor options for the Sapphire to Woolgoolga project identified (Options A, B, C and D)</li> <li>• community comment invited</li> </ul>
May 2002	CHCC resolves to engage an independent consultant to undertake a peer review of the work done to date.
September 2002	Peer review findings released : <ul style="list-style-type: none"> <li>• concludes that <i>...the Inner Corridor is the preferred of the options for a bypass of Coffs Harbour and that the planning process has provided for the delivery of the best option for the Coffs Harbour local community</i></li> <li>• methods of improving the community consultation process recommended</li> </ul> <p>CHCC resolves to :</p>

Date	Milestone
	<ul style="list-style-type: none"> <li>acknowledge receipt of the peer review findings</li> <li>request the Steering Committee to investigate the Coastal Ridge Way proposal</li> </ul>
October 2002	Steering Committee : <ul style="list-style-type: none"> <li>reaffirms that outer and central corridor options for a bypass of Coffs Harbour are "ruled out"</li> <li>agrees to investigate the Coastal Ridge Way proposal</li> </ul>
December 2002	Community Update No.3 released : <ul style="list-style-type: none"> <li>provides details of refined route options for the Sapphire to Woolgoolga project (Options A, B1, B2, C and D)</li> <li>community comment invited</li> </ul>
April 2003	Value management study for Sapphire to Woolgoolga options : <ul style="list-style-type: none"> <li>Options C and D should go forward with further consideration of socio-economic and environmental issues</li> <li>Options B and A identified as less favourable</li> </ul>
May 2003	CHCC requests Steering Committee to investigate other options for a bypass of Woolgoolga which would have less impact on the future development of the township.
May to August 2003	CHCC holds a series of Community Forums.
September and October 2003	CHCC adopts its Preferred Corridor for a bypass of Coffs Harbour and Woolgoolga : <p><i>...that the western bypass diverge from the existing highway at or near Englands Road to Red Hill, and thereafter by the best available option to Grafton with the intention that south and western Boambee and the Orara Valley be excluded from further consideration.</i></p>
November 2003	CHCC advises the Minister for Roads of the adoption of its preferred corridor.
February 2004	Steering Committee agrees that it can no longer manage the development of the strategy and dissolves. RTA to finalise the development of the strategy in association with DIPNR.
February 2004	Minister for Roads agrees to investigate the feasibility of CHCC preferred corridor.
February 2004	Community Update No.4 released : <ul style="list-style-type: none"> <li>provides details of route options within the Inner Corridor and the upgrading of the Existing Highway through Coffs Harbour</li> <li>provides details of the investigations into the Coastal Ridge Way proposal</li> <li>announces that the upgrade of the existing highway through Coffs Harbour does not merit further consideration</li> <li>announces that a decision regarding the Inner Bypass options and the Coastal Ridge Way proposal will be made following the assessment of the feasibility of CHCC Preferred Corridor</li> <li>provides details of new options for a bypass of Woolgoolga (Options C1 and E)</li> <li>announces that Options B1, B2 and D for the Sapphire to Woolgoolga project do not merit further consideration</li> <li>community comment invited</li> </ul>
June 2004	Community Update No.5 released : <ul style="list-style-type: none"> <li>provides details of assessment of feasibility of CHCC Preferred Corridor</li> <li><i>...while route options within Council's preferred corridor have the lowest socio-economic impacts, the feasibility assessment has shown that they also have major adverse impacts and are not considered to be viable options for the Highway Planning Strategy</i></li> <li>community comment invited</li> </ul>
August 2004	Value management workshops held: <ul style="list-style-type: none"> <li>workshop for the Inner Bypass Corridor options for Coffs Harbour recommended Options IS2 and IN2</li> <li>majority of participants at the workshop for the Coastal Route Options for a bypass of Woolgoolga recommended Option E</li> </ul>

## 1.6 Stakeholder and community involvement

An extensive consultation and community involvement program has been implemented for the project that has involved ongoing communication and consultation with CHCC, the local community, government agencies and other diverse stakeholders since the project began in September 2001. The program has included the following key activities:

- widespread distribution of five information brochures (community updates) at key project milestones between September 2001 and June 2004
- advertised open information sessions and public displays (both staffed and unstaffed)
- meetings with and presentations to CHCC and local interest groups
- four planning focus meetings with relevant state and local government agencies
- formation of and regular meetings with a Community Focus Group (CFG) for the Coffs Harbour section of the CHHPS area and two CFGs for the Sapphire to Woolgoolga section
- interviews / meetings with relevant stakeholders including property owners and local businesses
- public notices and media coverage (print and electronic)
- formation of a contact database on which members of the public were able to register to receive community updates
- provision of a freecall telephone hotline for direct enquiries
- establishment and frequent updating of a project website
- invitations for written submissions and completion of survey forms by individuals and interest groups

The community involvement program and the outcomes of the program are documented within a number of reports prepared over the course of the CHHPS development process (Pramax Communications 2002a 2002b 2003 2004a 2004b).

A summary of the community consultation undertaken for the project and the community feedback received by the project team is presented within section 3 of this report.

## 1.7 Report purpose and structure

The main purpose of this report is to document the concluding stages of the route planning and selection process. It provides a summary of corridor identification and assessment activities and includes a detailed account of the findings from the evaluation of short listed route options for the Coastal Corridor. The report contains a recommendation by the project team for a preferred option for the CHHPS and this includes the preferred highway deviations of the Coffs Harbour and Woolgoolga urban areas. The preferred option recommendation is presented for consideration by the Minister for Roads.

The report is structured as follows:

- **Section 1** provides an overview of the CHHPS project and the purpose and structure of the report.
- **Section 2** describes the biophysical, socio-economic and transport and access characteristics of the study area.
- **Section 3** presents a summary of the community consultation undertaken for the project and the key outcomes.
- **Section 4** documents the highway corridor identification and evaluation process and the selected corridor for route development.
- **Section 5** documents the route options considered within the preferred Coastal Corridor and the outcomes of the evaluation process.
- **Section 6** sets out the preferred option for the CHHPS based on the route evaluation process undertaken and the actions required to implement the CHHPS.



- **Appendix A** provides a report on the first value management workshop for the Sapphire to Woolgoolga section of the CHHPS conducted in April 2003.
- **Appendix B** provides a report on the value management workshop for the Coffs Harbour section of the CHHPS conducted in August 2004.
- **Appendix C** provides a report on the second value management workshop for the Sapphire to Woolgoolga section of the CHHPS conducted in August 2004.