

1. Introduction

1.1 The Pacific Highway Upgrade Program

Between Iluka Road and Woodburn, the Roads and Traffic Authority (RTA) proposes to upgrade the Pacific Highway, generally by following its existing route. This report describes the proposed concept design.

With the \$2.2 billion Pacific Highway Upgrade Program in place since 1996, a total 233 km of the highway are now double-lane divided road. A further 302 km of new highway are under construction, have been approved for construction or have had a preferred upgrade route identified (refer to **Figure A**).

As of the end of March 2006, this leaves only 162 kilometres where a preferred route is still to be identified.

Route options for five projects were displayed in October – November 2005:

- F3 Freeway to Raymond Terrace.
- Oxley Highway to Kempsey.
- Woolgoolga to Wells Crossing.
- Wells Crossing to Iluka Road.
- Tintenbar to Ewingsdale.

This final group of five projects is now proceeding to the route selection phase. These five projects, along with the sections from Macksville to Urunga and Woodburn to Ballina, will provide preferred routes for a total 230 km of the highway. This will provide planning certainty for local communities and pave the way for a construction program to complete the upgrade of the Pacific Highway.

Another three projects:

- Iluka Road to Woodburn;
- Failford Road to Tritton Road; and
- Herons Creek to Stills Road;

Involve upgrading the highway along the existing alignment. Concept plans are currently being prepared, and the upgrading of the highway to dual carriageway in these locations is being discussed with adjacent communities.

The Iluka Road to Woodburn upgrade is proceeding to concept design display in March 2006.

For the 10 years to June 2006 the New South Wales (NSW) government will have contributed \$1.66 billion and the Federal government will have contributed \$660 million to the PHUP.

The main objective of the PHUP is to upgrade the Pacific Highway to a high-standard dual carriageway road for its full length between Sydney and Brisbane. An upgraded Pacific Highway will reduce travel times, and improve road safety through the removal of the remaining accident black spots. To this end the highway has been broken into discrete sections, each of which represents a separate project within the overall PHUP. As shown in **Figure A**, there are some 26 individual projects currently in progress, which means that they are either:

- in planning;
- awaiting State government approval;
- approved and awaiting construction; or
- under construction.

A number of projects are already complete. The State government's aim is to have all projects planned and preferred routes identified by the end of June 2006 and for construction to continue according to priority, subject to availability of funding.

1.2 The Iluka Road to Woodburn project

As part of the PHUP, the Roads and Traffic Authority (RTA) proposes to upgrade a 35 km section of the Pacific Highway between the Iluka Road turnoff and Woodburn on the North Coast of NSW (see **Figure 1.1**). The RTA has engaged Connell Wagner to undertake route option investigations and concept design development for this project, and environmental impact assessment (EIA) of the eventual preferred route.

1.3 The study area

The Iluka Road to Woodburn Project comprises approximately 35 km of the existing Pacific Highway, from the Iluka Road turnoff to the junction of the Pacific Highway and Tuckombil Road at Trustums Hill, approximately 2 km south of Woodburn. The study area, as shown in Figure C, predominantly follows the existing Pacific Highway alignment in a band approximately 1.5 km wide and centred on the existing Pacific Highway corridor.

The southern end of the project will be co-ordinated with the development of the adjacent Pacific Highway upgrade project for Wells Crossing to Iluka Road, while the northern end will be co-ordinated with the concurrent Woodburn to Ballina upgrade project.

The existing highway route is mostly of a good standard. Therefore, a route concept based on duplication of the existing highway with short sections of new highway where the existing alignment is sub-standard has been used, rather than multiple route options. The largest section of proposed new highway is a 3 km deviation adjacent to the Devils Pulpit State Forest. The RTA has already acquired a corridor of land to the east of the existing highway for this purpose. There would be additional minor land acquisition in certain areas, where the corridor is either too narrow to accommodate the second carriageway, or where realignment for curve straightening is required.

1.4 The study process

Development of a proposed concept design for the Pacific Highway between Iluka Road and Woodburn has involved a comprehensive and multi-disciplinary study process. The process is designed to continue throughout all stages of route development, until the project has been approved for construction. The key components of the study process to date are as follows:

- *Project familiarisation* – collecting and reviewing available information, project team orientation and appraisal of the study area, preliminary risk assessment, initial discussions with councils, local communities and other stakeholders.
- *Project objectives and assessment criteria* – establishing the project's aims and objectives, and key criteria by which to evaluate options for their achievement of project aims and objectives.
- *Detailed investigations* – investigating the key technical and biophysical characteristics of the study area including geotechnical, traffic and transport, ecology, heritage, archaeology, land use, planning and zoning, socio-economic, water quality, hydrology, acoustic and survey.
- *Constraints* – identifying potential opportunities and constraints to development of an upgraded Pacific Highway through the technical and biophysical investigations.
- *Route concept refinement and development* – commencing the highway design process, to refine the route for upgrading and duplication of the existing highway. This component of the study also looked at the possibility of defining route options outside the existing highway corridor.
- *Community and stakeholder input* – informing local communities that the project is under way and inviting participation, through open forums and the use of various media and communication channels. Invitations were sent to government agency stakeholders for

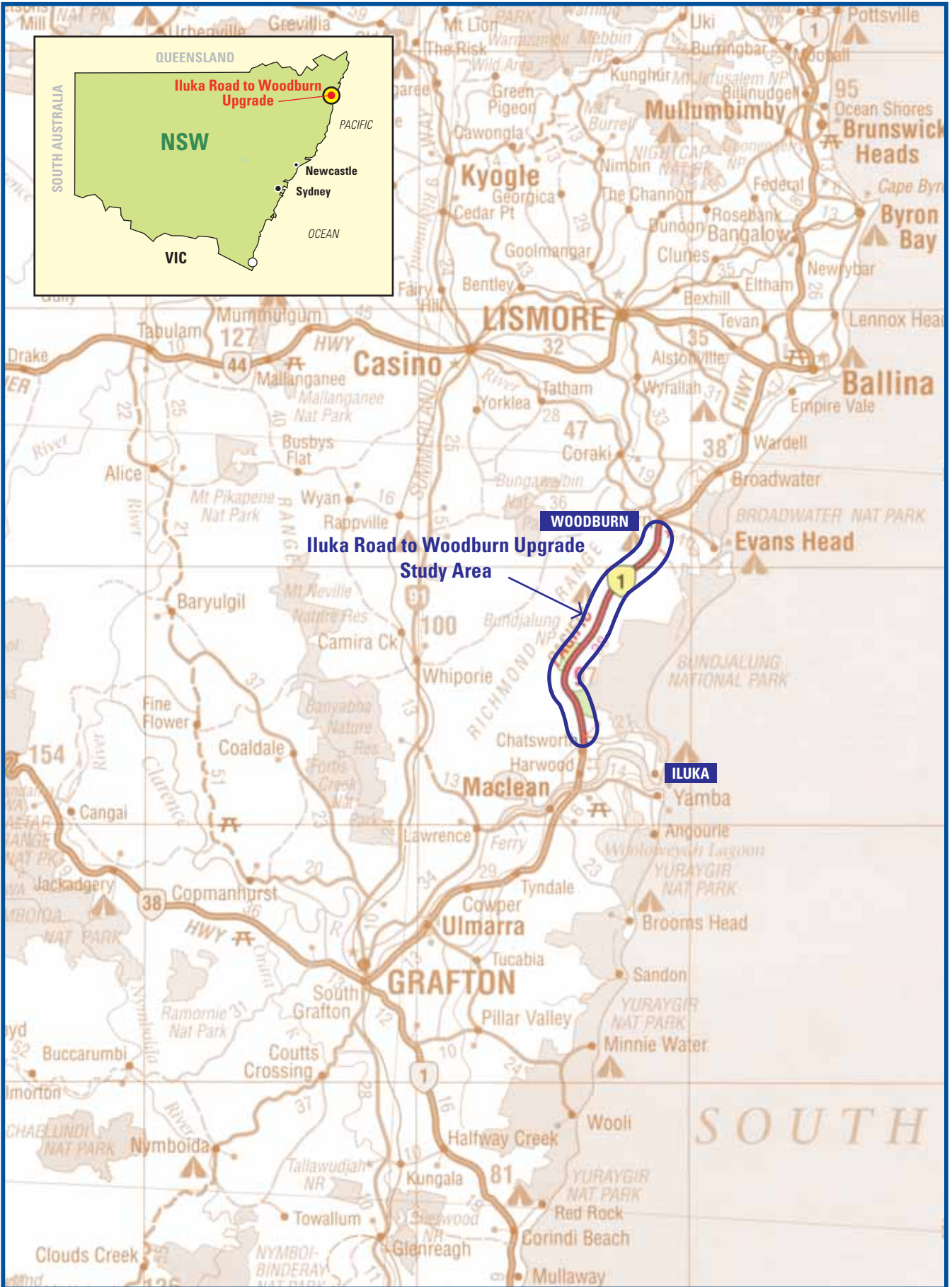


FIGURE 1.1
STUDY AREA
NORTH COAST REGIONAL CONTEXT

- attendance at the first planning focus meeting (PFM), to identify issues of relevance and to open dialogue with those agencies.
- *Route concept assessment* – assessing the proposed route concept design against project objectives and specific criteria including the potential impacts on the environment and local communities.
- *Concept design display* – displaying the concept for community participation and feedback. This process includes public meetings, information boards displayed in public locations and the distribution of project information sheets. It is anticipated that feedback from the community will help to further refine the project.

Once a route concept design has been approved as the preferred route, the key stages in the process leading to the opening of the completed road include:

- *Value Engineering Workshop* – a value engineering workshop will be undertaken during detailed concept design stage. A value engineering workshop, involving key members of the study team, will be conducted to provide a critical evaluation of the concept design. The value engineering workshop will incorporate a risk management workshop, the aim of which is to optimise the project design and provide a risk assessment of the concept design.
- *Refined Concept Design* – a detailed concept and engineering design will be developed, based on the approved proposed concept design, and taking into consideration all relevant constraints and design guidelines. This stage of the project provides the opportunity to refine the design to optimise the alignment and to minimise environmental impacts.
- *Environmental Impact Assessment (EIA)* – following development of the detailed concept and engineering design, a comprehensive EIA will be undertaken to fully identify all environmental constraints and potential impacts associated with the project. During the EIA appropriate mitigation and ameliorative measures will be developed to minimise the environmental impacts of the design, construction and operation phases of the project as far as practicable.
- *Determination and Approval* – following completion of the EIA and depending upon the statutory planning approvals process to be followed, either:
 - a) a project application will be lodged with the Department of Planning (DoP), for determination and an approval decision by the Minister for Planning; or
 - b) the project will be determined by the RTA.
- *Construction* – if project approval is obtained and funding available then construction may commence.

1.5 Purpose of this report

The overall purpose of this report is:

- To provide an overview of the development of the Iluka Road to Woodburn project to the proposed concept design phase.
- To place the Iluka Road to Woodburn project in the overall context of the PHUP.

This report demonstrates how the project is integral to the achievement of a much broader strategic transport planning objective.

It outlines the study process that has been undertaken to date and, with the aid of maps, photographs and diagrams, describes the study area and its biophysical and socio-economic attributes. It documents the key findings of all the studies undertaken to date and identifies opportunities and constraints for input to route concept development. The report then describes the process that led to the development of the proposed concept design, and gives a preliminary assessment of the proposed concept design in terms of its likely environmental and socio-economic impacts.

The Concept Design Report also discusses the study processes that will follow the concept design phase of the project. In this regard the report seeks to map the way forward, and to provide a platform from which the more detailed concept and engineering design development activities may be provided.

1.6 Report structure

The Concept Design Report has been structured so as to best reflect the study process, and to place the project in the context of the overall PHUP. The report follows the structure briefly outlined below:

- Chapter 1 - Introduction.
- Chapter 2 – Strategic transportation and planning context of the project, within the overall PHUP and government strategic transport planning.
- Chapter 3 - Description of the study area and its biophysical and socio-economic characteristics.
- Chapter 4 - Discussion of the project objectives and the guiding principles for development of the highway upgrade design.
- Chapter 5 - The process of and approach to route selection and community involvement.
- Chapter 6 - Development of the proposed concept design.
- Chapter 7 - Evaluation of the proposed concept design.
- Chapter 8 - Cost estimates.
- Chapter 9 - Description of the proposed concept design, conclusions and recommendations and the process from here.