1. Introduction

This section provides an outline of the project and describes its context within the greater Pacific Highway Upgrade Program (Pacific Highway Upgrade Program). The study area and process are also outlined along with the general structure of this report.

1.1 The Pacific Highway Upgrade Program

The Pacific Highway is part of the National Land Transport Network. By 2009, the NSW Government will have spent $2.45 billion and the Australian Government $1.45 billion towards the upgrade of the Pacific Highway.

Currently 267 of a total 679 kilometres are now double-lane divided road. A further 87 kilometres is under construction. The remaining kilometres are either approved for construction or have had a preferred route identified. (Refer to Figure A).

The main objective of the Pacific Highway Upgrade Program 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 would 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 sections, each of which represents a separate project within the overall Pacific Highway Upgrade Program. As shown in Figure A, there are some 24 individual projects currently in progress, which means that they are:

- In planning.
- Awaiting State Government approval.
- Approved and awaiting construction.
- Under construction.

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 preferred concept design.

1.2 Project definition

Project: Upgrading the Pacific Highway Iluka Road to Woodburn
RTA Region: Pacific Highway Office
Road Name: Pacific Highway
Road Number: State Highway 10
Project location: 56.880 km to 89.200 km north of Grafton
Project length: 32.32 km
Local government areas: Clarence Valley and Richmond Valley Councils

1.3 Route investigations and selection

The project to date has involved two main phases:

a) Route investigations and selection
b) Development of the preferred concept design.

These phases are explained in greater detail in the following paragraphs.

Route investigation commenced with the collection and review of available information about the study area and preliminary investigations of local geography, topography, climate, demographics, and land use. This phase of the project also involved contact and consultation with local residents and businesses. This was critical in establishing an understanding of the study area and establishing the information database on which further studies and investigations could be built.
This phase also involved the examination of the existing highway to assess its condition in terms of the alignment, existing bridges and drainage structure, as well as pavement condition. These investigations identified whether the existing highway could be used as part of the proposed upgrade or whether a new alignment would be needed.

These investigations concluded that a substantial proportion of the existing highway was of a sufficient standard to be used in the upgrade and that an alternative route would conversely have a detrimental effect to the environment, visual intrusion on the landscape and additional impacts to private property. As such, no options were canvassed and the route selection process focussed on achieving an upgrade through the upgrading and/or duplication of the highway through the utilisation of substantial proportions of the existing road and building two new lanes on either the east or west side. A concept design was developed on this basis and displayed in 2006. The results can be found in the Concept Design Report (RTA March 2006).

1.4 Purpose of this report
This report provides information regarding the development of the preferred concept design for the Iluka Road to Woodburn section of the Pacific Highway Upgrade Programme. This report provides information on the investigations undertaken and the constraints considered in the refinement of the concept design following it's issue and subsequent public consultation in March 2006, and seeks to:

- Outline the Iluka Road to Woodburn project in the overall context of the Pacific Highway Upgrade Program.
- Provide an overview of the development of the Iluka Road to Woodburn project to the preferred concept design phase.
- Document the refinement of the concept design following community consultation from March 2006 to develop the preferred concept design.
- Describe the preferred concept design.
- Discuss the processes that will follow the preferred concept design phase of the project.

1.5 The study area
The Iluka Road to Woodburn Project comprises approximately 33 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 1.1, 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 adjoins the Pacific Highway upgrade project for Wells Crossing to Iluka Road, while the northern end adjoins the Woodburn to Ballina upgrade project.

1.6 Development of the route
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. This includes a 3 km deviation adjacent to the Devils Pulpit State Forest and a 2 km deviation at Pine Road. 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.
1.7 The study process

The Iluka Road to Woodburn Project was announced in October 2004 and a concept design developed and published in March 2006 for community comment. Development of a proposed preferred concept design for the Pacific Highway between Iluka Road and Woodburn has involved a comprehensive and multi-disciplinary study process. The process is ongoing and will continue throughout the route development. The key components of the study process are as follows:

Preliminary Stage (October 2004-March 2006):

- **Project familiarisation** – collect 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** – establish the project’s aims and objectives, and key criteria by which to evaluate options for their achievement of project aims and objectives.
- **Preliminary investigations** – investigate 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** – identify potential opportunities and constraints to development of an upgraded Pacific Highway through technical and biophysical investigations.
- **Route concept design development** – commence the highway design process.
- **Community and stakeholder input** – inform local communities that the project is underway and invite participation, through open forums and the use of various media and communication channels. Invitations were sent to government agency stakeholders for participation in the process.

Planning focus meeting (PFM), identify issues of relevance and to open dialogue with those agencies.
- **Route concept assessment** – assess the proposed route concept design against project objectives and specific criteria including the potential impacts on the environment and local communities.

Concept Design Display (March-April 2006):

- **Concept design display** – displaying the concept for community participation and feedback. This process included public meetings, face-to-face meetings with landholders and agencies, information boards displayed in public locations and the distribution of project information sheets. Feedback from landholders and the community helped to further refine the project.


- **Community and stakeholder input** - Refining the concept design to address comments by landholders, agencies and other stakeholders
- **Value engineering workshop** – a value engineering workshop was undertaken during the concept design refinement stage involving key members of the RTA and study team. It was conducted to provide a critical evaluation of the concept design.

Preferred Concept Design (July 2008)

A detailed concept and engineering design has been developed, based on the concept design and addresses comments from the community and stakeholders while taking into consideration all relevant constraints and design guidelines.
Next Steps

The key stages following the preferred concept design display are:

- **Environmental Assessment (EA)** – A comprehensive EA would be prepared under the EP&A Act 1979 to identify potential impacts associated with the project. During the EA 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** – a project application will be lodged with the Department of Planning (DoP), for determination and an approval decision by the Minister for Planning under Part 3A of the EP&A Act.
- **Property Acquisition** – Likely to occur nearer to construction, however certainty will be provided to land owners, the community and Councils following display. Support will be sought by Council for the inclusion of land within the LEP’s.
- **Detailed Design** – The concept design developed to date may be progressed into a full detailed design with ongoing consultation with the community and stakeholders.
- **Further specialist investigations for both the environmental assessment and detailed design phase** – Further targeted studies will be required to enable refinement of the design nearer to the construction stage of the project.
- **Preparation of construction tender documentation** – Drawings and Construction Specifications may be produced to enable the project to be tendered for construction.
- **Construction** – if project approval is obtained and funding made available, programmed property acquisition, detail design and construction may commence.

Throughout the design refinement process, consultation with the community will continue.

1.8  Report structure

The report follows the structure outlined below:

Chapter 1  Introduction.

Chapter 2  Strategic transportation and planning context of the project, within the overall Pacific Highway Upgrade Program 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 preferred concept design.

Chapter 7  Evaluation of the proposed preferred concept design.

Chapter 8  Description of the proposed preferred concept design, conclusions and recommendations and the process from here.

This report should be read in conjunction with the following reports:

- Pacific Highway Upgrade Iluka Road to Woodburn - Concept Design Submissions Report, RTA July 2008
- Pacific Highway Upgrade Iluka Road to Woodburn - Indigenous Heritage Assessment, RTA July 2008
- Pacific Highway Upgrade Iluka Road to Woodburn - Non-Indigenous Heritage Assessment, RTA July 2008
- Pacific Highway Upgrade Iluka Road to Woodburn - Preliminary Traffic and Transport Assessment, RTA July 2008
- Pacific Highway Upgrade Iluka Road to Woodburn – Ecological Assessment, RTA July 2008