

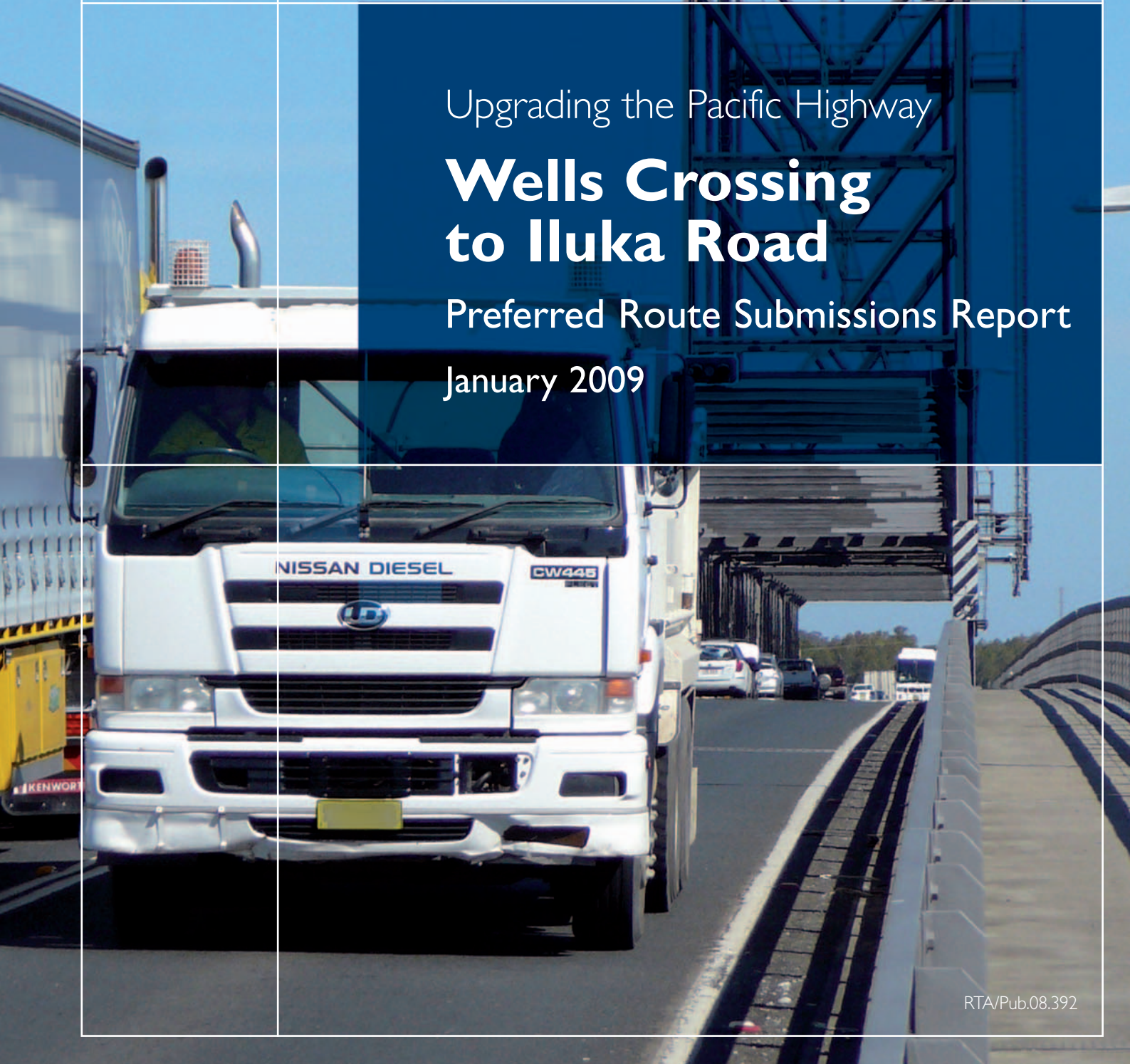


Upgrading the Pacific Highway

# Wells Crossing to Iluka Road

Preferred Route Submissions Report

January 2009







# Wells Crossing to Iluka Road Upgrading the Pacific Highway

## PREFERRED ROUTE SUBMISSIONS REPORT

■ January 2009

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# 1 Introduction

## 1.1 Background

The NSW Roads and Traffic Authority (RTA) commenced planning for the upgrade of the Pacific Highway between Wells Crossing and Iluka Road on the North Coast of NSW in October 2004. Planning for the proposed upgrade is being jointly funded by the NSW State and Federal governments as part of the Pacific Highway Upgrade Program.

The RTA engaged professional services contractor Sinclair Knight Merz (SKM) to assist with the development of the upgrade of the Pacific Highway between Wells Crossing and Iluka Road.

Since planning for the upgrade of the Pacific Highway between Wells Crossing and Iluka Road commenced in October 2004, a wide range of potential route options were investigated. Details of the route options considered are contained in the *Wells Crossing to Iluka Road, Route Options Development Report, RTA 2005*.

The preferred route for the upgrade of the Pacific Highway between Wells Crossing and Iluka Road was announced in September 2006 and consists of:

- From Wells Crossing to Harwood Bridge: refined Purple option (a combination of the Purple/B and Orange/A options, and the connection at Tyndale).
- From Harwood Bridge to Iluka Road: Option 1 (within and largely to the west of the existing road corridor).

The preferred route (as shown in **Figure 1-1**) encompasses four sections of highway upgrade that have been combined into a single project:

- Section 1: Commencing approximately 23km south of Grafton at Wells Crossing (Bald Knob Road) to Eight Mile Lane, Glenugie.
- Section 2: Eight Mile Lane, Glenugie to Tyndale.
- Section 3: Tyndale to Harwood Bridge (southern bank of Clarence River).
- Section 4: Harwood Bridge to Iluka Road, approximately 56km north of Grafton.

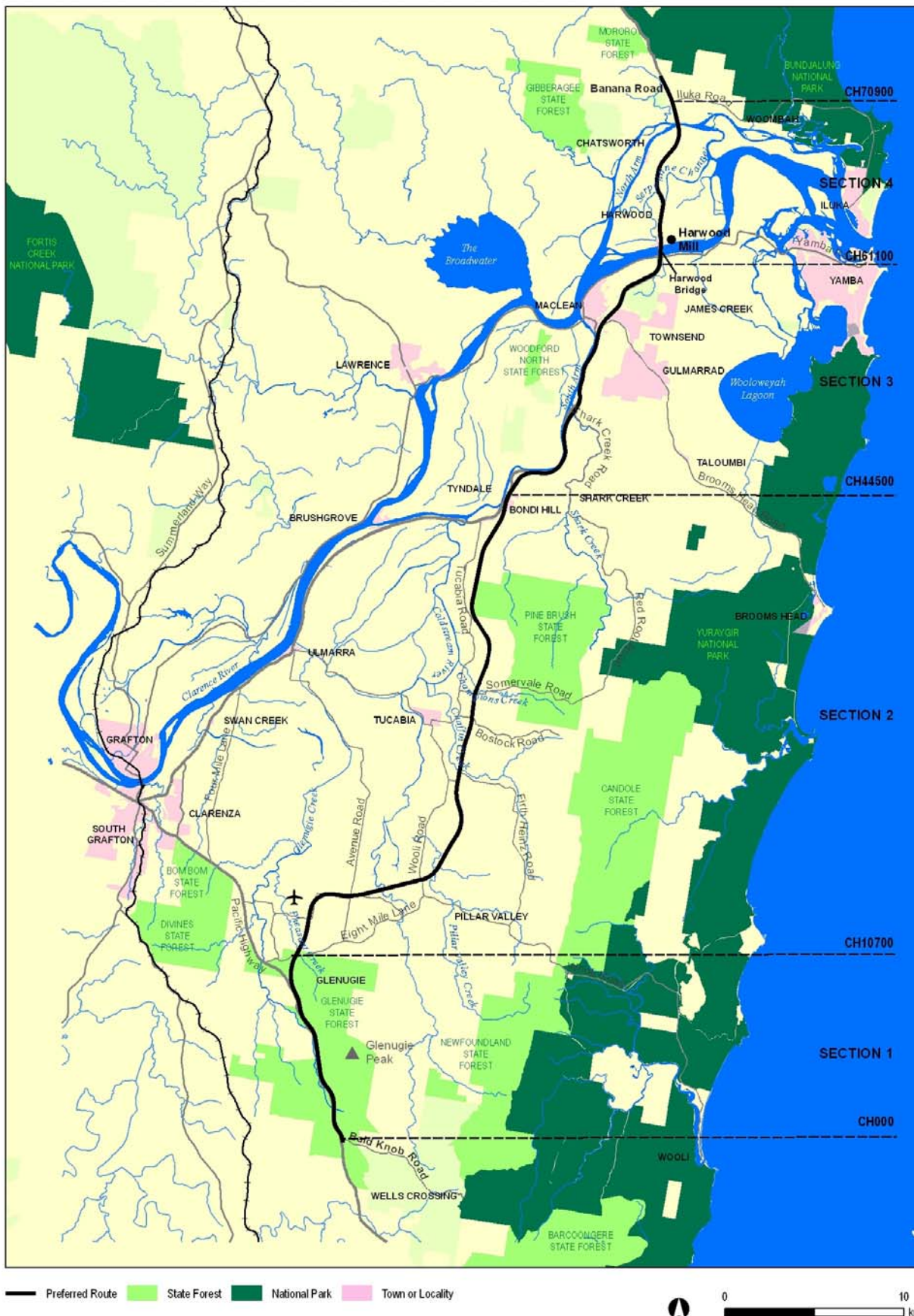
The preferred route has been further refined to reduce property and environmental impacts. Section 2 of the *Wells Crossing to Iluka Road Concept Design Report, RTA 2008* describes these refinements in further detail.

## 1.2 Purpose of this report

The preferred route was placed on display for community comment between 26 September 2006 and 3 November 2006. This report describes the community and stakeholder consultation undertaken during this public display period and summarises the issues raised by the community and stakeholders during and after the exhibition period.



■ Figure 1-1 Wells Crossing to Iluka Road Upgrade Project: preferred route





### 1.3 Project objectives

The upgrade of the Pacific Highway between Wells Crossing and Iluka Road needs to meet the objectives of the Pacific Highway Upgrade Program, as well as project-specific objectives. These objectives are presented in **Table 1-1**.

**Table 1-1 Pacific Highway Upgrade Program and project-specific objectives**

Pacific Highway Upgrade Program objectives	Wells Crossing to Iluka Road project objectives
Significantly reduce road accidents and injuries	<ul style="list-style-type: none"> <li>■ Provide a dual-carriageway road with a maximum crash rate of 15 crashes per 100 MVKT over the project length.</li> <li>■ A concept design which achieves a 110 km/hr design speed for the vertical alignment for Class M standard and a minimum 100 km/hr design speed for Class A standard<sup>1</sup>.</li> <li>■ A concept design which achieves a 110 km/hr design speed for the horizontal alignment.</li> <li>■ No access points between interchanges along the length of the project for Class M standard road and minimise access points for Class A standard road sections.</li> <li>■ A route that can be upgraded to Class M standard in the future (as applicable).</li> <li>■ Retain or replace existing rest areas within the study area.</li> </ul>
Reduce travel times	<ul style="list-style-type: none"> <li>■ Provide a route that minimises travel time for Pacific Highway traffic.</li> <li>■ Provide intersections designed to at least a Level of Service LOS C, 20 years after opening for the 100<sup>th</sup> Highest Hourly Volume.</li> <li>■ Minimise user delays from incidents and road closures on the Highway, including from flooding.</li> <li>■ Reduce delays from holiday congestion.</li> <li>■ Minimise disruption and delay during construction.</li> </ul>
Reduce freight transport costs	<ul style="list-style-type: none"> <li>■ Provide a route that reduces the overall freight transport costs of trucks using the Highway.</li> <li>■ A route that meets or exceeds B-Double requirements.</li> </ul>
Develop a route that involves the community and considers their interests	<ul style="list-style-type: none"> <li>■ Develop a project that meets the objectives of the Community and Stakeholders Involvement Plan and, specifically, the Criteria for Successful Projects.</li> <li>■ Minimise the physical and traffic impacts of the route such as traffic noise, intrusion, community severance, and access patterns.</li> <li>■ Minimise the physical impacts on heritage (indigenous and non-indigenous) sites.</li> <li>■ Provide transport developments that are complementary with land use.</li> <li>■ Maintain access to affected properties and land during construction.</li> <li>■ Upgrade and improve the existing Highway where it is retained as part of the project.</li> </ul>

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<sup>1</sup> 110km/hr vertical alignment is desirable for Class A standard sections (upgrading/duplication of the existing Pacific Highway) where it can be achieved cost-effectively and without compromising environmental or social impact standards.

<b>Pacific Highway Upgrade Program objectives</b>	<b>Wells Crossing to Iluka Road project objectives</b>
Provide a route that supports economic development	<ul style="list-style-type: none"> <li>■ Maintain accessibility for local industries to regional and interstate markets.</li> <li>■ Maintain access to local and regional centres of economic importance.</li> <li>■ Minimise impacts on business/service facilities dependent on Pacific Highway traffic and create opportunities for businesses to capitalise on benefits that may arise from the upgrade.</li> <li>■ Provide flood immunity on at least one carriageway between 1 in 100 year ARI flood event (target) and 1 in 20 year ARI (absolute minimum).</li> </ul>

## 2 Preferred route consultation

### 2.1 Consultation activities for the project

A consultation program was developed at the commencement of the project to provide opportunities for community and stakeholder involvement into the development of route options and in the selection of the preferred route. The objectives of the community and stakeholder involvement program are to:

- create stakeholder and community awareness of the study and the need for the Pacific Highway upgrade.
- identify community and stakeholder issues and concerns associated with the project and ensure these are effectively communicated to the project team.
- provide the community and other stakeholders with opportunities to be involved in the study process.
- create stakeholder and community awareness of route options and the preferred route.

The key elements of the consultation program include:

- permanent shop front information at the Pacific Highway Office (21 Prince Street, Grafton).
- free call project information line (1800 557 673).
- dedicated project e-mail address ([wellscrossingtoiluka@skm.com.au](mailto:wellscrossingtoiluka@skm.com.au)).
- project website ([www.rta.nsw.gov.au/pacific](http://www.rta.nsw.gov.au/pacific) (click on Wells Crossing to Iluka Road)).
- project database to record all correspondence relevant to the project, including contact details and issues raised during the correspondence.
- written communication (letters to the community and stakeholders, community updates, flyer, fact sheets, maps, route options development report and associated working papers, route options submissions report, preferred route report and associated working papers and concept design report and associated working papers).
- three community liaison groups (CLGs) – Maclean, Grafton and Tucabia.
- focus group meetings – hydrology and flooding, Aboriginal heritage, business, ecology and maritime.
- information displays (staffed and unstaffed).
- face-to-face meetings with individuals / groups.
- advertisements in local and national press (newspaper and radio announcement).

The consultation activities associated with the preferred route display are described in more detail in the following sections.

### 2.2 Preferred route display

The preferred route was displayed over a six week period from Tuesday 26 September to Friday 3 November 2006. Submissions were sought from the community and stakeholders during this display period.

### **2.2.1 Advertisements**

Advertisements were placed in the following newspapers on 26 September 2006 to inform the community of the preferred route display:

- Macleay Argus
- Daily Examiner

### **2.2.2 Static displays**

Posters presenting information about the preferred route were displayed between 26 September and 3 November 2006 at various locations in and around the study area:

- RTA Pacific Highway Office, Grafton.
- Grafton Motor Registry, Grafton.
- Clarence Valley Council, Maclean Office.
- Coldstream Gallery, Ulmarra (shopfront window).
- Tucabia Village Store.
- Wooli Post Office (shopfront window).
- Yamba Chamber of Commerce notice board.
- Brooms Head Post Office (shopfront window).
- Tyndale Roadhouse (shopfront window).

Posters were also provided to community members on request, for display in their local areas.

### **2.2.3 Information sessions**

Six information sessions were held across the study area. At each of these sessions, posters were displayed, a visual presentation was provided, and members of the project team were available to answer questions and provide further information. The information sessions were held as follows:

- Tucabia Community Hall, Clarence Street, Tucabia. Thursday 5 October 2006, noon – 4pm.
- Harwood Community Hall, Mill Road, Harwood Island. Friday 6 October 2006, noon – 4pm.
- Grafton Community Centre, 59 Duke Street, Grafton. Saturday 7 October 2006, 10am – 2pm.
- Maclean Civic Hall, River Street, Maclean. Saturday 14 October 2006, 10am – 2pm.
- Masonic Hall, River Street, Ulmarra. Monday 16 October 2006, noon – 4pm.
- Plantation Motel, Pacific Highway, Tyndale. Tuesday 17 October 2006, noon – 4pm.

Approximately 100 people visited the information sessions and spoke with one or more of the project team. During this period, local residents were able to discuss their concerns about the project including specific issues relating to their properties.

### **2.2.4 Community update**

A community update that provided visual and graphical illustrations and a description of the preferred route was released at the commencement of the display period (refer to **Appendix A**). The community update provided information about route length, the location of bridges and possible interchange locations. Details about the dates, times and venues for display locations and

contact details for the project team were also provided. The community update also provided information on the status of the projects, where to access more detailed information and what happens next.

The community update was distributed to property owners potentially affected and in the vicinity of the project and others on the project mailing list, as well as CLG members and other stakeholders. Approximately 2 000 copies of the update were sent by mail at the commencement of the public display. The update was also available for collection at the static display and information session venues, or by request. A total of approximately 3 500 copies of the community update were distributed during the display period.

### **2.2.5 Feedback form**

Postage paid community feedback forms were available during the information sessions (refer to **Appendix B**). The project website included a feedback form and enabled users to request additional information.

### **2.2.6 Flyer**

A flyer which provided a map of the preferred route was available at all display locations as well as a number of other locations in the local area, such as local service stations, post offices and the Grafton, Maclean, Yamba and Iluka libraries (refer to **Appendix C**).

### **2.2.7 Fact sheets**

Fact sheets were produced by the RTA to provide information on how road noise is addressed, how potential environment impacts are managed, how the RTA acquires privately owned land and a summary of the Part 3A environmental assessment process (refer to **Appendix D**). These were available at staffed displays and on the RTA website. They were also available at the RTA's Pacific Highway Office in Grafton.

A fact sheet was also available for the Summerland Way option that was proposed by some sections of the community and other stakeholders and investigated by the RTA.

### **2.2.8 Aerial photographs**

A series of aerial photographs, with the preferred route and cadastral boundaries overlain, were available to be viewed at the staffed displays and on the project website.

### **2.2.9 Preferred Route Report**

A number of project reports were made available to the public at the time of the preferred route display. These included the *Wells Crossing to Iluka Road Preferred Route Report, RTA 2006* and associated working papers, the *Wells Crossing to Iluka Road Route Options Submissions Report, RTA 2006* and the *Value Management Workshop Report, RTA 2006*. These reports were available to take home. Hard copies of the report were provided to the community liaison group members and to any community member upon request. The report was also available on the project website. In addition, a CD copy of the report was included in the package sent to all potentially affected property owners. In total, approximately 202 hard copies and 62 CD copies of the report were distributed on request during the display period.

### **2.3 Potentially affected property owners**

Following the announcement of the preferred route, property owners potentially affected were contacted in writing. Telephone calls were made to all potentially directly affected landowners to advise them that the preferred route had been announced, and to offer them the opportunity to meet with a member of the project team. A copy of the community update and aerial photograph(s) with the preferred route and cadastral boundaries overlain, were also sent to the potentially affected property owners to show the location of the preferred route option in relation to their property. Approximately 156 letters were sent to potentially affected property owners.

Meetings with potentially affected property owners commenced on 27 September 2006. Approximately 163 meetings were held, both individually and in groups. Some property owners indicated that they did not want additional information or further discussions at that time. Meetings with property owners have continued as part of ongoing project consultation.

The main purpose of meeting with the property owners was to discuss the preferred route selection process, to answer their questions and to provide information about property acquisition if requested. These meetings were also important in the identification of specific issues relating to individual properties that may need consideration during further refinement of the preferred route. An RTA representative attended all property owner meetings. Any concerns or comments were relayed to the project team for further consideration.

### **2.4 Liaison with Clarence Valley Council**

Members of the project team presented the preferred route to councillors and senior staff of Clarence Valley Council on 10 October 2006. Meetings have also been held with Council officers in relation to planning, floodplain management, economic development and heritage. Consultation with the Council is ongoing and has included representation from Council on the community liaison groups and focus groups for ecology, business, hydrology and flooding, and maritime issues.

### **2.5 Community liaison groups**

Three separate community liaison groups were formed for the project – Grafton, Tucabia and Maclean. The groups were ongoing from the start of the project until the announcement of the preferred route. Members participating in the groups resided in areas across the study area and in its surrounding areas but did not represent individual communities. The purpose of the groups was to facilitate two-way communication between the community and project team to exchange information, further develop the project and to gain local knowledge regarding key issues within and around the study area.

Meetings were held individually with each community liaison groups or as a combined group when appropriate. Seven meetings were held as part of the route options and preferred route selection processes:

- 7-9 December 2004 - Maclean, Grafton and Tucabia CLGs.
- 22-24 February 2005 – Maclean, Grafton and Tucabia CLGs.
- 3-5 May 2005 – Maclean, Grafton and Tucabia CLGs.



- 23 June 2005 – combined CLG.
- 9 November 2005 – combined CLG.
- 23 March 2006 – combined CLG.
- 18 October 2006 – bus tour of preferred route.

## 2.6 Focus groups

Focus groups have been established to discuss business, hydrology and flooding, Aboriginal, ecological and maritime issues. The following meetings were held as part of the route options and preferred route selection processes:

- Aboriginal - 23 May 2005, 7 November 2005, 6 February 2006, 24 February 2006, 23 October 2006 and 6 September 2007.
- Hydrology and flooding - 23 June 2005, 8 November 2005 and 24 October 2006.
- Ecological - 7 November 2005, 24 February 2006 and 23 October 2006.
- Business - 8 November 2005 and 19 October 2006.
- Maritime - 7 March 2006 and 19 October 2006.

The focus group meetings were held to discuss specific technical issues of the project. Participants are invited on the basis of their specific interest, knowledge and experience relevant to the issues.

In addition to these focus groups, potential impacts on the cane industry were also highlighted as a key concern, and accordingly several meetings occurred with the cane industry during the refinement of the preferred route and development of the concern design (refer to the *Cane Industry Working Paper* [RTA, 2008]). This included meetings with individual property owners. Key meeting dates for the cane industry were as follows:

- Clarence Cane Growers, NSW Sugar Milling Cooperative and the Harwood Sugar Mill – 16 March 2007.
- Clarence Cane Industry Committee – 8 August 2007 (following meetings with individual property owners).
- Cane industry precinct groups – 21 and 22 August 2007 (four meetings).

## 2.7 Project website

The project website [www.rta.nsw.gov.au/pacific](http://www.rta.nsw.gov.au/pacific) (click on Wells Crossing to Iluka Road) was established at the commencement of the project in 2004 and has been regularly updated. The website provides extensive updated project information including:

- Electronic copies of all project reports including the preferred route report and the submissions report
- Copies of the preferred route maps
- Interactive version of the aerial photography
- Community flyer and update
- Notes from all focus group meetings

This Submission Report, the Concept Design Report and its associated working papers and the community update are available on the website as part of the concept design display.

## **2.8 Submissions included in this report**

Submissions included in this report include those received during the preferred route display period (26 September to 3 November 2006) and after the display period up until 31 May 2008. While the project team considers submissions at any stage, this report provides a response to those submissions received between 26 September 2006 and 31 May 2008.

## 3 Submissions on the preferred route

### 3.1 Overview of submissions

Forty-six submissions from approximately 42 separate households were received in response to the preferred route display. A further 270 communications (phone, fax, letter or email) were received after the submissions period closed. Many of these communications did not relate to the preferred route or concept design and as such were responded to separately to this report.

**Table 3-1** provides a breakdown of the correspondence type for the submissions received in response to the preferred route display by method of correspondence.

■ **Table 3-1: Submissions received from the community and stakeholders during the submissions period**

Correspondence type	Number received
Submissions received by email	2
Submissions received by letter	39
Submissions received by fax	3
Submissions received by the Minister for Roads	2
Total number of submissions received	46

Submissions were received from across the entire study area and surrounding areas. The majority of the submissions were received from community members and stakeholders residing within the study area and its immediate vicinity (i.e. within 20km of the study area).

Submissions were received in a number of forms, including letter, fax and email. A community feedback form was provided during the preferred route display period and on the project website to allow members of the community and other stakeholders an easy and reply paid mechanism for providing comment to the project team on the preferred route.

### 3.2 Recording and analysis of submissions

Submissions were acknowledged by letter and the issues raised were recorded in the project database. Contact details were recorded in the database and comments provided by the respondents were categorised based on the nature of the issues raised. Specific issues were then referred to the relevant project team member for a response.

The author of each submission was assigned a unique stakeholder identification number to allow the issues to be tracked. Where numerous submissions were received from the same household, one stakeholder identification number was assigned to the household. **Appendix E** contains an alphabetical list of submission authors along with the stakeholder identification number and a summary of the issues raised. Where individuals requested for contact details to be withheld, these names have not been included in the list of submission authors. However, the issues raised by these individuals have been included in this report.

### **3.3 Issues raised by community and stakeholders**

The issues raised in the submissions, and responses addressing these issues, are presented in the following sections. The issues have been summarised, and in some instances paraphrased, both to provide clarity and to minimise duplication.

The predominant issue raised in the submissions from the community and stakeholders relates to concerns over the route selection process and the selection of the refined Purple/B option as the preferred route. Such concerns include dissatisfaction with the route selection process, a preference for one of the alternative route options as the preferred route and a preference for the consideration of a new option (i.e. such as an inland corridor).

In addition to concern over the route selection process, the following key issues were also raised:

- Impacts of the preferred route on flooding, drainage and aquatic ecosystems, in particular the proximity of the preferred route to the floodplain of the Clarence River.
- Impacts on private property, as many land holdings in this region have been in the family for many generations.
- Impacts regarding loss of prime agricultural land with many submissions dealing with cane land and grazing land and the associated economic implications of the preferred route on individual farmers and the industry as a whole.
- Impacts on rural and residential property and land use, including impacts on private property, access, the loss of potential land use opportunities and property severance.
- Local economic impacts, particularly in relation to impacts on land use, private property and tourism.
- Significance of impacts on local flora and fauna, primarily in terms of impacts on endangered ecological communities, SEPP 14 wetlands and threatened species. Particular emphasis was placed on the Coastal Emu population and impacts of the preferred route on the movement corridors of this species and the requirement for mitigation and management of potential impacts.
- Risk of pollution associated with the construction of a highway close to a major river and the need for effective management.
- Impacts on indigenous and non-indigenous heritage items.
- Impacts on quality of life and visual aesthetics, with specific issues including noise, visual intrusion and emissions.
- Although it was recognised that the preferred route would improve driver safety, there is a concern that personal safety of those close to the highway could be compromised.

### 3.3.1 Route selection process

Issue No.	Comments on route selection process	Response	Stakeholder ID
1	<p>We have reviewed the Preferred Route report and note that on page 160 it states “in the area around the Coldstream River and Wooli Road there is a potential opportunity for further refinement of the preferred route, and for this reason this area has been identified as being subject to further investigation”. As our property is approximately 500 metres from the currently displayed Preferred Route we would like to better understand the issues being considered and have input into this “further refinement”.</p>	<p>At the time of the announcement, the RTA indicated that the preferred route would be further developed in consultation with affected landholders and the community to minimise impacts to properties. A landholders’ workshop was held on April 2007 and formed part of the process to refine the corridor and develop appropriate mitigation strategies in the Old Six Mile Lane to Wooli Road section of the route. Participants of the workshop comprised landowners affected by the upgrade between Old Six Mile Lane and Wooli Road.</p> <p>Following assessment of the refinements developed at the workshop, the preferred route has been refined between Old Six Mile Lane and Watts Lane. The preferred route has been moved further east of the Grafton airport, turns off the existing highway at Glenugie (approximately 1km earlier) and is located further south along Old Six Mile Lane. This refinement would improve property management along Old Six Mile Lane.</p> <p>A summary of the assessment of the alternative alignments and refinements between Old Six Mile Lane and Wooli Road is provided in Section 2.3.1 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>.</p>	157
2	<ul style="list-style-type: none"> <li>■ The nominated route does not reflect the wishes of the NSW voters. The protests of a diverse representation of the community have not been addressed in selecting the Preferred Option. Certainly the anticipated gains of this nominated route have not been adequately considered against the anticipated losses when the issues have their values of our society applied to them. The Inland Highway via Kyogle has been the preferred route of the vocal majority for a new Motorway from Sydney to Brisbane, not the Pacific Highway. The public has expressed its wishes to have the Pacific Highway upgraded to only dual lanes each way, and not cross through Pillar Valley at Wants Lane. The eastern ‘turn’ near Wants Lane of the newly proposed Motorway is against the wishes of taxpayers. The route must not diverge east near Grafton Airport.</li> <li>■ Construct the new highway on the Summerland Way, give Grafton an additional "new" bridge, and get the B Doubles and most of the "through" traffic to use it. This will provide an</li> </ul>	<p>The Member for Ballina and others suggested a four-lane dual carriageway inland corridor that follows the Summerland Way to south of Casino, then follows a new east-west route to join the Pacific Highway at Tyagarah/Ewingsdale, near the turn-off to Byron Bay. The group also supported safety upgrades on the Pacific Highway, such as a bypass of Ballina.</p> <p>At the request of the (then) Minister for Roads, the Hon Joe Tripodi MP, a fresh look at the issues surrounding the inland corridor was undertaken by the RTA.</p> <p>Two options for the inland corridor were put forward, and have been further developed by the RTA in order to achieve engineering standards and minimise impacts where possible.</p> <p>The RTA examined both alternatives at a strategic level to quantify the key physical features of each in terms of road length and width, horizontal and vertical alignment, the extent of earthworks, cut and fills and key physical, environmental and</p>	297,272, 1521

Issue No.	Comments on route selection process	Response	Stakeholder ID
	<p>adequate solution for the Pacific Highway and will involve less construction than the Preferred Option.</p> <ul style="list-style-type: none"> <li>■ A new corridor should be established from Doubleduke so that the highway, rather than turning southeast towards Mororo, would continue on its south-westerly alignment to Gurrang. Should this corridor be too flood-prone, an alternative corridor could be established via the Richmond Range to Banyabba. The highway would follow the rail line corridor directly south to Southgate, then continue due south through Swan Creek to link up with the present highway. A shorter alternative corridor may be possible east of Warragai Creek State Forest. Funds would not need to be split between two corridors as the highway would be upgraded north of Doubleduke, and only relatively minor upgrades to the present highway between Doubleduke and Grafton would be necessary to improve safety for mainly local traffic. The shortened inland route could be built in stages: either the stage from Doubleduke to link up with the present highway at Swan Creek could be built first, or the Swan Creek to Glenugie section could be built first, with both scenarios having immediate benefits for safety and travel times. All socio-economic, safety, financial, environmental, hydrological, ecological, heritage and geo-technical considerations make compelling arguments for the shortened inland corridor as by far the most effective means of upgrading the Pacific Highway through the Clarence Valley.</li> <li>■ The Preferred Route potentially impacts sensitive ecological communities and State forest. No such impacts occur with the shortened inland corridor.</li> </ul>	<p>social constraints.</p> <p>The <i>Technical Review of inland corridor (via Summerland Way)</i>, RTA 2006 found that upgrading the Pacific Highway to a high-standard, four-lane highway would provide the most cost-effective solution compared to an inland corridor. It states that the inland corridor is not a viable alternative to upgrading the Pacific Highway between Grafton and Tyagarah/Ewingsdale because:</p> <ul style="list-style-type: none"> <li>■ It would not take traffic off the Pacific Highway.</li> <li>■ The traffic that would use the Summerland Way would not justify the cost.</li> <li>■ It would cost more than the Pacific Highway upgrade.</li> <li>■ The Pacific Highway would require upgrading even if the Summerland Way was built.</li> <li>■ Since the majority of traffic would remain on the Pacific Highway, the route would require continued investment in terms of maintenance and improvements even if the inland corridor was built.</li> </ul> <p>Preliminary investigations undertaken as part of the report also identified that the inland alternatives would impact on pockets of native vegetation. At least 30 threatened plant species are likely to be present in bush areas.</p> <p>This report is available on the RTA's website (<a href="http://www.rta.nsw.gov.au">http://www.rta.nsw.gov.au</a>).</p> <p>The RTA also undertook a feasibility study for an additional crossing of the Clarence River in the vicinity of Grafton in February 2003. This project is separate from the Pacific Highway Upgrade Program and is not being considered as part of the Wells Crossing to Iluka Road project. It can be accessed on the RTA website.</p>	
3	<p>The balance of the selected route can be understood, however, why was the Total Waterway Length not further assessed for the Green/C Option? Was this Option withdrawn from consideration? [Refer to <i>Hydrology &amp; Hydraulics Working Paper</i> Section 6.1].</p>	<p>Further hydrological assessment of the Green/C option was not required because, in comparison to the other options, the Green/C option is less complex in regard to crossings of floodplain areas.</p> <p>This option was not withdrawn from consideration as a route option.</p>	612



Issue No.	Comments on route selection process	Response	Stakeholder ID
4	<p>The RTA and others have decided to position the highway as close to us as they have instead of running it in a straight line through the Pine Brush State Forest. To say that it was done so as to not sever the forest is hypocritical, as they have done exactly that at the Glenugie Interchange. Maybe there are other reasons for the route selected, other than protection of the state forest, but from what I know of the area and from what I have seen of the forest it is nothing but worthless scrub country that would not feed a billy goat. Maybe it's about time the wellbeing of people is put before that of worthless scrub or the occasional kangaroo.</p>	<p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. Adverse and positive effects were considered for all factors, including state forests and people and property. The preferred route selected is the one that is considered to offer the best solution, on balance, based on the combined consideration of all factors. The selection of the preferred route in the Pine Brush State Forest region involved consideration of a number of factors, including severance impacts on state forest, property impacts, topographical constraints and flooding impacts.</p>	653
5	<p>Route selection appears to have been strongly influenced by interest group lobbying. The State government has sacrificed a handful of possible votes from farmers to appease Labour and Green voters. This is not the best route for the highway, but a political decision aimed at recapturing the current Labour seat. As the Federal government is partly funding this project, I am hoping that you would be able to influence a revision of this route.</p>	<p>The Pacific Highway Upgrade Program Objectives and the specific project objectives formed the basis for the identification and evaluation of options. An extensive consultation program has been undertaken as part of the project and inputs from a variety of stakeholders have been taken into consideration as part of the route selection process.</p>	971
6	<ul style="list-style-type: none"> <li>■ The eastern route options were never likely to be selected because the RTA could never stage them so it was a waste of time and money considering them. The only positive thing about the Purple Option is that the crazy idea of putting a 27km obstruction across a floodplain has been averted to some degree.</li> <li>■ The Purple Option has not been illustrated fairly. The grey line on the map did not indicate what you had planned and was therefore deceptive.</li> <li>■ The option that is now being presented as the Preferred Option was not displayed in the initial proposals as an option. This option should have gone on public display and been open to public comment prior to its selection.</li> </ul>	<p>The options described in the <i>Wells Crossing to Iluka Road Route Options Development Report, RTA 2005</i> were considered feasible route options. The preferred route selected is the one that is considered to offer the best solution, on balance, based on the combined consideration of all factors. The ability to stage construction was one factor of the range of considerations assessed as part of the selection of the preferred route.</p> <p>As outlined in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>, a range of inputs and investigations occurred between the display of the route options and the selection of the preferred route. The process for developing and modifying route options and selecting the preferred route is discussed in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>.</p> <p>The development of route options is an iterative process and the refined Purple/B option (ultimately selected as the preferred route) represents a combination of the original Purple/B option augmented with various refinements to mitigate against potential impacts. These options were described in Section 4 of the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>.</p>	1108, 2792, 2966

Issue No.	Comments on route selection process	Response	Stakeholder ID
7	<p>My main concern relates to the apparent lack of preliminary assessment undertaken for the nominated options, in particular section 6 of the Purple Option, which deviates from the Pacific Highway near the Eight Mile Road turnoff, traversing flood prone areas towards Pillar Valley. As an environmental planner I am aware of the development process and the associated requirements and expectations for environmental assessment. Accordingly I am astonished and disappointed at the lack of adequate preliminary assessment carried out in relation to Lavadia wetland and associated natural drainage lines that would be impacted by the Purple Option.</p> <p>Lavadia Wetland is located on my parent's property on Wants Lane, directly in the path of the proposed highway. The wetland and adjacent remnant vegetation provide important habitat to various flora and fauna (including the vulnerable Comb-crested Jacana, Pied Goose, Brolga, and the endangered Black-necked Stork). During and after the annual floods, the wetland plays a significant hydrological and ecological role in processing the flood water, providing a natural drainage line to the Coldstream River and Upper Coldstream SEPP 14 wetland. After the floods, the wetland remains filled with water for many months, during which time it provides a safe refuge for many species. As a system, the wetland and adjacent remnant vegetation work hand in hand to provide important habitat and play an important role in ecological processes.</p> <p>I am aware that concerns regarding the ecological significance of the area directly affected by sections 1 and 6 of the Purple Option were raised at a stakeholder meeting. Additionally, I was lead to believe, after reading an announcement made following the stakeholder meeting, that the need had been identified for further assessment of the ecological significance of sections 1 and 6 of the Purple Option. However, after meeting with the environmental team leader of SKM and talking with the RTA project manager, it is apparent that this further assessment was limited to a visit to one site, including a wetland slightly away from the path of the highway route. It did not include any assessment of the obviously significant Lavadia wetland (located in the direct path of the proposed highway). The environment team leader responded to my concerns by saying that "given the scope and scale of the project an</p>	<p>Section 1 of the Purple option refers to section 1 of the preferred route and section 6 of the Purple option refers to the beginning of section 2 of the preferred route at Eight Mile Lane. The preliminary ecological investigations reported for the route options assessment provided broad-scale mapping for the distribution of endangered ecological communities across the study area. As part of the preferred route selection, targeted field studies were undertaken between July and October 2007. Investigations of endangered ecological community wetlands and other wetlands including the Lavadia wetland were also undertaken during this period. Refer to the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> for further information.</p> <p>In addition, as part of the development of the concept design phase of the project, ecological field investigations have been carried out on all affected properties. These field surveys provided more detailed ecological information and have been used as input into the concept design. For example, the preferred route has been refined to the east of Tucabia at Tallowood Lane in order to minimise impacts on high quality endangered ecological communities. Refer to the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> and Section 13.2 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> for further information.</p> <p>In terms of selecting the preferred route between Wells Crossing and Pillar Valley, sections 1 and 6 and section 9 were comparatively assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. Sections 1 and 6 were selected because they would have a lesser impact on fauna corridors and native vegetation loss including high value habitat. The decision was made in context of understanding that there was more impact to the wetlands with sections 1 and 6.</p> <p>The environmental investigations undertaken during the selection of the preferred route were of a sufficient level of detail to assess the relative impacts of route options and are consistent with the approach used to develop a preferred route for other Pacific Highway projects.</p>	2187

Issue No.	Comments on route selection process	Response	Stakeholder ID
	<p>assessment of each property is not feasible”.</p> <p>It is apparent to me that the assessment of the potential impacts on the Lavadia wetland was inadequate in that it either (a) ignored the obvious importance of the area or (b) failed to recognise its significance. Either way, the environmental assessment undertaken was below standard and is totally unacceptable given the magnitude of the project at hand and its impacts. Additionally, it is clear from the reports I have read regarding the selection of the preferred route that important information regarding the Lavadia wetland is either inaccurate or missing. For example, the Q100 flood line is inaccurate and has not been indicated in the right location. Given the importance of these floods in the ecological functioning of the Lavadia wetland, Coldstream River and Upper Coldstream SEPP 14 wetland, this inaccuracy has consequences in terms of the validity of much of the other information presented in the reports.</p> <p>What were the deciding factors in selecting the combined Orange and Purple Option sections 1 and 6 rather than the combined Red and Green Option section 9?</p>	<p>The Q100 flood level was identified through modelling undertaken as part of the <i>Wells Crossing to Iluka Road Route Options Report, RTA 2005 and the Wells Crossing to Iluka Road Preferred Route: Hydrology and Hydraulics Working Paper, RTA 2006</i>. The Lower Clarence River Flood model, as developed for Clarence River County Council between 2000 and 2004, was used to model the Clarence River catchment. Major local catchments outside the Clarence River catchment were modelled through developing detailed Watershed Boundary Network Model (WBNM) hydrologic models. Hydrologic assessment of minor local catchments were carried out using the Rational Method.</p> <p>Further detailed investigations would be undertaken as part of the environmental assessment phase of the project, including development of appropriate management and mitigation measures where required.</p>	
8	<p>The RTA claims to have taken a precautionary approach in respect of ecological impacts in selecting Option Purple/B over Options Green/C and Red/D. The fact that this has ruled out Options Green/C and Red/D does not provide any logical reason to not continue to apply a precautionary approach. In fact, it is entirely logical to apply the same principle again in then considering its preferred route against Option A. It is not a use once only kind of principle. It is one to use whenever there are risks of serious or irreversible environmental damage about which we do not have entirely certain scientific understanding or knowledge. If ever there was a case for the precautionary principle, the selection of a highway route is one, particularly when there is a readymade alternative (the existing highway route) that has significantly fewer risks.</p>	<p>The precautionary principle calls for care to be taken in the face of any actions that may affect <i>people or the environment</i>, no matter what science is able -- or unable -- to say about that action. This principle has been applied consistently throughout the route selection process for this project. It is important to note that the precautionary principle does not only apply to ecological considerations but also relates to other potential impacts (including the socio-economic impacts associated with Option Orange/A).</p> <p>The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	2414
9	<p>With everything we know about the biology of the area, the native vegetation and high value habitat that will be lost, the impacts on threatened species, and all the legislation we have to protect the environment, why would the RTA chose the Preferred Option over the upgrading of the existing highway? The 3 or so minutes saved</p>	<p>Under a Class M standard, the preferred route would provide an 11 minute saving to travel times between Wells Crossing and Iluka Road in comparison to the existing highway.</p> <p>However, the route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/</p>	2414

Issue No.	Comments on route selection process	Response	Stakeholder ID
	<p>by the development of the Preferred Route relative to the upgrade of the old highway is no reason, surely. If it is, what a tragic indictment of humanity.</p> <p>The Preferred Route will impact on areas of Aboriginal significance, while an upgraded existing highway will not (or at least, not much more than it already has). The number of properties affected appears to be almost identical at 169 to 175. The Preferred Route will impact about one third to one half the amount of prime agricultural land impacted by Option A. However most of the prime agricultural land to be impacted is cane growing land. Surely it is time that we let go of an industry that employs almost no one, which is environmentally negligent, which produces a product that is bad for us, and which has to be subsidised by the taxpayer to function. Route B will reduce design and construction costs as it crosses less flood prone areas than Option A. There may be substantial soil stability and excavation constraints in some low lying areas of Option A, however the RTA says that these constraints are mainly construction costs and time. Thus cost seems to be the core issue.</p> <p>The total cost difference between upgrading the existing highway and building the cheaper Preferred Route seems to be about \$400 million. The RTA says the Preferred Route has been selected because it provides the best balance of objectives when all the assessment criteria for the project are considered. Yet given that it is less safe and more environmentally destructive than Option A and these other issues appear to be less than significant factors, cost seems to be the most significant factor.</p>	<p>engineering factors. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p> <p>Travel time and cost considerations were two of a number of issues that were considered in the selection of the preferred route. Key disadvantages of upgrading the existing highway between Glenugie and Tyndale include increased social impacts such as noise and property acquisition and increased flooding risk associated with the Coldstream Basin.</p> <p>Consultation with Aboriginal groups throughout the project has been substantial. The preferred route would not affect areas of cultural significance and effort has been made to mitigate potential impacts through the route selection process and the development of the concept design.</p> <p>The preferred route would affect significantly fewer houses than an upgrade of the existing highway. Between Wells Crossing and Harwood Bridge, the preferred route would require the acquisition of approximately 34 houses, while Option A would potentially acquire approximately 175 houses (Refer to the <i>Wells Crossing to Iluka Road Route Options Development Report, RTA 2005</i> and the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>).</p> <p>As stated in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>, the Orange/A option would affect approximately 465 hectares of prime agricultural land between Wells Crossing and Harwood Bridge, whilst the preferred route would affect approximately 220 hectares.</p> <p>The sugar industry is one of the single largest industries on the NSW north coast and accounts for approximately \$230 million of regional economic output each year. The preferred route affects cane land, although where the preferred route deviates from the existing highway (between Glenugie and Tyndale), the agricultural land affected is predominantly dairy and grazing land and not considered prime agricultural land.</p> <p>The route options were assessed on the basis of social, environmental and functional issues and cost considerations. A combination of Option Green/C or Red/D would have resulted in the cheapest option.</p>	

Issue No.	Comments on route selection process	Response	Stakeholder ID
		The preferred route would provide a safe road to the community that would meet the appropriate design and safety standards.	
10	You have no right to disrupt us in such a way, just to make a trip by road between Sydney and Brisbane faster. How can you even consider this as the Preferred Route? In my neighbourhood alone, there are twelve family homes within one kilometre either side of the highway and I know there are literally hundreds more people devastated by this choice in the same way. No consideration has been taken into account of the impacts on residential properties and agricultural lands.	<p>It is acknowledged that the preferred route would have impacts in terms of lifestyle and noise. The highway upgrade is not only aimed at improving travel times but improving safety performance and access to growing communities on the North Coast of NSW. The objectives of the Pacific Highway upgrade and project specific objectives are documented in Section 1.3 of the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>. Consideration was made to impacts on residential properties and agricultural land during the decision making processes. These considerations were documented in Section 3.4 of the <i>Wells Crossing to Iluka Road Preferred Route Report. (RTA 2006)</i>.</p> <p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. Direct and indirect property impacts have been a key consideration in the selection and design of the preferred route. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	2792

### 3.3.2 Other route options

Issue No.	Comments on other route options	Response	Stakeholder ID
11	As concerned residents of Tyndale who are no longer directly affected by the upgrading of the Pacific Highway, we are still very much concerned by the adoption of the Orange/ A Option adjacent to the bank of the South Arm of the Clarence River for the section of the route between Tyndale and Shark Creek. From the information supplied, there appears to be little disadvantage in adopting the Purple/ B Option for this section of the route. According to the <i>Hydrology &amp; Hydraulics Working Paper</i> , the continuation of the Purple/ B Option until it joins the Orange/ A Option at Shark Creek is a more viable route than the Orange/ A Option between Tyndale and Maclean. For example, the Orange/ A Option requires a bridge of approximately 720m whereas the Purple/ B Option requires only a number of smaller bridges. Referring to the published <i>Preferred Route Report</i> dated September 2006, the selection of the Purple/ B	<p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. All route options have advantages and disadvantages when considered against the criteria. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors. Between Tyndale and Shark Creek, the preferred route, in comparison to the Purple/B option, provides the following benefits:</p> <ul style="list-style-type: none"> <li>■ Reduced engineering risk associated with construction on soft soils.</li> <li>■ More effective access to the highway, local road network and village of Tyndale.</li> </ul>	612

Issue No.	Comments on other route options	Response	Stakeholder ID
	<p>Option instead of the Orange/ A Option for the Tyndale to Shark Creek section would have the following advantages: i) it would allow the highway upgrade to be undertaken in stages; ii) it would have less impact on residential and agricultural land uses between Tyndale and Maclean; iii) it would still avoid the large areas of Coastal Emu habitat and movement corridors around Shark Creek and Gulmarrad; and iv) it would remove the necessity and associated expense of constructing a service road. The proposed interchange at Tyndale could be re-located to the Shark Creek area with less impact on the community and at a reduced cost to the State. The Cane Farmers Association advises that the closer the land to the river, the more productive and valuable it is. As such, the Purple/ B Option, is less damaging to this industry.</p>	<ul style="list-style-type: none"> <li>■ Increased opportunities for staging of construction.</li> <li>■ Reduced impact on native vegetation, wetland areas and endangered ecological communities.</li> </ul> <p>The provision of the interchange at Tyndale would greatly improve the performance of the preferred route in terms of attracting local and regional traffic between Tyndale and Harwood Bridge. This performance would be diminished with an interchange at Shark Creek, as would be required for the Purple/B option.</p> <p>The strategic cost estimates for both the preferred route and Purple/B option between Tyndale and Shark Creek were similar.</p> <p>From a hydrological perspective, it is recognised that both options would encounter the 1:100yr floodplain and that the preferred route would require longer bridge lengths in the vicinity of Shark Creek. Between Tyndale and Shark Creek, the preferred route would tend to use the levee of the existing highway. However, since this is not sufficiently elevated to provide flood immunity, most of the preferred route within the floodplain would need to be raised, typically between 1.5 to 2.5m. However, the Purple/B option would not be situated on the elevated levee and would therefore require higher embankments and more imported fill.</p> <p>The decision to proceed with the preferred route instead of the Purple/B option was made in context of understanding that there are greater social impacts associated with the preferred route. The recommendation to proceed with the preferred route was subject to investigating refinements that would improve the social and local economic performance of the preferred route. As such, the preferred route at Tyndale has been re-aligned to pass to the east of the service station, caravan park and some residences fronting the existing highway to avoid direct property impacts. In addition, an assessment of the impacts of the preferred route on the operation and viability of the cane industry was also undertaken. Refer to <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Assessment Working Paper, RTA 2008</i> for further information.</p>	



Issue No.	Comments on other route options	Response	Stakeholder ID
12	<ul style="list-style-type: none"> <li>■ Your report identifies an alternative route that (in comparison to the preferred route option) is shorter, less expensive, has more suitable foundations, is less disruptive to housing, has less impact on flooding and has less effect on the sugar industry (which is by far the largest employer in this area). We therefore ask that you reconsider your preferred route in favour of one further to the east.</li> <li>■ Our disappointment in your route selection decisions continues. We saw this as an opportunity for the RTA and Government to make a sound decision and build a modern and lasting highway along the eastern route option corridors (a combination of Red and Green Options as proposed by the NSW sugar milling Co-op) where people's livelihoods would not be as drastically effected.</li> <li>■ We have been involved in submissions for the upgrade since the outset of the upgrade process and find the chosen Preferred Route extremely unsatisfactory. We reiterate our prior submissions that the Orange/ A Option is preferable due to a large number of factors. In particular it has the smallest construction footprint (in comparison to the other options), a lesser impact on threatened species (especially the endangered Coastal Emu) and endangered ecological communities, a lesser impact on local residents and land use, and road safety advantages (it has the lowest number of predicted road crash fatalities). The Nature Conservation Council reiterates our previous request for reconsideration of the chosen Preferred Route, and strongly recommend the Orange/ A Option</li> </ul>	<p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. All route options have advantages and disadvantages when considered against the criteria. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p> <p>In functional terms, the preferred route balances the travel time needs of through traffic with the importance of delivering benefits for the high proportion of local and regional highway users.</p> <p>The social impacts of the preferred route are shared between communities within the study area and have been balanced with the need to maintain local access for highway related businesses and to encourage future economic growth.</p> <p>The preferred route best addresses the principles of ecologically sustainable development. Areas of greatest ecological value, such as endangered ecological communities and nature reserves, are mostly avoided and while some impacts are unavoidable, it is considered that the preferred route has a manageable level of environmental impact when considered in the context of other project objectives.</p> <p>A significant benefit of the preferred route is the ability to stage construction by building sections of the preferred route and undertaking improvements to the existing highway. It provides a cost effective solution to the achievement of the objectives of the project for all traffic that uses the highway.</p> <p>While the preferred route provides a number of advantages, a number of issues and potential impacts will need to be addressed in more detail in the next stages of the project.</p>	1148, 1517, 2032
13	<p>The following route alternatives should be considered:</p> <ul style="list-style-type: none"> <li>■ move the road east 2 km away from the Airport;</li> <li>■ turn off old highway 1km earlier;</li> <li>■ go NE or north side of Sandy Crossing; and</li> <li>■ save a few km and stay out of the Six Mile area.</li> </ul>	<p>Following the announcement of the preferred route, a number of community suggested route alternatives and refinements were investigated, including a route similar to the one described in this submission. These suggestions were investigated and, as a result the preferred route has been moved further east of the airport. The refined route turns off the previous route alignment approximately 1km to the south, and is located further south along Old Six Mile Lane. This refinement would improve property management along Old Six Mile Lane.</p>	640

Issue No.	Comments on other route options	Response	Stakeholder ID
		Further detail regarding the refinements of the preferred route is available in Section 2.3.1 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> .	
14	Suggests three refinements to the preferred route in the area between Somervale Road and Pine Brush Forest to reduce property and environmental impacts. Option One is similar to the preferred route but moved at least 20 metres further east which would avoid our house yard and water tank. Option Two is a variation of the original purple option. By going slightly to the east of the original purple route it would miss most of the endangered ecological community. Option Three removes the eastward bend in the motorway, is shorter and doesn't involve cutting through ridges, it avoids the endangered ecological community and the semi-rainforest gullies; and it only affects one additional grazing property that is not already affected by the preferred option.	Following the announcement of the preferred route and in consultation with this landholder, further field investigations were undertaken in the Tallowood Lane area to determine whether the preferred route could be refined to avoid impacts on residences while also minimising impacts on endangered ecological communities (EECs). The further investigations resulted in a refinement to the preferred route in this area approximately 250m west of the previous alignment to provide the following benefits: <ul style="list-style-type: none"> <li>■ Reduced fragmentation of high quality habitat in the area to the north of Somervale Road.</li> <li>■ The route would be more closely aligned with property boundaries along Tucabia-Tyndale Road, Tucabia.</li> <li>■ A residence would not need to be acquired and demolished.</li> </ul> This refinement was similar to Option 2 as identified by the respondent. Further detail regarding refinements to the preferred route is available in Section 2.3.1 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> .	949
15	The motorway could be moved over to the western side of Firth Heinz Road at Pillar Valley. By diverting it more away from our home, to the end of our western paddock or further, you would not run directly into the massive inland water body that is directly in front of our property and is prone to flooding.	The preferred route follows the alignment of Firth Heinz Road in this location. Firth Heinz Road would be realigned to the east of part of the upgrade so that local access is maintained. Culverts would have been incorporated into the design of the realigned Firth Heinz Road to minimise impacts of localised flooding. Refer to the concept design plans in Appendix A of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> .  A number of factors have informed the alignment of the preferred route. Potential impacts on flood behaviours are a key consideration in the project and specific impacts have been considered and addressed as part of the concept design. The project team considered this request and found that the endangered ecological communities are a key environmental constraint in this area. Consequently, the preferred route has been retained in its current position at Firth Heinz Road, Pillar Valley.	954

Issue No.	Comments on other route options	Response	Stakeholder ID
16	When all factors are considered, the obvious option choice is a blend of the C and D Options. No doubt many of these considerations were the reason the Tyndale Connection, with its higher ground and existing highway frontage, was put forward as 'preferred'. As a landowner on both sides of Bondi Hill, I urge the RTA to stay with the Tyndale Connection and not consider the old Purple B Option to the east of Bondi Hill.	The preferred route in this location is unchanged and is situated on the western side of Bondi Hill.	971
17	The shorter Green and Red Options, which I referred to in my initial submission, should be readdressed and constructed as a toll road section of the Pacific Motorway. The shorter route would be cheaper to construct and the introduction of a toll would address construction funding issues.	Comment noted. There are no current proposals for tolling this section of the Pacific Highway. While both State and Federal governments have considered obtaining assistance from the private sector to finance the upgrading of the Pacific Highway, no decision has been made at this stage.	1176
18	If the middle section (the Purple Option) were to be started first and then joined to the Orange on either end when it is completed, then the Orange and Purple sections that are overlapping could be upgraded gradually, last of all, allowing the traffic to flow without as much interruption for a longer period of time. This proposal would also speed up our deliverance from current highway noise impacts. It would also give some of those people who will be affected in the Purple area a chance to buy new homes (with their compensation) earlier.	Comment noted. Some possibilities for staging the construction of the preferred route are discussed in Section 15.3 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> . The staging of construction for the preferred route would be determined at a date closer to construction and is dependent upon a number of factors including source and availability of fill and funding.	2252
19	<ul style="list-style-type: none"> <li>■ Why not use the existing highway route? What about the upgrade a few years ago of the highway into Grafton?</li> <li>■ The Preferred Route now offered affects 12 family homes within 1km either side of the Highway in my neighbourhood alone. Why not use the existing highway route?</li> </ul>	<p>An upgrade of the existing highway was investigated as part of this project and was not progressed. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p> <p>The preferred route follows the existing highway alignment between Wells Crossing and Glenugie and from Tyndale to Iluka Road. Key disadvantages of upgrading the existing highway between Glenugie and Tyndale include increased social impacts such as noise and property acquisition and increased flooding risk associated with the Coldstream basin.</p>	2966
20	If the preferred route goes ahead, it creates the problem of where does the local traffic go? There is presently a lot of local traffic which commutes between Grafton, Tyndale, Maclean and Yamba. Many of these road users do not like to use the highway and are starting to use the back local roads, such as Woodford Dale Road, the Lawrence to Maclean road (on Woodford island) and the Grafton to Lawrence road. If the Orange or Purple route is selected,	<p>The respondent's comments are noted.</p> <p>Interchanges have been strategically located to ensure that access between townships, including Grafton, Tyndale, Maclean and Yamba, is maintained.</p> <p>There are no proposals to upgrade Woodford Dale Road, the Lawrence Road to Grafton or the Lawrence Road across Woodford Island as part of the Wells Crossing to Iluka Road</p>	2973

Issue No.	Comments on other route options	Response	Stakeholder ID
	<p>you will find an increasing use of these roads by locals (especially elderly drivers). This will in turn require these roads to be updated to handle the increased use of traffic (e.g. a bridge at Lawrence and road widening).</p> <p>In my opinion the best and only way to separate local road users from the interstate and through traffic is to further examine the Red and Green options, otherwise you may find slower local traffic mingling with faster interstate traffic and the increased use of minor roads by a large local portion of traffic that tend to fear using the busy motorway.</p>	<p>upgrade.</p> <p>Under the initial Class A (arterial) proposal, local traffic would use the upgraded highway between Tyndale and Maclean. Should the section of highway between Tyndale and Maclean be upgraded to Motorway (Class M) standard at a later date, a service road adjacent to the new highway would provide an alternative to travelling on the new highway. Refer to Section 4.2 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> for further information regarding proposed access arrangements.</p>	
21	<p>Alternative options offer many advantages over the preferred route, especially in terms of economic factors.</p>	<p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	612

### 3.3.3 Harwood options

Issue No.	Comments on Harwood options	Response	Stakeholder ID
22	<ul style="list-style-type: none"> <li>■ The alignment of the Preferred Route between Tyndale and Harwood will generally locate the upgrade on a similar alignment to the existing highway which will minimise property severance and duplication of major road infrastructure. The preferred route for the section between Harwood and Iluka Road (Option 1) will assist to reduce additional rural property severance and will centralise new road infrastructure within the vicinity of the existing road corridor. Community severance and community impact issues at Harwood will need to be weighed against the benefits of centralising the highway infrastructure at this location along with safe and efficient cane transport into and out of the sugar mill.</li> <li>■ We of Harwood East feel we must object to Option 2A and 2B, as detailed in the September 2006 Preferred Route Report. This option would destroy the farms it crosses making them unviable for production.</li> <li>■ I am a resident of River Road East, Harwood Island and a</li> </ul>	<p>In response to submissions received following the route options display, additional options were identified and investigated at a feasibility level between Harwood and Iluka Road. However, these options were not taken forward for further consideration.</p> <p>As outlined in Section 6.2 of the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>, it was concluded that Option 1 would best meet the objectives of the project. Option 1 would, in comparison to Options 2 and 3, have:</p> <ul style="list-style-type: none"> <li>■ Minimal impacts on cane farms by using the existing road reserve as much as possible.</li> <li>■ Opportunities for construction to be staged.</li> <li>■ Provide better connection to the preferred route to the south of Harwood Bridge.</li> <li>■ Minor risks on shipping activity.</li> <li>■ Minimal impacts on endangered ecological communities and mangroves along the banks of the Clarence River.</li> </ul>	336, 2061, 2980, 2062

Issue No.	Comments on Harwood options	Response	Stakeholder ID
	<p>landowner of some of the surrounding cane land along Watts and Nicholson's Lanes. Option 2 takes a direct route through a large portion of cane that I own. I therefore strongly object to Option 2.</p> <ul style="list-style-type: none"> <li>■ The river crossing of Option 2A and 2B, as detailed in the September 2006 Preferred Route Report, would impact the future of the sugar cane and cattle industries. The river crossing would also affect the viability of the local slipway and associated shipping ventures.</li> <li>■ I would like to reinforce the devastating effect that Route A would have on the flora and fauna of Nyrang Creek.</li> <li>■ I am a resident of Nicholson's Lane, Harwood Island, living on a property of strong heritage value being that settled by my ancestors in 1860. Option 2 greatly affects heritage values.</li> </ul>		

### 3.3.4 Consultation process

Issue No.	Comments on consultation process	Response	Stakeholder ID
23	<p>The September 2006 Preferred Route Report identifies a route option called Option 2A between Harwood Bridge and Iluka Road. Why was this Option not brought to the attention of the property owners who will be affected?</p>	<p>In response to submissions received following the route options display, additional options were identified and investigated at a feasibility level between Harwood and Iluka Road. However, as these options were not taken forward for further consideration, consultation was not undertaken.</p>	272, 2061, 2062, 2980
24	<p>The RTA is not listening to the people. The chosen Preferred Route is most undesired by all.</p>	<p>Consultation with the community commenced in late 2004 and has continued throughout the development of the project.</p> <p>The route options were assessed against biophysical, social, economic and engineering considerations. The preferred route was selected considering the outcomes of the technical studies, submissions received on the route options and the outcomes of the value management workshop. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	1108
25	<p>It is very evident in your explanation for the Preferred Route that you have ignored the stakeholders in the section between Tyndale Village and Harwood Bridge. We the land managers feel let down</p>	<p>Consultation with the community commenced in late 2004 and has continued throughout the development of the project.</p> <p>In response to submissions regarding the ongoing viability of the</p>	1176

Issue No.	Comments on consultation process	Response	Stakeholder ID
	and ignored by the public consultation process. This was totally un-Australian how a small number of cane growers are burdened with a huge loss of production and flood free land just to appease the green movement and the conservationists.	cane industry as a result of the preferred route, an assessment of the impacts of the preferred route on the sugar industry has been prepared as part of the concept design phase of the project. The assessment involved meetings with individual property owners and cane industry representatives in order to provide solutions to minimise impacts on individual farms and the overall industry.  Refer to the <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Assessment Working Paper, RTA 2008</i> for further information.	

### 3.3.5 Flooding and drainage

Issue No.	Comments on flooding	Response	Stakeholder ID
26	<ul style="list-style-type: none"> <li>■ Local flooding is a major issue and Sandy Crossing is known to flood a number of times every year. This is not identified on the maps in the report even though White Bridge on Wooli Road is identified but does not flood as frequently to an impassable level. Access to Tucabia (school), Ulmarra and Grafton at these times is via Firth Heinz Road. It is important that this flood bypass route be retained otherwise we will be marooned on many occasions when other roads are still open. Children at school may be unable to return home. The proposed highway crossing of the Coldstream is of concern, even though a bridge of 650m is planned, as the flooding covers a greater distance. This bridge crossing also raises concern for other reasons. Specifically, during flooding and for many months of the year the Coldstream River does not follow a well defined route. It spreads out across many hectares and the river banks only confine the river during dry times. The proposed crossing of the Coldstream may impact local flood levels upstream and at Sandy Crossing, which may in turn impact properties and wetland ecology.</li> <li>■ Flooding issues have not been adequately considered.</li> <li>■ The preferred route will have major impacts on flooding, as the roadway will hold up the out-flow of flood waters.</li> <li>■ Flooding issues have not been adequately assessed. The</li> </ul>	<p>Potential impacts on flood behaviours and frequency have been considered in the route selection process and as part of the development of the concept design. The preferred route has been designed to provide sufficient bridges and culverts to minimise the changes to existing flood patterns (flood height, flood durations, flood flows and velocities).</p> <p>Local access is an important consideration in the design of the preferred route. Firth Heinz Road would be retained as a flood free route, with an overpass over the highway provided as part of the upgrade. The revised access arrangements for Firth Heinz Road are described in Section 4.2 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>.</p> <p>The <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> has been prepared as part of the concept design phase of the project, the outcomes of which have informed the design of measures to minimise and mitigate flooding impacts. In order to minimise potential flooding risks around the Coldstream River and Sandy Crossing, the proposed upgrade will include four bridges at this location with spans of 54m, 340m, 160m and 60m (west to east). These bridges are required at specific locations in order to limit the flood level increases to approximately 200 mm. Based on assessment of the available aerial photography, there are no houses affected by</p>	157, 1108, 1521, 2792



Issue No.	Comments on flooding	Response	Stakeholder ID
	<p>Preferred Route runs through flood-prone land that, prior to the drought in this area, was a site of extensive flooding and inundation.</p>	<p>these flood level increases.                      Further hydrology and hydraulic investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	
27	<p>The decision to follow the existing Pacific Highway with an upgraded 'A' class highway or motorway creates major concerns for the Clarence Valley sugar industry in relation to flooding issues. Any major alterations to the flood plain will impact flood heights and water movement and should therefore be avoided.</p> <p>Between Iluka Road and Harwood Bridge, the highway will be raised to a level that will provide immunity to 1-in-20 year floods. To assist with the movement of water, it is proposed to construct bridges/culverts with a combined length of 1040 metres. It has been acknowledged in the Hydrology and Hydraulics working paper that increases in water level of between 80mm and 120mm will occur. The NSW Sugar Milling Cooperative Ltd and the NSW Cane Growers Association are concerned that these figures have been revised from the original 50mm estimate. The entire length of this section is across the floodplain and with only 1040 metres of bridged road there are fears that the increased flow intensity will result in scouring and erosion of the alluvial topsoil on productive agricultural land and significant crop loss will result. The construction of any roadway above the height of the existing one would see a restrictive structure impacting severely on the drainage of floodwaters. The hold up of any water due to poorer drainage will reduce the productivity of the cane land to a level where the farmer's viability could be threatened.</p> <p>Substantial drainage works outside the actual highway corridor would be essential should farm drains be severed or need to be re-routed. This could also require major farm reshaping and or levelling and would need to be incorporated into any compensation offered to landholders. Additionally, the Sugar Refinery at Harwood has a raw sugar storage shed that was built above the 1-in-100 year flood. This shed has a capacity of 100,000 tonnes of raw sugar at a value of about \$35million. It is of great concern that any alteration of the hydrology in the area will place the raw sugar shed in danger of flooding. As well as the potential loss of product, the risk of environmental damage should floodwaters enter the storage area is</p>	<p>Potential impacts on flood behaviours and frequency, and in particular potential implications on the cane industry, have been key considerations for the project. In this regard a hydrology and hydraulics working paper and cane industry working paper have been prepared as part of the concept design phase of the project, the outcomes of which have informed the design of measures to minimise and mitigate flooding impacts on the cane industry in particular. (Refer to the <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> and <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Assessment Working Paper, RTA 2008</i> for further information.) In terms of potential flooding impacts on the cane industry it should be noted that:</p> <ul style="list-style-type: none"> <li>■ The cane industry assessment report, which included individual property owner meetings to discuss specific farm drainage requirements for the ongoing viability of the industry, recommends that all the existing farm drains, main drains and flood mitigation drains in the area be maintained during the construction and operation of the preferred route. To minimise flooding and drainage impacts, the drain that flows north and enters Serpentine Channel via a flood gate on the west of the existing highway would need to be replicated on the west of the preferred route</li> <li>■ While it is true that any major alterations to the floodplain will impact on flood heights, it is possible to construct the road using good design principles to minimise these impacts to an acceptable level. In this regard, the concerns regarding the stated impacts of 80mm to 120mm are noted and will be considered further in later stages in determining appropriate impact tolerances.</li> <li>■ The stated concerns regarding increased flow intensity and resultant scouring / erosion can be overcome through good design of culvert outlets and appropriate property resumptions at the outlet of culverts.</li> </ul>	316, 336

Issue No.	Comments on flooding	Response	Stakeholder ID
	<p>of major concern and one that must be addressed.</p> <p>For the length of highway between Harwood and Tyndale, the potential for major changes in flooding patterns is also a major concern for the sugar industry and communities further downstream. Floodwaters currently spill over into the Shark Creek Basin at several locations along the existing highway. The construction of a road with 1 -in-20 year flood immunity will restrict the movement of water into the basin. It is proposed to build a 720m bridge from Shark Creek to the south to accept water into the basin. The proposed length of bridging represents only a portion of the length of roadway. Concerns are that the proposed alterations to the floodplain will cause higher water levels and flows in the area of South Arm Woodford Island, longer periods of inundation on the eastern side of the highway (increasing the risk of crop losses), and higher water levels and flows further down the river (with towns and villages placed at more risk of significant flooding).</p>	<ul style="list-style-type: none"> <li>■ At higher flood levels, the rate of recession of floodwaters on the floodplain is almost completely dictated by the rate of recession of the flood levels in the river. Hence, as the rate of river recession will not change, the rate of floodplain recession will also remain unchanged. At lower levels, the drainage of the land adjacent to the highway will be reliant upon adequate local drainage structures. However, at this stage of the design process, these structures are yet to be determined.</li> <li>■ With severed farms drains, the concerns raised regarding re-routing of farms drains are valid in areas where farms have been severed. However, these areas have been minimised and the re-routing of drains will be undertaken at the detailed design stage in close consultation with the affected landholders.</li> <li>■ With regards to the raw sugar storage shed at the Refinery at Harwood, the project is likely to reduce flood levels slightly in this area.</li> <li>■ In regard to the Shark Creek area, the length of roadway proposed to be bridged represents the significant majority of the flow coming into and out of the Shark Creek basin. The areas closer to Shark Creek have lower road levels and convey considerably more flow than those areas further south. The concerns raised will be addressed through adequate waterway design and detailed flood impact analyses at subsequent stages.</li> </ul>	
28	<p>The significance of flooding impacts has been acknowledged by not selecting the Orange/ A Option south of Tyndale. That 'only' 10% of the Clarence floodwaters travel along the South Arm is still a significant body of water when one considers its natural course is being altered or impeded. This is particularly of consideration when the alternatives have no major waterway issues and that 100% of the Coldstream River floodwaters have also to be factored in the displaced water volumes.</p>	<p>The natural course of the South Arm is not being altered as suggested in this submission. Further information on the potential flooding impacts associated with the upgrade are further described in the <i>Hydrology and Hydraulics Working Paper</i>, RTA 2008.</p>	612
29	<p>The Purple Option shows that the new highway passes over Wooli Road west of Piccanniny Creek and Pheasants Creek. The last two heavy rains caused two feet of water to run over the road. This amount of water could wash cars off the road. The Purple option</p>	<p>Potential impacts on flood behaviours and frequency are a key consideration in the project. In comparison to the preferred route, the Orange option would present a higher flooding risk.</p> <p>Specific impacts have been considered and addressed as part of</p>	640



Issue No.	Comments on flooding	Response	Stakeholder ID
	<p>would cause major backup of water and flooding in the Piccanniny and Pheasant Creek catchments, resulting in road closures, washing away of fences and more flood related road deaths. The same problems are associated with the Coldstream crossing at Sandy Crossing and the road over Pillar Valley Creek. Adoption of the Orange Option would be a solution to these flooding problems. An additional problem is that the combination of heavy rain and winds and the clay ironstone soils that are characteristic of the study area will result in trees falling over the new highway. One solution would be to move the alignment eastwards to lower and semi-cleared areas.</p>	<p>the design and assessment of the preferred route. The preferred route has been designed to provide sufficient bridges and culverts to minimise the changes to existing flood patterns (flood height, flood durations, flood flows and velocities).</p> <p>The preferred route crosses Piccanniny Creek and Pheasants Creek in the vicinity of the Glenugie Interchange. As part of the concept design, a 165 m bridge is proposed at chainage 10790 and a 150m bridge at chainage 11450 to reduce the associated flooding impacts within the Piccanniny and Pheasants Creek catchments to an acceptable level. Refer to Section 8.1.3 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>.</p> <p>A hydrology working paper has been prepared as part of the concept design phase of the project, the outcomes of which have informed the design of measures to minimise and mitigate flooding impacts. Refer to the <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> for further information.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	
30	<p>A floodplain is not a suitable place to construct the no. 1 highway in this country particularly when there is an abundance of flood free unproductive land to the east of the Preferred Route. The Shark Creek Basin is very sensitive to any increase in height of the highway because to drain this area in times of flood the water has to run across the roadway into the South Arm of the Clarence River. Other areas would also suffer increased inundation because the highway would effectively become a levy and would force more water onto Woodford Island Farms and also affect the down river area.</p>	<p>Potential impacts on flood behaviours and frequency are a key consideration in the project. Specific impacts have been considered and addressed as part of the design and assessment of the preferred route.</p> <p>A hydrology working paper has been prepared as part of the concept design phase of the project, the outcomes of which have informed the design of measures to minimise and mitigate flooding impacts. Refer to the <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> for further information.</p> <p>The <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> found that a bridge length of 800m (including the span over Shark Creek) is required along the upgrade route near the mouth of Shark Creek. This bridge will span Shark Creek and a long section of floodplain. This will allow early inflows and later overbank flows into and out of the Shark Creek basin. Importantly, the riverbank level at the bridge will not be altered from the existing riverbank levels.</p>	1148, 1176

Issue No.	Comments on flooding	Response	Stakeholder ID
		<p>The bridges required in the Shark Creek basin would result in impacts of slightly more than 50mm (in the order of 55mm) on the right bank / floodplain of the Clarence River (i.e. Woodford Island) for the 50 year and 100 year ARI flood events. Refer to the <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper</i> (RTA 2008) for further information.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	
31	<p>I am concerned that the volume of water run-off from the neighbours' property will increase as a result of the highway upgrade and that this runoff will then impact my property.</p>	<p>Drainage issues to the east of the highway in the Townsend area have been discussed with a number of landholders. These discussions have assisted with the development of the concept design. Drainage would be designed in this area so as not to increase runoff to properties adjacent to the highway.</p>	1212
32	<p>We feel the area between the present highway and Option 2A will become a water retaining area due to the need to raise the road above the flood level. This will also impede drainage of water from adjacent properties during periods of flood.</p>	<p>Noted. Option 2A was not taken forward as the preferred route to the north of Harwood Bridge.</p>	2061
33	<p>The purple route carves a path straight through critical wetlands and catchment areas of the Coldstream River. These wetlands were under water prior to the drought, are the first areas to flood after heavy rain and experience extensive flooding during flood times. Have the environmental and engineering implications of locating a raised dual carriageway in swamp/flood-prone areas been investigated?</p>	<p>A preliminary assessment of the environmental and engineering implications of locating the preferred route in Coldstream River wetland areas was undertaken as part of the selection of the preferred route and the development of the concept design. The <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> identifies that the proposed upgrade includes four bridges at this location with approximate spans of 54m, 340m, 160m and 60m (west to east). These bridges are required at specific locations in order to limit the flood level increases to approximately 200mm. Based on assessment of the available aerial photography, there are no houses affected by these flood level increases.</p> <p>The outcomes of the <i>Wells Crossing to Iluka Road Concept Design: Hydrology and Hydraulics Working Paper, RTA 2008</i> have informed the concept design of the preferred route to minimise and mitigate flooding impacts.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	2966

### 3.3.6 Property impacts

Issue No.	Comments on property impacts	Response	Stakeholder ID
34	<p>To mitigate impacts on our property (which is affected by severance) we would require access roads, gateways and stock proof fencing, one set of cattle yards capable of holding 100 head of cattle, two underpasses so that cattle can get to the other side of the Highway and so we can get logging equipment to and from the mill, and animal corridors.</p>	<p>Property and local access have been considered as part of the development of the concept design. The concept design allows for specific property access arrangements and the provision of access underpasses where appropriate.</p> <p>Access arrangements are shown on the concept design plans which are included as Appendix A to the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>. Access to this property would be via the proposed local service road at a point near chainage 45530 (refer to the Concept Design Report, RTA 2008 Appendix B). Travel to the north would be via the proposed service road for section 3. Travel to the south would be via an overpass and down the existing Pacific Highway.</p> <p>Property access arrangements may be subject to further refinements as part of future negotiations with the landowner. Elements such as fencing, cattle yards etc would be would be addressed in accordance with the <i>Land Acquisition (Just Terms) Compensation Act 1991</i> and addressed at the time of acquisition.</p>	640
35	<ul style="list-style-type: none"> <li>■ The Preferred Route involves loss of grazing country and corresponding impacts on the cattle industry. From the Tyndale Connection northwards, the cane industry should therefore shoulder some of the burden. The cane industry should not try to push more loss of land onto cattle producers by suggesting a return to the old Purple Option north of Tyndale. I urge the RTA to stay with the Preferred Route as it stands.</li> <li>■ Our land fronts the existing highway at Tyndale and continues over the Bondi Hill and extends to the Tyndale No. 2 Flood Drain. We have a stud cattle and beef grazing enterprise here. The preferred option will take the front of our Bondi property adjacent to the existing highway. This high ground is extremely important to our year-round operation and particularly for continuation of our operation during flood. Quick and easy access for trucks is imperative as this is our only high ground and our entire herd is relocated here during floods. However, this impact is preferable to the potential alternative impact of the old Purple B option. The old Purple B option went to the east of Bondi Hill, cutting our property in half, which would cause a multitude of problems for grazing stock and flooding.</li> </ul>	<p>Noted. The preferred route in this area is the refined Purple option, as announced in September 2006.</p>	971

Issue No.	Comments on property impacts	Response	Stakeholder ID
	<p>The area to the east of Bondi Hill is very low and swampy and building a road there would require extensive stabilising and an embankment of at least 5 metres. This would create water ponding, impeding production. Cattle would also be cut off from reaching high ground in flood events. Underpasses would be useless in this area as the water table is very high under normal conditions, let alone after any heavy rain.</p>		
36	<p>When you first called for submissions on the proposed highway upgrade, I was told by the RTA that, should the chosen option be selected, my property “would definitely go”. I had been trying to sell the property for two years and asked that the RTA consider an early acquisition. In the latest correspondence from the RTA I am now told that my house, although affected, will not be acquired. I have had trouble maintaining tenants because of the noise of the current highway and fear that now I will neither be able to sell it nor rent it making it unviable financially. What does the RTA have in mind to compensate myself and others in the same position? I am told that they will be providing double glazing for windows and air conditioning. Will this be for the lifetime of the property?</p>	<p>The subject property is not directly affected by the highway proposal and as such property acquisition would not be required.</p> <p>The <i>Land Acquisition (Just Terms Compensation) Act 1991</i> is the legislation used to compensate landowners for land that is directly affected by the preferred route. The RTA has no statutory mechanism to provide monetary compensation for property owners not directly impacted through acquisition of land for the project.</p> <p>The proposal will be the subject of an environmental assessment which will examine the potential impacts of the preferred route and identify the measures proposed to mitigate these impacts, including noise impacts. The environmental assessment would specify noise mitigation measures where required, in accordance with the <i>NSW Government’s Environmental Criteria for Road Traffic Noise (ECRTN)</i>. Noise mitigation measures, where required, would be implemented at the time of construction.</p>	1062
37	<ul style="list-style-type: none"> <li>■ My property has been my family and my home for 35 years. Whilst recognising the Highway decision must adversely affect someone, the choice of this route is personally devastating to my family and financially devastating to me.</li> </ul> <p>The loss of a substantial amount of my land and the impacts of noise and vibration generated by heavy earth moving machinery and rock blasting will limit my enjoyment of my property. I am also concerned that the foundations of my house will be damaged and made structurally unsafe as a result of vibration from heavy machinery and rock blasting during construction, which will be located only metres from my property boundary.</p> <p>Prior to the Highway upgrade announcement, I had the option of subdividing and selling my property. This potential will now be lost for two reasons: a) there will not be sufficient land</p>	<p>As part of the concept design, the extent of the road boundary has been revised in order to minimise potential impacts on private property.</p> <p>Acquisition of property would be undertaken in negotiation with the landholder and in accordance with RTA’s Land Acquisition Policy and the <i>Land Acquisition (Just Terms Compensation) Act, 1991</i>.</p> <p>The <i>Act</i> requires that the land is valued at the market rate unaffected by the proposal. The value takes into account the potential for subdivision and any other special attributes or uses of the property. The RTA’s Land Acquisition Policy has provisions for landholders to initiate acquisition of the land required for the highway proposal under some circumstances.</p> <p>As part of the environmental assessment, the noise and vibration</p>	1212, 1887, 2966

Issue No.	Comments on property impacts	Response	Stakeholder ID
	<p>available to make it viable; and b) who would want to live adjacent to 6-8 lanes of traffic?</p> <p>I would like the RTA to negotiate the sale of the entire property at a fair market price, taking into account the loss of opportunity that I have already described.</p> <ul style="list-style-type: none"> <li>■ We are currently operating as an organic farm and we are in the process of turning biodynamic. We had hoped to generate some income from our farm in the future, but with the highway being so close to us our dreams have been wiped out.</li> </ul> <p>We know in England that people are compensated for loss of property value. Why can't Australia do this?</p> <ul style="list-style-type: none"> <li>■ That the value of my land and house will be greatly affected by being so close to a freeway is not fair. My land was potentially going to be worth a substantial amount living so close to the coast.</li> </ul>	<p>impacts resulting from the construction and operation of the preferred route would be assessed and specific mitigation measures implemented to minimise these impacts.</p>	
38	<p>My family and I implore you to consider the realigning of the proposed corridor close to our home. We ask that you increase the distance between our property and the highway by moving it further away and to the north. There is one kilometre width of unoccupied land here that you may consider using in the process of realignment. It would reduce the 'boxing-in' effect on us and would allow us to retain most of our easterly valley views.</p> <p>We are not wealthy by any means we don't have any super fund and we were relying on what was an increasingly valuable property as our retirement nest egg and one day a financial start in life for our two children aged 19 and 17 who have lived here in this home all their lives. Our property will be virtually worthless, reduced in value from upwards of \$400,000.00 to probably as little as \$50,000.00.</p>	<p>The project team reviewed the alignment of the upgrade at this location. In order to avoid other direct property impacts and address technical constraints, the upgrade was shifted to the eastern edge of the preferred route corridor. It is unlikely that the preferred route in this location would impact significantly on the easterly valley views.</p> <p>Accordingly, it is not possible to refine the route in this location as requested.</p> <p>The <i>Land Acquisition (Just Terms Compensation) Act 1991</i> is the mechanism used to compensate landowners for land that is directly affected by the preferred route. The RTA has no statutory mechanism to provide monetary compensation for property owners not directly impacted through acquisition of land for the project.</p> <p>Where land is not acquired as part of the land acquisition process, mitigation measures are implemented to reduce the impacts to the local community as much as possible. Criteria set by regulatory authorities (for example, NSW Department of Environment and Climate Change) will be used to determine the level of mitigation required to meet these criteria.</p>	2792

### 3.3.7 Cane land

Issue No.	Comments on cane land impacts	Response	Stakeholder ID
39	<p>I am totally opposed to the east of Harwood Mill Option 2A as a substantial area of my land would be acquired by the RTA thus severing my properties and rendering the remaining area unviable for cane farming. My farm is in close proximity to the Harwood Sugar Mill and the loss of my farm would also threaten the viability of the Mill. If the Preferred Route is ultimately chosen I would prefer a westerly positioning of the new bridge immediately alongside the existing one, which would require the acquisition of only two houses in Harwood, one of which is currently for sale. The road could then traverse through vacant land out to the Watts Lane intersection thus saving valuable cane land on the eastern side.</p>	<p>Community suggested alternative options between Harwood Bridge and Iluka Road were assessed in response to submissions made following the display of route options. The outcomes of these assessments are documented in Section 6.2 of the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>.</p> <p>Option 1 performed better than Options 2 and 3 in this area and was selected as the preferred route. The key advantages of the preferred route over the suggested alternative options considered are:</p> <ul style="list-style-type: none"> <li>■ Minimal impacts on cane farms by using the existing road reserve as much as possible for the upgrading, and widening of the existing road rather than creation of a new road corridor through farms.</li> <li>■ Ability to stage the development of the project with initial development to Class A standard by duplicating the existing highway and Harwood Bridge, rather than splitting northbound and southbound traffic through and around Harwood village.</li> <li>■ Minor risk of impacts on shipping activity in the Clarence River, in particular turning movements within the turning basin off Harwood Mill.</li> <li>■ Minimal impacts on endangered ecological communities on the floodplain and mangroves along the banks of the Clarence River.</li> </ul> <p>The preferred route involves the construction of a new bridge immediately to the east of the existing Harwood bridge.</p> <p>An assessment of the impacts of the preferred route on individual cane farms and the cane industry as a whole has been conducted. (Refer to the <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Assessment Working Paper, RTA 2008</i> for further information).</p>	272
40	<ul style="list-style-type: none"> <li>■ The Preferred Route will swallow up large areas of prime agricultural land, make many farms unprofitable, and threaten the viability of the sugar industry, putting the economy of the Lower Clarence at risk.</li> <li>■ The Preferred Route passes through several of our properties</li> </ul>	<p>In response to submissions regarding the ongoing viability of the cane industry as a result of the preferred route, an assessment of the impacts of the preferred route on individual cane farms and the cane industry has been prepared as part of the concept design phase of the project. The <i>Wells Crossing to Iluka Road</i></p>	1521, 1148, 1517, 1108, 2062

Issue No.	Comments on cane land impacts	Response	Stakeholder ID
	<p>in the Shark Creek and Tyndale areas. One property at Shark Creek would be left so disjointed by the new road construction as to render it unviable because of the interruption to drainage and reduction in size and shape of fields. We have spent a lifetime improving our properties to make their operation more efficient. The proposed construction will negate all of that work. Only one field will be left untouched and there is no way of amalgamating that field with what will be left of our other fields. On our home farm at Tyndale, our house and farm sheds will end up on one side of the proposed route while three other remnants of properties will end up on the other side. We will have to cross the highway several times each day to access these properties.</p> <ul style="list-style-type: none"> <li>■ The proposed Preferred Route for the Highway upgrade would see our farm become unviable for sugar production. Our land adjacent to the existing highway, which is to be acquired to accommodate the upgrade, is our only "safe" productive land, because of the constant risk of drought, frost and flood. That land reliably produces 70-80 ton/acre crops while our lower and hilly ground only produces 40-50 ton/acre crops. With our input costs rising monthly our remaining ground at those tonnages is not far enough above costs.</li> <li>■ The loss of valuable cane land threatens the viability of the Harwood Sugar Mill and the refinery which relies on the Mill for power and steam. The sugar industry is the largest employer in the Lower Clarence. The RTA should consider the ramifications of it closing down because of a road.</li> <li>■ Route A would have a devastating effect on prime sugar cane farming land.</li> </ul>	<p><i>Concept Design: Cane Industry Working Paper, RTA 2008</i> provides a detailed assessment of the direct and indirect impacts of the preferred route on the cane industry including the creation of residual lots and the requisite access arrangements.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	
41	<p>The impact of the project on the NSW sugar industry was described in a previous submission to the RTA in 2005. This submission presented arguments against the Preferred Route by the NSW Sugar Milling Cooperative and NSW Cane Growers Association. These arguments are still valid and need to be re-visited.</p> <p>Additional comments on the Preferred Route displayed by the RTA concern the route between Harwood and Iluka. It has always been understood that the route from Harwood to Iluka was to basically follow the existing roadway with only minor deviations. Also it was</p>	<p>In response to submissions regarding the ongoing viability of the cane industry as a result of the preferred route, an assessment of the impacts of the preferred route on the sugar industry has been prepared as part of the concept design phase of the project. The <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Working Paper, RTA 2008</i> provides a detailed assessment of the direct and indirect impacts of the preferred route on the cane industry and individual cane farms including access and drainage impacts. The assessment identifies that the preferred route could potentially affect 59.6 hectares of cane land to the north of</p>	316



Issue No.	Comments on cane land impacts	Response	Stakeholder ID
	<p>accepted to some degree that there would be significant cane land loss in this section. The area of cane land affected is calculated at 220.79 ha (where 'affected' is defined as cane land that any part of the 150m road corridor touches). The area of direct loss is calculated at 65.61 ha (where 'direct loss' is defined as the area of the 150m corridor that passes over cane land).</p> <p>The Preferred Route has the biggest impact on cane land and is by far the most unacceptable route option to the NSW Sugar Industry. The NSW Sugar Industry opposes the Preferred Route and requests the RTA select another route more balanced in its impact and more in line with community expectations and the consultation process.</p>	<p>Harwood bridge (55.6 hectares in direct acquisition and 4 hectares of residual lots).</p> <p>The assessment also involved meetings with individual property owners and cane industry representatives in order to provide solutions to minimise impacts on individual farms and the overall industry.</p>	
42	<p>The Tyndale to Harwood section of the proposed upgrade supports significant regional industries including the sugar cane industry, which utilises the soils of the floodplain. This industry, which is highly mechanised and with a strategic view to the future, is particularly sensitive to loss of lands suited to cane production due to the reliance of the industry on production efficiency and farm production that maintains the profitability of the mill and sugar milling cooperative. Incremental loss of productive cane land poses a serious risk to the sustainability of the industry and the efficient use of productive and valuable land resources. The potential impact of the preferred route on resource land utilisation and key industries such as sugar cane requires examination at the individual property and collective level as the loss of 220 hectares of prime agricultural land and 280 hectares of other agricultural land between Wells Crossing and Harwood will have different implications for particular sections, agribusinesses and industries.</p>	<p>An assessment of the impacts of the preferred route on individual cane farms and the cane industry as a whole has been conducted. Refer to the <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Working Paper, RTA 2008</i> for further information.</p> <p>The impacts of the preferred route upon the viability of the sugar industry have been identified and addressed in the <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Working Paper, RTA 2008</i>. The direct loss of cane land as a result of the preferred route would reduce the quantity of cane presented for milling by 2.6 percent. If the residual lots created by the preferred route cannot be retained for cane production, the additional 36 hectares of cane land lost to the industry would reduce the quantity of cane presented for milling by 3.2 percent.</p> <p>The loss of cane land results in a decrease in harvested cane and a corresponding decrease in revenue annually. If access to cane paddocks, properties or cane pads is less efficient than presently exists, it will also add to the annual costs of production.</p> <p>The cane industry assessment has provided design and mitigation measures that have been identified in consultation with the cane industry and individual cane farmers in order to minimise these impacts and the threat to the viability of the Harwood Mill.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	336

Issue No.	Comments on cane land impacts	Response	Stakeholder ID
43	<p>Many cane farms would be rendered useless because of the significant portion excised for the highway or alternatively because of severance. The highway would take prime cane land and the remaining low lying land would be too low yielding for economic cane farming. It is calculated that the area of cane land affected would be 277 ha, with the direct loss being 131 ha. This takes into account the full area lost, including area lost due to farm segmentation, re-alignment of paddocks and drains, and re-alignment of farm headlands. It is estimated that the overall production loss would be about 28,000 tonnes of cane per year. This would impact cane harvesting co-operative(s), which in turn would have a significant impact on the price of harvesting operations.</p> <p>It is sometimes argued that cane land lost to non agricultural uses can be re-assigned elsewhere. In the case of cane land lost in the Harwood Mill area, the land resources are simply not available to achieve this. Even if some land were available, the additional costs to bring land into production would be prohibitive. The net effect of losing cane land is ongoing with no opportunity to take up other land. Using an economic multiplier effect of 5.6 times farm gate revenue (Industry submission re Draft Urban Release Strategy and Draft LEP Amendment to Ballina Shire Council, page 9, Morton Consulting Services, 1999), the total negative economic impact of cane land loss on the Clarence Valley economy as a result of the project would be in the order of \$7.641 million per annum.</p> <p>The NSW Sugar Industry believes that the losses on the north side of the Clarence River come at a great sacrifice and that the proposed losses on the southern side of the River are unacceptable.</p> <p>It appears that the RTA does not fully comprehend the impact of the Preferred Route on the (sugar) industry. The Preferred Route will have significant, long-term negative impacts on the NSW Sugar industry, local growers and the communities they live in.</p>	<p>An assessment of the impacts of the preferred route on individual cane farms and the cane industry as a whole has been conducted. The <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Working Paper, RTA 2008</i> provides a detailed assessment of the direct and indirect impacts of the preferred route on the cane industry and individual cane farms including access and drainage impacts. The assessment involved meetings with individual property owners and cane industry representatives in order to provide solutions to minimise impacts on individual farms and the overall industry.</p> <p>The cane industry assessment identifies that the preferred route could potentially directly affect 157 hectares of cane land, with a potential additional 35.8 hectares of residual lots. The viability of retaining residual lots for cane production is dependent upon the level of investment provided to adjust properties. It is expected that approximately 10 hectares of the 35.8 hectares of residual land would not be able to be retained for cane production.</p> <p>The direct loss of approximately 157 ha of cane land would equate to an annual loss of harvested cane of 18,682 tonnes and a corresponding annual revenue loss of \$467,050. The loss of cane land, cane production and revenue will increase if the residual land lots cannot be suitably altered to be maintained as cane land.</p> <p>Refer to the <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Working Paper, RTA 2008</i> for further information.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	316
44	<p>The summary shows that 500 hectares of cane farming land is likely to be lost. This grows the equivalent of 50,000 tonnes of cane per year. The income lost due to the loss of raw sugar production alone on these figures is \$2.34 million per year (based on Harwood Mill five year average of 8.13 tonnes per tonne of cane per tonne of</p>	<p>An assessment of the impacts of the preferred route on the sugar industry has been prepared as part of the concept design phase of the project. The <i>Wells Crossing to Iluka Road Concept Design: Cane Industry Working Paper, RTA 2008</i> provides a detailed assessment of the direct and indirect impacts of the preferred</p>	316

Issue No.	Comments on cane land impacts	Response	Stakeholder ID
	<p>sugar and current sugar price of \$3 80/tonne sugar). The lost sugar production creates many other financial losers who have not been identified. This loss would have major consequences for the continued viability of the Harwood Sugar Mill. The loss would also have a major effect on the overall viability of the industry and would see the sustainability of the industry placed under severe pressure.</p>	<p>route on the viability of the cane industry and individual cane farms. The assessment also involved meetings with individual property owners and cane industry representatives in order to provide solutions to minimise impacts on individual farms and the overall industry.</p> <p>The assessment identifies that the preferred route could potentially directly affect 157 hectares of cane land. This loss of cane land could lead to an annual loss of income in the order of \$467,050. This estimated loss of revenue will increase if the residual land lots cannot be suitably altered to be maintained as cane land.</p> <p>The assessment results indicate that in terms of the impact on cane production, the preferred route would result in the loss of approximately 0.7 percent of the total NSW cane production and 2.6 percent of the Clarence Valley production.</p> <p>Further investigations would be undertaken as part of the detailed design and environmental assessment phase of the project.</p>	

### 3.3.8 Agricultural impacts

Issue No.	Comments on agricultural impacts	Response	Stakeholder ID
45	<ul style="list-style-type: none"> <li>■ Mapping of the important farmland of the Mid North Coast, including the Clarence Valley, is in progress. The mapping is being coordinated by the DoP and involves input from DPI, DNR and three agricultural reference groups. This mapping is linked to the Northern Rivers Catchment Action Plan, which has a management target aimed at conserving key environmental assets and rural production areas including agricultural land. The farmland mapping project is aimed at protecting important farmland from future urban and rural residential land uses. It is recommended that the mapping be taken into account in the final route selection process for the upgrade between Wells Crossing and Iluka Road.</li> <li>■ Destruction of high value farming land contradicts the Government's intention to legislate to protect such land.</li> <li>■ I express concern regarding some of the descriptions of the existing environment, which presumably are also used in</li> </ul>	<p>The Draft Mid-North Coast Farmland Mapping Project was released in July 2007, after the announcement of the preferred route.</p> <p>Agricultural impacts were discussed with the relevant government agencies, including the Department of Primary Industries (Agriculture), throughout the development of the route options and selection of the preferred route.</p> <p>More detailed consideration of the mapping would be undertaken as part of the environmental assessment and detailed design phase of the project.</p>	336, 1108, 1176, 1887, 1148

Issue No.	Comments on agricultural impacts	Response	Stakeholder ID
	<p>arguments justifying selection of the Preferred Route. For example, disgust is expressed at an alleged suggestion that prime agricultural land has been degraded through past agricultural land management practices. The primary concern is that a small number of cane growers are burdened with huge loss of production to appease the green movement and the conservationists.</p> <ul style="list-style-type: none"> <li>■ We find it hard to understand why after being in such a serious drought for so long that the RTA would choose to put the highway through the 8% of drought free land that still exists.</li> <li>■ I find it unbelievable that, with the State government claiming to have a policy to protect prime agricultural land, the RTA would even consider a route that passes through some of the most productive prime agricultural land in Australia. Our family has spent several lifetimes buying property to build a viable farming operation. We have paid premium prices to acquire property that is not affected by floods or frost and believe that we have some of the best farming land in the area. It is infuriating to us that we are to lose the most productive areas of our land to build a road that could be constructed on the unproductive land closer to the coast. We cannot replace this land, simply because there is no more of it. This construction will take 55 acres or 25% of our best land. This land provides for 40% of our income.</li> </ul>		
46	<p>I am aware that the cane group is lobbying to change from the Tyndale Connection back to the old Purple Option Route and, as a cattle producer, I strongly disagree with this stance. It has been argued that taking the Purple Route Option from Shark Creek to south of Tyndale would lessen the proposed highway's impact on cane land. No doubt this is correct for cane land but I would like to make the point that our grazing land is just as important to graziers as the cane land is to cane farmers. Indeed our lower lying ground provides an abundance of feed all year round and is a godsend in dry times. Like the cane industry, our cattle industry also has a long, proud history and also contributes millions of dollars in flow-on's to the local economy. Just as the loss of cane tonnage to the mill will be affected, our loss will impact local and regional abattoirs and the throughput at the Grafton Saleyards (our mill if you like).</p> <p>Under the Preferred Route Option, the cattle industry will lose</p>	<p>Noted.</p> <p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic and technical/engineering factors. All route options have advantages and disadvantages when considered against the criteria. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	971

Issue No.	Comments on agricultural impacts	Response	Stakeholder ID
	<p>productive grazing country from Glenugie all the way to Tyndale, including the Tyndale Flood Reserve, resulting in loss of farm viability, loss of cattle production and flow-on effects to the viability of the industry. Like most, I am shocked and mystified as to why the Preferred Route was chosen at all when the Red and Green Options, whilst not perfect, would have achieved less loss all round. Given proper compensation, people and houses can be relocated and provision can always be made for fauna corridors through the construction of underpasses, fencing and overhead structures, as has been done for the Bulahdelah, Karuah and far North Coast area upgrades. However, once our agricultural land is lost, it is lost forever.</p>		
47	<p>We are concerned about the impact of the new highway on rural land, particularly rural land resumed for the project.</p>	<p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. It is acknowledged that the Orange/A option and the Purple/B option have a high potential for land use impacts in terms of direct effects on houses and impacts on productive rural land. However, the Orange/A option generally avoids the types of land use impacts normally associated with new route corridors, such as severance of properties and changes to land use patterns.</p> <p>The preferred route selected is the one that is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	157

### 3.3.9 Residential, rural residential and rural community impacts

Issue No.	Comments on residential, rural residential and rural community impacts	Response	Stakeholder ID
48	<p>We understand that the Purple route was chosen in this area predominantly to bring the interchange closer to Grafton even though the environmental impact will be greater. There have also been references to the village community of Pillar Valley; however the actual number of residences is no greater than the sum of those affected in the Coldstream/ Woolli Road area. The report refers to lack of specific studies in the area however as locals we know that there are more significant issues than those identified in the report.</p>	<p>The interchange at Glenugie would provide for relatively direct access to the main employment centre of Grafton which assists in mitigating potential adverse economic impacts associated with the highway proposal. The refined Purple option avoids the majority of areas of high conservation value, which are mainly located in the north east of the study area. At the time of the announcement, the RTA indicated that the preferred route would be further developed in consultation with affected landholders and the community to</p>	157

Issue No.	Comments on residential, rural residential and rural community impacts	Response	Stakeholder ID
	<p>There is no doubt that the building of a new highway through this area will have a significant impact on our lives as well as those of our neighbours. We would like to discuss the ways in which these impacts can be minimised.</p>	<p>minimise impacts to properties. A landholders' workshop was held on April 2007 and formed part of the process to refine the corridor and develop appropriate mitigation strategies in the Old Six Mile Lane to Woolli Road section of the route. Participants of the workshop comprised landowners affected by the upgrade between Old Six Mile Lane and Woolli Road.</p> <p>A key outcome of the assessment of alternative options was that Option 2A between Old Six Mile Lane and Wants Lane has been adopted as the preferred route. As such, the refined preferred route:</p> <ul style="list-style-type: none"> <li>■ turns off the existing highway at Glenugie approximately 1km earlier.</li> <li>■ has been moved further east of Grafton Airport.</li> <li>■ has been moved further south along Old Six Mile Lane.</li> </ul> <p>This refinement would improve property management along Old Six Mile Lane. Further information on the assessment of the alternative alignments and refinements between Old Six Mile Lane and Woolli Road has been provided in the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>.</p> <p>More detailed investigations would be undertaken during the environmental assessment and detailed design phase of the project. The environmental assessment would examine the potential impacts of the preferred route in further detail, and identify the measures proposed to mitigate these potential impacts. The refined design and environmental assessment would be displayed for community comment prior to assessment of the Proposal by the NSW Department of Planning and consideration by the Minister for Planning.</p>	
49	<ul style="list-style-type: none"> <li>■ I work nights as a security guard at Maclean District Hospital. As I sleep during day time hours, I'm very concerned about not being able to sleep when the project is implemented. So that I am not impacted by noise, I may need to move my house to the other side of my property. We need serious discussions about compensation options and processes, including compensation for re-location of the family home.</li> <li>■ Our family company have a land holding at Townsend east of Maclean. Presently the north-west corner of our property is</li> </ul>	<p>The <i>Land Acquisition (Just Terms Compensation) Act 1991</i> is the legislation used to compensate landowners for land that is directly affected by the preferred route. The RTA has no statutory mechanism to provide monetary compensation for property owners not directly impacted through acquisition of land for the project.</p> <p>A detailed noise assessment would be undertaken as part of the environmental assessment on the preferred route. Noise</p>	954, 1071

Issue No.	Comments on residential, rural residential and rural community impacts	Response	Stakeholder ID
	<p>only about 30 metres from the existing highway. The new proposed highway will come even closer to our land. This land is zoned for residential use. We have so far developed 90 or so residential allotments in this estate and have DA approval for a further 150 or so. As yet we have not sought DA approval to develop the 2 ha in the north-west corner of this land, which is closest to the highway. The 2 ha in the north-west corner is actually zoned 2b - medium density development. We understand the need for the upgrade of the highway and in principal support the RTA's present proposal for this area. However, we are concerned about the impact that the widening of the highway will have on the amenity of our residential land for future medium density residential development. We ask that you give due consideration to appropriate noise buffer mediums when designing this section of the highway so that the adjoining residential land will not be adversely affected.</p>	<p>mitigation would be described in the environmental assessment and would be provided in accordance with NSW Department of Environment and Climate Change requirements. Noise mitigation treatments such as modified road surfaces, noise mounds or barriers would be considered where required. In some cases, architectural treatments to individual properties may be considered where warranted, and in consultation with the relevant landowner.</p>	
50	<p>The Preferred Route will cause huge social disruption as many people will be displaced from their homes. The Preferred Route provides for a new bridge across the Clarence, the cost of which will be prohibitive, and which will cause major socio-economic disruption on Harwood Island with shipping also badly disrupted.</p>	<p>It is acknowledged that the preferred route adversely impacts on a number of landowners. The RTA compensates directly affected landowners in accordance with the <i>Land Acquisition (Just Terms Compensation) Act 1991</i>.</p> <p>Potential socio-economic impacts resulting from the proposal are described in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> and the <i>Wells Crossing to Iluka Road Preferred Route: Socio Economic Working Paper, RTA 2006</i>.</p> <p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p>	1521



### 3.3.10 Economic impacts

Issue No.	Comments on economic impacts	Response	Stakeholder ID
51	This route will devastate several local economic livelihoods and industries causing great loss of local income to the area.	Economic impacts were a consideration during the route selection process and development of the concept design. Additional interchanges have been provided at Watts Lane and Maclean to facilitate more direct access to the Harwood Sugar Mill and Maclean. The interchange at Glenugie would provide for relatively direct access to the main employment centre of Grafton which assists in mitigating potential adverse economic impacts associated with the highway proposal. Directly affected businesses would be compensated in accordance with the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	297
52	The project will result in loss of earnings and livelihood for our family. Our family has made a living out of timber cutting. Most large trees on our property are used as curved specialist timbers and timbers for large ships such as the Endeavour. This highway will destroy our timbers.	The <i>Land Acquisition (Just Terms Compensation) Act 1991</i> is the legislation used to compensate landowners (including directly affected business owners) for land that is directly affected by the preferred route.	640
53	The Coastal emus are starting to become an icon species in the Clarence Valley and people are proud of them. Ecotourism has massive potential in this region, with the national parks and the marine park and all the flora and fauna that remains because of limited development.	<p>The protection of the coastal Emu has been a consideration throughout the project, and has been reported in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> and the <i>Wells Crossing to Iluka Road Preferred Route: Biological Working Paper, RTA 2006</i>.</p> <p>Additional investigations on the emu population have been undertaken as part of the concept design and are reported in the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i>. The outcomes of these investigations, including suggested mitigation measures, have been incorporated into the concept design.</p> <p>The preferred route has the potential to improve development of an ecotourism industry within the region, with the upgraded highway capable of improving access to the region.</p>	2414

### 3.3.11 Flora and fauna impacts

Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
54	Information on Emus in the Preferred Route Report is flawed.	<p>As noted in Section 3.6.3 of the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i>, the information relating to the potential impacts on the Coastal Emu was of a preliminary nature only. The information was based on a number of previous studies and records of opportunistic sightings compiled by DECC rather than comprehensive surveys of the species. This level of detail was considered sufficient to assess the relative merits and impacts of the route options to assist with the selection of the preferred route. Further assessment and investigation of the Emu population was undertaken as part of the concept design phase of the project which involved the engagement of a specialist with expertise in this field.</p> <p>(refer to <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> for further information).</p>	1108
55	A comprehensive offset package must be developed to mitigate against the impacts arising from the construction of the new project.	Further environmental studies would be undertaken as part of the preparation of the environmental assessment. These studies would be prepared in accordance with the Department of Planning's Director General's requirements in consultation with the relevant government agency.	12
56	The preferred route appears to impact on the southern edge of SEPP 14 wetlands in the Coldstream catchment. This has not been reflected in the preferred route working paper. This omission is likely to be the result of the very coarse vegetation mapping dataset used.	<p>The SEPP 14 wetland mapping that was used in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> and the <i>Wells Crossing to Iluka Road Preferred Route: Biological Working Paper, RTA 2006</i> was provided by the Department of Environment and Climate Change (DECC).</p> <p>During the concept design phase, additional ecological field studies were carried out to supplement the data used at the route selection stage provided by DECC. This included assessing the potential for impacts of the preferred route on SEPP 14 wetlands. The preferred route was aligned to avoid all SEPP 14 wetlands, including in the Coldstream basin.</p>	12
57	<ul style="list-style-type: none"> <li>■ Collisions with vehicles still remain the largest threat to the Coastal Emu with 44 road deaths reported in the last 6 years.</li> <li>■ Not only does this route devastate our Pillar Valley, which is the heart of the Clarence, but this route also disrupts the habitat of the threatened Coastal Emu, which migrates throughout this valley.</li> </ul>	<p>During the concept design phase, additional ecological field studies were carried out. As part of this phase, an Emu specialist with expertise in this field was engaged to identify the potential risks of the preferred route on this species and develop mitigation measures to minimise these impacts.</p> <p>The investigations recommended that impacts on emus through</p>	12, 297

Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
		road strike should be managed through the provision of exclusion fencing across the required length of section 2 from Eight Mile Lane north to the Tyndale intersection. Fencing is necessary to help guide emus to the crossing structures. Section 5 of the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> and Section 13.2.3 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> further describes these mitigation measures.	
58	<p>There is no doubt that the building of a new highway through this area will have a significant impact on local flora and fauna. However, the report does not mention or does not identify the extent of many issues for us, such as the extent of impacts on threatened species, wetland and floodplain areas, and species that require movement from salt to fresh water. This area is notorious for wild dogs, dingoes and foxes and funnelling the movement of fauna through this bridge crossing of the river will increase their vulnerability to predators.</p> <p>The actual extent of the wetlands is far greater than that identified on the report's maps.</p>	<p>The wetland mapping detailed in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> and <i>Wells Crossing to Iluka Road Preferred Route: Biological Working Paper, RTA 2006</i> was sourced from the Department of Environment and Climate Change (DECC) and supplemented from the field investigations undertaken during the route selection phase. During the concept design phase, additional ecological field studies were carried out to supplement the data used at the route selection stage provided by DECC. This included assessing the potential for impacts of the preferred route on SEPP 14 wetlands. The project team also obtained further targeted information on the presence of flora and fauna along the preferred route corridor during these investigations.</p> <p>Fauna crossing structures have been incorporated into the concept design of the preferred route and are described in Section 13.2.3 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> and Section 5.2.5 of the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i>. These will be further developed at the detailed design stage to reduce the risks associated with predation.</p>	157
59	<p>Logging will destroy 500,000 plus trees, including species such as Spotted Gum, Red Iron Bark, Grey Iron Bark, Rae Fine Leaved Grey Iron Bark, Grey Gums, Red Gums, Grey Box, Rare Black Box, Rare Steel Butts, Oak Trees, Blood Woods, and Wattles. This bulldozing of trees will also impact fauna, including but not limited to Sugar Gliders, Kangaroos, Possums, White Gliders, Emus, Large Grey Gliders, Wedge Tail Eagles, Night Hawks, Ground Hawks, Night Owls (3 types), Wonga Pigeon, Bronze Wing Pigeon, Sizzer Grinders, King Parrots, Sugar Parrots, Black Cockatoos, Forest Hawks, Honeyeaters, Warblers, Hopping Jacks, Finches and</p>	<p>During the development of the concept design, careful consideration was given to avoiding impacts on flora and fauna, particularly endangered ecological communities and threatened species. Where impacts cannot be avoided, management measures which would assist in mitigating adverse impacts have been included in the concept design and discussed in Section 13.2 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> and Section 5 of the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i>.</p>	640

Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
	various types of snakes, lizards, and frogs. The large number of trees in this one location has nearly always got some type of tree in flower and also being such a thick forest it attracts a large number and variety of birds.	Further environmental studies will be undertaken as part of the preparation of the environmental assessment. These studies would be prepared in accordance with the Department of Planning's Director General's requirements.	
60	The Preferred Route Report shows that the old Purple/ B Option would impact significant freshwater wetlands and an endangered ecological community. It also points to poor soil for road stability and refers to negative issues of drainage, flooding, ecology and land use along this route (see Table 4.4). The old Purple B option would also go through the habitat and movement corridors of the Coastal Emu.	Tables 4.3 to 4.7 of the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> provide an assessment of the short listed route options. The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. The preferred route is considered to offer the best solution, on balance, based on the combined consideration of all factors.	971
61	<ul style="list-style-type: none"> <li>■ The coastal hardwood forests and wetlands are a winter hideaway for our Coastal Emus but are totally ignored by your website information and the national parks report. The Coastal Emu breed and rear their young chicks in and around our cane fields between Maclean and Tyndale during the spring and summer period.</li> <li>■ We have as many endangered species on our farm land as anywhere else. Where we grow soya beans and other legumes to fallow our paddocks, National Parks and Wildlife have erected signs warning motorists on McIntyre's Lane to slow down and be aware of Emus, which reside and rear their young on our crops.</li> <li>■ Pillar Valley has such a diverse range of flora and fauna. It is a real shame that the RTA thinks it is ok to divide a valley. We can say goodbye to the Coastal Emu.</li> </ul>	<p>During the concept design phase, additional ecological field studies were carried out.</p> <p>As part of the development of the concept design, an Emu specialist with expertise in this field was engaged to identify the potential risks of the preferred route on this species and to develop mitigation measures to minimise these impacts. As part of these investigations, the Coastal Emu was recorded in several locations throughout the study area, predominantly within sections 2 and 3, and in a variety of habitats from grassy floodplain to swamp and dry sclerophyll forest. It is expected that the local population comprises up to 100 individuals.</p> <p>The outcomes of these investigations are reported in the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> and Section 13.2 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>.</p> <p>Further environmental studies will be undertaken as part of the preparation of the environmental assessment. These studies would be prepared in accordance with the Department of Planning's Director General's requirements.</p>	1176, 1517, 1887
62	<p>If the Preferred Route remains as the current combination of Orange/ A and Purple/ B options, there are a number of items which should be considered as outlined below.</p> <p>Impacts on SEPP 14 Coastal Wetlands. This is especially important</p>	Further ecological investigations were undertaken following the announcement of the preferred route which assisted with the development of the concept design. The outcomes of these investigations are reported in the <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i>	2032

Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
	<p>in light of the fact that SEPP 14 maps were drawn up during a drought, and therefore such wetlands are usually much larger than shown on the maps. In addition, any pollution spills or runoff from the highway would very likely affect the wetland, and these must be carefully managed.</p> <p>Species Impact Statements: SISs should be prepared for all threatened species and endangered ecological communities in the area as it is almost certain that they are likely to be significantly impacted. Detailed plans of management and recovery should be prepared, and thorough research into biological characteristics of the species should be undertaken. This is especially important in the case of the Coastal Emu, for which crucial habitat and corridors are being demolished and fragmented to make way for the highway.</p> <p>Intense research into a wide variety of measures to reduce impacts on threatened species, especially the Coastal Emu, as well as endangered ecological communities and SEPP 14 wetlands, should be undertaken. All measures that may contribute to mitigation of impacts should be undertaken, considering the extremely low population numbers of the Emu (around 40-100 individuals), and the increased risk of extinction likely to result from fragmentation and reduction of habitat due to the Preferred Route. Such measures should include, but not be limited to, bridges to allow for open fauna crossings underneath the highway, as well as smaller fauna crossings underneath and over the road. Such bridges, completely lifting the road up off the plain, and with replanted local native vegetation underneath, are required as there has been much research conducted that indicates there are many problems associated with tunnels underneath roads for facilitating native fauna movement. Where financial and construction limits allow, open bridges should be used wherever possible instead of fill, to reduce habitat fragmentation as much as possible. Additionally, investigations into other impacts on flora and fauna, such as noise, light, disturbed flooding profiles, pollution and vibration effects should be undertaken and appropriate mitigation measures implemented.</p> <p>The Nature Conservation Council thoroughly approves of the RTA's plan to provide a "package of measures to provide a better understanding of the behaviour, local movement patterns and habitat requirements of the Coastal Emu population". However, it is</p>	<p>and Section 13.2 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i>. These investigations have identified the potential impacts of the preferred route on flora and fauna, including SEPP 14 wetlands.</p> <p>In response to the submissions received regarding the coastal Emu, an emu specialist was engaged to identify the potential risks of the preferred route on this species and to develop mitigation measures to minimise these impacts. The concept design of the preferred route has incorporated fauna crossing structures which could be utilised by the Coastal Emu to minimise impacts arising from the fragmentation of fauna corridors.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment. These studies would be prepared in accordance with the Department of Planning's Director General's requirements.</p> <p>Following the completion of the environmental assessment, the RTA would then seek approval for the project from the NSW Minister for Planning. Construction could commence at a time determined by the NSW Government after project approval.</p>	

Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
	<p>unclear, apart from financial pressures, why only some of the proposed measures may be undertaken. As such, we strongly recommend that all of the research about the Coastal Emu that is described in the Preferred Route report be undertaken, and further research as is required. Commitments to comprehensive and ongoing monitoring, auditing, and public reporting of impacts and the effectiveness of management plans and mitigation measures should be made, and management plans adapted accordingly.</p> <p>Construction should begin only after extensive research into the movements of local fauna, especially threatened species, has been undertaken. Construction should then be timed so as to coincide wherever possible with seasons where threatened fauna is less likely to be using or moving through the construction zone.</p> <p>Construction should also be staged so as to always allow for a corridor (complete with native vegetation if possible) to be present, connecting the crucial western habitat areas with those on the eastern side of the preferred route.</p> <p>Management plans should be implemented for threatened species population management and any other key environmental attributes identified in the Environmental Impact Assessment process.</p> <p>Commitments to comprehensive and ongoing monitoring, auditing, and public reporting of impacts and the effectiveness of management plans and impact mitigation measures should be made, and management plans adapted accordingly.</p>		
63	<p>The RTA estimates that Option B would require the clearing of 650 ha of vegetation, 68 ha of which is listed as representing various endangered ecological communities. Vegetation clearing itself is listed as a key threatening process. By contrast, the existing highway Option A requires very little vegetation removal.</p> <p>Clearing vegetation for Option B will degrade and fragment the habitat of many animals. It cuts across several known wildlife corridors, and it will cut through the western range of the already isolated and endangered Coastal Emu population. Emus and many other animals are already frequently killed on local roads and given the abundance of wildlife in this area, most of the proposed highway would require fencing and other wildlife protection measures if there is anything more than lip service to the obligations of the RTA to threatened species and other wildlife. Yet despite choosing this route, the RTA remains unclear how it will be able to provide safe</p>	<p>The route options were assessed in terms of a range of criteria, including biophysical, social, economic, and technical/ engineering factors. The preferred route selected is the one that is considered to offer the best solution, on balance, based on the combined consideration of all factors.</p> <p>In response to the submissions received regarding the coastal Emu, an Emu specialist was engaged to identify the potential risks of the preferred route on this species and to develop mitigation measures to minimise these impacts. The <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> outlines the design measures that have been incorporated into the concept design to provide crossings for fauna, including the Coastal Emu.</p> <p>The concept design plans which are included as Appendix A to</p>	2414

Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
	<p>crossings for the Emu. We don't know how effectively animal overpasses or underpasses provide corridors to the myriad of other threatened fauna in this area like the Rufous Bettong, bush stone-curlew, brush-tailed phascogale, yellow bellied glider, and all the large owl species.</p> <p>A motorway through this area will also restrict animals that utilise the Coldstream wetlands. . This is a vital nesting place for threatened wetland birds such as the Brolga and Black-necked Stork. What mitigation measures will be implemented for these species?</p> <p>The RTA acknowledges that their preferred route "Impacts on areas of high quality habitat and EECs and wetlands" and that upgrading the existing highway poses the "least risk from an ecological perspective". The Preferred Route has been selected because it will have a "manageable level of ecological impact". Yet the key issue of 'managing' ecological impact is surely that of wildlife crossings that allow for the full spatial range and biological functions to continue unaffected and this remains an issue that the RTA says it needs to further consider.</p> <p>There are no known mitigation measures available for the threatened Emu population. Nor do we know how much these unknowns would cost. In what sense then is it possible to know there is a "manageable level of ecological impact". The most precautionous, effective and cheapest wildlife protection measure is to leave their habitat alone.</p>	<p>the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> details the locations of the proposed fauna crossings.</p> <p>Further environmental studies will be undertaken as part of the preparation of the environmental assessment. These studies would be prepared in accordance with the Department of Planning's Director General's requirements.</p>	
64	<p>It appears from the information provided that the proposed Preferred Route is the best option for DPI Fisheries Division as it will impact least on fish and fish habitat. It also appears that the Preferred Route travels over higher ground which will retain wetlands and avoid the need to cross many streams, which will also lessen the impacts on fish, aquatic plants and fish habitat. NSW DPI – Fisheries Division will also consult with the RTA and others regarding NSW Fisheries Policy and Guidelines for Aquatic Habitat Management and Fish Conservation 1999, which describes a 2:1 habitat compensation policy for any fish habitat losses associated with a development. This may be applicable in locations where mangroves or marine vegetation are impacted as a result of the Highway upgrade.</p>	<p>Noted. The <i>Wells Crossing to Iluka Road Concept Design: Aquatic Ecology Working Paper, RTA 2008</i> assesses the impacts on aquatic ecology and recommends measures to manage these potential impacts. The working paper has informed the development of the concept design.</p>	2579



Issue No.	Comments on flora and fauna impacts	Response	Stakeholder ID
65	<p>How can you overlook the impact you will have on ecological systems. The neighbours in the back of our property have a pair of nesting Brolgas on their property within metres of your highway. This is about as far south as Brolgas come. The location of your highway will prevent this from happening.</p> <p>This Preferred Route carves a path straight through critical wetlands and catchment areas of the Coldstream River. Our properties that surround us are the migrating and feeding areas for the Red tailed Cockatoo, a species I believe to be endangered. The Coastal Emus that live and breed in this area are quite prevalent frequently within the exact proximity of your proposed highway, roaming and feeding freely. They will lose their migrating corridors. I have been told that the highway may be moved 100 metres either way, to allow for such things, but in all honesty this will make absolutely no difference.</p>	<p>The Coldstream basin area is spanned by a series of bridges (totalling 600 metres in length) which would provide for fauna movements and maintenance of fauna corridors. Further ecological investigations have been undertaken following the announcement of the preferred route to inform the concept design. The <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> provides an assessment of the potential impact of the preferred route and an outline of mitigation measures aimed at minimising these impacts.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment.</p>	2792
66	<p>The Purple route carves a path straight through critical wetlands and catchment areas of the Coldstream River, which is a main tributary of the Clarence River. Has any environmental studies gone into this area?</p>	<p>Environmental investigations have been conducted throughout each phase of the project to date. The <i>Wells Crossing to Iluka Road Concept Design: Terrestrial Ecology Working Paper, RTA 2008</i> and <i>Wells Crossing to Iluka Road Concept Design: Aquatic Ecology Working Paper, RTA 2008</i> provides an assessment of the potential impact of the preferred route on ecology, including the wetland system and Coldstream River.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment.</p>	2966

### 3.3.12 Water quality impacts

Issue No.	Comments on water quality impacts	Response	Stakeholder ID
67	<p>The effect of a major traffic thoroughfare being built on the banks of a river with this degree of importance simply cannot be justified.</p>	<p>Water quality impacts have been a consideration during the selection of the preferred route and the concept design. The preferred route selected is the one that is considered to offer the best solution, on balance, based on the consideration of all factors.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment.</p>	612

Issue No.	Comments on water quality impacts	Response	Stakeholder ID
68	<ul style="list-style-type: none"> <li>■ The pollution from the motorway will directly affect our dam and drinking water. The runoff from the motorway will severely affect our water course.</li> <li>■ How can the RTA contemplate a major highway on the bank of a river given the potential for spillage of toxic chemicals, for example as a result of spills from trucks? Additionally, land in close proximity to a river is unstable.</li> <li>■ How will the pollution affect our drinking water? Are we going to be given a water purifier to maintain our rainwater quality?</li> </ul>	<p>The <i>Wells Crossing to Iluka Road Concept Design: Water Quality Working Paper, RTA 2008</i> outlines the potential impacts on water quality and proposed mitigation measures to minimise runoff affecting local waterways.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment.</p> <p>Prior to the construction of any route, assessment of water quality would be undertaken in more detail, including measures to manage these impacts both during construction and operation. These would be incorporated into an environmental management plan (EMP) that assists with the environmental management of construction activities.</p>	954, 1108, 1887
69	Management plans should be prepared and implemented for pollution control (especially for road runoff into surrounding waterways and wetlands),	Environmental management plans (EMP) will be prepared for both the construction and operational phases of the project. These EMPs will be implemented to control risks to water quality.	2032

### 3.3.13 Heritage impacts

Issue No.	Comments on heritage impacts	Response	Stakeholder ID
70	To the issue of heritage listed tram tracks, nobody raised this issue when the house that is currently for sale was relocated approx 4 years ago from its Watts Lane location to its present location astride or immediately adjacent to the old tramline route.	Noted. The heritage listed tram tracks were identified during the route selection process. The preferred route would not affect this heritage listed item.	272
71	I object most strongly to the Preferred Route between Tyndale Village and Harwood Bridge. Our European heritage of settlers' homes and home sites will be lost forever on the Maclean to Tyndale section where the Preferred Route follows the present highway along our high river bank country.	<p>One item of European heritage identified in the Maclean Shire Community-Based Heritage Study 2006 is to be directly affected by the preferred route.</p> <p>The <i>Wells Crossing to Iluka Road Concept Design: Cultural Heritage Working Paper, RTA 2008</i> describes the potential impacts of the preferred route on European heritage items and sites.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment.</p>	1176
72	The route would impact Nahro Creek, which is steeped in the	Noted.	2061

Issue No.	Comments on heritage impacts	Response	Stakeholder ID
	<p>history of Harwood Island settlement. I am informed by a couple of elder residents that there may have been Aboriginal settlement in the creek area.</p> <p>The Ryan family settled this Nahro Creek area in the 1850s and we do have our “sacred sites” especially along the creek area.</p>	<p>As part of the assessment of the heritage impacts of the preferred route, consultation with local aboriginal land councils and elders has been carried out in accordance with DECC requirements. An Aboriginal focus group was also established which assisted the RTA assessing the potential impacts of the proposal on Aboriginal heritage.</p> <p>Potential archaeological deposits were not identified in this area.</p> <p>The <i>Wells Crossing to Iluka Road Concept Design: Cultural Heritage Working Paper, RTA 2008</i> describes the potential heritage impacts of the preferred route.</p> <p>Further environmental studies would be undertaken as part of the preparation of the environmental assessment.</p>	
73	<p>Route B will impact areas of some Aboriginal significance, while an upgraded existing highway will not (or at least, not much more than it already has).</p>	<p>As part of the assessment of the heritage impacts of the preferred route, consultation with local Aboriginal land councils and elders has been carried out in accordance with DECC requirements. An Aboriginal focus group was also established which assisted the RTA assessing the potential impacts of the proposal on Aboriginal heritage.</p> <p>The preferred route would not affect areas of major cultural significance.</p> <p>The <i>Wells Crossing to Iluka Road Concept Design: Cultural Heritage Working Paper, RTA 2008</i> describes the potential heritage impacts of the preferred route.</p>	2414

### 3.3.14 Land use impacts

Issue No.	Comments on land use impacts	Response	Stakeholder ID
74	<p>The Preferred Route Report contains a broad description of the rural land uses of the study area, however the land use map in Figure 3-5 does not adequately show the spatial distribution of the dominant and notable rural land uses. As such, the intersection of the Preferred Route with the dominant and key rural land uses is not readily discernible from the Preferred Route Report.</p>	<p>The <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> provides broad-scale mapping and description of the land uses across the study area. Further investigations into the land use of the preferred route would be undertaken during the environmental assessment phase of the project.</p>	336

Issue No.	Comments on land use impacts	Response	Stakeholder ID
75	It is strongly recommended that lands that are to be impacted by the Preferred Route are supplemented wherever possible from the “relatively large land holdings” the RTA has in the area. This is especially important for reserve lands that are to lose area, such as the Newfoundland State Forest, Glenugie State Forest, the Pine Brush State Forest, and particularly for the Yaegl Nature Reserve which includes SEPP 14 wetlands. Donation of land to maintain, or ideally increase, the current size of these reserves, should be undertaken. Obviously, keeping the road reserve as narrow as possible in these areas should be attempted.	Wherever possible, the preferred route has been designed in a manner that minimises the impacts of the highway on land use.  The requirement to provide ‘supplementary land’ or land offsets as compensatory habitat and other mitigation measures would be determined in accordance with the Department of Planning’s Director General’s requirements for the environmental assessment and in consultation with the relevant government agency.  The community would have an opportunity to comment on proposed mitigation measures following the public release of the environmental assessment.	2032
76	DPI Mineral Resources is pleased that the Preferred Route avoids the Shark Creek Ridge area and hence is broadly in line with recommendations in its letter to RTA dated 12th May, 2006. Future investigations for the subject project would need to address all other issues raised in the letter from DPI Mineral Resources dated 12th May, 2006, in particular: the construction material requirement, their likely sources and future impact on future district supply; the assessment and management of the potential for adverse impact on resources, especially along the “central sandstone ridge”; and the maintenance of suitable transport access to active and potential quarry sites.	Noted. Further studies would be undertaken in accordance with the Department of Planning’s Director General’s requirements for the environmental assessment and in consultation with the relevant government agency.	2553

### 3.3.15 Noise, air quality and visual impacts

Issue No.	Comments on noise, air quality and visual impacts	Response	Stakeholder ID
77	<ul style="list-style-type: none"> <li>■ Noise would be a factor for some new receivers and this would need to be addressed.</li> <li>■ Expressed concern about the impact of the new highway with respect to construction and operational noise.</li> <li>■ The placing of a new bridge east of Harwood Mill and the resulting vehicle noise would be ‘obnoxious’.</li> </ul>	<p>Preliminary noise modelling has been undertaken during the route selection phase which has shown that the preferred route may exceed the night time noise criteria at up to 170 houses.</p> <p>Criteria set by regulatory authorities (for example the RTA use the NSW Department of Environment and Climate Change noise criteria) will be used to determine the level of mitigation required to meet these criteria.</p> <p>Detailed noise investigations would be undertaken as part of the</p>	12, 157, 272, 2061, 2414, 2966

Issue No.	Comments on noise, air quality and visual impacts	Response	Stakeholder ID
		environmental assessment, in accordance with the DECC criteria. All receivers identified at the environmental assessment stage would be considered as part of these further investigations. The environmental assessment will describe the potential noise impacts of the proposal and mitigation measures that would be put in place to manage these impacts.	
78	We are concerned about the visual impact of the new highway.	Noted. As part of the detailed design and environmental assessment phase of the project, measures would be considered to minimise the visual impacts of the proposal, including treatments such as landscape planting and mounding.	157
79	<p>The noise levels during construction will be unbearable. The present Highway is through a “cutting” west of my property and with the addition of the buffering effect of trees and undergrowth I am protected to a degree from the noise of the Highway. If the proposed route eventuates, the buffer zone of trees and undergrowth outside my western fence will be lost and we will have full exposure to the noise, pollution and the added dangers of being so close to traffic on the Highway.</p> <p>The close and constant noise and vibrations from heavy earth moving machinery and rock blasting; the loss of a substantial amount of my land and the possible destruction and damage to my beautiful house will limit my enjoyment of my own property.</p>	Detailed noise investigations would be undertaken as part of the environmental assessment, in accordance with the DECC criteria. The environmental assessment will describe the potential noise impacts of the proposal and mitigation measures that would be put in place to manage these impacts.	1212
80	<ul style="list-style-type: none"> <li>■ Where the highway is closest to us there will be a huge bridge crossing Chaffin Creek. Due to the height of the bridge this will only add to the fall of pollution and noise to our home. This will also ruin our western aspect.</li> <li>■ The RTA might think that 50 decibels of noise is acceptable, but this is totally unacceptable to us. We have no noise at present, apart from animals. We believe the noise laws should be changed for rural homes that are far more affected than their city neighbours.</li> <li>■ Expressed concern regarding pollution from exhaust fumes.</li> </ul>	<p>The results of air quality monitoring undertaken adjacent to a higher trafficked (worst case scenario), dual carriageway section of the Pacific Highway at Korora show that air quality adjacent to the highway is well within National Environment Protection Measures (NEPM) guidelines. This would be investigated in further detail as part of the environmental assessment.</p> <p>As part of the environmental assessment, the RTA would be required to undertake detailed noise investigations, in accordance with the DECC criteria. The environmental assessment would describe the potential noise impacts of the proposal and mitigation measures that would be put in place to manage these impacts.</p> <p>Potential urban design treatments are discussed in Section 11 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> and would be further defined at the environmental</p>	1887, 2414, 2966

Issue No.	Comments on noise, air quality and visual impacts	Response	Stakeholder ID
		assessment and detail design phases of the project.	
81	Thank you so much for your choice of preferred route. Since we have been invited to make a submission, we would like to propose a strategy for the upgrade that will help us, in particular, and every, home that has been so long suffering awaiting this upgrade.	Noted.	2252
82	The highway will completely take away our northern outlook and I have been informed by your project team members at the Tucabia Information Session that the existing road (i.e. Pillar Valley to Tucabia Road) will pass over the new highway. With the associated works that would be involved we will also lose our easterly outlook as well. You will effectively be boxing us in. We will have two roads less than 30 metres from our house.	The preferred route would be approximately 250 metres to the north of this residence and the existing nearby local road would remain approximately 50 metres to the east. The easterly outlook of this property would be unaffected by the preferred route. The visual impacts on the northern outlook of this property would be minimal as the preferred route would be within cutting and a significant stand of trees would further block the line of site.  As part of the detailed design phase, measures would be considered to minimise the visual impacts of the proposal. This includes such treatments as landscape plantings and mounding.	2792

### 3.3.16 Traffic

Issue No.	Comments on traffic	Response	Stakeholder ID
83	Information on traffic flow statistics in the Preferred Route Report is flawed.	The traffic data provided in the <i>Wells Crossing to Iluka Road Preferred Route Report, RTA 2006</i> was based on vehicle counts provided by permanent RTA traffic count stations and traffic counts carried out by SKM in October 2004. Further assessment of traffic data has been carried out to inform the concept design phase of the project. Refer to Section 6 of the <i>Wells Crossing to Iluka Road Concept Design Report, RTA 2008</i> .	1108

### 3.3.17 Human health and safety

Issue No.	Comments on human health and safety	Response	Stakeholder ID
84	We are concerned about the impact of the new highway with respect to heavy fog in this vicinity.	Fog and other climatic conditions have been considered in the development and assessment of route options. There are issues with fog across much of the study area, including adjacent to the Clarence River, the Coldstream basin and Pillar Valley where fog is known to occur for prolonged periods.	157
85	Planes landing at the Grafton Airport of a night from either direction will create accidents on the new freeway. The planes use strong lights that will shine in the faces of car drivers when they are coming in to land. Planes landing from the north will shine in the northbound drivers' eyes, while planes landing from the south it will affect southbound drivers. Small aircraft flying with learner pilots over the new highway may cause accidents because the trees cleared for new highway will cause wind updrafts. The new highway should be moved 2kms to the east and stay out of Coldstream swamp.	The preferred route would pass to the south-east of Grafton Airport. At the time of the announcement, the RTA indicated that the preferred route would be further developed in consultation with affected landholders and the community to minimise impacts. As part of the concept design phase, refinements to the preferred route were developed and investigated. As a result of this investigation, the preferred route has been moved to the east of Grafton Airport. The alignment (including allowances for vehicles) has been checked to confirm that the concept design satisfies the safe height limitation of the Grafton runway (as provided by Clarence Valley Council).	640
86	<ul style="list-style-type: none"> <li>■ I am concerned for the health and safety of my children and family, particularly in relation to the risk of large trucks running off the highway and entering my property.</li> <li>■ With the new highway only 22m from my back door, it would seem quite a possibility that an out of control, southbound B double could crash into my home.</li> </ul>	Further design of crash barriers and guard rails would be undertaken at the detailed design phase in accordance with the relevant design and safety standards.	954, 1212
87	Our family suffer from asthma. We moved to the country to relieve asthma, and it worked. Since then we have had a boy and girl both who suffer mild asthma. Having our property go from perfect air quality to polluted air will have a negative effect on our family.	The results of air quality monitoring undertaken adjacent to a higher trafficked (worst case scenario), dual carriageway section of the Pacific Highway at Korora show that air quality adjacent to the highway is well within National Environment Protection Measures (NEPM) guidelines. It is not expected that the Wells Crossing to Iluka Road upgrade would exceed those guidelines.	1887
88	Road safety appears to be the most significant driver for this highway project yet the RTA states that the most significant reductions in accidents would be achieved by upgrading the existing highway, not through construction of the Preferred Route. The Preferred Route would provide only "some advantages in achieving safety and transport efficiency objectives".	The Orange/A option would perform best with respect to the safety objectives. However, all options would significantly reduce crashes, particularly crashes involving heavy vehicles.  While the Orange/A option would maximise travel on the upgraded highway by attracting more local traffic, each of the options would result in an improvement in traffic conditions on the	2414



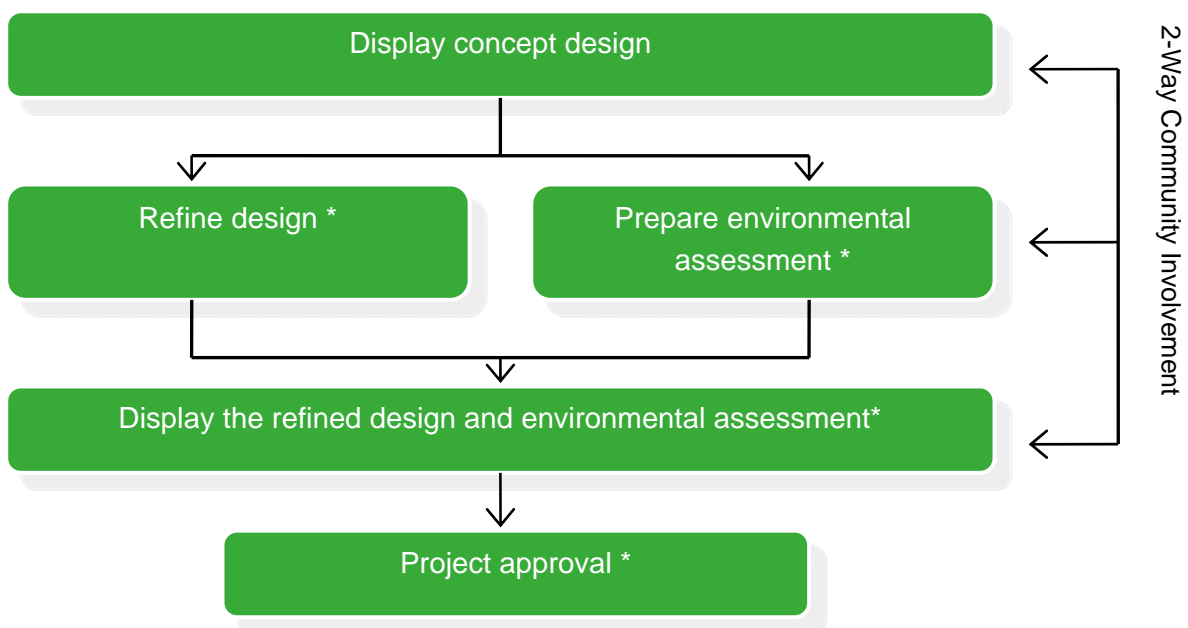
Issue No.	Comments on human health and safety	Response	Stakeholder ID
		existing highway, due to reduced volumes of cars and trucks in particular.	
89	The idea of a freeway so close to our home is very stressful.	Your comments are noted.  In the future, the proposal would be the subject of an environmental assessment. The environmental assessment would assess the potential impacts of the proposal in more detail, and define mitigation measures which would manage those impacts.	2792
90	The proposed highway upgrade will create driver fatigue zones, not reduce them.	The Pacific Highway is being upgraded between Hexham and the Queensland border to meet the current design and safety standards.  The design of the preferred route incorporates adequate rest areas and truck stops. Regular interchanges are also provided along the preferred route to provide access to local townships and their associated facilities.	2792
91	One of the reasons given for the project was to straighten the route to improve road safety. However, the Purple Option between Somervale Road and Tyndale contains an unnecessary curved bend, reportedly to avoid prime agricultural land and ecologically sensitive areas. Why is safety being compromised?	The entire length of the preferred route meets current safety and design requirements. The addition of curves to some long straight sections of road can assist with mitigating against fatigue related incidents.	2981



## 4 The next steps

The concept design for the preferred route has been completed taking into consideration the comments raised in this Submission Report. Following the display of the concept design, the RTA will consider issues raised in any comments. Clarence Valley Council will then be approached to have the corridor formally reserved in its local planning instrument. The boundaries of the corridor will be based on the concept design, as shown in the *Wells Crossing to Iluka Road Concept Design Report, RTA 2008*.

■ **Figure 4-1: Steps following display of the concept design**



\* Note: timing of next steps dependent on future funding

Timing for construction will depend on funding availability. Once this is determined, the environmental assessment will commence and planning approval will then be sought.



## **Appendix A September 2006 community update**



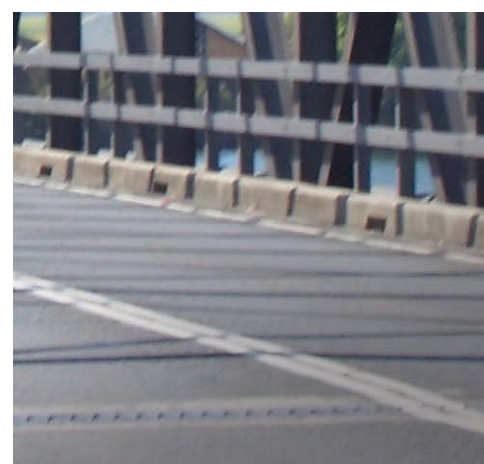
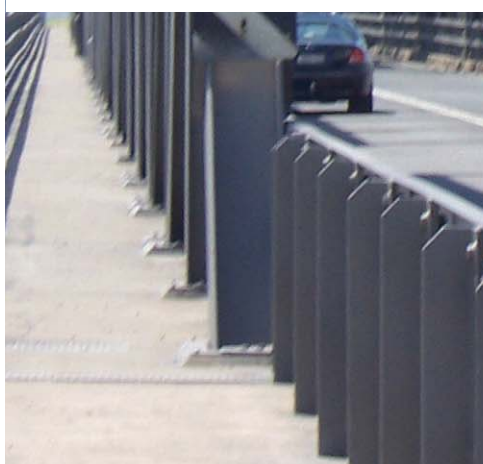
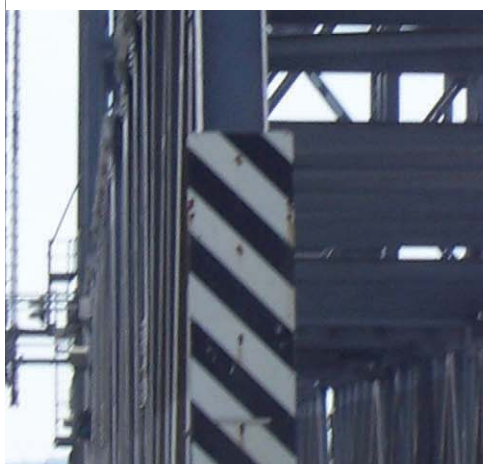


# Wells Crossing to Iluka Road

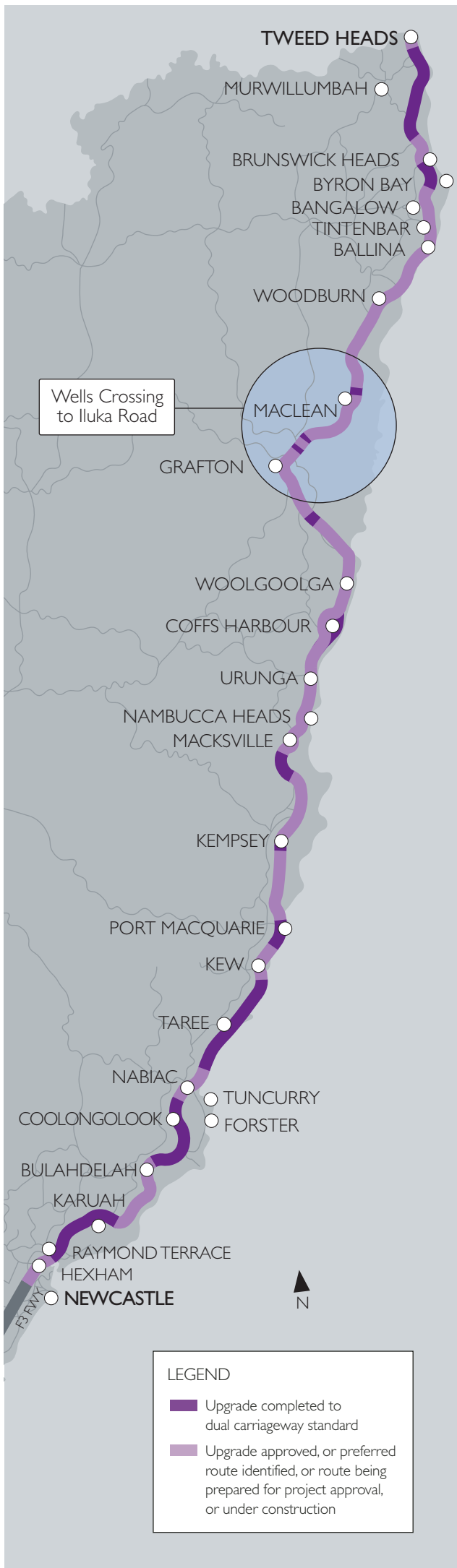
Upgrading the Pacific Highway

**PREFERRED ROUTE**

**SEPTEMBER 2006**







## Completing the upgrade of the Pacific Highway

Identification of a preferred route to upgrade the Pacific Highway between Wells Crossing and Iluka Road is a key step in progressing the completion of the upgrade of the highway.

With the \$2.2 billion Pacific Highway Upgrade Program in place since 1996, a total of 233 kilometres of the highway are now double-lane divided road. A further 480 kilometres are under construction, have been approved for construction or have had a preferred upgrade route identified. This will provide planning certainty for local communities and pave the way for a construction program to complete the upgrade of the Pacific Highway.

The Pacific Highway is an AusLink National Network road. For the 10 years to June 2006, \$2.3 billion has been committed by the NSW and Australian governments. Over the past 10 years, the NSW Government has committed \$1.66 billion and the Australian Government \$660 million.

In December 2005, the NSW and Australian governments announced a jointly funded program of \$960 million for the three years to 2009. In May 2006, the Federal Budget announced an additional \$160 million, matched by NSW, for the period to the end of 2009. This increased the total value of the joint investment for the Pacific Highway Upgrade Program from \$960 million to \$1.3 billion.

## This community update

This community update describes the preferred route for the Wells Crossing to Iluka Road upgrade and the key reasons why the preferred route was chosen. The preferred route is on display until **Friday 3 November 2006**.

## The preferred route

The preferred route for the Wells Crossing to Iluka Road upgrade identifies a nominal 150 metre wide corridor for the development of the highway upgrade. The final road corridor will generally be 100 metres wide but is wider at this stage to allow for refinements to be made following further investigations and consultation with property owners.

## Detailed reports available

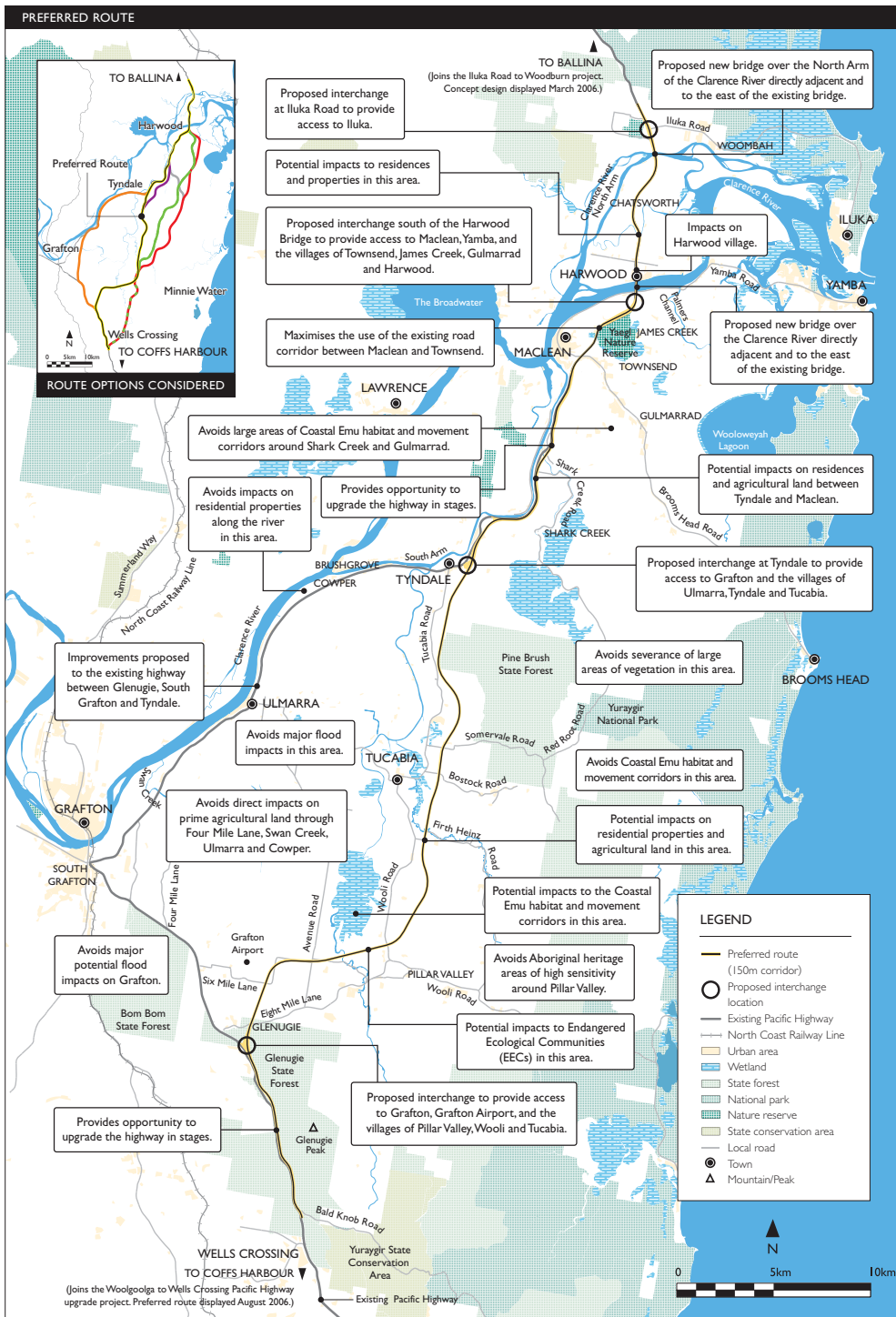
More information on the preferred route is contained in the **Wells Crossing to Iluka Road Preferred Route Report** and associated **working papers**. The report explains how the preferred route was selected, the major planning constraints and the potential impacts of the preferred route. The **Value Management Workshop Report** and the **Route Options Submissions Report** are also available. These reports can be viewed on the project website (see contact details back page).

Copies of the reports and working papers can be viewed at the project information sessions. They can also be obtained by phoning the project information line on 1800 557 673 (toll free).

## Stay involved

The RTA will continue to consult with landowners and the community about the preferred route. There are many aspects of the design that will need local community input including access arrangements, reducing impacts on the immediate environment, drainage infrastructure, the height of the Harwood Bridge, noise management and other key considerations.

All community comment on the preferred route will be considered during the refinement of the preferred route and development of the concept design.



### Why was the preferred route chosen?

The preferred route chosen provides the best overall balance between functional, environmental, ecological, social and economic considerations.

The preferred route between Wells Crossing and the Harwood Bridge is a combination of the orange/A and purple/B options and the Tyndale connection, with some refinements to minimise social and environmental impacts. The preferred route crosses the Clarence River immediately to the east of the existing Harwood Bridge and is to the east of the existing highway through Harwood village. Between Harwood village and the Clarence River North Arm the preferred route is generally located to the west of the existing highway.

The preferred route was selected for the following key advantages:

- Achieves the best balance across a range of issues in relation to the objectives of the Pacific Highway Upgrade Program and the Wells Crossing to Iluka Road project.
- Provides for staging opportunities including improvements to the existing highway.
- Provides a safer transport corridor and provides for good transport efficiency.
- Supports regional economic development by providing good access to Grafton, Grafton Airport, Maclean, Yamba and the villages of Tyndale and Harwood.
- Uses part of the existing highway corridor; north of Bald Knob Road, north of Tyndale, and north of Harwood.
- Provides local access with interchanges at Glenugie, Tyndale, Yamba Road and Iluka Road.
- Avoids high risk flood areas through Swan Creek, Ulmarra and Cowper.
- Provides geotechnical advantages by avoiding areas of soft soils and acid sulphate soils across the Coldstream floodplain.

- Retains many areas important to local farmers as flood refuges for livestock.
- Minimises the impact on high value habitat areas.
- Retains important wildlife corridors.
- Retains wetlands and conditions that are important to aquatic species, and other plant and animal species.
- Avoids sensitive areas of known Aboriginal and European heritage.

An investigation was undertaken on two additional alternative Clarence River crossings – one to the west and one to the east of the existing Harwood Bridge. However, neither option was found to have greater merit than the original corridor in terms of community, environment and social impacts. Therefore, a new two lane bridge would be provided adjacent and to the east of the existing bridge at the Clarence River.

### Existing Pacific Highway

A range of interim works to improve the safety of the existing highway between Glenugie, South Grafton and Tyndale, are

proposed to be included as part of the upgrade. These could include all or some of the following:

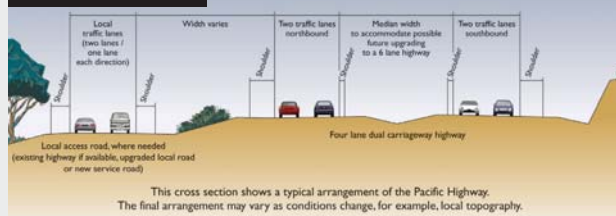
- Installation of wire rope barriers.
- More overtaking opportunities.
- Road alignment improvements.
- Intersection improvements.

The improvements will be developed in detail and in liaison with the Clarence Valley Council. The Ulmarra Bypass will also be considered as part of this process.

### Minimising the potential impacts of the preferred route

The preferred route has been selected to provide a balance across a range of issues. The proposal however, has some impacts on residential properties, agricultural land and the environment. During the further development and refinement of the preferred route, detailed mitigation measures will be developed to minimise any potential impacts.

### TYPICAL CROSS SECTION



## Display locations

The preferred route is on display until **Friday 3 November 2006** at the locations shown below. These displays include larger versions of the map shown overleaf.

- RTA Pacific Highway Office, 21 Prince Street, Grafton (Mon-Fri, 8.30am-4.30pm).
- Grafton Motor Registry, 3 King Street, Grafton (Mon-Fri, 8.30am-5pm and Sat, 8.30am-noon).
- Clarence Valley Council, Maclean Office, 50 River Street, Maclean (Mon-Fri, 8.30am-4pm).
- Coldstream Gallery, 5 Coldstream Street, Ulmarra (Shopfront window).
- Tucabia Village Store, 12 Cordini Street, Tucabia (Mon-Sun, 7am-7pm).
- Wooli Post Office, 89 Carraboi Street, Wooli (Shopfront window).
- Yamba Chamber of Commerce notice board, Corner Yamba and Coldstream streets, Yamba.
- Brooms Head Post Office, Ocean Road, Brooms Head (Shopfront window).
- Tyndale Roadhouse, Pacific Highway, Tyndale (Shopfront window).

## Information sessions

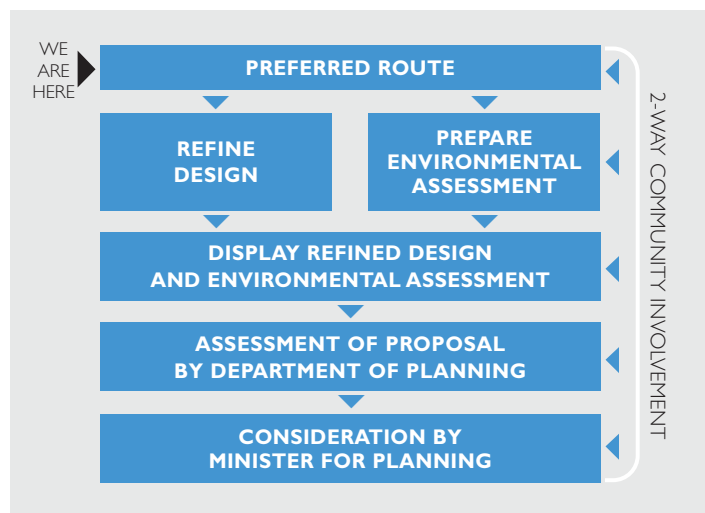
Project staff will be available to discuss the preferred route during the information sessions to be held at the following locations:

- Tucabia Community Hall, Clarence Street, Tucabia  
Thursday 5 October 2006, noon – 4pm.
- Harwood Community Hall, Mill Road, Harwood Island  
Friday 6 October 2006, noon – 4pm.
- Grafton Community Centre, 59 Duke Street, Grafton  
Saturday 7 October 2006, 10am – 2pm.
- Maclean Civic Hall, River Street, Maclean  
Saturday 14 October 2006, 10am – 2pm.
- Masonic Hall, River Street, Ulmarra  
Monday 16 October 2006, noon – 4pm.
- Plantation Motel, Pacific Highway, Tyndale  
Tuesday 17 October 2006, noon – 4pm.

## What happens next?

Further survey, geotechnical, ecological and other investigations will be undertaken to refine the design for the preferred route.

Approval of the proposal will be requested under Part 3A of the *Environmental Planning and Assessment Act, 1979*. An environmental assessment will examine the potential impacts of the preferred route. The refined design and environmental assessment will be displayed for community comment prior to an assessment of the proposal by the Department of Planning and consideration by the Minister for Planning.



For more information contact the RTA's Project Manager, Diana Loges:  
PO Box 546 Grafton NSW 2460



T 02 6640 1000 F 02 6640 1001



Diana\_Loges@rta.nsw.gov.au



To send comments post to:  
Evonne McCabe  
Wells Crossing to Iluka Road Upgrade  
Sinclair Knight Merz  
Reply paid 164 St Leonards NSW 1590  
Facsimile (02) 9928 2504



wellscrossingtoiluka@skm.com.au



www.rta.nsw.gov.au/pacific  
(click on Wells Crossing to Iluka Road)



1800 557 673 (toll free)  
Project information line

RTA/Pub.06.232

All information in correspondence is collected for the sole purpose of assisting in the assessment of this proposal. Submissions will not be responded to individually. All information received, including names and addresses of respondents, may be published in subsequent assessment documents unless clear indication is given in the correspondence that all or part of that information is not to be published.

## **Appendix B Community feedback form**









## **Appendix C Preferred route flyer**



## Wells Crossing to Iluka Road

### Preferred route display

Identification of a preferred route to upgrade the Pacific Highway between Wells Crossing and Iluka Road is a key step in progressing the completion of the upgrade of the highway.

The preferred route for the Wells Crossing to Iluka Road upgrade identifies a 150 metre wide corridor for the development of a highway upgrade. The route chosen provides the best overall balance between functional, environmental, ecological, social and economic considerations.

The preferred route will be on display until Friday 3 November 2006 at:

RTA Pacific Highway Office, 21 Prince Street, Grafton (Mon-Fri, 8.30am-4.30pm).

Grafton Motor Registry, 3 King Street, Grafton (Mon-Fri, 8.30am-5pm and Sat, 8.30am-noon).

Clarence Valley Council  
Macleans Office – 50 River Street, Macleans (Mon-Fri, 8.30am-4pm).

Coldstream Gallery, 5 Coldstream Street, Ulmarra (Shopfront window).

Tucabia Village Store, 12 Cordini Street, Tucabia (Mon-Sun, 7am-7pm).

Woolli Post Office, 89 Carraboi Street, Woolli (Shopfront window).

Chamber of Commerce notice board, Cnr Yamba and Coldstream streets, Yamba.

Brooms Head Post Office, Ocean Road, Brooms Head (Shopfront window).

Tyndale Roadhouse, Pacific Highway, Tyndale (Shopfront window).

### Information sessions

Tucabia Community Hall, Clarence Street, Tucabia  
Thursday 5 October 2006, noon – 4pm.

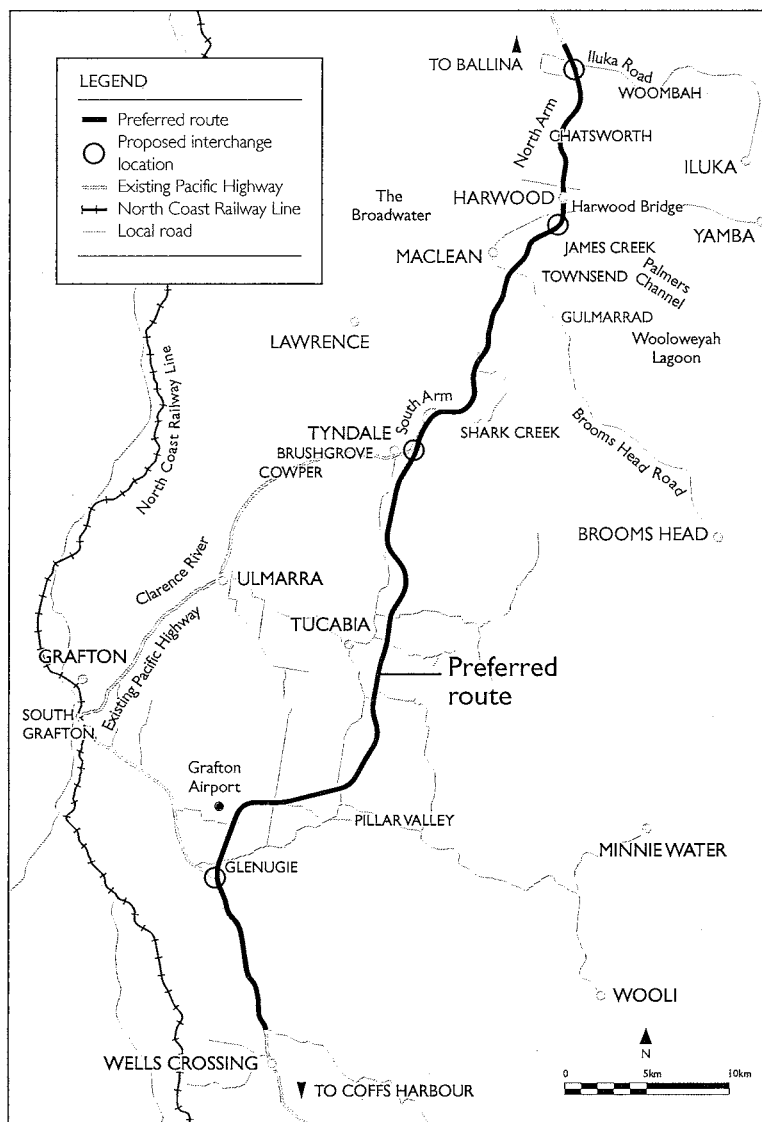
Harwood Community Hall, Mill Road, Harwood Island  
Friday 6 October 2006, noon – 4pm.

Grafton Community Centre, 59 Duke Street, Grafton  
Saturday 7 October 2006, 10am – 2pm.

Macleans Civic Hall, River Street, Macleans  
Saturday 14 October 2006, 10am – 2pm.

Masonic Hall, River Street, Ulmarra  
Monday 16 October 2006, noon – 4pm.

Plantation Motel, Pacific Highway, Tyndale  
Tuesday 17 October 2006, noon – 4pm.



### Stay involved

All community comment on the preferred route will be considered during the refinement of the preferred route and development of the concept design. Comments should be sent to:

Evonne McCabe  
Sinclair Knight Merz  
Reply paid 164  
St Leonards NSW 1590  
Facsimile. (02) 9928 2504  
Email. wells-crossing-to-iluka@skm.com.au

All information in correspondence is collected for the sole purpose of assisting in the assessment of this proposal. Submissions will not be responded to individually. All information received, including names and addresses of respondents, may be published in subsequent assessment documents unless clear indication is given in the correspondence that all or part of that information is not to be published.

RTA/Pub.06.228



## **Appendix D Fact sheets**



# Property acquisition

Upgrading the Pacific Highway



The Roads and Traffic Authority (RTA) sometimes need to purchase private property to build or improve a road. This fact sheet explains how property is acquired.

## Is this a legal process?

The RTA can acquire land under the terms of the Roads Act 1993. Payment for land is assessed in accordance with the provisions of the *Land Acquisition (Just Terms Compensation) Act*, (referred to here as 'the Act').

One aim of the Act is to encourage the purchase of land by negotiation, rather than using the compulsory acquisition process. The RTA fully supports this objective.

Property owners are alerted to land acquisition requirements for roadworks through enquiries made when they are purchasing the property (to Council or the RTA), from proposals shown on Local Planning Schemes, or through the RTA's community involvement processes for new projects. New road proposals are made public as soon as possible. The RTA does not acquire more land than is necessary for roadworks.

## How is land acquired by the RTA?

When a project has been assessed and approved, and before construction starts, the RTA sends a letter to the owners of each property affected by the road proposal. The owner is advised that a valuer representing the RTA will make an appointment to inspect the property and carry out a valuation prior to submitting a formal offer for the property.

The letter invites landowners to submit an asking price for the affected land, if they wish to. The Act guarantees that compensation will be not less than the market value of the land, and this value is considered to be unaffected by the road proposal. The RTA will make every effort to negotiate a mutually acceptable purchase agreement.

The RTA may give consideration in special circumstances to purchasing a property ahead of the construction phase, where the owner of the land to be acquired can show that a delay in this acquisition will cause hardship, as defined by the Act.

## How much land is acquired?

If the RTA only requires a portion of a lot or property to build a road, the amount to be paid under partial acquisition is assessed using the 'before and after' method, involving two separate valuations. The first valuation is of the property unaffected by the road proposal. The second valuation is of the residue land at the same date, on the basis that the new road has been constructed and is in use.

The difference between the two valuations is the payment for the partial acquisition reflecting any reduction in value of the remaining land. The RTA will also adjust services or public utilities and relocate fences, as needed.

The RTA's solicitor prepares contracts when negotiations are complete and an agreement on the purchase price is reached. The purchase and transfer of property is completed in a similar way to an open market sale.



## Do I have to sell my land?

If a mutually acceptable purchase agreement cannot be reached between the property owner and the RTA, a 'Proposed Acquisition Notice' to compulsorily acquire land under the Act may be issued.

Compulsory acquisition can provide a way to resolve a dispute about the amount of compensation payable. If the Minister for Roads gives approval, a 'Proposed Acquisition Notice' is issued to the owner and any other party with a legal or equitable interest in the land.

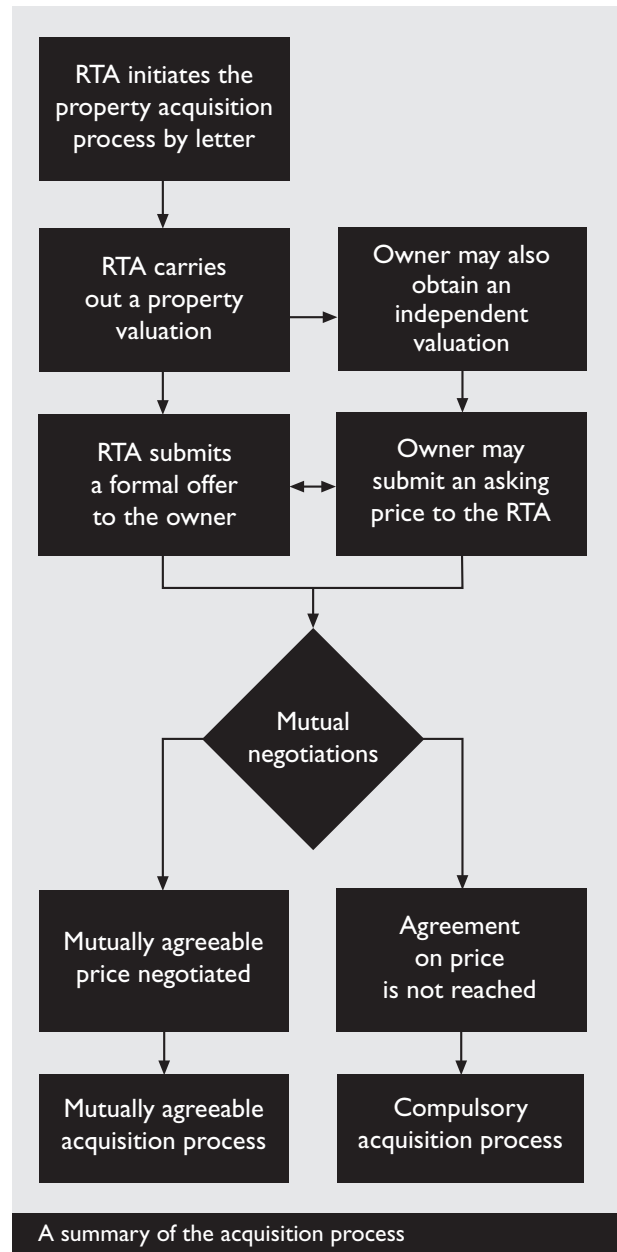
This notice advises the owner of the RTA's intention to acquire the land after 90 days, or the Minister may approve acquisition in a shorter period. After this period, and upon publication in the Government Gazette, the land converts to RTA ownership, with the former owner's interest being converted to an entitlement to compensation.

## What is the amount of compensation?

Recipients of a Proposed Acquisition Notice can lodge a claim for compensation with the RTA. The Valuer General determines the amount of compensation, including legal and valuation costs, to be offered to the owner in return for the compulsory acquisition of property.

## How do I know if the RTA's offer is fair?

The property owner may obtain an independent valuation and these valuation fees can be reimbursed by the RTA (up to an amount specified by letter).



For further information, or to request a copy of the RTA's *Land Acquisitions Policy Statement 1999*, please contact the Roads and Traffic Authority, Pacific Highway Office on: Telephone (free call) 1800 653 092

# How is noise addressed?

Upgrading the Pacific Highway



The Roads and Traffic Authority (RTA) is committed to minimising the potential effects of highway traffic noise on the community through the use of noise reduction or mitigation measures. This fact sheet explains how noise impact is assessed and how it can be reduced.

## What is road noise?

Noise consists of pressure fluctuations in the air, which are detected by the human ear. The ear is sensitive enough to detect these fluctuations over a considerable range of both intensity and frequency.

Unlike industrial noise in the workplace, traffic noise is rarely loud enough to cause hearing loss. Its main effects are annoyance. Noise can also cause fatigue through sleep disturbance.

The 'loudness' of the noise is determined by the energy intensity of the air pressure fluctuations and the resulting sound pressure level is measured in decibels (see Figure 1 below). The human ear detects each 10 decibel (dB) increase in noise levels as equal to a perceived doubling in loudness. A doubling of traffic volume will result in an increase in noise level of only 3 decibels.

Similarly, doubling the distance between a residence and a road will result in a 3 decibel reduction in noise level due to the way in which traffic noise travels over distance. Further reductions in noise levels can be due to the effects of soft ground, atmospheric absorptions and screening features, such as walls.



Noise wall on the Pacific Highway at Coffs Harbour

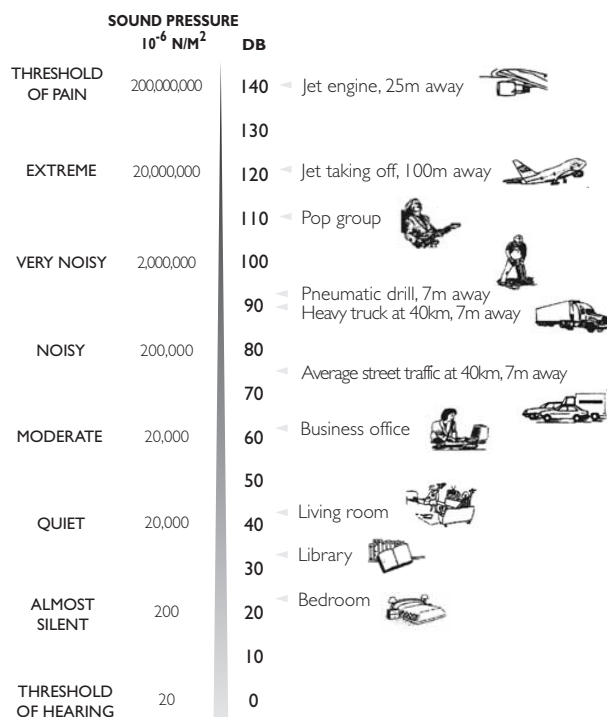


Figure 1. Unweighted sound levels and typical sources

## How is road noise regulated?

In New South Wales, the guidelines for road traffic noise are documented in the *Environmental Criteria for Road Traffic Noise* (NSW Environment Protection Authority, 1999). This document is available online at: [www.environment.nsw.gov.au/resources/roadnoise.pdf](http://www.environment.nsw.gov.au/resources/roadnoise.pdf). The RTA's *Environmental Noise Management Manual* also provides guidance on assessing and managing noise and vibration from road construction and operation. The RTA's *Environmental Noise Management Manual* is available online at: [www.rta.nsw.gov.au/environment/noise/noise\\_management\\_manual.html](http://www.rta.nsw.gov.au/environment/noise/noise_management_manual.html).

Construction noise from government authorities is regulated by the NSW Department of Environment and Conservation. The various criteria for construction noise and vibration impacts are detailed in the *Environmental Noise Control Manual* (NSW EPA 1994). This manual is currently being reviewed by the Department of Environment and Conservation.

## How is road noise assessed?

Noise effects and potential noise mitigation strategies and designs need to be identified and developed throughout the road development process, from the initial planning stages through to construction and project opening. This ensures the development of noise impact control measures as an integrated part of the overall road design process.

### Step 1: Measure the existing noise environment

The first step is to measure the existing noise environment. With most highway upgrade projects there are too many potential noise receivers to place noise monitors at every location. For this reason, noise levels are determined by measuring at several representative locations and then estimating for other areas. Noise levels are calculated in accordance with the Australian Standards (*AS 2702 Acoustic Methods of Measurement of Road Traffic Noise*) and requirements of the Department of Environment and Conservation. Qualified and experienced acoustic practitioners undertake all noise assessments for the RTA.

### Step 2: Consider the noise generated by the new road and add this to background noise

When assessing road traffic noise, the following is considered: volume and percentage of heavy and light vehicles for both day and night periods; vehicle speeds; road pavement surface type; topographic features; receivers/source distance and heights; roadside topographic barriers; reflections from buildings or roadside barriers and contributions of noise from other traffic sources likely to influence the overall noise environment.

Type	Criteria		
	Day (7am-10pm) dB(A)	Night (10pm-7am) dB(A)	Where criteria are already exceeded
New freeway or arterial road corridor	LAeq (15hr) 55	LAeq (9hr) 50	The new road should be designed so as not to increase existing noise levels by more than 0.5dB. Where feasible and reasonable, noise levels from existing roads should be reduced to meet the noise criteria.
Redevelopment of existing freeway or arterial road	LAeq (15hr) 60	LAeq (9hr) 55	In all cases, the redevelopment should be designed so as not to increase existing noise levels by more than 2dB. Where feasible and reasonable, noise levels should be reduced to meet the noise criteria.

Figure 2. Environmental criteria for road traffic noise.

### Step 3: Consider the new noise level against guidelines

The Department of Environment and Conservation sets the road traffic noise level goals for the RTA (Figure 2). The RTA must try to achieve these goals 10 years after opening a project to traffic.

### Step 4: Installing measures to reduce noise volumes

Potential noise effects are considered early in the route options selection process for highway upgrade projects. Potential measures to reduce noise examined at this stage include:

- Locating routes away from noise sensitive areas (where feasible). This is difficult to achieve in all cases.
- Using existing hills and ridges to help shield from noise impacts.
- Minimising road slope (grades) that need more energy from vehicles. Also providing a buffer area, or 'setback' on either side of the road. These areas are often where noise mounds are located.

The most suitable types and locations for noise reducing measures such as noise walls/mounds, low noise pavement and acoustic treatments are examined at the detailed design stage. Consultation with the community forms an important part of this process. Practicality, technical feasibility, visual impact, cost and community preferences all need to be taken into account. Information on the type and nature of the proposed noise mitigation treatments are provided in the project environmental assessment documents.

### During construction

While noise-reducing measures are taken, some noise disturbance may be unavoidable during the construction of highway upgrade projects. The most appropriate noise-reducing measures and their locations are decided after the preferred route has been chosen. The RTA's *Environmental Noise Management Manual* describes the steps to manage construction noise.

### After construction

Following construction, the RTA undertakes noise assessments to record the actual level of noise being experienced. These checks help the RTA to assess the accuracy of noise predictions, the effectiveness of the noise-reducing measures adopted, and the need to implement further noise-reducing measures.

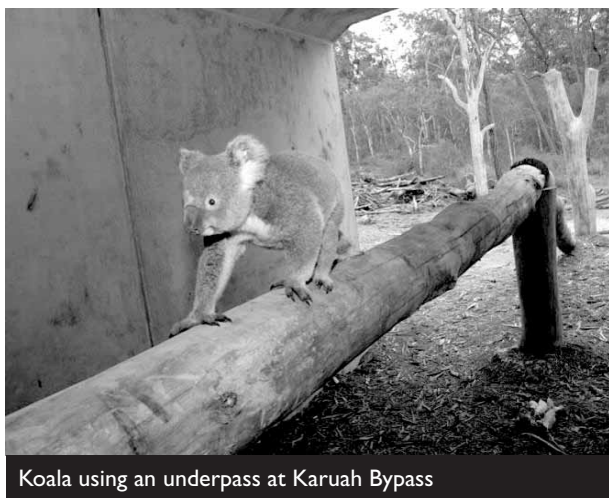
For further information, contact the NSW Roads and Traffic Authority, Pacific Highway Office on: Telephone (free call) 1800 653 092

# Meeting environmental needs

Upgrading the Pacific Highway



The Roads and Traffic Authority (RTA) is committed to avoiding or minimising the potential effects of Pacific Highway upgrading projects on the environment. The RTA develops its projects to firstly avoid impacting on the environment, and where impacts cannot be avoided it uses environmental management tools to reduce impacts. This fact sheet explains those measures.



Koala using an underpass at Karuah Bypass

Environmental assessment and community consultation help to determine the scope and shape of highway upgrading projects before construction begins. Some of the RTA's environmental assessment and management processes are outlined below.

## Environmental assessment

The RTA ensures that any potential environmental impact is managed according to current State and Federal environmental legislation.

Environmental studies investigate and assess the possible result of proposed works on:

- Flora and fauna, including habitats.
- Aquatic ecology.
- Noise and vibration.

- Air and water quality.
- Hydrology, drainage and flooding.
- Geology/soils.
- Cultural heritage (indigenous and non-indigenous).
- Property and land use.
- Local community and business.
- Traffic and transport.
- Visual quality and landscape character.

The RTA prepares an environmental assessment for the project as required by the Environmental Planning and Assessment (EP&A) Act and the RTA's own guidelines.

When preparing an environmental assessment, the RTA liaises with various organisations, including State Government agencies, local government, the community and other groups or individuals as appropriate.



Translocated plants ready for replanting at the Karuah Bypass site



## Community involvement

Community involvement ensures effective planning and decision making. It provides important information on RTA road development and maintenance proposals and helps to identify major issues and possible community concerns.

The RTA works to create interest and awareness in options and proposals to provide opportunities for the community to be involved in contributing to decisions that affect them.

The RTA seeks community involvement through activities such as community information evenings and workshops, community focus or liaison groups, media announcements, letterbox drops, site open days, advisory committees, newsletters and questionnaires.

Community consultation occurs in the early planning stages of Pacific Highway upgrades and may form part of the RTA's overall environmental management strategy.

Documents are placed on exhibition for public information and comment. Issues raised in submissions from the community are considered when making a decision on a project.



Community liaison members view construction progress

## Environmental management

The RTA uses a range of measures to minimise the effects on the environment during the construction and operation of a project. These measures include:

- Erosion and sedimentation controls.
- Heritage investigations and controls.
- Noise treatments.

- Noise, dust, air and water quality monitoring.
- In important fauna areas, fauna crossings such as combined drainage/fauna structures, fauna underpasses, fauna exclusion fencing.
- Revegetation with (local) native species.



Fauna exclusion fencing

A construction environmental management plan or other environmental plans are prepared for each Pacific Highway upgrading project. The plan describes how to implement measures to protect the environment and how the conditions of approval identified during the environmental assessment will be met.



A goanna rescued during the clearing process at Karuah Bypass

For further information, contact the NSW Roads and Traffic Authority, Pacific Highway Office on: Telephone (free call) 1800 653 092, or visit the RTA's website at: <http://www.rta.nsw.gov.au/pacific>. Click on 'Managing the Environment'

# Environmental Assessment - Part 3A

Upgrading the Pacific Highway



The NSW Roads and Traffic Authority (RTA) is required under the Environmental Planning and Assessment Act to undertake an environmental assessment of all projects to upgrade the Pacific Highway. This fact sheet explains the process.

## Part 3A

The *Environmental Planning and Assessment Amendment [Infrastructure and Other Planning Reform] Act 2005* amends the *Environmental Planning and Assessment Act, 1979* (EP&A). Assessment of most of the RTA's major infrastructure projects will now be conducted under part 3A of the EP&A Act. Part 3A applies to all infrastructure projects that would have otherwise required an environmental impact statement (EIS) under Part 5 of the EP&A Act, most development previously classified as State Significant, and other projects, and plans or programs of works as declared by the Minister for Planning. Part 3A of the Act commenced on 1 August 2005.

Projects which are not assessed under Part 3A would be assessed under Parts 4 or 5 of the EP&A Act as appropriate.

## Assessing project impacts

The focus of the new Part 3A assessment is to ensure that the community is consulted and an environmental assessment is undertaken. This assessment will focus on the key issues that are identified by the Department of Planning (DoP) and other agencies as important to evaluate the proposal, including potential social, economic or environmental impacts.

Part 3A also provides that concept plans for projects may be required by, or submitted to, DoP for approval. Concept plan approvals may consider route development options and determine the future assessment requirements for a project.

## The environmental assessment process

To commence environmental assessment for a project under Part 3A, the RTA would lodge an application for project approval and a preliminary environmental assessment with the Director General of the DoP. The application will be advertised and posted on the Department's website within 14 days of submission.

After the application is submitted the Director-General consults various public agencies and councils before providing the RTA with a list of requirements for the environmental assessment.

The RTA then undertakes the assessment in accordance with these requirements and submits the assessment to the Director-General of the DoP for consideration.

The environmental assessment may contain a draft Statement of Commitments indicating the measures proposed by the RTA to minimise the impact of the proposal on the environment.

The Director General will consider the adequacy of the environmental assessment and may request additional information or a revised assessment.

After it is accepted by the Director-General, the environmental assessment will be publically displayed for at least 30 days and written submissions may be made by any person within that time.

At the end of the display, the Director General may provide the RTA with a copy of the submissions or a summary of the issues raised. The RTA will be asked to respond to the issues and may modify the proposal and the draft Statement of Commitments to minimise impacts on the environment.

If the RTA changes the proposal or the Statement of Commitments in response to the issues raised, a preferred project report describing the revised project would be prepared and made publically available for information.

The Director-General then consults with agencies and councils and provides an assessment report for consideration by the Minister for Planning.

The Minister for Planning decides whether to approve the proposal, with or without conditions.

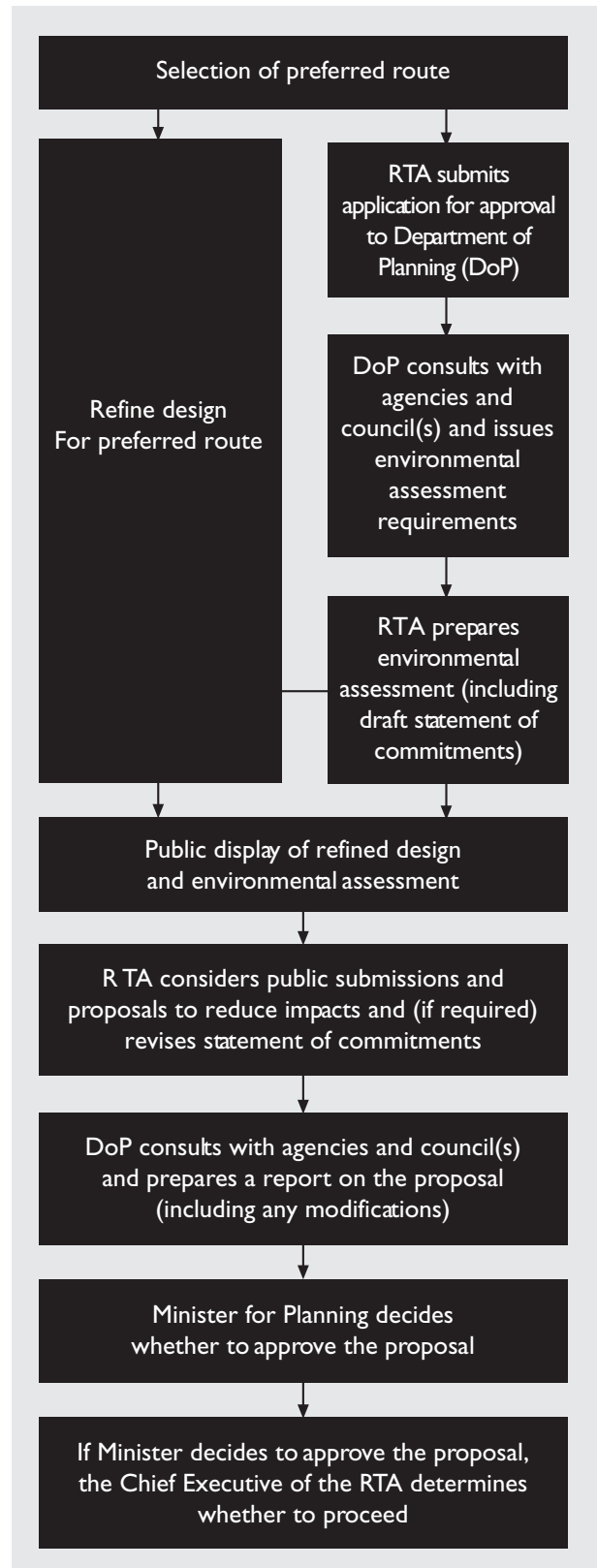
If the Minister approves the proposal, the Chief Executive of the RTA considers the approval and determines whether to proceed.

The assessment report and Minister's decision will be placed on the Department of Planning's website and potentially in other locations within 14 days. The RTA would also upload the assessment to its website.

The following diagram describes the major steps under the new Part 3A assessment and approval process.

### When will the RTA conduct Part 3A environmental assessment?

The assessment required for approval of the project takes place once the Director General's requirements are received. The design and environmental assessment are then displayed for community comment after the Department of Planning has accepted the assessment as meeting its requirements, and prior to the DoP's report on the application and determination by the Minister for Planning (see diagram opposite).



Part 3A of EP&A Act, simplified approval process chart

## **Appendix E Issue identification by stakeholder**





Stakeholder ID	Category of Issue Raised	Issue no.
12	Flora and fauna; Noise, air quality and visual	56, 57, 58, 78
157	Route selection process; Flooding and drainage; Agriculture; Rural, rural residential and residential community; Flora and fauna; Noise, air quality and visual; Human health and safety	1, 26, 48, 49, 59, 78, 79, 85
272	Route selection process; Consultation process; Cane land; Heritage; Noise, air quality and visual	2, 23, 40, 71, 78
297	Route selection process; Economic; Flora and fauna	2, 52, 58
316	Flooding and drainage; Cane land	27, 42, 44, 45
336	Harwood options; Flooding and drainage; Cane land; Agriculture; Land use	22, 27, 43, 46, 75
612	Route selection process; Other route options; Flooding and drainage; Water quality	3, 11, 21, 28, 68
640	Other route options; Flooding and drainage; Property impacts; Economic; Flora and fauna; Human health and safety	13, 29, 34, 53, 60, 86
653	Route selection process	4
949	Other route options	14
954	Other route options; Rural, rural residential and residential community; Water quality; Human health and safety	15, 50, 69, 87
971	Route selection process; Other route options; Property impacts; Agriculture; Flora and fauna	5, 16, 35, 47, 61
1062	Property impacts	36
1071	Rural, rural residential and residential community	50
1108	Route selection process; Consultation process; Flooding and drainage; Cane land; Agriculture; Flora and fauna; Water quality; Traffic	6, 24, 26, 41, 46, 55, 69, 84
1148	Other route options; Flooding and drainage; Cane land; Agriculture	12, 30, 41, 46
1176	Other route options; Consultation process; Flooding and drainage; Agriculture; Flora and fauna; Heritage	17, 25, 30, 46, 62, 72
1212	Flooding and drainage; Property impacts; Noise, air quality and visual; Human health and safety	31, 37, 80, 87
1517	Other route options; Cane land; Flora and fauna	12, 41, 62
1521	Route selection process; Flooding and drainage; Cane land; Rural, rural residential and residential community	2, 26, 41, 51
1887	Property impacts; Agriculture; Flora and fauna; Water quality; Noise, air quality and visual; Human health and safety	38, 46, 62, 69, 81, 88
2032	Other route options; Flora and fauna; Water quality; Land use	12, 63, 70, 76
2061	Harwood options; Consultation process; Flooding and drainage; Heritage; Noise, air quality and visual	22, 23, 32, 73, 78
2062	Harwood options; Consultation process; Cane land	22, 23, 41

Wells Crossing to Iluka Road - Upgrading the Pacific Highway  
 Submissions Report – Preferred Route Display

<b>Stakeholder ID</b>	<b>Category of Issue Raised</b>	<b>Issue no.</b>
2187	Route selection process	7
2252	Other route options; Noise, air quality and visual	18, 82
2414	Route selection process; Economic; Flora and fauna; Heritage; Noise, air quality and visual; Human health and safety	8, 9, 54, 64, 74, 78, 81, 89
2553	Land use	77
2579	Flora and fauna	65
2792	Route selection process; Flooding and drainage; Property impacts; Flora and fauna; Noise, air quality and visual; Human health and safety	6, 10, 26, 39, 66, 83, 90, 91
2966	Route selection process; Other route options; Flooding and drainage; Property impacts; Flora and fauna; Noise, air quality and visual; Human health and safety	6, 19, 33, 38, 67, 78, 81, 92
2973	Other route options	20
2980	Harwood options; Consultation process	22, 23
2981	Human health and safety	92