



Transport
Roads & Maritime
Services

ADDITIONAL CROSSING OF THE CLARENCE RIVER AT GRAFTON

Draft Route Options Community Feedback Report

October 2012



Executive Summary

This report

Roads and Maritime Services (RMS) is currently undertaking investigations and community consultation to identify an additional crossing of the Clarence River at Grafton to address short-term and long-term transport needs. A *Route Options Development Report*, (RODR) detailing six route options, was placed on public exhibition in September 2012. This report, (*Draft Route Options Community Feedback Report*) provides a summary of the issues raised in the submissions received during the recent phase of community consultation about the six route options put on display.

Community consultation

Community consultation about 13 preliminary route options began in December 2010 and concluded in March 2011. During the consultation process 41 suggested routes emerged. RMS explored each of these routes. In June 2011, RMS published a *Feasibility Assessment Report* which described the assessment undertaken on the 41 suggested routes. Twenty-five preliminary route options in five corridors were identified for engineering and environmental investigation. In January 2012, six route options were announced for further investigation. The short-listed options and short-listing process are documented in the *Preliminary Route Options Report – Final* (RMS, January 2012).

On 10 September 2012 the RODR was placed on public exhibition and made available for community comment. A detailed Community Update, explaining the route options and key findings of the report, was made available at the same time. The RODR was available on the RMS project website, from the project display office or by contacting the project from 10 September 2012. A range of consultation activities were also carried out including:

- Two staffed displays
- Two information sessions
- Two public forums
- A radio forum
- An online forum

Summary of submissions

A total of 114 submissions were received by the closing date of 12 October 2012 in response to the exhibition of the RODR. Three additional submissions were received by noon on Friday 19 October. The issues raised in all of these 117 submissions are included in this report. Submissions received after noon on 19 October 2012 will be provided in summary form to the value management workshop participants and considered as part of the final submissions report.

Submissions were received expressing support for and opposition to each of the options with the majority of the submissions providing comment about why they supported or opposed an option/s.

Many submissions either indicated a preference for an option away from the existing bridge described as 'out of town options' or a 'bypass of Grafton CBD' or for an option near the existing bridge, described as 'in-town' options.

The submissions that opposed options close to the existing bridge generally argued in favour of options located away from and up or downstream of the existing bridge. Growth of the city and removing heavy traffic from the CBD were cited as the primary reasons for choosing an out of town option. Submissions opposing options close to the existing bridge included a petition of around 1000 signatures. This petition, dated July 2010 was originally submitted to the RMS in July 2011 was tabled by its coordinators at the second public forum on 9 October 2012.

Supporters for options close to the existing bridge generally argued that these options would be well used and relieve existing traffic congestion and would provide a convenient alternative for existing communities. These submissions also expressed concern about, and opposition to, the out of town options. Among the key concerns about these was that these options would be ineffective in reducing traffic congestion and were too expensive. A petition with 203 signatures collected during 2012, opposed options 14 and 15. This was also presented to RMS during the consultation period.

While the invitation for feedback did not ask submission writers to indicate a preference for a particular option, 97 of 117 submissions specifically expressed support for particular options. Some submissions simply stated support for the option that was preferred. The preference expressed for particular options is outlined in section 3.

Summary of issues raised

Strong opposition was raised to every option. Support was also expressed for every option. Submissions detailed concerns about traffic and transport, socio-economic, environmental, cost and value for money and other matters. Key issues raised, in no particular order, are included below:

- The importance of the unique, nationally significant, historical aspects of Grafton valued by the community, including avenues and individual trees, affordable and heritage listed housing, community connectivity and local amenities.
- The need to protect the fabric of Grafton and avoid irreversible changes to areas of high amenity, heritage, natural and cultural value.
- General agreement that relief of traffic congestion was required, but with disagreement about how this could be best achieved.
- A desire to minimise the amount of heavy vehicle traffic within the centre of Grafton, near schools and other sensitive locations.
- Concern about introducing traffic and associated noise and air quality impacts to areas currently devoid of significant traffic.
- The value placed on the relationship of the town to the river and opportunities to protect and enhance recreation and natural and heritage features.
- The future of the region and Grafton's location relative to growth areas within the north coast and south east Queensland.

- Transport requirements for existing and growing urban areas, agriculture and industry in the region and inter-state and the role of Summerland Way within this context.
- Concern about the flooding and drainage matters that affect the town and how particular options might exacerbate them.
- Alternative suggestions about how congestion might be relieved by reducing demand for car travel before a long term solution is implemented.
- The need to maintain and improve the viability of bus services and ensure that bus users are not disadvantaged.
- A dissatisfaction with current levels of noise and volumes and driver behaviour of heavy vehicles and B-doubles in particular.
- Disagreement with the adequacy, scope and findings of the traffic investigations and the supporting traffic counts and population projections underpinning the conclusions of the RODR.
- Stated lack of trust in the findings of the traffic study and components was used as an argument in support of alternative views on the use that would be made of particular options and the related cost benefit of the options.
- Appreciation of the opportunity to participate in decision making but frustration with the cost, time and multiple attempts to resolve the issue.
- The need to take a long term view and ensure that investigations were based on accurate information about the likely future needs and character of the city.

There was general agreement that any option needs to address:

- The problems of congestion impeding free access between urban areas on either side of the river.
- The current and future needs of Grafton, surrounding suburbs and users of regional and inter-state transport.
- The delay caused by trucks and other large vehicles navigating the bridge.
- Access for emergency vehicles across the river.
- The impact of new works on flood flows, flood mitigation works, shifting islands.
- The protection of heritage, community amenity and safety and ecologically significant areas.

It is clear that the community perceives all options as having some level of disruption to private property and scenic values.

Community comments received on the six options, the investigations undertaken and the outcomes of the value management workshop will contribute to a decision on the recommended preferred route option.

RMS aims to identify the recommended preferred option by the end of 2012 for community comment.

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Appendix A Summary of Community Consultation Activities for the RODR

Appendix B Summary of submissions

1 Introduction

1.1 Purpose of the report

Roads and Maritime Services (RMS) is currently undertaking investigations and community consultation to identify an additional crossing of the Clarence River at Grafton to address short-term and long-term transport needs. A *Route Options Development Report (RODR)*, detailing six route options, was placed on public exhibition in September 2012.

This report, (*Draft Route Options Community Feedback Report*) provides a summary of the issues raised in the submissions received during the recent phase of community consultation about the six route options put on display. This report will also be an input into the October 2012 value management workshop.

An overview of the issues that were raised in submissions is provided in section 3. A summary of submissions is available in Appendix B. A summary of community feedback responses to specific questions posed by RMS as part of the consultation process is provided in section 4.

1.2 Project objectives

The key objectives for the additional crossing are to:

- Enhance road safety for all road users over the length of the project
- Improve traffic efficiency between and within Grafton and South Grafton
- Support regional and local economic development
- Involve all stakeholders and consider their interests
- Provide value for money
- Minimise impact on the environment.

1.3 Background

The Grafton Bridge is a heavily used crossing of the Clarence River connecting south and north Grafton and the greater Grafton community. Summerland Way, an alternate north south inter and intra-State route to the Pacific Highway crosses the bridge. Grafton Bridge is situated near the convergence of the Gwydir and Pacific Highways and the southern end of Summerland Way. It is congested in morning and afternoon peaks. Its early twentieth century design causes delay of traffic when large vehicles cross the bridge. The North Coast rail line is also accommodated by the bridge. The NSW government has asked Roads and Maritime Services (RMS) to investigate an additional crossing to address the existing congestion and long term needs for road crossing of the Clarence River.

Planning for an additional crossing of the Clarence River at Grafton started in 2002. These investigations did not reach the implementation stage and were deferred in September 2005.

The current program of investigation restarted in 2009. In December 2010 RMS (formerly Roads and Traffic Authority (RTA)) announced a revised approach to engage more effectively with the community and stakeholders in identifying a preferred route for an additional crossing. A detailed outline of the background to this project is outlined in the RODR.

Consultation about 13 preliminary route options began in December 2010 and concluded in March 2011. During the consultation process 41 suggested routes emerged. In June 2011, RMS published a *Feasibility Assessment Report* which described the assessment undertaken on the 41 suggested routes. Twenty-five preliminary route options in five corridors were identified for engineering and environmental investigation.

In January 2012, six route options were announced for further investigation. The process to short-list the options from 25 to six options and results of the technical and environmental investigations are documented in the *Preliminary Route Options Report – Final* (January 2012).

Since the announcement of the six short-listed options, RMS has completed design refinements on these options and undertaken additional field and technical investigations. The *Route Options Development Report* (RODR) (September 2012) describes these investigations.

The current process of selecting a second crossing is outlined below.

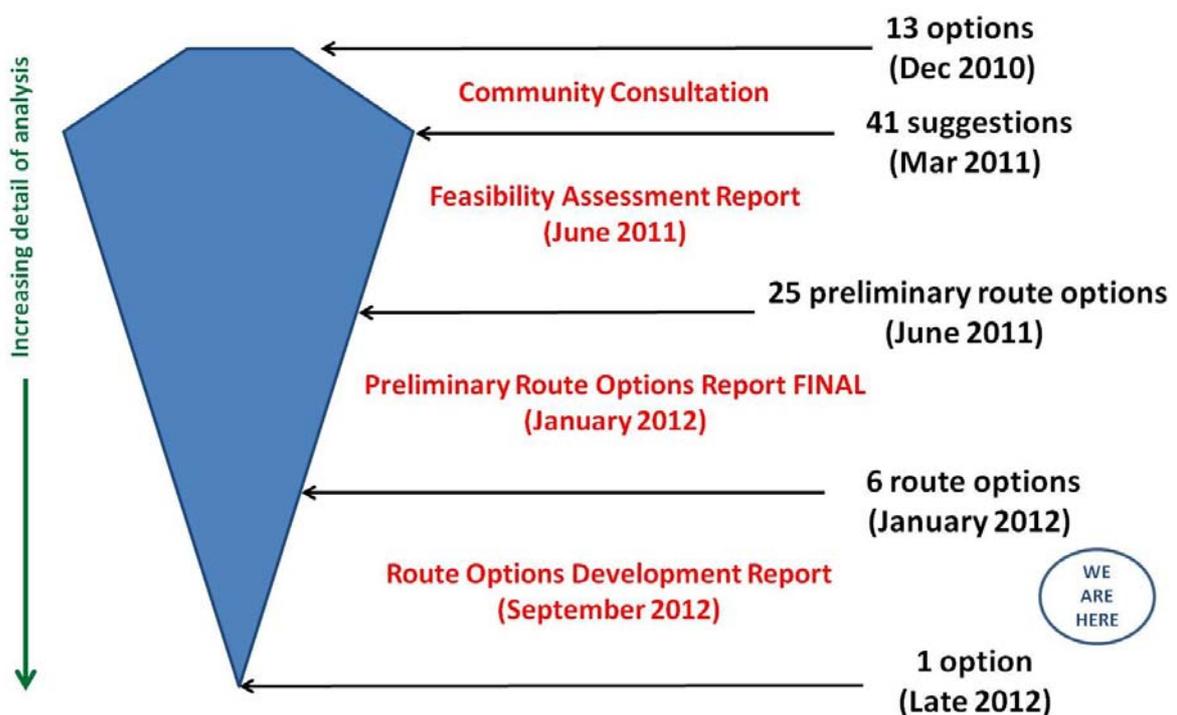


Figure 1 Process for identifying a second crossing

1.4 The short-listed options

The six options that were included in the RODR are:

Option E

Approximately 1km upstream of the existing bridge - from Cowan Street, South Grafton to Villiers Street, Grafton. New bridge would have one lane in each direction. Existing bridge would remain one lane in each direction.

Option A

Adjoining the existing bridge upstream – from Bent Street, South Grafton to Villiers Street, Grafton via Fitzroy Street. New bridge would have one lane southbound and two lanes northbound. Existing bridge would become one lane southbound.

Option C

Adjoining the existing bridge downstream – from the Junction of the Pacific and Gwydir Highways, South Grafton to Villiers Street, Grafton via Pound Street. New bridge would have one lane in each direction. Existing bridge would remain one lane in each direction.

Option 11

Approximately 1km downstream of the existing bridge - from the Pacific Highway near McClares Lane north of South Grafton to Villiers Street, Grafton via Fry Street. New bridge would have one lane in each direction. Existing bridge would remain one lane in each direction.

Option 14

Approximately 2.5 km downstream of the existing bridge - from the junction of the Pacific Highway and Centenary Drive, north of South Grafton to Turf Street (Summerland Way), Grafton via Kirchner and North Streets. New bridge would have one lane in each direction. Existing bridge would remain one lane in each direction.

Option 15

Approximately 2.5 km downstream of the existing bridge - from the junction of the Pacific Highway and Centenary Drive, north of South Grafton to Summerland Way, Grafton north of North Street via Kirchner Street. New bridge would have one lane in each direction. Existing bridge would remain one lane in each direction.

All options include ancillary works on roads affected by the route and all involve the acquisition of property to greater or lesser extents. The refined route options are summarised in a Community Update that was made widely available during the display of the RODR. Detailed descriptions of the options are outlined in the RODR.

Six route options over the Clarence River, Grafton

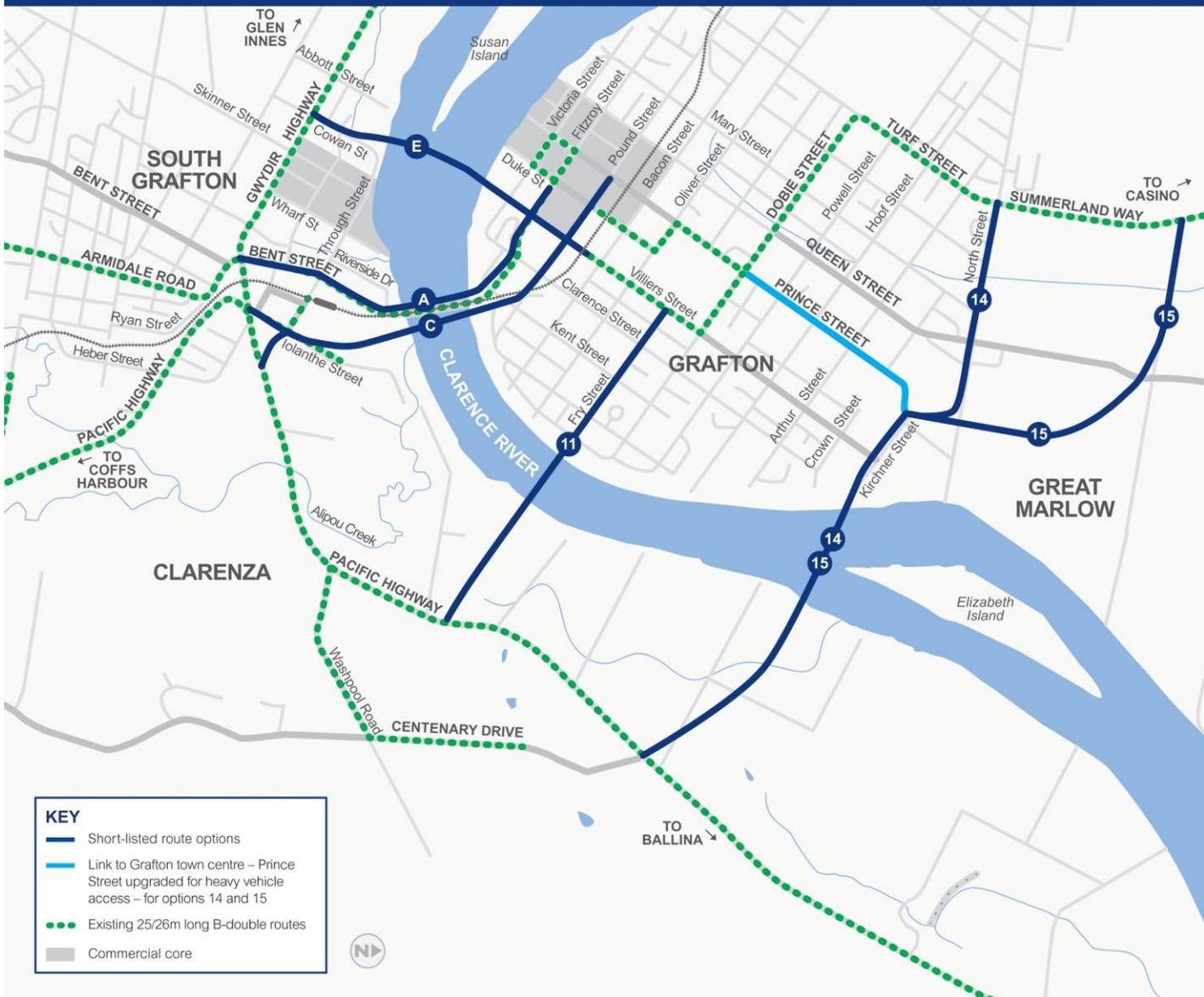


Figure 2 Source: *Route Options Development Report 2012*

1.5 Related projects

When considering the submissions it is important to place this project within the context of the overall improvement of the Pacific Highway. While the Pacific Highway does not currently run through the centre of Grafton it brings traffic to within 2 kilometres of the existing river crossing. The Gwydir Highway runs south of the river and connects with the Pacific Highway east of the railway. Summerland Way runs from the Gwydir Highway to the north of Grafton and traffic on this route currently uses the existing bridge.

RMS is continuing to upgrade the Pacific Highway. Planning relating to the Pacific Highway includes a major diversion of the Pacific Highway from Glenugie south of Grafton to Tyndale north of Grafton. With this deviation the Pacific Highway would be relocated approximately 20km east of Grafton.

2 Display of the Route Options Development Report

2.1 The Route Options Development Report

The RODR describes the completed investigations of six short-listed options. It assesses the six options using technical and environmental investigations and describes the preliminary concept designs for each of the options. It includes technical papers on the following topics:

- Traffic assessment
- Social and economic issues
- Strategic cost estimates
- Economic evaluation
- Noise assessment
- Aboriginal heritage
- Non-Aboriginal heritage
- Ecology
- Landscape and urban character
- Flooding
- Geotechnical assessment for route options

2.2 Public exhibition

The RODR for the project was placed on public exhibition on the RMS project website from 10 September 2012. Copies were also made available for collection at the following locations:

- RMS display office 21 Prince Street Grafton
- Grafton Shoppingworld
- Grafton Community Centre
- South Grafton Ex-Servicemen's Club

Two staffed displays, two information sessions and two public forums were held during the exhibition period. The project website provided up to date information including simulations of the traffic modelling for each option and a moderated feedback forum. The toll free project

information line for the project and email allowed members of the community and other stakeholders to contact the project team with any comments or questions they had regarding the technical review.

Submissions were invited from the community and other stakeholders. Submissions were originally requested by 10 October 2012 but this was extended to 12 October 2012 following the addition of a second public forum. The extension of submissions was announced on 18 September 2012 and advertised widely, including on the RMS project website. A full list of consultation activities, dates times and methods is outlined in Appendix A.

A Public Forum on the short-listed options was scheduled to be held at 6pm Tuesday 18 September 2012 at the Grafton Community Centre. The forum was set-up to provide community stakeholders with an opportunity to express their views on the short-listed options.

A briefing session for the community presenters at the forum was held on Friday 14 September 2012. In response to requests from the community representatives at the briefing session, RMS agreed to:

- Alter the Public Forum on the evening of Tuesday 18 September to provide more time for the project team to outline the results of the investigations into the short-listed options.
- Hold a second Public Forum on the evening of Tuesday 9 October to provide community stakeholders with an opportunity to comment on the short-listed options.
- Extend the closing date for submissions to Friday 12 October 2012.

2.3 Other consultation

Consultation with key stakeholders was carried out by RMS both prior to, during and after the exhibition period. This included a number of meetings on request by individual property owners and other stakeholders including Summerland Way Promotional Committee, Grafton Chamber of Commerce and Industry, Emergency Services groups and the Clarence Valley Council. Some individuals and organisations requested further information during the exhibition period.

2.4 Seeking community feedback

To inform the community about the RODR display, the project team undertook the following activities:

- A direct mail out of letters and the Community Update to owners and occupiers of properties potentially directly affected by any of the route options
- Telephone calls to owners and occupiers of properties potentially directly affected by any of the route options
- Distribution of the Community Update to owners and occupiers of properties adjacent to the route options
- Post card mail out inviting input on the options to 30,000 residents in the wider Clarence Valley
- Advertising in local papers and radio stations
- The Community Update was made widely available, including for collection at the static and staffed displays
- Included relevant information on the project website
- Email from Grafton Bridge email to the email addresses on database.

Submissions on the RODR could be provided:

- At staffed displays and information sessions, recorded by the project team
- By mail or hand delivery
- By email
- By uploading to the project website
- By telephone to the project office and 1800 number

Submissions were received via all of these methods.

As well as providing general feedback, stakeholders were asked to address the following specific questions:

- What do you think is the most important consideration when determining the preferred route option?
- What do you like about some of the options?
- What don't you like about some of the options?

Community responses to the questions posed by RMS are documented in section 4.

2.5 Submissions and petitions received

A total of 114 submissions were received by the closing date of 12 October 2012 in response to the exhibition of the RODR. Three additional submissions were received by noon on Friday 19 October. The issues raised in all of these 117 submissions are included in this report. Submissions received after noon on 19 October 2012 will be provided in summary form to the value management workshop participants and considered as part of the final submissions report.

Submissions were received from individuals including residents, households and business owners. Transport providers, government agencies, community organisations, community and business advocacy groups also made submissions. All but nine submissions were from individuals.

Two petitions were also received by the project team. One petition included 203 signatures collected in 2012 and expressed opposition for an option downstream of the existing bridge, specifically referring to options 14 and 15.

The other petition was a copy of a petition originally submitted in 2011 that was resubmitted during the exhibition period. This petition included about 1000 signature collected during 2010 and 2011 and showed opposition to any option near the existing bridge.

Both petitions were coordinated by community groups that have maintained an interest in reaching a decision on the project and participated in the public forums.

All feedback from submissions received is summarised in section 3 below.

2.6 Categorisation of the submissions

A summary of the issues raised in the submissions is provided in section 3. A detailed summary of submissions is provided in Appendix B. The issues are grouped thematically around the following categories and topics:

Transport and traffic

- Traffic congestion
- Diversion of heavy traffic from CBD
- Access to town
- Emergency vehicles
- Intra- and inter-state and regional transport
- Public transport
- Safety
- Property access and parking
- Traffic study
- Upgrade of Pacific Highway
- Construction issues
- Design and options and suggested modifications
- Implications for the railway
- Alternative suggestions

Socio-economic issues

- Noise and vibration
- Air quality
- Social Impact
- Amenity/ streetscape/ views
- Economic development
- Urban development
- Agriculture
- Property acquisition
- River use
- Cycling
- Public health

Environmental impacts

- Flooding and river flow
- Fauna
- Flora
- Non-aboriginal heritage
- Aboriginal heritage
- Other environmental issues

Cost benefit and value for money

- Value for money

Process

- Consultation
- Value Management Study

3 Summary of issues raised in submissions

Submissions covered a wide range of issues of concern to stakeholders and the community. One issue raised in many submissions centred on a key aim of the project, to improve traffic efficiency for travel between Grafton and South Grafton. However, submission writers were divided on the core goal of the crossing.

Those in favour of out of town options focused on the need to remove traffic from the centre of Grafton. Those in favour of the options close to the existing bridge focussed on the need to relieve existing congestion. Strong opposition was raised to every option by one or more submission writers detailing functional, socio-economic, environmental, cost and value for money and other concerns. Key issues raised, in no particular order, are included below:

- The importance of the unique, nationally significant, historical aspects of Grafton valued by the community, including avenues and individual trees, affordable and heritage listed housing, community connectivity and local amenities.
- The need to protect the fabric of Grafton and avoid irreversible changes to areas of high amenity, heritage, natural and cultural value.
- General agreement that relief of traffic congestion was required, but with disagreement about how this could be best achieved.
- Concern about introducing traffic and associated noise and air quality impacts to areas currently devoid of significant traffic.
- A desire to minimise the amount of heavy vehicle traffic within the centre of Grafton, near schools and other sensitive locations.
- The value placed on the relationship of the town to the river and opportunities to protect and enhance recreation and natural and heritage features.
- The future of the region and Grafton's location relative to growth areas within the north coast and south east Queensland.
- Transport requirements for existing and growing urban areas, agriculture and industry in the region and inter-state and the role of Summerland Way within this context.
- Concern about the flooding and drainage matters that affect the town and how particular options might exacerbate them.

- Alternative suggestions about how congestion might be relieved by reducing demand for car travel before a long term solution is implemented.
- The need to maintain and improve the viability of bus services and ensure that bus users are not disadvantaged.
- A dissatisfaction with current levels of noise and volumes and driver behaviour of heavy vehicles and B-doubles in particular.
- Disagreement with the adequacy, scope and findings of the traffic investigations and the supporting traffic counts and population projections underpinning the conclusions of the RODR.
- Stated lack of trust in the findings of the traffic study and components is used as an argument in support of alternative views on the use that would be made of particular options and the related cost benefit of the options.
- Appreciation of the opportunity to participate in decision making but frustration with the cost, time and multiple attempts to resolve the issue.
- The need to take a long term view and ensure that investigations were based on accurate information about the likely future needs and character of the city.

There was general agreement that any option needs to address:

- The problems of congestion impeding free access between urban areas on either side of the river.
- The delay caused by trucks and other large vehicles navigating the bridge.
- The current and future needs of Grafton, surrounding suburbs and users of regional and inter-state transport.
- Mitigation of the impacts of any option on noise, air quality and socio-economic aspects.
- Access for emergency vehicles across the river.
- The impact of new works on flood flows, flood mitigation works, shifting islands.
- The protection of Aboriginal and non-Aboriginal heritage, community amenity and safety and ecologically significant areas.

Many submissions, whether in favour of in or out of town options, expressed concern that heavy vehicles in the centre of town pose a safety hazard. Submissions also observed that the existing noise and air quality impacts of these vehicles were currently a problem. B-double traffic is of particular concern to the community and the need for these trucks to travel within the centre of Grafton was questioned. Action to better understand, manage and limit this form of traffic was requested by residents from all areas within Grafton.

Options E, A, and C drew criticism for the potential to:

- contribute significantly to noise and air pollution
- affect quality of life and economic activity
- affect Aboriginal and non-Aboriginal heritage
- severely affect heritage buildings and streetscapes
- require the removal of significant street trees

Option 11 drew criticism for the potential to:

- introduce heavy traffic to previous quiet residential areas
- create noise, pollution, privacy, parking and amenity issues.
- remove the viability of productive farmland

Option 14 and 15 drew criticism for the potential to:

- remove the viability of productive farmland
- affect the aesthetic and recreational quality of river
- disrupt sites of indigenous significance
- affect bird life
- be poorly used by people within Grafton and South Grafton.
- cost substantially more than alternatives.

A summary of what was liked and disliked about each option is listed in section 4.

Many submissions argued in favour of the options skirting the city (generally option 14 and or 15) on the basis that these options would allow traffic to “bypass” the CBD. A strong theme of the submissions that favour options 11, 14 and or 15, is that much of the traffic using the existing bridge is through traffic and not local traffic. Submissions in favour of these options generally argued that trucks and through traffic did not need to access the CBD. Some submissions in favour of the out of town options in particular challenged the basis for the conclusions of the RODR’s traffic study.

Some submissions in favour of out of town options argued that these would be beneficial to existing and future residents of the city. In particular the ability of the out of town options to service the greater Grafton areas of Junction Hill, Clarenza and the lower river was mentioned.

A number of submissions argued that the core purpose of the project was to facilitate local traffic flow and argued that out of town or bypass options would not be used and would do little to relieve existing congestion. Many of these submissions observed that options close to the existing bridge would relieve congestion and be used primarily by local traffic (within greater Grafton).

While the invitation for feedback did not ask submission writers to vote for or specify a preference for a particular option, 97 of 117 submissions specifically expressed support for particular options. Some submissions expressed specific opposition to a particular option while others debated the merits and disadvantages of all options. As well as arguing in favour of their preferred option, many respondents argued against the option that they opposed. Petitions are included in the total of 117 but not in the total of 97.

Table 3.1, overleaf, outlines the preferences expressed in submissions.

Table 3.1 Support for particular options

Option	Number of submissions supporting option(s)
Single option supported	
E	12
A	9
C	8
11	8
14	3
15	18
More than one option supported	
E and C	1
E and 11	1
E, 11 and 15	1
E and 15	1
A modified	1
A and C	2
C modified	1
C, 11, 14 and 15	1
11, 14 and 15	2
14 and 15	24
14, 15 modified	1
15 modified	3
TOTAL	97

4 Responses to the community update questions

In addition to feedback invited on the six short-listed options of any kind, the community was also invited to specifically address the following questions:

- 1) What do you think is the most important consideration when determining the preferred route option?
- 2) What do you like about some of the options?
- 3) What don't you like about some of the options?

The tables below provide a summary of the responses.

Table 4.1

1) What do you think is the most important consideration when determining the preferred route option?

Traffic and transport

- Keeping traffic out of town.
- Source of existing traffic crossing the bridge.
- Reduce congestion and improve traffic flow.
- Linking Summerland Way with the Pacific Highway without traffic going through the town.
- Service the residents of South Grafton and Grafton.
- Enhancing public transport.
- Overcome traffic congestion in the vicinity of Grafton Bridge.
- Has to clear or relieve the congestion on the current bridge between 7am and 9am.
- Enable more than one access point into Grafton CBD for South Grafton residents and other users of Grafton, reducing congestion.
- Safety for all road users.
- Improve the linkages between north and south to improve access in town for community and assist businesses.
- Alleviate peak hour traffic linking Grafton and South Grafton.

Socio-economic

- Need to acquire properties and unhouse residents.
- Residents cannot afford any more bills.
- Cater for the projected growth of the Junction Hill and Clarenza areas and planning for the future.
- To benefit the vast majority of Graftonians into the future and not to placate a vocal minority of the present.
- Identify a new bridge route that should not disrupt the fabric of Grafton while being economically viable.
- Least disturbance to visitors and residents.
- Minimising impact on man-made and natural environment.
- A new bridge that should not disrupt the fabric of Grafton while providing improved traffic movements by diverting traffic from the old bridge.

2) What do you like about some of the options?

Option E	Avoids affecting good farmland.
	Gwydir Highway would receive traffic earlier.
	No further impact on Dobie and Villiers Streets as already affected by traffic.
	Better than 11,14 and 15
	A lot of traffic goes into the main business centre from South Grafton [and would use this option].
	Would be quickest to build.
	Would capture a lot of traffic from South Grafton Hill and Waterview Heights.
	Traffic would flow smoothly in and out of the CBD.
	Avoids Kent Street.
	Handy for South Hill residents.
	Reduced overall disruption for the community.
	Requires the least infrastructure and would frame the old bridge without taking way from existing views.
	Would be well used.
	Is affordable
	Second best option to improve bus services.
	Least cost compared with disruption.
	Less impact on Aboriginal heritage.
	Less environmental impact.
	Two options for southbound travellers.
	Would tie in with the existing river scheme and boardwalk.
	Would improve traffic movements and divert traffic from old bridge.
	Ensures even distribution of traffic flow on both bridges.
Option A	Minimal impact on existing streetscape.
	Would be used.
	Would provide the required relief for traffic flowing across the river.
	Permits larger vehicles with wider tracks to traverse the bridges more effectively.
	Does not require extensive earthworks and road lowering on the northern side.
	Enables the existing bridge to be a single lane and allows it to be upgraded to two lanes in the same direction doubling traffic flow.
	No significant increase in noise impacts.
	Reasonable cost benefit ratio.
	Does not fragment urban areas.
	Handy for South Hill residents
	Ability to use new bridge in conjunction with existing bridge.
	Would provide a quick trip over the bridge for South Grafton residents including those who drop off and collect school children.
	Least costly and most readily approved.
	Best option to improve bus services
	Ensures even distribution of traffic flow on both bridges.
Option C	Minimal impact on existing streetscape.
	Would provide the required relief of congestion for traffic flowing across the river.
	Preferred if Grafton is considered a destination.
	Lowest cost for volume of use.
	Handy for South Hill residents
	Ability to use new bridge in conjunction with existing bridge.
	Best for local traffic
	Two connections to the Pacific Highway.
	Ensures even distribution of traffic flow on both bridges.
Option 11	Least overall disruptions for the community.
	Does not require an upgrade of Prince Street
	Less relocation of residents than A, C and E
	More convenient than A, C and E for Grafton and Lower River residents.
	Clears the traffic through to Villiers Street.

2) What do you like about some of the options?

	The exit from the Pacific Highway to Centenary Drive is existing infrastructure.
	Alternate crossing away from current crossing and CBD.
	Would prevent further congestion around current crossing.
	Would cater for long term growth of Junction Hill and Clarenza
	Short and long term relief to current crossing.
	Safer regarding heavy vehicles traversing residential areas.
	Less impact on heritage
	Less impact on business
	Reduced impact on flood mitigation.
	Safe alternate bus route to Westlawn/ Junction Hill and Clarenza.
	Would link to the Pacific Highway without inhibiting South Grafton.
	Provides link to recreational facilities.
	New opportunity to use riverside and connect old and new bridge with cycleway for example.
	Good BCR
	Would improve traffic movements and divert traffic from old bridge.
	Detrimental impact on Pound Street.
Option 14	Would affect the least residential and business areas.
	Second best option to route trucks from Pacific Highway to Summerland Way
	Would move highway through traffic (especially B-doubles) away from Grafton business section (but still close to Villiers, Prince and Queen Streets for access to Grafton.)
	More convenient when approaching Grafton from the east even though a longer route.
	Least relocation of residents
	Convenient route from Lower River
	Would divert unnecessary traffic from CBD.
	Alternate crossing away from current crossing and CBD.
	Would prevent further congestion around current crossing.
	Would cater for long term growth of Junction Hill and Clarenza.
	Short and long term relief to current crossing.
	Safer regarding heavy vehicles traversing residential areas.
	Less impact on heritage
	Less impact on business
	Reduced impact on flood mitigation.
	Safe alternate bus route to Westlawn/ Junction Hill and Clarenza.
	Would minimally affect land under the viaducts.
	New infrastructure is in virtually open country.
	Would maintain smooth operation of CBD and law courts.
	Would not further congest roads to and from Grafton Hospital.
	Would maintain road levels under the rail viaduct at a convenient and safe level.
	Direct link to Centenary Drive
	Higher clearance to water level for navigation on the river.
	Opens area of river to public and links to Corcoran Park.
	Crosses river in lower density area.
	Road system unaffected by floods.
	Does not affect bridge to bridge ski race.
	Less noise impacts for residents.
	Convenient for people from Yamba and Maclean.
Option 15	Enables heavy vehicles (especially B-doubles) to by-pass city streets, hockey fields, show grounds and Westlawn school.
	Improved traffic efficiency
	Easing of congestion
	Less air and noise pollution
	Preservation of heritage and amenity of Grafton.

2) What do you like about some of the options?

	Would affect the least residential and business areas.
	Best option to route trucks from Pacific Highway to Summerland Way
	Of benefit to Junction Hill businesses and residents.
	Moves highway through traffic away from Grafton business section (but still close to Villiers, Prince and Queen Streets for access to Grafton.)
	Best option for traffic entering Grafton from the north via the Pacific Highway
	More convenient when approaching Grafton from the east even though a longer route.
	Least relocation of residents
	Convenient route from Lower River
	Least impact on residents and social justice.
	Would divert unnecessary traffic from CBD.
	Flood free
	Alternate crossing away from current crossing and CBD.
	Would prevent further congestion around current crossing
	Short and long term relief to current crossing
	Would cater for long term growth of Junction Hill and Clarenza
	Safer regarding heavy vehicles traversing residential areas.
	Less impact on heritage
	Less impact on business
	Reduced impact on flood mitigation
	Safe alternate bus route to Westlawn/ Junction Hill and Clarenza
	Would minimally affect land under the viaducts
	New infrastructure is in virtually open country
	Would maintain smooth operation of CBD and law courts
	Would not further congest roads to and from Grafton Hospital
	Would maintain road levels under the rail viaduct at a convenient and safe level
	Direct link to Centenary Drive
	Higher clearance to water level for navigation on the river.
	Opens area of river to public and links to Corcoran Park
	Crosses river in lower density area.
	Avoids lowering Villiers Street
	Does not affect bridge to bridge ski race
	Easy short access to CBD for peak hour overflow traffic
	Best for emergency vehicles.
	Less noise impacts on residents.
	Superior linkage between the industrial areas of South Grafton and Trenayr.
	Quicker for North Grafton and Junction Hill residents to access the Pacific Highway.

3) What don't you like about some of the options?

Option E	Cuts through densely populated areas
	Would not ease traffic congestion
	Safety affected
	Would have the highest night time noise impact.
	Air quality impacts
	Affects heritage
	Takes heavy traffic through the CBD
	Impact existing homes, residents and streets
	Would bring higher levels of traffic closer to the CBD, has the lowest projected usage and increased travel distances and would be underutilised.
	Do not meet the needs of the wider community beyond South Grafton
	Greatest relocation of residents
	Possible impact on Susan Island in the long term

3) What don't you like about some of the options?

	Would not divert traffic from CBD.
	Waste of time and taxpayers money
	Create noise issues in residential areas
	Increase CBD congestion
	Heightened risk and safety issues regarding heavy vehicles.
	Affects existing businesses
	Funnels traffic through one location.
	Would disturb flying foxes
	Excessive noise for the occupiers of 2 Villiers St Grafton
	Removal of access and parking for 2 Villiers St Grafton
	Fire safety affected for 2 Villiers St Grafton
	Severe impacts on heritage listed Convent and archives.
	Excessive noise for facility on corner of Villiers and Victoria St Grafton
	Access to riverbank disrupted.
	Involves removal of significant fig tree
	Requires lowering roads under the viaduct
	Costs would be higher when acquisition costs and economic implications of traffic flow considered.
	Would create safety issues for Anglican Primary School
	Would create difficulty for bus passengers on Victoria Street
	Would affect river navigation
	Significant visual impact.
	Would put more traffic pressure on Ryan Street.
Option A	Cuts through densely populated areas
	Safety affected
	Significant noise impacts
	Air quality impacts
	Affects heritage
	Would not ease traffic congestion.
	Takes heavy traffic through the CBD
	Impact existing residents, homes and streets
	Do not meet the needs of the wider community beyond South Grafton
	Would move traffic congestion to another location.
	Greatest relocation of residents
	Would not divert traffic from CBD.
	Waste of time and taxpayers money
	Increase CBD congestion
	Heightened risk and safety issues regarding heavy vehicles.
	Affect existing businesses
	Funnels traffic through one location.
	Major disruption to fabric of Grafton
	Requires lowering roads under the viaduct
	Costs would be higher when acquisition costs and economic implications of traffic flow considered.
	Compromises the historical aspects of the existing bridge.
	Would compromise the wreck Induna
	Would affect river navigation
	West bound B-doubles need to round Villiers St, Fitzroy Street roundabout in the right lane to access the new bridge.
	Could involve the closure of Kent St and inconvenience for Dovedale residents
Option C	Cuts through densely populated areas
	Would not ease traffic congestion
	Safety affected
	Unacceptable noise impacts
	Air quality impacts

3) What don't you like about some of the options?

	Affects heritage
	Takes heavy traffic through the CBD
	Impact existing residents, homes and streets
	Has bends which would have the same problem as the existing bridge
	Still requires that the existing bridge be used for two lanes in opposite directions. The existing bridge would remain congested and interrupted by large vehicles unless bridge improvements are also undertaken.
	Do not meet the needs of the wider community beyond South Grafton
	Would move traffic congestion to another location.
	Greatest relocation of residents.
	Would not divert traffic from CBD.
	Would cause more accident black-spots and congestion until Pacific Highway upgrade completed.
	Waste of time and taxpayers money
	Increase CBD congestion
	Heightened risk and safety issues regarding heavy vehicles.
	Affect existing businesses
	Funnels traffic through one location.
	Major disruption to fabric of Grafton
	Requires lowering roads under the viaduct
	Costs would be higher when acquisition costs and economic implications of traffic flow considered.
	Would reduce effectiveness of bus services
	Would affect river navigation
	Would have a direct impact on properties in Clarence Street, isolating two between road and rail and businesses.
	BCR is doubtful and problem could be more effectively addressed by demand management
	Would have flooding issues associated with lowering Pound and Grieves Streets with risk of pump failure.
	Would impact on Grafton's unique character and charm.
	Would affect heritage values of 36 Villiers St Grafton dating from 1878
	Would mean relocation of the Aboriginal Preschool and its community.
	Relocation of the Aboriginal Preschool would have a negative impact on the local young Indigenous community and their families.
Option 11	Cuts through densely populated areas
	Safety affected
	Noise impacts
	Affects heritage
	Would not ease traffic congestion
	Affects the most number of people in their family homes
	Loss of privacy
	Minimal impact on cross river traffic
	Affects existing homes, residents and streets
	Disrupt floodplain flows and/ or require greater flood levee works.
	Would not divert traffic from CBD.
	Would cause more accident black-spots and congestion until Pacific Highway upgrade completed.
	Would make farming of a 100 acre property unviable because the area currently planted with crops would be unworkable.
	No amount of money would compensate for the loss of this property as there is not another property within the town boundary and on the river with the same potential as this one.
	Would destroy iconic homes on the north side of the river.
	Moves traffic through the quiet end of Fry Street.

3) What don't you like about some of the options?

	Increased noise associated with option 11 would be intolerable leading to an increased incidence of health problems and worsening quality of life.
	Complex intersections and circuitous route.
	Fry Street and Villiers Street intersection would be a problem
Option 14	Affects good farmland – would make some farms unviable for primary production – compensation required. Estimates in reports inadequate.
	An embankment could have a detrimental effect on land drainage and flooding.
	Requires a journey of 5km and only a small amount of traffic would use this option.
	Significantly more expensive and lower number of vehicles deflected from the existing bridge. Further, costs may escalate when geotechnical issues are further investigated including settlement and acid sulphate soils.
	High safety risks for the existing bridge
	Would only benefit through traffic and have little impact on existing cross river traffic.
	Disrupt floodplain flows and/ or require greater flood levee works
	Does not allow emergency vehicles to travel between Grafton and South Grafton safely.
	Does not improve economic development for locals travelling between Grafton and South Grafton.
	Great Marlow and Kirchner Street picnic and boating areas are a stunning part of the Grafton landscape and would be disrupted by the work.
	Would cause more accident black-spots and congestion until Pacific Highway upgrade completed.
	Waste of time and taxpayers money
	Economically unviable
	Too costly
	Would direct traffic through residential areas affecting homes.
	Could disturb acid sulphate soils.
	Could affect Great Marlow Aboriginal heritage.
	Would introduce traffic to previously quiet residential area.
	Could worsen major flood and affect properties.
	Closure of main boat ramp would impact on sailing club
Option 15	Affects good farmland – would make some farms unviable for primary production - compensation required. Estimates in report inadequate.
	An embankment could have a detrimental effect on land drainage and flooding.
	Requires a journey of 5km and only a small amount of traffic would use this option.
	Significantly more expensive and lower number of vehicles deflected from the existing bridge. Further, costs may escalate when geotechnical issues are further investigated including settlement and acid sulphate soils.
	High safety risks for the existing bridge
	Would only benefit through traffic and have little impact on existing cross river traffic
	Affects an Aboriginal Heritage site "Tracker Robinson's Camp" as well as being an area of high potential for Aboriginal artefacts.
	Affects significant birdlife
	Disrupt floodplain flows and/ or require greater flood levee works
	Does not allow emergency vehicles to travel between Grafton and South Grafton safely.
	Does not improve economic development for locals travelling between Grafton and South Grafton.
	Great Marlow and Kirchner Street picnic and boating areas are a stunning part of the Grafton landscape and would be disrupted by the work.
	Would cause more accident black-spots and congestion until Pacific Highway upgrade completed.
	Economically unviable.
	Too costly

3) What don't you like about some of the options?

	Could disturb acid sulphate soils.
	Could affect Great Marlow Aboriginal heritage.
	Would introduce traffic to previously quiet residential area.
	Could worsen major flood and affect properties.
	Closure of main boat ramp would impact on sailing club

5 Summary of other community feedback

5.1 Summary of online comments

The online community forum commenced on Monday 10 September and closed on Wednesday 10 October 2012. The online forum was created to allow informal discussion on the options. <http://haveyoursay.nsw.gov.au/grafonbridge>

In total 64 comments were posted by 18 users.

Generally the issues raised reflect those made in formal submissions. Contradictory views on the impact of the different options on congestion in the Grafton CBD and on the effectiveness of providing an out of town crossing were raised in the online comments.

A general concern with the safety, noise and amenity issues relating to large vehicle movements through the urban area was evident. The aesthetic impact of new bridges was a matter of interest, especially in the context of the tourist value of the existing 'bendy bridge'.

There was also consistent interest in maintaining the heritage value of, and tourist interest in, the city. The potential for flooding of the railway viaduct underpass under option C was raised in a number of posts. Concerns were raised about the occasional diversion of traffic through the Grafton CBD (along Summerland Way) across the existing bridge following closure of the Pacific Highway. No clear consensus on a preferred option is evident.

5.2 Summary of informal feedback at staffed displays

About 225 community members attended the staffed displays and information sessions. Project staff received a range of comments and questions about the project, the process moving forward to identify a preferred option and the six route options.

Where individuals asked for feedback to be captured as a formal submission, these have been collated in this report.

5.3 Overview of the public forums

The first public forum was held on Tuesday 18 September 2012 from 6pm to 9pm at the Grafton Community Centre. The public forum was facilitated. Project team members, including RMS, Arup and specialist consultants presented information about the project and an overview of the technical studies that underpinned the RODR. The PowerPoint presentations were made available on the project website after the forums.

Some community groups made brief presentations. Members of the audience were able to ask questions of the project team and community presenters. About 90 people were in attendance.

A second public forum was held on Tuesday 9 October from 6pm to 8pm at the Grafton Community Centre. The public forum was also facilitated. The RMS Project Manager presented an update on the project including a demonstration of the traffic visualisation videos. The PowerPoint presentation was made available on the website after the forum.

Community groups also presented at the forum. Members of the audience were able to ask questions of the team and community presenters. About 35 people were in attendance.

Both the public forums were filmed and are available on the project website.

6 Next steps

A Value Management Workshop (VMW) is scheduled for Tuesday 23 and Wednesday 24 October 2012. A VMW is a facilitated forum where participants review and assess options for a project against agreed assessment criteria. The options are then evaluated against each criterion.

The VMW is a key input onto to the identification of a recommended preferred option which is expected to be placed on display for community comment by the end of 2012.

The process to identify a preferred option is shown in the flowchart overleaf.



Figure 3 The process to identify a preferred option.

Summary of Community Consultation Activities for the RODR

Staffed displays

At the staffed displays the project team representatives (RMS and Arup) were available to take feedback and answer questions. Copies of the Community Update and RODR were available to pick up.

Displays were held at the following locations:

Grafton Shoppingworld
13 September and 4 October 2012, from 10am to 5pm

Information displays

These were informal sessions where members of the project team were available to talk one on one with the community. Large scale posters of the route options and maps from the RODR were available for discussions. Community members could ask questions, provide feedback for recording by staff, pick up a community update and request full copies of the RODR or pick up a version on CD.

Information displays were held at the following locations

Grafton Community Centre
19 September 2012, from 11am to 2pm and 3pm to 6pm

South Grafton Ex-Servicemen's Club
25 September 2012, from 10am to 2pm

Static displays

Static (unstaffed) displays were placed on public exhibition from 10 September 2012 at the locations listed below. These included posters illustrating the route options, community event information and copies of the Community Update and at limited locations display reports.

- Roads and Maritime Services Pacific Highway Office, 21 Prince Street, Grafton
- Roads and Maritime Services Motor Registry Office, 3 King Street, Grafton
- Roads and Maritime Services Regional Office, 31 Victoria Street, Grafton
- Grafton Council Chambers and Grafton Library, 2 Prince Street, Grafton
- Ulmarra Petrol Station/Post Office, Pacific Highway, Ulmarra
- South Grafton News and Gifts, 38 Skinner Street, South Grafton
- General Store Coutts Crossing, Armidale Road, Coutts Crossing
- Junction Hill Family Store, 5 Casino Road, Junction Hill
- Maclean Council Office, 50 River Street, Maclean
- Yamba Library, Wooli Street, Yamba

Public forums

A public forum on the short-listed options was scheduled to be held at 6pm Tuesday 18 September 2012 at the Grafton Community Centre. The forum was set-up to provide

community stakeholders with an opportunity to express their views on the short-listed options.

A briefing session for the community presenters at the forum was held on Friday 14 September 2012. In response to requests from the community representatives at the briefing session, RMS agreed to:

- Alter the public forum on the evening of Tuesday 18 September to provide more time for the project team to outline the results of the investigations into the short-listed options.
- Hold a second public forum on the evening of Tuesday 9 October to provide community stakeholders with an opportunity to comment on the short-listed options.
- Extend the closing date for submissions to Friday 12 October

Talk back radio

A radio forum was held on Thursday 10 October 2012 from 9am on 2GF radio station. The following panel presenters participated in the forum:

- RMS Project Director, Bob Higgins and RMS Project Manager, Chris Clark
- Arup traffic consultant Gerard Cavanagh
- Independent traffic reviewer Professor John Black, from the Institute of Environmental Studies, University of NSW.
- Representative from the Grafton Chamber of Commerce, James Patterson
- Representative from the trucking industry, Robert Blanchard from Blanchard's Haulage.
- Representative from the Grafton Ngerrie Local Aboriginal Land Council, Brett Tibbett.

Community members were invited to call into the project team with questions.

Moderated online forum

An online forum was provided to facilitate discussion about the merits of each option. Participants were able to lodge their comments as submissions on the options. This forum operated from 10 September to 10 October 2012

Advertising

The exhibition of the RODR was advertised in the newspapers, on the radio and via a variable message signage on display near the Grafton Bridge for the length of the exhibition period. Newspapers and publication dates included:

Advertisement 1

Grafton Daily Examiner 11, 13, 15, 20 and 22 September
Yamba Clarence Valley Review 12 and 19 September
Maclean Coastal View 14 and 21 September

Advertisement 2

Grafton Daily Examiner 27, 29 September
Yamba Clarence Valley Review 26 September
Maclean Coastal View 28 September

Traffic modelling videos

From 24 September 2012 [traffic modelling videos](#) were made available on the project website. These illustrated peak hour travel across each proposed bridge option for the years 2011, 2019 and 2049. These were announced:

- by email mail out to people who had registered their interest in the project; and
- on the radio forum.

These were also shown at the second public forum.

Website

The website listed community events and displays, message updates from the project manager, key documents, the online forum and the traffic modelling videos as well as providing a complete project history and access to previous community and project documents.

Project email

A project email was maintained throughout the project and exhibition period. Enquiries and comments were acknowledged and responses provided as soon as technical investigations allowed.

Project telephone number

A toll free project number was maintained throughout the project and exhibition period. Phone calls were received by id planning staff and answered promptly. Project team members responded to technical enquires as required.

Project database

All contact with the project team was logged in the project database, provided by Consultation Manager.

RODR submissions

Submissions on the RO
DR were received:

- at staffed information displays, recorded by the project team
- by mail or hand delivery
- by email
- via the online forum
- by telephone to the project office and 1800 number

Each submission was logged registered, given a unique number and included in Consultation Manager. It was also summarised in this report.

Value Management Nominations

Nominations were received in person, by hand, by mail, telephone and email and registered by the project team.

Submissions have generally not been quoted verbatim but paraphrased to allow a consolidated list of issues of concern. Issues are not ranked in order of importance.

Issue
Transport and Traffic
<i>Traffic congestion</i>
Options 14 and 15 require a journey of 5km and only a small amount of traffic would use these options. These options would not address congestion.
Options A and C would provide the required relief for traffic flowing across the river.
Option C has bends, which would have the same problem as the old bridge. Congestion would persist.
Options 11, 14 and 15 would make too small an impact on traffic congestion.
Option C still requires that the existing bridge be used for two lanes in opposite directions. The existing bridge would remain congested and interrupted by large vehicles unless bridge improvements are also undertaken.
Option E would bring higher levels of traffic closer to the CBD, it has the lowest projected usage and increased travel distances and would be underutilised, affecting congestion.
Options A and C would not relieve congestion, just move it to another location.
Options A, C and E would cause congestion on the Grafton side.
Option E would create a bottleneck after the new bridge in Villiers and Prince Streets. This would intensify over the period up to 2049 and necessitate the widening of Villiers Street and Dobie Street to four lanes.
Options C, 11, 14 and 15 would cause more accident black-spots and traffic congestion including for those wishing to bypass Grafton until the Pacific Highway is upgraded.
Option 15 would function as an overflow for peak-hour traffic.
Travel time on the actual bridge spans would be shorter but bottlenecks would remain in Bent, Villiers and Fitzroy Streets.
Options 14 and 15 would prevent further congestion of the immediate areas around the current crossing, particularly Bent Street and Fitzroy and Villiers Streets.
Option 14 and 15 would not further congest roads to and from Grafton Hospital and would provide fast and free flowing access.
Option C is a practical option to address traffic congestion that would satisfy everyone without compromising the heritage and visual impact.
Without two lanes dedicated in each direction for Options A there would be gridlock on approach to a new bridge. Widening to accommodate this would severely affect properties.
Any option other than A would have little effect in reducing Bent and Fitzroy Streets' peak hour congestion.
Options A, E and C would create bottlenecks.

Issue
Option A would not solve the expected growth in traffic with the existing bridge to become one lane southbound.
Option E and C address traffic congestion and would benefit local travel.
If Option E is constructed all traffic would be directed via Clarence Street adding to a congested roundabout proposed for the intersection of Clarence and Fitzroy Streets. There is concern about traffic banking up from the proposed signalised intersection at Villiers and Fitzroy Street.
A range of demand management strategies should be considered as an alternative to a second crossing. These could include financial incentives; vehicle movement controls and strategies; user pays strategies; parking strategies; public transport initiatives; improving and promoting bicycle and pedestrian security, safety and access. RMS figures show it is only necessary to influence the behaviour of around 200 vehicles in the peak period to significantly reduce or eliminate congestion.
Option 14 would reduce congestion in Bent Street, Prince Street and Villiers Street. For our business we often travel to North Street industrial centre to pick up supplies for our business. The current bridge forces us to go through the heart of Grafton.
Option E would have some better options regarding the Villiers Street bottleneck.
Options A, C and E are not supported because they would direct traffic through the CBD and traffic does not need to reach its destination through one funnel.
The adopted option should decongest the CBD. We should remove as much non-essential traffic from the CBD. Through traffic should be removed from residential areas and only light traffic allowed. This would improve resident's daily lifestyle. This would be achieved by option 15. Options E and C would not relieve congestion.
Option C is supported. Unless the bridge is built in reasonable proximity to the existing bridge (Options A, C or E) it would not alleviate congestion.
Car-pooling or education on the advantages of buses could assist our current congestion problems.
Option 15 would reduce traffic on the existing bridge.
Options 14 and 15 fail to address the primary need for the bridge, which is to alleviate peak hour traffic, and link North and South Grafton.
Any out of town option would alleviate congestion and capacity issues impacting on parking, access, pedestrians, and businesses.
Option 11 would create congestion problems for the intersection of Fry and Villiers Street.
Do not support options 14 or 15. Most traffic crosses the bridge between 3pm and 5pm daily which consists mainly of cars picking up children from school and people going home from work. Traffic surveyed on 19 August 2010 showed 91% of vehicles started or ended their trip in Grafton. 76% of heavy vehicles started or ended their trips in Grafton. The most cost efficient and traffic friendly place for the new bridge is next to the existing bridge.
If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience capacity issues in local streets and possible ring roads.
Option C would add to the existing problem, meaning long waiting periods and traffic congestion.
Option E would not work as you cannot guarantee an even distribution of traffic flow. One bridge could have traffic backed up and the other not much.
Any out of town option would minimise and prevent impacts by: <ul style="list-style-type: none"> a. Avoiding funnelling increased traffic into and through town b. Alleviate congestion and capacity issues impacting on parking, access, pedestrians, businesses

Issue

Given that an opening date for a new bridge will be in 2019 at the earliest, DPI suggests that RMS considers, in the interim, working with the Council, agencies, business and the community to develop demand management strategies to alleviate traffic congestion in peak times. This would assist Grafton maintain its role as a major regional centre.

Diversion of heavy traffic from CBD

Options 14 and/ or 15 would remove traffic (especially B-doubles) from the CBD but still allow access to Grafton.

Options A, C and E would take heavy traffic through the CBD and would not improve anything in the long term.

Option 11 takes traffic including heavy vehicles and buses out of the centre of town by providing an alternate crossing away from the existing crossing and CBD.

Large trucks and B-doubles should not be routed through residential areas or the CBD as they are slow moving, cumbersome, congest local traffic badly and are dangerous for pedestrians and local traffic.

Options 14 and 15 move heavy vehicles out of town to an extent but not divert other traffic from the old bridge and do not seem economically attractive.

Option 15 has the greatest traffic efficiency and would enable heavy vehicles (especially B-doubles) to bypass city streets, hockey fields, showgrounds and Westlawn School, increasing the amenity of the town.

No need to have trucks coming into town, prefer options 14 and 15. This would also protect local roads.

Option 15 provides a ring road and would benefit light and heavy vehicles travelling to Casino or Lismore via Summerland Way.

Option 15 takes heavy trucks (especially B-doubles) away from residential areas.

Keep the B-doubles out of the main thoroughfare and off the existing bridge.

Options 14 and 15 do not allow emergency vehicles to travel between South and North Grafton.

RMS could regulate the new bridge to require that buses and heavy vehicles only use it if in a down river position. This would aid the flow of traffic on the existing bridge as it would not need to slow to allow heavy vehicles to pass.

Option11 would take traffic, heavy vehicles and buses out of CBD

Option E would not divert unnecessary traffic around CBD

Issue of semi-trailer traffic is a red herring as most semis are based in Grafton or are coming to service the CBD. Between one and six semis are observed on a regular trip between Grafton and Casino via Summerland Way.

Option C not as convenient to the outskirts of Grafton for larger vehicles.

The current and planned future growth of employment land north of Junction Hill is likely to add to this need; e.g. transporting products south to access the Pacific Highway. A bridge crossing which provides an efficient, low-impact, route through/beside Grafton for heavy vehicles (and other through-traffic) would be desirable.

Option 14 is directly linked to Centenary Drive (high-level bypass to Coffs Harbour and could accommodate B-doubles.

Issue
Option 11 impacts on every street intersection along Fry Street, includes roundabouts on Dobie Street at Villiers and Prince Streets and includes a domestic T intersection at the racecourse. This would be ineffective for buses and B-doubles.
Option A requires west bound B-doubles to round the Villiers Street Fitzroy Street roundabout in the right lane in order to merge onto the new bridge. This is not great traffic dynamics.
Options 14 and 15 would address the situation of roads cut by flood or trauma and the resultant convoy of heavy vehicles through the CBD.
Options 11 and 15 would take heavy vehicles away from town.
Option E, A and C do not provide for detour around the CBD.
Options 11 and 14 divert unnecessary traffic including B-doubles through residential areas.
Options 11 and E would maintain the fabric of Grafton while providing improved traffic movements by diverting traffic from the old bridge.
A second bridge downstream of the existing bridge, outside the CBD and populated residential areas of Grafton and linking Summerland Way and the Pacific Highway is supported by GCCG.
We as individuals and the GCCG supports options 14 and 15 as alternative access bypass routes, downstream on the outskirts of town, at North and Kirchner Streets linking with Centenary Drive on the south of Grafton (the high level bypass).
GCCG support moving the B-double route as well directing as many timber jinkers, semi-trailers and coaches as possible, to the new bridge on the outskirts of Grafton. If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience increased traffic and trucks, the impacts of a tripling of heavy vehicle traffic in the next 30 years.
It would be desirable if traffic, particularly heavy vehicle traffic, can efficiently move between the Pacific Highway and Summerland Way in both directions, without too much impact on safety and amenity in Grafton.
The current and planned future growth of employment land north of Junction Hill is likely to add to this need; e.g. transporting products south to access the Pacific Highway. A bridge crossing which provides an efficient, low-impact, route through/beside Grafton for heavy vehicles (and other through-traffic) would be desirable.
Access to town
Option C is the best option to if Grafton is considered as a destination not a stopover.
Option E would allow Gwydir to divert traffic earlier.
Option 11 clears traffic through to Villiers Street.
Option C followed by Option A preferred as they are close to existing traffic flow and would direct traffic away from the main street. High pedestrian traffic makes main street 40km/hour.
Option E is preferred because a lot of traffic goes into the main business centre from South Grafton.
Option 14 and 15 are more convenient when approaching Grafton from the east even though a longer route.
Option 14 and 15 would allow traffic entering Grafton from the north, eastern, most southern plus all north south traffic to pass with minimal impact on the city.

Issue
Option A, C and E would be convenient for those who live in South Hill area.
Options 14 and 15 would be convenient for Lower River travellers
Option 15 is preferred because it would have a direct route to the northern end of Prince Street as well as Summerland Way.
Option 15 would not solve the projected increase in local traffic travelling between Grafton and South Grafton using the existing bridge.
Option E gives two options for southbound travellers. That is, residents living south west including Waterview and Copmanhurst use the new crossing and residents living southeast would use the existing crossing.
Option E links the south side directly at CBD level.
Option 14 would assist the community between Grafton and Yamba by decreasing the time needed to travel into Grafton.
Option 15 would provide a superior linkage between the industrial areas of South Grafton and Trenayr. It would also be quicker for North Grafton and Junction Hill residents to access the Pacific Highway.
The new bridge should serve the town and its residents. North and South Grafton need a bridge alongside each other not downstream.
Options 14 and 15 are the longest with the combined bridge and viaduct of 1870m and 1970m in contrast to the shortest option which is 640m. This is up to 3 times the length of the shortest upriver option for combined bridge and viaduct. The estimated travel time between Grafton would be significantly longer than most of the upriver options.
Options 14 and 15 are preferred over 11 but for Rushworth Park residents travelling halfway to Ulmarra to cross the river is not a serious option.
GCCG supports the use of the existing Grafton bridge to accommodate mostly local traffic travelling to and from South Grafton and Grafton. If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience connectivity issues with local roads closed – such as Greaves, Kent, Bridge, Pound, Clarence and Bacon Streets.
Option A is the best option to improve cross river traffic flow.
Option C is the second best option to improve cross river traffic flow.
Option A enables the existing bridge to be a single lane and allows it to be upgraded to two lanes in the same direction doubling traffic flow.
Options 11 and 14 are close enough to both Grafton and South Grafton for motorists to choose either bypass or into town.
Option 11 is still close to the CBD and a more suitable option than C.
It would be better to spread the road network out over a wider area and have traffic and trucks enter the City from the different directions from which they come, rather than funnelling it virtually into the same area as the existing bridge with any of the in town options.
Option A would provide a quick trip over the bridge for South Grafton residents including those who drop off and collect school children.
Option C provides the best solution for local traffic.

Issue
Out of town options are preferred as people would use the most suitable and fastest route in relation to the time of the day and their destination.
<i>Emergency vehicles</i>
Options 14 and 15 would not alleviate emergency vehicles being able to safely cross to South Grafton.
Any option other than Option A would provide the best outcome in the case of an emergency. A second crossing with alternate approaches would allow emergency vehicles two options for access. Option A uses the same approach roads for both bridges. RMS data demonstrates an incident on the bridge causes gridlock.
Crossing should be strategically located so as to improve the response times for our essential service vehicles – fire, ambulance, SES, police, doctors, emergency staff of electricity authority, Council, heavy towing and lifting agencies to clear our highways. This is best resolved by option 15.
<i>Intra- and inter-state transport</i>
Department of Planning and Infrastructure (DPI) sees Summerland Way as being a strategic intra- and inter-state transport corridor, which is likely to grow in importance in the future. Much of Brisbane's growth is in its south-western corridor and there are government plans for substantial expansion in land area available for employment in this corridor. A prime link to this area from NSW is via Summerland Way.
Plans for the freight network from QLD to Coffs Harbour, including the Pacific Intermodal and Logistics and Summerdowns Rail Terminal, contemplate an upgrade of Summerland Way and a second bridge at Grafton.
Option C would be more convenient for motorists as it would join the Pacific Highway in two places.
<i>Public transport</i>
Busways buses cross the Clarence River a little under 36,000 times per annum. This project is a tremendous opportunity to positively impact on the region's public transport network. Conversely other options could render significant harm if chosen.
The option that removes the most traffic from the existing bridge, freeing it to function more efficiently, may render a satisfactory outcome for public transport.
The most fundamental measure for public transport regionally is that the twin centres of Grafton and South Grafton are linked by the shortest possible connection (both road and bus route). It is mandatory that direct connections from both the south and the north of both centres are maintained. Options that have their origin east and north of Bent Street on the southern side or north of Fitzroy Street on the northern side do not meet this measure. Option A and E in that order are preferred for public transport.
Option A would decrease traffic congestion on the existing bridge. It would also allow the existing geographic coverage of bus services and walking distances to bus stops to remain unchanged.
Option E would generally work for Busways services but it would remove services from Through Street and the northern end of Skinner Street.
Option E would affect bus transport for Clarence Valley Anglican Primary School in a significant negative way. Left in and left out restrictions proposed for Victoria and Villiers Streets would prevent buses from entering the school from the west. Students would need to cross Victoria Street with a significant deterioration in the quality of their journeys and safety. If this option is adopted a solution to this problem must be developed.

Issue
<p>Option E would make crossing the Gwydir Highway difficult for buses. An alternative to operate via Bent Street in lieu of Bligh Street would be less safe as the community would need to cross Bent Street to access bus stops.</p> <p>Busways requests the provision of a roundabout at the intersection of Bligh Street and the Gwydir Highway.</p>
<p>Only Option A has the potential to genuinely improve viability of public transport based on the consideration of the bus getting passengers to destinations more quickly. The conclusion of the Economic Issues paper that all options would improve public transport viability is therefore incorrect.</p>
<p>Options 11, 14 and 15 provide safe, alternate bus routes to service the Westlawn/Junction Hill residential areas to Clarenza.</p>
Safety
<p>Will the community want a bypass when (heaven forbid) the first accident or fatality occurs in town involving a truck? We do not want what occurred earlier this year with 2 fatalities in Urunga when a truck ploughed into a residential home and also just recently when a fatality occurred and 2 others were injured when a truck crashed into a bus in the residential area of Singleton.</p>
<p>Option 15 is safest because it avoids heavily populated areas.</p>
<p>Options A, C, E and 11 cut through densely populated areas and endanger human lives.</p>
<p>Options 14 and 15 have high safety risks for the existing bridge.</p>
<p>Option 11 increases potential danger in a residential area with sporting fields.</p>
<p>Option 15 takes heavy trucks (especially B-doubles) away from residential areas.</p>
<p>If roundabouts are required do not landscape them. Keep visibility clear and paint them instead.</p>
<p>Options 11, 14 and 15 are safer regarding heavy vehicles traversing residential areas.</p>
<p>Options E, A and C have heightened risk and safety issues regarding heavy vehicles manoeuvring through residential areas.</p>
<p>Option E would remove access to a fire panel associated with the Sisters of Mercy Convent and deny access to the Convent building for the fire brigade via Villiers Street.</p>
<p>Option E is supported but large vehicles at the end of Cowan Street may create safety problems for children. An option is to make the end of the street near the airport <i>light traffic only</i>.</p>
<p>Concerned about the integrity of the existing bridge. The existing bridge has concrete cancer and rusted steel. Areas concrete have broken off and fallen. The bridge was designed for single axel trucks using river gravel concrete, which is no longer acceptable.</p> <p>Up to 7 B-doubles can create over 44mm sway and this sideways movement can be felt while sitting in cars.</p> <p>RMS inspectors have advised that the bridge is OK but this is not believed.</p>
<p>If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience safety issues in residential streets</p>
<p>Option E would restrict access to the main entrance of the Convent from Villiers Street for the fire brigade, ambulance or other emergency vehicle. This is a major concern and would place lives at risk. It would also heighten the risk of permanent fire damage to a heritage item.</p>
<p>Option 11 would make the streets safer for pedestrians with less large vehicle traffic flow.</p>

Issue
Any out of town option would minimise and prevent impacts by improving safety for all – residents and tourists.
All in town options have the highest impact on pedestrian and road safety.
Option A permits larger vehicles with wider tracks to traverse the bridges more effectively than option C.
<i>Property access and parking</i>
Option E would deny access to the current Villiers Street entrance to the Sisters of Mercy convent.
Option E would remove all parking options for Villiers Street. This is currently used by visitor, churchgoers, couriers, tradespeople and staff etc. This would force more parking into Victoria Street which is already near capacity. The parking problem would be exacerbated when significant events are scheduled at the Catholic Church including for example funerals and school masses.
The loss of curtilage adjacent to the western façade of the Convent associated with Option E presents substantial access issues. A four lane bridge approach would remove all parking from Villiers Street. Victoria Street could be similarly restricted adjacent to any left in/left out lane. This would be exacerbated by the fact that Victoria Street’s car parking is already at capacity.
Access to the riverbank property for mowing and other maintenance is currently via Villiers Street and would be removed under Option E.
Option C would directly affect access from houses in Clarence Street because of traffic queuing at lights.
Option C would have a huge [negative] impact on entry into the TAFE College.
It appears that under Option A, construction of pier near the centre of Kent Street would close part of Kent Street. If this is the case, it would affect people living in the Dovedale area and the users of the sailing club. If Kent Street is blocked off then people travelling from the Dovedale area to church, the post office, Council, RMS offices and other Government Departments would need to travel through a more heavily trafficked area and cross Summerland Way at some point. This would also apply to the users of the sailing club.
If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience steep grade issues and no access road from the second bridge to Villiers St.
All in town options have the highest impact on essential car parking.
Option A would reduce the vehicle manoeuvring areas within and adjoining properties resulting in an inability to exit the properties in a forward direction and very dangerous driveways and pedestrian environment.
<i>Traffic study</i>
Concerned about the forecast of vehicles that would use Option A. As it is the only option with a 3 lane configuration all vehicles travelling in one direction must use the new bridge. This skews the percentage of vehicles using the new bridge compared with other options but this is not an equal comparison.
Concerned about the lack of traffic counters near schools at Clarenza. Traffic report assumes vehicles travelling to and from Junction Hill and South Grafton and Clarenza are local traffic and assume they would not use Options 14 and 15. This is believed to be incorrect. There are no delays on the current bridge in school holidays.
One of the traffic counts was undertaken on a pension day and the number of people in the CBD is greater on those days.

Issue

The traffic counts show that there are a number of heavy vehicles travelling on the current bridge that are not travelling to the CBD. Any in town option would continue to force trucks and heavy vehicles through residential areas.

The rates of population growth which underpin the traffic growth model are not consistent with the Infrastructure NSW estimates. They are overestimated. There is something wrong with the model RMS has used to estimate vehicle growth. When used in the economic analysis they significantly exaggerate any benefits.

We query the annualising factor of 335 for traffic peaks used in the economic evaluation. This relates to the expression of peak periods where there is congestion in one year. If this is incorrect it would make a big difference to the BCRs and the viability of the project.

Have traffic studies been done of the congestion on our present bridge for the afternoon traffic particularly on a Friday?

In 2011 RTA traffic study report percentages indicate that not all traffic crossing the existing bridge is local. A large percentage (over 40%) of traffic and trucks crossing the existing bridge, entering Grafton externally, does not need to be funnelled into the same CBD and populated residential areas further exacerbating existing congestion and increasing impacts

Accuracy of the RTA's 2011 traffic study report is doubtful and comparisons with previous RTA traffic study in 2009 are questionable.

The accuracy of the March 2011 Heavy vehicle study is doubtful and any comparisons with the 2009 Traffic Study Report are questionable as the conditions on the days of the count differed (including late night shopping and Centre Link payment day) and the geographical areas covered varied.

Input from trucking companies to the Heavy Vehicle Survey were incomplete, including no input from the company delivering to the large supermarket chains in Grafton CBD.

RMS traffic study data suggests any out of town option would minimise impacts. The number of trucks through the city is alarming into the future:

Per day now:

- 53% of traffic enters the city from external areas outside Grafton and South Grafton (RMS 2009)
- 990 trucks on Villiers Street – includes part of the CBD, a heavily populated area and sports fields
- 610 trucks through town towards Junction Hill

Within 30 years:

- 1,600 trucks per day on Villiers Street (currently 2,250 trucks on Pacific Hwy)
- 50,000 vehicles entering Grafton (5 times current Pacific Hwy traffic at South Grafton)

The RMS travel times only consider travel between and within Grafton and South Grafton. Figures are distorted and influenced by this focus. A large percentage of traffic is external to Grafton City and hence should be considered, for example, if traffic was travelling from Junction Hill to Ulmarra/Maclean along option 14 or 15. This also in turn impacts and distorts all other traffic considerations and assessments, such as the safety audit and traffic modelling.

Current and future truck and traffic counts for the road network in and around Grafton especially Villiers Street and Summerland Way through Grafton appear not to have been fully addressed and considered, particularly given that truck company's depots are mostly in town, surely it would be best not to provide access through a similar road network as internal traffic coming across the existing bridge

Issue
RMS 2010 traffic study data is flawed/distorted – the count was taken on one day, Thursday 19 August 2010, and the NON-PEAK time (congestion period) data increased greatly as it was a Centrelink payment day; busiest shopping day and night shopping, which distorted the internal to internal traffic study data percentages over the whole day; the study area included out of town growth areas, Clarenza and Junction Hill; and Villiers Street and Summerland Way traffic counters were not working for the majority of the time).
By 2039, twice the current volume of traffic on the Pacific Highway will be travelling through Grafton CBD according to RTA reports.
<i>Upgrade of Pacific Highway</i>
Completion of the Pacific Highway bypass of Grafton would greatly reduce heavy traffic and it would not be a major problem to the city.
Options are presented on the basis that the Pacific Highway will be upgraded to a 4 lane divided highway giving South Grafton a bypass. This will not happen with the current Federal Government. Heavy vehicles would use Summerland Way via the CBD.
A bypass option would not be required after the upgrade of the Pacific Highway.
Prefer options 11, 14 or 15 if Grafton is to be bypassed.
Should invest in the Pacific Highway upgrade first then understand the best option for Grafton after that.
<i>Construction issues</i>
Option A does not require extensive earthworks and road lowering on the northern side.
Option A would require two lanes on the northern approach which would involve significant change to roads and pedestrian crossings on the northern approaches that would not be easy to construct.
The proposed 5 way roundabout at the intersection of Ryan and Bent Street is a vital change that should be made as soon as possible. The new roundabout off the Pacific Highway and upgrade to four lanes connecting these two roundabouts are fantastic ideas and should be completed before anything else.
The proximity of Option E, construction and proposed piles and pile toes immediately adjoining the western side of the St Mary's Convent building is likely to cause structural damage to the foundations, building structure and curtilage.
<i>Design and suggested modifications</i>
Under Option A the road level at the junction of Fitzroy/Kent Streets does not leave enough room for vehicles to pass under the new bridge approach in the current configuration.
Options A E and C would require a large amount of tweaking current roads to make it work with roundabouts and traffic lights. This would disrupt local traffic.
Option C is preferred after option A but bridges should carry traffic in one direction only meaning some one-way streets.
Modify Option 15 by moving it 800m to 1km further north behind Experimental Farm.
Modify Option C to improve access between Armidale Road and Iolanthe Street. (refer map with submission)
Add traffic lights to each end of the existing bridge to stop traffic in one direction in the event of an emergency until the new bridge is built.

Issue

Have a load limit on the old bridge, stop trucks and buses and have them use the new bridge. Having to give way to large vehicles holds up traffic most of the time.

Use existing bridge for cars only and direct trucks to the new bridge on option 15.

Option 11 could be enhanced with the development of the flood free land at Clarenza which has commenced.

All motorised traffic should use the new bridge. The old bridge should be used by the railway, pedestrians and cyclists only. The bridge can be painted and become a major tourist attraction. Grafton can become a centre for cycling activities. The bridge could be put to other uses such as markets at weekends.

The existing bridge is unique in that it is the only one with a double bascule span in the southern hemisphere and only one of three in the world. Its attractiveness to tourists should not be underestimated. Consideration should be given to the new bridge being four lanes and the existing one made available for pedestrian, bicycle, tourist use.

The existing bridge is designed for two lines but only one is used at present. The space currently carries town water to Grafton. Should a second rail line be needed in future the water would have to be relocated. This could be done now onto the new bridge; this would restore the existing unique bridge and make the span operational for craft to pass as originally designed.

Build a second bridge so that traffic moves in one direction on each bridge avoiding merge lane bottlenecks.

Would prefer not to introduce traffic lights.

Having another bridge located away from the existing bridge, having 2 separate bridges with traffic flowing in both directions is not supported. Having two bridges close together, with each carrying traffic in only one direction only, ensures even distribution of traffic flow on both bridges.

Options A and C have the ability to use new bridge in conjunction with existing bridge to have all traffic one way.

Cannot understand how there are some options that have the existing bridge as 2 lanes of traffic and another as only one.

The upgrade of Ryan Street to 4 lanes from Bent Street towards Skinner Street would be a good idea. This is the start of the Gwydir Highway carrying a large volume of heavy vehicles including B-doubles. This would continue with whatever option is chosen.

Need to take account of the traffic coming from the Bi-Lo complex on Ryan Street. This is the only practical exit for South Grafton residents. A roundabout at this intersection would be useful.

Alternative suggestions

Build a transport hub on the outskirts of town to offload the big trucks and run goods around town on smaller trucks.

Centenary Drive should be upgraded as the designated B-double/ heavy vehicle route so that all through traffic would not enter the built up area of Grafton. Ban these vehicles from the existing bridge.

Consider a new route to continue along Turf Street with a bridge over Susan Island to meet up with the Gwydir Highway. Stop the railway at the corner of Turf and Pound Street and redirect it over the new bridge to Orara Way.

Do not support a B-double route along Centenary Drive as the land south is zoned residential. Use Heber Street instead and install a roundabout to connect with the northern end of the Highway.

Issue
Build a new bridge east of the existing bridge.
Include a centre bridge pylon on Elizabeth Island for a two span bridge.
Build a new bridge right next to the old one. Old bridge would be strengthened by new bridge and avoid relocating roads.
Consider the Auckland Bridge for a solution.
Instead of building the bridge in the backyards of people on Fitzroy Street, 2 lanes could go past KFC and join the existing road between KFC and the Villiers Street roundabout. This may mean less interruption to the houses although it would mean a vast increase in passing traffic.
Wonder why the proposed route does not follow the existing railway easement next to Villiers Street.
<i>Implications for railway</i>
Villiers Street rail underpass has been lowered to its convenient and safe limit. Some options would require lowering roadways.
Option 15 would not require lowering the Villiers Street rail underpass.
Believes current bridge load limit was two engines. Now it accommodates trains up to 1500m long.
Work within the vicinity of the bridge could cause structural damage and affect the approach abutments that have been reinforced by ARTC.
Socio-economic Issues
<i>Noise and vibration</i>
Existing noise experienced in Dobie Street is severe.
Options A, C, E and 11 would increase noise.
Option E would have the highest night time noise impact
Option A features no significant increase in noise impacts
The ground floor of the St Mary's Convent adjacent to Villiers Street incorporates the kitchen and offices used for administration. Option E would overshadow this. Associated noise and vibration would substantially reduce the quality of the working environment.
Options A, E and C would create significant noise issues in residential areas.
Would bring traffic into a quiet residential suburb of Grafton.
Increased noise associated with option 11 would be intolerable leading to an increased incidence of health problems and worsening quality of life. Health effects could include worse concentration, difficult communication difficulties with relaxation and sleep, impacts on hypertension and cardiovascular outcomes. Suggest new bridge be in a non-residential area.
Option E would involve traffic passing within metres of bedroom windows on the upper floor of the Convent building. This is home to 6 sisters. Noise would be unbearable.
The lower floor of the Convent building is used for office, archives and administration. Constant noise associated with Option E would create an unhealthy work environment.
Option E would create noise disruption for a recently constructed conference facility on the corner of Villiers and Victoria Street. This is used by various community and education groups as well as the Sisters for ministry purposes. Traffic noise could make the facility inoperable.

Issue

The noise report assumes that areas already affected by noise would not be affected significantly. This is flawed as the current levels of noise are unacceptable and predicted to increase. No steps have been taken to reduce noise.

The noise report contains some significant errors, which make it difficult to interpret the data. This includes the mixing up of the locations of monitoring stations between the report and the logger data.

Noise at Fitzroy Street under option A would be greater than predicted in the report because of the proposed elevation and location of the bridge and the fact that it would contain 3 lanes. The approach for option A is in the order of 45 to 50 metres closer to us than the existing bridge. It would also have three lanes as opposed to two on the existing bridge, therefore moving more of the traffic closer to us.

It appears that under Option A, construction of pier near the centre of Kent Street would lower the level of the proposed road and increase potential noise at 1 Fitzroy Street. It is unclear what was modelled in the noise report.

The Noise report does not address benefits of removing traffic if downstream options are adopted.

Option 14 would have less noise impact on residents.

Options 11 and 14 affect quiet residential streets. Option 11 should be ruled out.

Option C would increase the noise impact on properties in Clarence Street because of the location of the proposed road and the installation of traffic lights.

Diversion of traffic away from residential areas in Options 14 and 15 would limit the risk of noise and vibration adversely affecting building and residents.

Options 14 and 15 would bring noise to a previously quiet residential area.

If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience increased vibration and road traffic noise, particularly at night.

The increased sensitivity of a redeveloped Grafton base hospital to exhaust and truck braking noise may require changes to the existing use of Arthur St as truck route avoiding roundabouts on the through town route.

It is assumed that with Option E, noise within the Convent would exceed the criteria in the NSW Road Noise Policy of 55dB(A) between 7am and 10pm and 50dB(A) between 10pm and 7am. Information is requested to specifically assess the noise and vibration impacts on the Convent.

Noise impacts associated with Option E from general traffic and heavy vehicles including B-doubles from the four lane bridge approach would create unacceptable noise impacts at the St Marys Convent and in particular at the Sisters' living quarters both day and night and the administration offices adjacent to Villiers Street.

Noise and vibration impacts associated with Option E would render the new conference facility near the corner of Villiers Street and Victoria Street Grafton unviable.

Any out of town option would minimise and prevent impacts by avoiding funnelling increased traffic into and through town thereby reducing truck and traffic noise, pollution, vibration in town, particularly at night.

All in town options have the highest impact on noise (exhaust brakes) and vibration, with steep grades from the new bridge into town.

Options 14 and 15 would bring heavy traffic into a previously quiet residential area. Concerned in particular about noise impacts.

Issue
In relation to noise impacts, the EPA notes that route option 11 will result in the highest number of residential properties affected by noise exceeding 55 dB(A) of a day and 50 dB(A) of a night. Option 11 also has the highest number of residential properties where relative noise levels increase by 12 decibels or more. The EPA therefore recommends that RMS give due consideration to the noise impacts of option 11 when making a decision on the final location for the additional crossing of the Clarence River at Grafton.
<i>Air quality</i>
Options A, C, E and 11 would increase air pollution.
Option E would have an adverse impact on air quality and associated health and amenity for Sisters and visitors at the Convent.
If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience increased pollution through town.
Any out of town option would minimise and prevent air quality impacts by avoiding funnelling increased traffic into and through town.
Option E would have an impact on air quality would potentially damage the masonry façade of the Convent from increased proximate traffic emissions.
The EPA has reviewed the information provided and concluded that air and water quality issues can be readily managed across the various options and do not present significant constraints or have significant bearing on the route selection process.
<i>Social impact</i>
Option 11 is the most ineffective option and would direct traffic to an area currently devoid of traffic.
Options 14 and 15 would affect the least residential and business areas without excessive impact.
Option 11 has the biggest negative impact on the largest number of people in their family homes.
Option 15 would avoid house frontages and has the least number of property impacts.
Option C has an impact on many homes and families.
Option E avoids going through the Dovedale area.
Options A, C, E and 11 are unacceptable given the impacts on those who would be forced from their homes and the increased volume of heavy traffic that would affect other residents through noise, odour and health issues.
Options A, C and E do not meet the needs of the wider community.
Option 15 has lesser impact on people's homes as it goes through farmland and bushland.
Option A would isolate numbers 1 to 7 Fitzroy Street from the Grafton community as the remaining 9 houses would be demolished for the construction of the bridge.
Option A would have the greatest impact on heritage and all other options do not have such a large impact on heritage values.
Option A would require widening of Bent Street with a related impact on houses and businesses including a number of significant heritage houses in the Bent Street precinct.

Issue
Option C would have the benefit of avoiding impact on houses and businesses on the south side.
Options A, E and C would have major impacts on residents.
Options E would have less impact on residents and businesses.
Option C would affect a large number of properties. We strongly oppose this. The RODR states that it has no direct impact on some properties yet the route passes within one property of the boundary and would involve traffic lights at the intersection of Pound and Clarence Street.
Option C would isolate two properties in one section of Clarence Street leaving them between the bridge and railway and opposite businesses.
Options E and C impact heavily on residential, business and community properties.
Options E, A and C would require widening of Villiers Street and Dobie Street with the consequence of losing homes and trees.
Option 14 would have impact on existing houses on North Street.
Option 11 has a detrimental effect on Fry Street.
House purchased in 1987 under heritage listed fig trees was on the understanding that any future bridge would be upstream. Many people have planned their lives in Grafton around the original proposal. Option C would severely affect a number of significant or listed houses, character and liveability.
If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience high social impact and many houses demolished.
St Mary's Convent of Mercy and its Sisters have played a significant role in Grafton since 1884. This includes education of young people and a special concern for girls and women. The Sisters have been involved in civic, social welfare and cultural communities resulting in the development of more civic and community-minded persons within and around Grafton. Option E would have significant, lasting and deleterious impacts on the Convent, its occupants and the functional use of the old and new buildings by the community.
Option C would mean the relocation of the Gummyaney Aboriginal Preschool community. The preschool was established in 2005 after a long process. It is situated on Aboriginal Land, which is significant to the Aboriginal Community. It has been very successful and provides a vital service to families.
Families using the preschool do so because it is accessible including by public transport. Relocation to a less convenient location by Option C would have significant implications. Not as many families may be able to access the service and their children could miss out on the most important years of education before they attend formal education.
Option C is opposed. If the Gummyaney Aboriginal Preschool was to expand in future years land may not be available at another site. The current site has the potential to expand into a large facility with ease while still having a natural environment around it.
Option C is opposed. Relocation of the Gummyaney Aboriginal Preschool would mean the loss of a nature friendly environment in which to learn, grow and explore the native wildlife that live in harmony at the current site.
Any out of town option would avoid the detrimental social, conservation area and heritage impacts - many houses demolished (A, E and C greatest impact),
Grafton and the Clarence Valley have a shortage of nursing home beds. Any impact on the nursing home would be detrimental to the community.

Issue
Option 11 would result in a loss of privacy with road impinging on fence lines.
Option 11 has least overall disruption for the community.
Options A and C would disturb nursing home
<i>Amenity / streetscape / views</i>
Option 15 preserves amenity of Grafton.
Option A has minimal impact on existing streetscape.
Option C has minimal impact on existing streetscape.
Great Marlow and Kirchner Street picnic and boating areas are a stunning part of the Grafton landscape and would be disrupted by Options 14 and 15.
Options A and C would have a major impact on aesthetic issues.
Option E has positive aspects but directs traffic through areas such as Victoria Street which is a quiet and pristine heritage area.
Option 11 moves traffic through the quiet end of Fry Street but should not cause other detrimental effects.
Option E frames the old bridge without taking away from existing views.
Option A would obscure upstream views of the old bridge removing one of its greatest tourist attractions and one of its defining features. The current bendy bridge is an icon of Grafton. There are many public spaces that allow viewing of the bridge upstream and none downstream.
Option 14 would open another section of the river rarely seen to tourism and links to Corcoran Park.
Option 11 does not affect views of the existing bridge.
Option 11 would allow access to a cycle path and recreational facilities at either side of the bridge and would contribute more to Grafton.
Option E, A and C would affect the aesthetic value of the existing bridge.
Option E ties in with the river scheme and boardwalk.
Option E would have a large visual impact on the main riverscape of Grafton.
Option E could involve widening of streets and the loss of significant trees.
Options 14 and 15 would severely impact Corcoran Park as it would be the only access to the river on the north side. It is a tourist stop for out of town families, river users. It is also a year round access point for the Yacht Club.
Corcoran Park would lose its access and ambience in Options 14 and 15.
With Options 14 and 15, an older residence as well as new housing developments from Arthur to North Street would lose their rural and river views to a long viaduct and fog-prone monolithic bridge 15-22 metres above water level. New residents were encouraged to buy downstream from the existing bridge to avoid the second bridge crossing in recent times.

Issue

Grafton is a beautiful provincial city renowned for its Jacaranda trees, parks, historic and heritage buildings, wide streets and the Clarence River. It is a thriving regional centre with excellent facilities and is host to many events each year.

The construction of a second bridge across the Clarence River has been an issue of concern to the community for many years.

If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience the loss of amenity and an impact on the aesthetics of the existing bridge.

There would be a substantial loss of amenity for the occupants, workers and visitors to the St Marys Convent, which would result from Option E. The projected road elevation at first floor height would result in substantial volumes of traffic, including heavy vehicles and B-doubles passing within metres of the living quarters of the Sisters. This would have visual (including loss of views), substantial noise, air quality and light spill impacts.

Option E, within metres of the western façade of the Convent would cause significant would cause significant aesthetic damage to the building from almost every direction. The bulk and scale of the bridge approach and the visual interruption caused by high volumes of traffic would damage the aesthetic appeal of the building in its present setting as well as the overall amenity of the locality.

A new conference facility was constructed near the corner of Villiers and Victoria Street in 2012. It is used by a number of community and educational groups as well as the sisters for ministry purposes. Option E would affect amenity as outlined for the Convent facility.

Options 14 and 15 would allow the current smooth operation of the CBD and law courts to be maintained.

Not enough emphasis has been placed on the loss of amenity including damage to some hundreds of properties on Fitzroy, Villiers, Dobie and Turf Streets and adjoining streets associated with the increase in traffic for options affecting these areas.

Grafton's unique character and charm stems from its period and affordable housing, tree lined streets and quiet suburbia. Grafton relies on service industries, affordable family housing and its liveability to maintain its population. To cut a swathe through the heart of the older area of Grafton is like destroying the old town of a medieval European village.

Economic development

Options 14 and 15 would only improve life for people using Summerland Way and bypassing Grafton.

Economic development for locals travelling from South Grafton to Grafton would not be improved.

Options 11, 14 and 15 have less impact on business.

Options A, E and C would affect established businesses.

Options A and C would have limited benefits compared with options 11 and E.

Options 14 and 15 move heavy vehicles out of town to an extent but seem economically unviable.

Option A has the greatest impact on established businesses (21 compared with a maximum of 7) which is significant given the loss of a large number of employers.

Concerned about the loss of property value to the Convent and conference facility associated with the impacts of Option E including the loss of heritage and amenity value for the Sisters, visitors and Grafton community.

Issue

Urban development and planning

DPI supports the project's objectives and supporting objectives. The Mid North Coast Regional Strategy (2009) identifies Grafton as a "major regional centre" in the hierarchy of the region's settlement. Its main role is to serve the Clarence Valley subregion with major services such as jobs, retailing, medical, sport and cultural facilities. The RMS report (e.g. section 6.4.1 of the Main Report) tends to focus on linkages between Grafton and South Grafton, with much less emphasis in Grafton's wider role in the subregion. In this regard, there is a need to have good transport linkage from the subregion's towns and villages to Grafton so people can access services and jobs.

The main population centres in Grafton's functional catchment are Maclean (including the growing community of Gulmarrad) and Yamba, both of which are on the south side of the river. A bridge crossing, which provides efficient access to Grafton for these communities, would be desirable, acknowledging their planned future growth. It is noted that Yamba and its population is not recognised in Table 5 (Forecast population growth in Grafton and surrounds) in Technical Paper - Social and Economic Issues.

Option 11 provides for short term relief of current crossing and long term growth including Junction Hill and Clarenza

Option 14 would be best if thinking long term.

Option 15 would be of use to industries in Junction Hill and future residents of Junction Hill to access Yamba, Wooli or Minnie Water.

Option A does not fragment existing settlement patterns.

Options 14 and 15 include two two-way routes for access allowing future growth.

Options E, A and C do not address the implications of the projected growth of Junction Hill and Clarenza.

Option E would tie in with Council's Precinct Plan.

Comprehensive and careful consideration needs to be given to the significant changes and developments occurring – external and internal- to Grafton the Clarence Valley area.

The majority of a 20,000 person increase in population is predicted to occur down river of Grafton at McLean, Townsend, Gulmarrad, Yamba.

Any out of town option would minimise and prevent impacts by preventing the fragmentation of the town – by moving the freight route out of town and reducing road networked constraints such as closed streets.

The RMS is only looking at the local picture and assumed traffic movements for the next 30 years. RMS of concern is that Junction Hill and Clarenza areas are included and any traffic from these areas appears to be classed as local traffic. RMS is not looking to the future – a new bridge would be there for a 100 years or more.

The impacts of major local population growth areas are not being fully considered into the future – Clarenza and Junction Hill apart from down river at Maclean. Gulmarrad and Yamba.

If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience segregation of the town.

Summerland Way is predicted to experience increased traffic from Grafton to Casino and Kyogle due to population and industry growth, including 2 freight hubs, timber mills and potentially 6 gas fired power stations.

Issue
Option 11 provides a new opportunity for Grafton to capitalise on the River connection paths between the old bridge and new, for example a cycle loop over the old bridge, down the figs across the new bridge and along the river flats. This would improve open space.
<i>Agriculture</i>
Good farm land would be affected by options 14 and 15.
Significant compensation would be required for the total disruption of three working farms associated with option 14 and 15.
Option 11 would significantly disrupt agriculture on a 100 acre property that could not be replaced.
DPI supports the document's approach to regionally significant farmland, noting that loss of regionally significant farmland is an indicator of economic impact. The Mid North Coast Farmland Mapping Project Final Recommendations Report recommends that the map should be used as an information resource when state agencies plan for public infrastructure. The report adds that the map reflects the State Government's assessment of the location of important agricultural resources which should be preserved for the future.
Option 11 would make farming of a 100 acre property unviable because the area currently planted with crops would be unworkable. No amount of money would compensate for the loss of this property as there is not another property within the town boundary and on the river with the same potential as this one.
<i>Property acquisition</i>
Options 14 and 15 would require the demolition of one house. Several houses made uninhabitable by noise and vibration would require compensation.
Desire to negotiate fairly for acquisition if Option E chosen and affects property.
Total number of properties affected by Option A is significantly higher than the next highest number of impacts.
Would like house acquired if option 11 is built as do not want traffic and noise near house.
<i>River use</i>
Options A, E and C would create navigational issues on the river.
Option 14 would have a higher clearance to the water level for navigation on the river.
Options 14 and 15 would not grossly affect the tourism of the Bridge to Bridge Ski race where other options would.
Oppose Option E. There is a lot of activity on the waterfront and vessels using the section of river that would be affected.
Options 14 and 15 are too close to Elizabeth Island and a boat ramp used by naval cadets and dragon boating.
Concerned that the height of the bridge would not be enough to allow the yacht club to access the Clarence River at Corcoran Park for its year round events. Specifically concerned that the 17 metres proposed does not appear to allow for tidal variations.
Concerned that the lowered height would not allow ocean going vessels up to the Grafton City end of the Clarence River.

Issue
Closure of the main boat ramp by a bridge under Option 14 or 15 would affect boating activity including the local sailing club on North Street.
<i>Cycling</i>
Request that RMS provides a continuous shared path for the entire route option similar to that which is being requested for the Sapphire to Woolgoolga upgrade.
Opportunities exist to incorporate cycling facilities into the design of the bridge.
<i>Public health</i>
Excessive ponding, associated with Pound Street drainage, would bring with it increased risk of water borne and mosquito borne infections such as Ross River Fever and Barmah Forest Virus.
<i>Environmental Issues</i>
<i>Flooding</i>
Evacuation during times of flooding would be restricted by options A, C and E especially if the Grafton or South Grafton areas were affected by flooding which could occur in a 5% AEP flood.
Options 11, 14 and 15 are likely to have a reduced impact on current flood mitigation issues.
Previous hydrology reports showed that a bridge outside the study area would have a lesser impact on raising river levels in flood times. Any afflux would have a significant effect on the Grafton area as the levee would only protect the town in a 1:20 year flood.
If a new bridge is built and makes the existing flood situation worse, then it should follow that the flood protection provided should be in line with normal practice, which is 1:100 year flood protection
The bridge design for Option A shows that the first pier on the south side of the new bridge does not line up with the first pier on the existing bridge. This effectively provides an additional obstruction in the waterway, which would result in an increase in flood level. It would also add additional pressure on the exposed pier of the existing bridge.
Options 14 and 15 would provide a road system not directly affected by floods.
Cannot understand how the height required to pass under Kent Street viaduct can be achieving knowing the local ponding issues. The additional cost to do this would be large.
Option 11 has a big impact on flooding and the length of works required to mitigate this.
What is to be done about the low-level flood prone highway on the south side of Grafton from the sawmill to the higher ground leading to Centenary Drive?
Option C involves the lowering of Pound and Grieves Street and would have intrinsic problems with flooding. Pumps have failed recently in Grafton and Maclean. Systems are not fool proof or human error proof.
Putting Option 14 and 15 in the floodplain would put a huge constraint on an area that would increase the difficulties during floods.
Raising levee walls and adding additional levees associated with Options 14 and 15 would disrupt the landscape in the floodplain and increase the environmental impact.
Downstream residents would need to consult with flood experts as to the details of raised water levels during future floods related to the impact of Options 14 and 15.

Issue

Concerned about the proposed bridge in Options 14 and 15, combined with the viaduct/ levee banks and their impact on our properties in a major food regardless of whether the downstream bridge option claims to provide an exit during these times.

The proposal in Option C to lower Pound Street to pass the proposed road under the rail viaduct seems infeasible as this area is already prone to flooding. The new Council pumps have already failed to prevent flooding in recent heavy rainfall. To place reliance on drainage and pumps which can fail is courting disaster.

All route options would lead to flood increases. While flood mitigation measures have been identified for all options, the proximity of Option E to the Convent and its river bank location could expose it to increased flood risk. Further information is requested about the impacts Option E would have on the Convent.

Any out of town option would improve evacuation during flood time with less congestion, improving contingency; and avoiding Option C-Pound Street approach road flooding at the railway viaduct which occurs during most flood times,

The flood study does not address impacts of the back eddy and flows at the existing bridge particularly for options A and C. (Note: The Flood study is very broad and the accuracy of impacts are questionable).

The anticipated RL level at the viaduct on Pound Street option is 2.1. This is equivalent to a minor flood level. Will the penstocks be closed every time there is a fresh in the river. A drain will be required under the RL. We have great concerns in relation to the depth of the drain and the detention pond along with impacts on localised flooding in Pound Street and into the house along Kent Street. Pumping from the pond to the river is of great concern given that pumps have previously failed in this area, not only from a black out. Maintenance and costs of this drainage/flooding problem is also of concern (will Council be required to provide the maintenance and costs if Option C is identified as the preferred option).

The linkage of Option 14 with Centenary Drive would be of benefit in a flood. This would keep trucks moving to Summerland Way or along the Pacific Highway when Alipou Creek is flooded.

Flora

Construction of Option E would require the removal of a large and significant fig tree at the corner of Villiers and Victoria Street and its removal would be of great concern.

If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience many trees removed.

Do not support the removal of the ficus tree located on the corner of Villiers and Victoria Street associated with Option E. The loss of this tree is inappropriate given its significance and it would only compound other impacts on St Marys Convent.

The comparison between options 14 and 15 and in town options (A, E, C and 11) in relation to impact of trees en route are questionable and cannot be accurately compared given that the in town options (A, C, E, and 11) do not provide a link to Summerland Way and trees have not been counted along the extent of the route to Summerland Way.

Fauna

Significant fauna would be disrupted in Great Marlow by Option 15. This includes nesting and resident ospreys, black swans, ducks, transitory birds including jabirus and wedge tailed eagles and other birds.

Option E would disrupt flying foxes.

Issue
Aboriginal heritage
Option 15 affects an Aboriginal Heritage site "Tracker Robinson's Camp" as well as being an area of high potential for Aboriginal artefacts.
Option 11 has the least impact on Aboriginal heritage
Great Marlow is significant to Aboriginal heritage as it was the source of traditional food and medicinal plants and Option 15 cuts through this area.
Elizabeth Island has sacred significance and should not be impacted on or used in any way.
Option C would involve the relocation of the Gummyaney Aboriginal Preschool community. This was established in 2005 after a long process. It is situated on Aboriginal Land which is significant to the Aboriginal community.
All in town options have the highest impact on Aboriginal heritage.
Impacting Aboriginal heritage is of great concern with Option C Pound Street. The Golden Eel site could be potentially impacted physically, aesthetically and spiritually.
Impacts with downstream option on aboriginal heritage, can be minimized and mitigated as has occurred on Pacific Highway and regional RMS projects, in particular, such as Ballina and Kempsey.
Non Aboriginal heritage
Option 15 preserves heritage of Grafton.
Option 11 would destroy some iconic homes on the northern side of the river.
Options 11, 14 and 15 have least impact on heritage.
Options A and C would have a major impact on heritage issues.
Option E is in close proximity to the Convent Buildings at 2 Villiers St Grafton and this is of major concern. The original building was built in 1884 and is listed on the Grafton Heritage Inventory. Damage to the foundations and building fabric is of grave concern.
The bridge is a state listed heritage item. Any bridge near the current bridge would impact the aesthetic value of the bridge. Option A would affect the historical aspect of the existing bridge including approach abutments.
Heritage listed <i>Induna</i> wreck is located slightly upstream of option A. Any construction upstream of the bridge has the potential to damage the wreck which is in a fragile state of repair.
Option A would affect areas of Fitzroy St that are part of the Council Heritage Area and on the National Trust Heritage list and also heritage houses in Bent St.
Options 11, E, C, 14 and 15 have less impact on heritage values than option A.
Grafton City's Heritage Conservation area covers the majority of the City's populated residential area. If the second bridge is located beside the existing bridge the CBD and populated residential areas will experience Heritage and conservation area impact issues.
St Mary's Convent is of heritage significance for its association with the Sisters of Mercy who have played, and continue to play, an important educational, community and pastoral role in the Clarence and Richmond River districts. It is a historically significant building for its early association with the growth of the Catholic Church on the Clarence River. It is also of social significance to former students and staff. Option E would destroy the heritage value of the Convent.

Issue

The RODR report shows that St Mary's Convent would be significantly interrupted and physically impacted by Option E. The heritage value of the building from the Clarence River would be either significantly dislocated or obliterated from the south and southeast and obliterated from the southwest.

Option E would also have indirect impacts on the heritage significance of the Convent in the context of the other local heritage items and significant trees on Victoria Street that are within the Roman Catholic precinct extending along the Clarence River.

Long term impacts of vibration from vehicles using Option E could have long term structural implications for St Mary's Convent.

St Mary's Convent's archives are housed adjacent to Villiers Street. It is unique because it contains the records of over 250 Sisters and memorabilia and artefacts. It is recognised by the National Library. Noise and vibration from Option E could affect the collection and damage historical materials.

Fitzroy Street, especially from Kent to Clarence Streets forms part of the Clarence Valley Council heritage area. No. 1 and 2 Fitzroy Street are listed by the National Trust. Option A would adversely affect these properties as well as those on Bent Street.

Option C would severely affect 36 Villiers Street Grafton. The original house on this site was built in or before 1878 and is older the Grafton historic house. The home is almost original inside and has been conserved with the assistance of a heritage grant. It features in Historic Places of Australia Volume 1.

Moving the house would not be practical because of its age and the important context within which it sits.

Any out of town option would avoid the detrimental social, conservation area and heritage impacts - many houses demolished (A, E and C greatest impact),

All in town options have the highest impact on non-Aboriginal heritage impacts.

It appears that heritage impacts have not fully been considered along Option C- Pound Street, in particularly Dunvegan and also the viaduct being s170 heritage listed. A four lane road with access to TAFE in this area is a road safety nightmare along with the limited access into and out of Clarence Street;

Other environmental issues

Construction of Options C and D would not disturb ecologically sensitive areas not already affected by construction of the levee bank.

Option 15 has the most merit if environmental and land and creek scarring could be reduced or eliminated.

Concerned about disturbing the high risk acid sulphate soils and reducing the river/groundwater quality during and after the construction of pylons through the floodplain and in the River.

The environmental disturbance downstream would be significantly greater than upstream for Options 14 and 15.

Option C would have considerable environmental impacts.

Option E could affect Susan Island in the long term as the island is moving slowly downstream as the western tip erodes away and sand is deposited at the eastern extremity.

The EPA has reviewed the information provided and concluded that air and water quality issues can be readily managed across the various options and do not present significant constraints or have significant bearing on the route selection process.

Issue
Cost benefit and value for money
<i>Value for money</i>
Options 14 and 15 are significantly more expensive and lower number of vehicles deflected from the existing bridge. Further, costs may escalate when geotechnical issues are further investigated including settlement and acid sulphate soils.
Options 11,14 and 15 make too small an impact on traffic flow (less than 50%) and are either more expensive or require greater works.
Option A has a reasonable cost benefit ratio.
Option 11 better for all road users and does not require a Prince Street upgrade.
Option C is the best value for money. Located at the narrow part of the river keeping costs down.
Pacific Highway intersection for access to option 11 is existing.
The cost of Options E, A, C and 11 would be far higher when property resumption and slowing of current road use is considered.
Option A is the least costly and more readily approved.
Option E is the most practical option as the cost would be less than other options and the environmental and Aboriginal heritage impacts less.
The RMS has failed to present a robust business case for the project. Other potential options such as demand management have been ignored. The RMS has not described the problem to be overcome or the deficiencies to be rectified as its own Economic Analysis Manual requires. Instead a <i>Project Purpose</i> has been used which is about choosing between various concrete and steel solutions to transport problems. The problem is “how do we overcome traffic congestion in the vicinity of the Grafton Bridge?”. Unless we spell it out, comprehensively investigate it, build a robust business case for its resolution and then implement it, nothing would happen.
The use of large estimates of vehicle growth rates has led to overestimates of benefits from any new bridge.
The form of economic analysis undertaken for the project only provides the relative economic merit of each bridge option. This is contrary to the RMS <i>Economic Assessment Manual</i> . The model assumes that vehicle users do not adapt to travel conditions and there is a hypothetical gridlock. The model cannot produce real outputs suitable for economic analysis.
RMS has previously stated that its policy is for a benefit cost ratio of at least 2:1 is required before investing public funds. The BCRs for this project are nowhere near this. If adjusted to use more realistic vehicle growth figures very few if any would exceed 1:1.
Option 11 has a very positive CBR and equivalent with some of the cheaper options. This option could be seen as a balanced option.
On a fair economic assessment basis this is a marginal project at best and other non-structural approaches need to be applied.
Options 14 and 15 are too costly and would not attract enough traffic to warrant the cost.
Cannot see the benefit of upgrading the Villiers St viaduct with any of the downstream options. B-doubles do not carry high loads. Normal 6 axle semi-trailers could use the downstream options (11,14 or 15) and the old bridge.
Options A and C do not provide any traffic improvement and economics when compared with options 11 and E.

Issue
RTA's 2003 shortlisting report states that the location near the bridge appears the most feasible. However, this would still have significant impacts and the locations upstream and downstream also meet the objectives of the feasibility study – except the cost/ benefit comparison.
Option 11 is the cheapest but does not seem to have any other redeeming features.
Options 14 and 15 are the most expensive by approximately \$100 million. This is a waste of tax payers' money when it is predicted that these options would be utilised by vehicles half as much as the other options by 2019/2049. It does not make sense to spend double the money for half the usage and lower cost benefit ratio.
GCCG believe that State and Federal Government funding to commence construction of a second bridge should be secured as soon as possible.
The current 6 short listed options cannot realistically be compared (cost or otherwise). Options 14 and 15 are strictly alternative access bypass routes with a longer road network, covering a wider area, designed to meet future growth and demands and the rest (A, E, C and 11) are in town options finishing at Villiers Street. These are 2 very different types of options. It is like comparing oranges and eggs. Further to this, the options within the Grafton residential area do not provide upgrades heading north out of town along Summerland Way through Grafton. Yet on the downstream options full intersection upgrades heading out of town along Summerland Way have been costed along with additional intersections, intersections upgrades and railway underpass upgrades north and south of the existing bridge.
Impacts with downstream options, such as aboriginal heritage, environmental, acid sulphate, flooding, etc can be minimized and mitigated as has occurred on Pacific Highway and regional RMS projects, in particular, such as Ballina and Kempsey.
Process issues
<i>Consultation and process</i>
Uncertainty related to lack of preferred option is of concern.
Should be polling people travelling to and from or tracking companies driving through Grafton if they would use option 14 and 15 even though the existing bridge would remain.
RMS has knowledge and expertise and should be making the decision.
There has been enough discussion please make a decision and build it.
Process has taken too long. Hurry up and stop mucking around.
Community consultation is good in theory but you can never get a unanimous decision and it leads to much frustration in the community and becomes a waste of time and resources.
Build the bridge where RMS thinks is the most appropriate location. Some houses may be affected but we need to look ahead.
The consultation on the bridge has divided the Grafton community with adverse consequences. All proposed options result in the loss of homes and businesses for some people and a larger number would be seriously inconvenienced or would suffer anxiety and uncertainty for many years.

Issue

The construction of a second bridge across the Clarence River has been an issue of concern to the community for many years.

In 2003 the RTA provided seven bridge location options to the community for consideration. In 2004 these seven options were reduced to three by the RTA without consultation. 97% of 400 people surveyed at that time disagreed with the RTA's three options. The RTA then identified a preferred option (2B) immediately downstream of the existing bridge. This was not announced to the community and the project was put on hold because of funding constraints.

During 2009 RTA investigated proposed bridge location options. In December 2009 the RTA informed a limited area of the community that consultation to identify a preferred option was resuming. In February 2010 the RTA provided the community with four options to consider. In March 2010 the GCCG was formed due to the RTA's poor consultation process and lack of transparency.

In December 2010 the RTA acknowledged community concerns and revised the community consultation process to extend the timeframe in which to expand study area, route options and complete a number of community surveys.

A public meeting of 600 residents voted unanimously for a new bridge in 2002. A site immediately downstream was selected as the preferred location and a similar location is the best, ruling out all but Options E, A and C. Option A is preferred.

GCCG is concerned that the current process is costing too much time and money because the RTA has asked for community feedback six times over the last 10 years and budgeted \$10.38 million over the three financial years to July 2011. The community is losing interest in participating.

The community has maintained a preference for a second bridge downstream of the existing bridge or at Elizabeth Island with access near or at North Street since 2003. In 2011 the GCCG coordinated a petition of over 1000 signatures supporting a downstream option out of town. Attendees at 10 public meetings during 2010 and 2011 showed a clear preference for a new bridge downstream or near the outskirts of town. Elected officials, the Grafton Chamber of Commerce and Clarence Valley Council also support this.

Was unable to provide details of concerns at the public forum because of restricted time.

The Grafton Concerned Citizens Group (GCCG) has shown a power point presentation some 10 times to various groups and people in town, including Probus, View Clubs, Rotary, U3A, Chamber of Commerce etc. We received overwhelming support for a location on the outskirts of town from all these groups.

The Group has held our own public meetings which have attracted more residents than has attended any RMS public forum since 2009. Again people attending voted overwhelming for a location on the outskirts of town.

The majority of people attending at least 3 of the 2011 RMS open public forums indicated with a show of hands that they wanted a bridge on the outskirts of town (view the forum videos on the RMS website).

Also in support is the fact that in 6 RMS Community Surveys since 2003 the majority of the community responding want an option on the outskirts of town (survey results are in the GCCG Report and Proposal provided)

GCCG's petition has over 1,000 names, addresses and signatures indicating a location for a new bridge downstream, on the outskirts of Grafton. Surely RMS will listen to the majority?

The relevant strategies and guidelines outlined in the current RMS reports have not been fully addressed and considered and cannot be until a preferred location is identified

The GCCG believes the RMS is using inaccurate information, failing to consider future infrastructure demands and planning at federal and state level and sacrificing the amenity, lifestyle, residents and future of Grafton.

Issue
<i>Value Management Study</i>
Only people in Grafton and South Grafton who are affected by an option could apply.