

JULY 2011

Upgrading the Pacific Highway Tintenbar to Ewingsdale upgrade – Bangalow interchange

The Roads and Traffic Authority (RTA) is continuing with preparing the Tintenbar to Ewingsdale Pacific Highway upgrade for construction. The upgrade will provide about 17 kilometres of four lane divided highway from the recently opened section of four lane divided highway at Ross Lane to the existing four lane divided highway at the Ewingsdale interchange.

The RTA has held a community information session that will provide the community with an opportunity to understand the proposed access arrangements between the new upgraded highway and the village of Bangalow and discuss any opportunities for further changes to the access arrangements.

1. Introduction.....Denise Wilson

House keeping

2. Preliminary comments.....Don Page (Member for Ballina)

Don Page (Member for Ballina) made a statement about pre election commitments to investigate other options for the interchange at Bangalow.

He indicated he is aware that residents have indicated concerns about issues including noise, pollution, environment, lighting and heavy vehicles etc.

A commitment has been made to put the interchange on hold while different options are considered.

3. Role of Bangalow interchange.....Garry McPherson

Interchange arrangement has two primary roles:

- To maintain an access to Bangalow similar to the existing arrangements, that is motorists will be able to access Bangalow direct from the highway. This includes preserving the amenity of the town.
- To play an important role as part of an incident management system for the St Helena tunnel.

4. Approved concept design for Bangalow interchange..... Garry McPherson

A map was shown to the group that was taken from the preferred project report. This is the interchange that was approved by the (then) Minister for Planning. It included:

- South facing ramps.
- A roundabout to manage traffic from the northbound off ramp and the local service road (old highway) to Bangalow Road and the local network.
- Southbound on ramp from Bangalow Road to the upgrade.

The interchange is further to the east than the existing with the northbound carriageway of the existing highway becoming the 2 lane local service road.

The key issues that came from submissions to the environmental assessment were concerns about noise and lighting from the interchange, which is why the mound was introduced into the design.

Question	Answer
If you're in Bangalow going north how do you get on to the new highway?	This is only a half interchange. If you want to travel north from Bangalow you will need to use the old highway over St Helena to the Ewingsdale interchange.
How many lanes of traffic altogether?	The ramps are single lane each (two). The highway dual carriage way in each direction (total four). Two lanes of traffic on the local road (two).
So is that eight lanes in total?	Yes. (Clarification note: The eight lanes are comprised of 4 lanes of highway traffic, two lanes for the ramps and two lanes for the local service road).
Why do we need a roundabout there? Trucks will be going through with compression breaks on and creating additional noise?	The function of the roundabout is to maintain similar access to and from Bangalow. The roundabout will also assist in managing the traffic flow should there be an incident the tunnel.

5. Management of the St Helena Tunnel.....Peter Borrelli

Tunnels are one of the more unique and high risk assets that the RTA manages. They generally represent a constraint in the network, as risks and consequences are higher with tunnels.

In operating and managing tunnels, safety and servicing is a priority for the RTA.

The RTA carefully controls the activities occurring in and next to the tunnel, including what vehicles can safely use the tunnel.

Incidents in the tunnel can not only affect those involved in the incident, but also other road users causing delays and the rescue personnel.

Tunnel maintenance and incidents that would prevent the use of the tunnel include:

- Routine/planned (or unplanned) maintenance.
- Over dimensional vehicles.
- Certain closures for dangerous goods.
- Traffic accident.

To avoid significant delays to road users, an alternative, automated (electronically controlled) route is required.

A comparative dangerous goods risk assessment has been carried out for both the existing highway and the new upgraded highway. The risk assessment considered traffic volumes of heavy vehicles and the dangerous goods they may carry, accident rates and areas of potential risks and impacts. The analysis found that the upgraded alignment was safer than the existing highway.

Measures need to be in place to allow for certain classes of dangerous goods vehicle to be able to use the tunnel. These measures include:

- Appropriate fire control measures (e.g. exhaust fans, deluge system).
- A range of traffic management and communication systems being in place.
- Use of CCTV, electronic message signs, traffic monitoring.
- Alarms/automatic response systems.
- 24 hour remote networking system.
- An alternative route.

These measures will be in place in the new St Helena tunnel, which would allow for all heavy vehicles to pass through the tunnel with the exception of:

- Class 1 (explosive).
- Class 2.1 (flammable gasses).

Question	Answer
What would happen if there is an accident at the roundabout?	The accident would be managed the same as any other incident along the highway. Based on our experience with other roundabouts on the highway, this has not been an issue to date.
The RTA has said 7-15 heavy vehicles carrying dangerous goods will not be allowed in the tunnel – Question to confirm if this is a day?	Yes this is in a day spread over a 24 hour period.
Where are the emergency vehicles that will attend the incidents in the tunnel coming from?	It will depend on what the incident is as to where the vehicles are coming from. For example, if Hazmat is required, they may be coming from Lismore. Other emergency services may be coming from Ballina or Tweed or Byron.
Are dangerous goods vehicle prohibited from the tunnel in the Tweed area?	There are two different classes of tunnels. The tunnel at Chinderah is classed as a long underpass as it is approximately 135 metres.

	<p>The tunnel at Tugun is 340 metres in length and like the St Helena Tunnel does not permit some dangerous goods vehicles through the tunnel.</p> <p>The tunnel under St Helena is approximately 360 metres.</p>
Why hasn't the RTA had a discussion with the Rail authorities to upgrade the rail network and get the dangerous vehicles off the roads.	This is really outside of the scope of the approved project, which is to upgrade the highway between Tintenbar to Ewingsdale.
Can a B double use the roundabout?	Yes. The roundabout has been designed for B doubles.
How many tunnels?	There will be two tunnels bored through the ridge.
Has the risk assessment been done for big vehicles to go around the roundabout safely?	Yes. There are different types of B doubles. The risk assessment includes the longer B doubles.

Typically, the Pacific Highway carries about 14,000 vehicles per day in this area. 2,300 of these are heavy vehicles.

There is the potential for 100 – 130 of these heavy vehicles to be dangerous goods.

It would be expected that between 7 and 15 of these vehicles would not be permitted through the tunnel.

To operate in a safe and efficient manner, an automated system would be required, including a manual arrangement so that an operator in Sydney or Grafton can “push the button”.

The least time on the alternative route, the better.

- A system is needed that does not trap queued vehicles, and allows safe emergency access/rapid response.
- Response times to major incidents to implement traffic control could be lengthy.

6. Options under consideration.....Bob Higgins

There have been many different options considered and these have been finalised down to four options:

A – Approved concept design – partial interchange at Bangalow

B – No partial interchange - this has been put forward by some members of the community.

In this option, there would be no access to Bangalow from the highway. Incident management would need to occur via a crossover from the upgrade to the old highway.

The problem is that the cross-overs would be very difficult to manage during incidents because of traffic conflict between the diverted highway traffic and local road traffic.

C – Refinement of the approved concept design – part interchange at Bangalow

In this option, the interchange would be relocated further to the east and would be much lower - at the level of Bangalow Road. This would assist with addressing some of the community comments and also allow for incident management.

D – Refinement of the approved concept design – ramps are closed unless needed for incident management of the tunnel

In this option, the approved concept design and all associated pavement areas would be built. However, they would have a number of gates or barriers installed, which would be opened in times of incident management.

Question	Answer
8 years ago, the community knew there was a tunnel as part of the proposal, but it was never said that we would need interchanges to accommodate dangerous vehicles that couldn't go through the tunnel. This route was chosen but the RTA never told the liaison groups at the time that this would be required. If this had have been told upfront some of the other options would have been preferred. Why was this not discussed initially?	Tunnel management has come a long way over the years along with managing incidents on the highway. For example, incidents like people getting stuck for 12 hours on the F3 Freeway. We need to manage these potential issues. The Tugun tunnel has set a precedent on how to manage the tunnel and closures for incidents and maintenance. That tunnel only became operational in 2008.
Why does the interchange have to be at Bangalow?	We have to tie in to the Ewingsdale interchange and the Ballina bypass at the south. That is why the tunnel option has been adopted. There were other options that the highway went over the hill to tie in to the Bangalow bypass. We have learnt a lot about tunnels since Tugun.
Can we make a depot here to create jobs?	Depots are strategically located to manage issues along the whole highway. They are expensive to establish and maintain. Traffic control form the depots at Tweed and Ballina will be deployed to manage the incidents.
Can we have an electronic signage system with crosses and ticks to indicate what lanes of the highway are open?	Yes, we can have this on the highway to manage highway traffic, but it's about managing traffic once they are off the highway. There is 14 kilometres of traffic that will be diverted on the alternative route and we need to manage how this traffic will merge back with the highway traffic once this traffic merges and returns to the highway?
Bangalow has a police station. Why can't the police assist with the traffic control to manage the merging traffic?	Police will be assisting in managing the incident, not controlling traffic.
Why can there not be an open tunnel?	This would not be a tunnel. The cutting

	would need to be approx 50 metres deep and would have huge impact on the landscape of the area. The design of the upgrade carefully considers the impacts on the landscape and the tunnel has been adopted to reduce the impact.
There is a cutting to the south at Arundel Hill. If there is a cutting there that doesn't impact the landscape why can't we have one on St Helena that doesn't impact on the landscape?	This cutting is approximately 30-35 metres deep, hence the impact is much less. The cutting at St Helena would need to be much deeper than this cutting.
With the gated option, would there still be a raised interchange? And would there be lighting there?	There ramps have been designed so that they are visible at night with markers that are visible to motorists in their headlights. The RTA is conscious of the lighting and are considering the height of the lighting. Over all the lighting is being reduced at the interchange. The RTA will be trying to have the lights as low possible. The mound and landscaping over time will also reduce the impact of lighting on residents.
If you were going to cut off the off ramps with gates, to only be used in an emergency, why do we need the roundabout?	The roundabout is required to make the connection and allow vehicles to change direction safely and without traffic control and is also part of the incident management and moving the traffic quickly at the press of a button remotely from Sydney or Grafton.
Will this interchange be a major exit to Byron Bay?	This would not be a signposted route to Byron Bay? Signs on the highway will say will to use the Ewingsdale interchange at the north for access to Byron Bay.
What about GPS?	This is an issue that we have to manage on a lot of our construction projects. When we open up sections the maps on the GPS need to be updated so that they have the correct route. For example you may see the signs that say to ignore the GPS, and that is because the maps on the GPS are not updated. The RTA sends this information on, but its about the individual GPS's using the up to date maps.
Travelling from the north, will motorists going to Lismore have the option to use this route?	No, there is no access. Signs at Ewingsdale will direct traffic to Lismore by continuing down south to the Bruxner Highway. The Bruxner Highway will play a major role in this access to Lismore.
Can this be marked tourist route to Lismore?	Tourist routes are a different thing. The Pacific Highway and Bruxner Highway will be the approved B double route.
If the Bruxner Highway is being upgraded and the preferred route, why are there still heavy vehicles using other routes?	There is no general restriction for heavy vehicles on roads. It's the longer B doubles that are restricted on certain routes. The Bruxner and Pacific highways are the

	approved B double routes.
In the option with the ramps closed off, how do I access Bangalow if I am driving from Ballina?	In this option and option B, there would be no access to Bangalow from the highway. The gates will only be open in an incident. Access to Ballina would only be via the existing highway accessed by the interchange Ross Lane. Motorists would then need to travel approximately 12 kilometres along the old highway at a reduced speed.
Noise is the issue. If you put a roundabout at the bottom where trucks will put on their breaks and then go through 24 gears to get up the hill again.	There are noise mitigation measures proposed in the approved design. The mound would stay in place in all options (A, C and D) except the option B where there is no room to accommodate this as the existing arrangement must be maintained. Given the angles required to make the turning movements, the safest way is to put a roundabout in.
Why are you trying to keep a roundabout in such a small space?	In terms of the design of the highway alignment, there are implications not just at Bangalow but for the whole alignment. So the location of the interchange is not just assessing the individual issues of Bangalow, but other issues of the highway. This has implications to the south and the north.
The community is concerned about the 15 dangerous heavy vehicles a day using this roundabout and there is the concern for accidents carrying dangerous goods so close to Bangalow.	These vehicles carrying dangerous goods are currently using the highway now. There are roundabouts at other locations along the highway that these heavy vehicles are also using. We are not aware of any incidents of this class of heavy vehicles on the roundabouts on the existing highway.
How are the Bangalow options being handled in the tender process?	This option is on hold. The tender process needs to continue to award the successful contractor to build the rest of the Tintenbar to Ewingsdale upgrade. However, the Bangalow interchange is on hold while we consider the options.
What is going to be the effect on traffic in Bangalow and along the Bangalow to Lismore Road?	The proposed route for the movement of traffic to Lismore from the highway will be unchanged.
Is it possible to combine C and D – have a very small roundabout about and still have the gates closed?	This is something that may be able to be considered in finalising the interchange.
Why is it right in Bangalow and what has been	We have grade issues based on the landscape.

<p>considered on the outskirts?</p>	<p>The ramps have to be to a certain design standard. The location of this interchange is based on the difficulties of designing the ramps to the design standards.</p>
<p>What is the problem with integrating the existing highway and the new highway if there is an incident? The old highway is close to the existing highway why can't it just be switched over?</p>	<p>We can put cross overs in. The issue is then how to manage local traffic and the highway traffic using the network and how to return the 14 kilometres of traffic on to the highway. We need to make it safe for everyone to use.</p>
<p>Community member contacted the RTA regarding the mound behind Clover Hill and was told that the RTA would benefit from this mound as it would eliminate costs to removed the mound that is there. The community member suggested that the RTA was leaving the mound there not to benefit the community for noise, but rather to reduce costs.</p>	<p>When the RTA builds highway projects there are situations where there is excess spoil. It is then about what is done with the spoil. On this occasion, the RTA has been listening to the concerns of residents about noise, particularly the Clover Hill estate, located next to the interchange. It is considered that a landscaped mound could be constructed from the excess material. The RTA recognised that there will have to be excess spoil and that we can utilise this material to assist in noise mitigation.</p>
<p>Can you please explain the option that the community suggested? The new highway is adjacent to the old highway why can't traffic be switched over to the old highway as there is only one direction of traffic?</p>	<p>In this option, there would be no access to Bangalow from the highway, and incident management would need to occur via a crossover from the upgrade to the old highway</p> <p>There would still be two-way traffic to cross on the local road.</p>
<p>There is no evidence that the RTA has considered alternatives in other areas such as Tinterbox Road.</p>	<p>The issue is there are two tunnel tubes that are close together. It's possible that there are incidents in both tunnels at the same time which will mean there are two issues to manage.</p> <p>Typically the tunnel that is not affected by the incident would be utilised by emergency vehicles to move from one end of the tunnel to the other safely and for speedy emergency access and exiting.</p> <p>At this point, the new highway is a long way from the existing highway. So this makes it almost impossible to get the traffic that has been held up back over to the existing highway.</p>
<p>Is there any future legislation that will be put in place regarding vehicle noise?</p>	<p>The issue is Australia wide. There is only so much you can do to reduce compression break noise. There is deign specifications coming in to try and reduce the noise that is generated by compression breaking.</p> <p>The RTA has to comply with guidelines set by the Office of Environment and Heritage.</p> <p>The RTA is also implementing noise cameras.</p>

	But this can come down to individual driver behaviour.
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A Councillor from Byron Shire Council made note that Council formally opposes construction of the interchange.

7. Next steps.....Bob Higgins

The RTA is proceeding with award of a tender for design and construction of the Tintenbar to Ewingsdale upgrade while the review of the Bangalow interchange ramps is completed.

The RTA will consider the feedback provided at the meeting.

The RTA will decide whether there is a need for further feedback before completing the review.

The Minister will be briefed on the outcomes of the review.

Don Page made noted that variations can occur after the tender process. If there is a change in the functionality, then the design has to go back to the Minister for Planning for approval.

Don Page asked for a show of hands as to what was the preferred option out of the four options. There were three people within the group who voted for the approved design, while the rest of the group agreed that that they were OK with not having direct access to Bangalow from the new highway.

Don Page advised the RTA that the preferred arrangement would be for vehicles to access Bangalow via the northern and southern interchanges.

Bob Higgins made note that this is not the ideal arrangement because incidents in the tunnels need to be managed closer to the tunnels to manage the traffic and local networks together.

8. Meeting closed at 7:50pm
