

# Pacific Highway upgrade

Technical review of alternative inland corridor



## Question and answer sheet / September 2006

In November 2005, the former Minister for Roads asked the Roads and Traffic Authority (RTA) to review an inland transport corridor as an alternative to the Pacific Highway. A report on this review has now been finalised.

The NSW Government considers that upgrading the Pacific Highway to a high-standard, four-lane highway will provide the most cost-effective solution compared to an inland corridor. Simply, upgrading the Pacific Highway corridor is an investment in road infrastructure where traffic volume and community need is greatest.

The NSW Government will not proceed any further with investigations of an inland corridor.

## SUMMARY

### An alternative inland corridor

- ✗ Requires funds to be split between two corridors – the Pacific Highway would still require safety improvements.
- ✗ Would require tunnels over 1.7 kilometres long. Critical issues are whether trucks containing dangerous or flammable goods would have to continue to use the Pacific Highway; how air would be expelled from tunnels; and if filtration would be required.
- ✗ Longer travel times.
- ✗ More expensive for trucks to use the steeper grades.
- ✗ Trucks likely to remain on the Pacific Highway.
- ✗ Noise and amenity problems still exist on the Pacific Highway AND now on an inland alternative.
- ✗ An option for a bypass immediately to the east of Grafton could have flooding consequences.
- ✗ Impact on 39 to 51 kilometres of prime agricultural land.

- ✗ Over 480 properties wholly acquired or part of the property acquired.
- ✗ Limited opportunities for staging construction – funds need to be taken from other government services and infrastructure.
- ✗ Was shown in 1992 to not have merit.
- ✗ Is not affordable.

### The Pacific Highway

- ✓ Is where populations are growing – a high standard transport corridor is badly needed.
- ✓ Coastal communities will need supplies and goods – some trucks will need to continue to use the Pacific Highway.
- ✓ Investing in the Pacific Highway is the most cost-effective way to address safety and traffic flow.
- ✓ Upgrading meets the needs of 289,000 people by 2031 (64,400 more people moving to the far north coast from 2006 to 2031).

## What is the history?

The RTA has looked at an inland route proposed by the Member for Ballina (Alternative A), as well as another route proposed by some sections of the community along the Pacific Highway (Alternative B). In 1992, the RTA looked at a route via the Summerland Way, similar to the one proposed by the Member for Ballina, as an alternative to the Pacific Highway.

This new report is a fresh and detailed assessment. It is available on the RTA's website: [www.rta.nsw.gov.au](http://www.rta.nsw.gov.au).

## How were the proposals assessed?

To review and compare the most feasible alternatives, the RTA has refined the original proposals put forward by both the Member for Ballina and by representatives of the community group, Community Alliance for Road Sustainability, to meet design standards for safety and traffic performance.

The assessment has been conducted by the RTA with the assistance of independent experts in the area of estimating costs, traffic assessments, and flora and fauna impacts.

Engineering issues that have been considered include:

- Tunnel lengths.
- The amount of earthworks required.
- The road climbs and descents.
- How tight road curves need to be.



Both alternatives would have impacts on urban and rural communities in terms of acquisition, noise, visual impacts and reduction in amenity.

The inland alternatives have been reviewed using a range of social and cost factors. The likely benefits and impacts of these alternative routes are described in terms of:

- Amenity.
- Land use.
- Property.
- Visual.
- Noise.
- Environmental issues.



Rare lowland rainforest remnant of the former 'Big Scrub' near Federal



Macadamia farming on the inland corridor

### How much traffic would the inland corridor attract?

The Summerland Way between Grafton and Casino currently carries approximately 1130 vehicles per day. The Pacific Highway between Grafton and Ballina currently carries up to 9700 vehicles per day.

If an inland route were to be built it could attract up to 1900 vehicles per day from the Pacific Highway.

This means the Pacific Highway would still continue to carry at least 7800 vehicles per day.

### What do the inland alternatives cost?

Alternative A would be 2 to 20 km longer than the Pacific Highway and would cost about \$3200 million.

Alternative B would be 9 to 27 km longer than the Pacific Highway and would cost about \$3000 million.

Both inland alternatives have limited ability to stage construction meaning large funding allocations would be required, likely impacting on other safety/upgrade priorities.

### Would safety improvements still be required on the Pacific Highway?

Developing an inland route would not address the local traffic issues currently being experienced on the existing highway. There would still be a need to construct the currently proposed bypasses of Ballina and traffic blackspots along the Pacific Highway resulting in a total cost of about \$4200 million for Alternative A and about \$4000 million for Alternative B.

### What are the engineering issues?

Alternative A would require 3 tunnels with approximate total length of 2.9 km while Alternative B would require 2 tunnels with approximate total length of 1.7 km.

Critical issues are whether trucks containing dangerous or flammable goods would have to continue to use the Pacific Highway; how air would be expelled from tunnels; and if filtration would be required.

### Are there any agricultural impacts?

Alternative A would have significant impacts on rural holdings between Casino and Ewingsdale. Between 39 and 47 kilometres of farming land would need to be acquired. For Alternative B between 48 and 51 kilometres of farming land would be acquired.

### What are the property impacts?

There would be impacts on both urban and rural communities in terms of acquisition, noise, visual impacts and a reduction in amenity.

There would be continued engine brake noise from vehicles using St Helena Hill near Byron Bay.

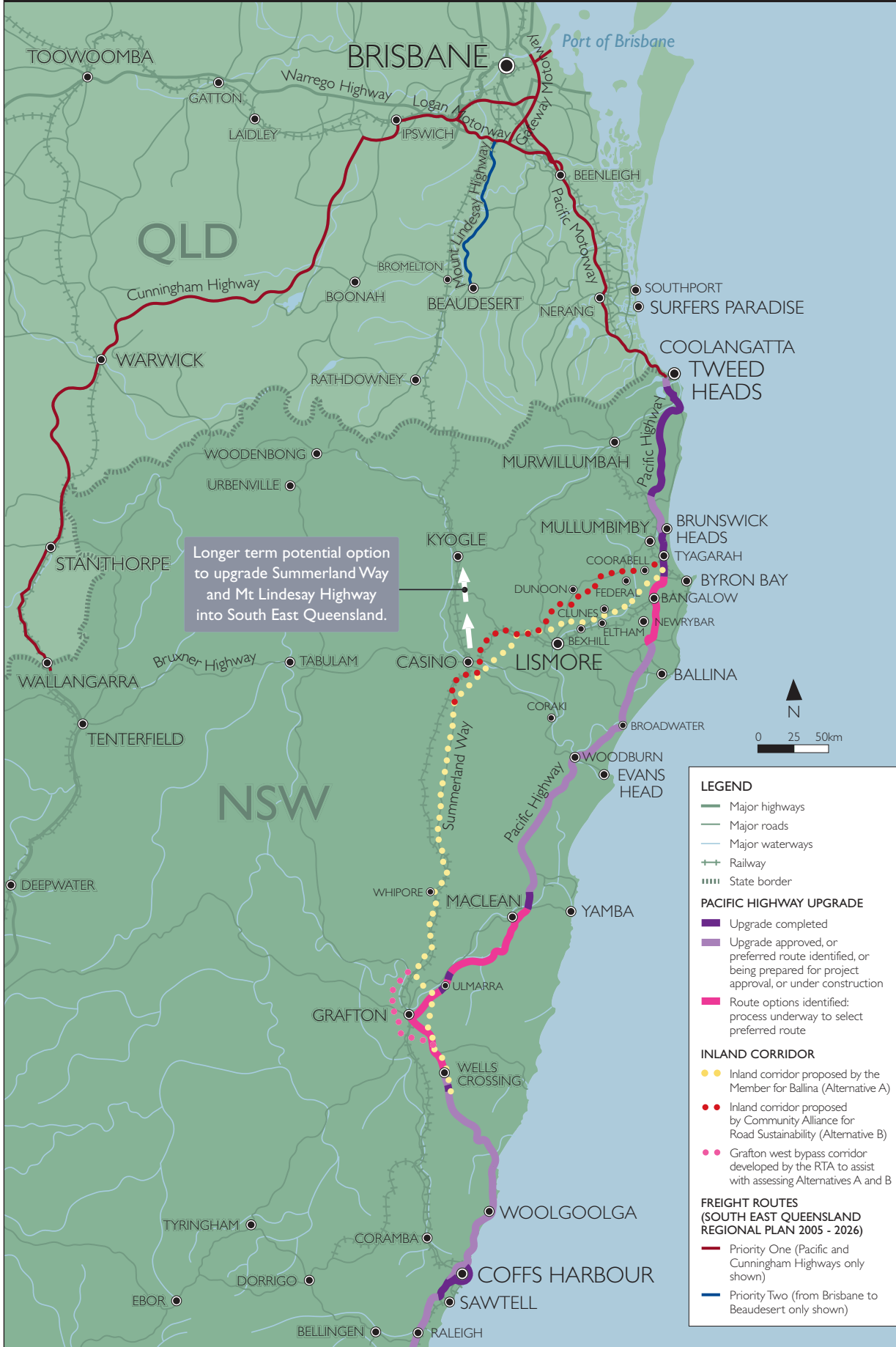
### What are the ecological impacts?

The inland alternatives would impact on pockets of native vegetation. At least 30 threatened plant species are likely to be present in bush areas.



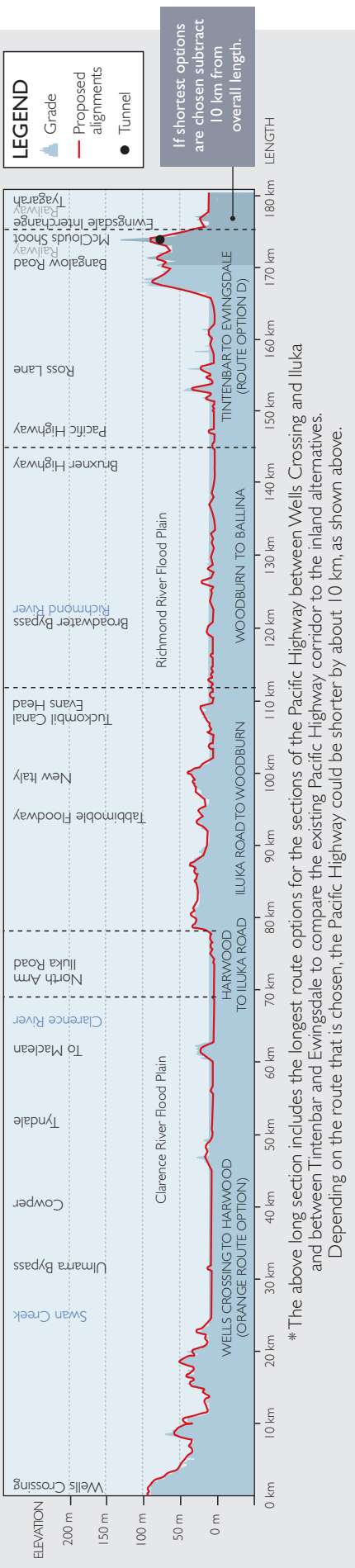
Escarpment below Coolamon Scenic Drive

LOCALITY MAP

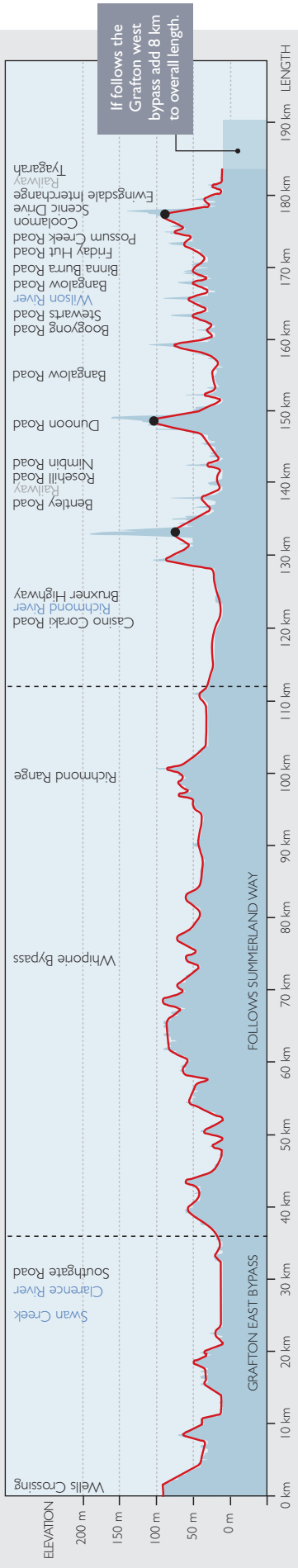


# LONG SECTIONS SHOWING DIFFERENCES IN TOPOGRAPHY

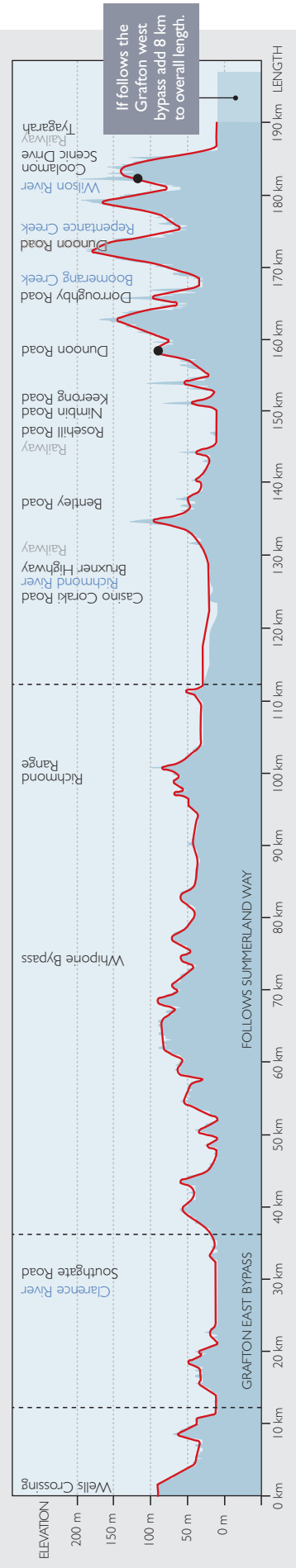
## PACIFIC HIGHWAY UPGRADE\*



## INLAND ALTERNATIVE A



## INLAND ALTERNATIVE B



The above long sections show that the inland alternatives include steeper grades, tunnels and are longer in distance. As a result, truck operators are likely to prefer the Pacific Highway with less operating costs.

**COMPARISON OF INLAND CORRIDOR WITH PACIFIC HIGHWAY UPGRADE (WELLS CROSSING TO TYAGARAH)**

FEATURE	INLAND ALTERNATIVES (VIA SUMMERLAND WAY)			PACIFIC HIGHWAY UPGRADE		
	Refined Alternative A	Refined Alternative B		Short route	Long route	
<b>PHYSICAL AND ENGINEERING FEATURES</b>						
Length of corridor	183 to 191 km	190 to 198 km		171 km		181 km
Highest point above sea level	110 m	180 m		90 m		90 m
Length of route in flood prone land	9.1 to 21.1 km	0.2 to 12.2 km		39.6 km		74.7 km
Graded road						
Length of road greater than 6% slope	Nil	Nil		Nil		Nil
Length of road greater than 4.5% slope	1.6 km	9.2 km		4.3 km		4.3 km
Earthworks						
Quantity of cuts into the ground (million m <sup>3</sup> )	17 to 19	24 to 26		10		10
Deepest cutting	36 m	46 m		25 m		19 m
Quantity of fill on top of the ground (million m <sup>3</sup> )	up to 14 million m <sup>3</sup>	up to 18 million m <sup>3</sup>		11.3 million m <sup>3</sup>		11.3 million m <sup>3</sup>
Highest embankment	25 m	33 m		17 m		17 m
Major structures						
Tunnels (number / total km)	3 / 2.9 km	2 / 1.7 km		1 / 0.3 km		1 / 0.3 km
Major bridging (km > 30 metres)	3.3 to 5.7 km	0.6 to 3 km		8.9 km		17.1 km
Ability to construct in stages (to prioritise on safety needs)	Limited	Limited		Good		Good
<b>TRAFFIC AND TRANSPORT</b>						
Travel time	up to 110 mins	up to 113 mins		up to 96 mins		up to 102 mins
Expected daily traffic volumes (vehicles per day)	Light vehicles	Heavy vehicles	Total	Light vehicles	Heavy vehicles	Total
Inland Alternatives (north of Grafton)	2000	1030	3030	1000	130	1130
Pacific Highway (north of Grafton)	5040	660	5700	6040	1560	7600
<b>HUMAN ENVIRONMENT</b>						
Approximate number of properties from which land is needed (whole or partial acquisition)	490	570		525		735
Amenity						
Number of villages / towns / cities within 2km of route	13	16		26		26
Approximate number of dwellings within 300m of proposed route	110	185		495		830
Impact on prime agricultural land	39 to 47 km	48 to 51 km		79 km		99 km
<b>NATURAL ENVIRONMENT</b>						
Length of impact on:						
National parks / nature reserves	0 km	0 km		3 km		3 km
Native vegetation habitat	63 to 64 km	67 to 68 km		74 km		57 km
State Forest	49 to 50 km	49 to 50 km		17 km		24 km
SEPP 14 wetland	0 km	0 km		0.1 km		0.1 km
Number of fauna corridors crossed	19	21		18		19
Number of waterways crossed	29 to 33	25 to 29		20		20

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