PRINCES HIGHWAY (NSW) UPGRADE

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A joint initiative of: ATA, Illawarra Business Chamber, NRMA Motoring & Services, SEATS (South East Australian Transport Strategy Inc.), Southern Councils Group, South Coast Labour Council and Port Kembla Port Corporation to lobby the State and Federal Governments to commit immediate additional funding to upgrade the Prince Highway.
PRINCES HIGHWAY (NSW) UPGRADE

1.1 Princes Highway Infrastructure Audit

The Sydney-Melbourne Princes Highway corridor connects the industrial, residential and commercial areas of the South East region of Australia to the two largest Australasian Capital Cities (Sydney and Melbourne). The Princes Highway forms part of the AusLink National Road Network between Sydney and Wollongong (NSW) and from Sale to Melbourne (Victoria). The section between Sale and Wollongong is a State Highway (No 1) and upgrading and maintenance work is primarily the responsibility of the NSW and Victorian Governments.

This audit focuses on the section of the Highway primarily between Kiama and Bega in NSW and identifies three construction projects of high priority for funding.

The Princes Highway from the north of Gerringong to Bega is essentially a 2 lane undivided carriageway with limited sections of 4 lanes, few climbing lanes and, in the majority, limited overtaking opportunities, an excess of curve warning signs and sections of unrealistic speed limits (e.g. Gerringong where a 90kph speed limit was introduced). It generally follows the alignment first chosen in the early 20th century with upgrading works on sections where road safety concerns and traffic volumes were such to warrant such treatment.

In the 1998 NSW Government Action for Transport 2010, the Government identified the need for 4 lanes of carriageway to be provided to the Jervis Bay intersection, which is approximately 14kms south of Nowra. Unfortunately the objective will not be met and the 4 lanes of carriageway by 2010 will only be available between Sydney and north Gerringong.

Significant escarpment crossing road links to the highway corridor between Gerringong and Bega include the Nowra to Moss Vale Road, MR 92 (from Nowra to Braidwood via Nerriga), the Kings Highway (Batemans Bay to Queanbeyan) and Browns Mountain Road (Bega to Cooma via the Monaro Highway).

This section of the Princes Highway passes through the Local Government Areas of Kiama, Shoalhaven, Eurobodalla and Bega Valley, and traverses both the Illawarra and South Coast Regions of NSW. It is the sole North-South transport corridor serving a current population of 400,000 people. The railway network in NSW stops at Nowra/Bomaderry. It is critical for the economic, cultural and social wellbeing of the South East Region of Australia, and has four important roles:

- Supporting the current and future Illawarra & South Coast freight and traffic demand, particularly relevant to the mining, manufacturing (specifically steel, paper, starch and chemicals) agricultural and defence industries;
- Providing passenger access between regional towns and the major centres of Eden, Bega, Merimbula, Narooma, Moruya, Ulladulla, Batemans Bay and Nowra/Bomaderry with Kiama, Shellharbour, Wollongong and Sydney;
- Moving inter and intrastate freight between South Coast of NSW, Southern NSW and Eastern Victoria to export and domestic market destinations of Port Kembla, Wollongong and Sydney,
- Serving the freight and passenger connectivity needs of 400,000 permanent residents in the towns of NSW South Coast as well as the enormous upsurge of tourist residents in peak season.
1.1.1 Identified Upgrading Needs of the Princes Highway
The Highway is divided into 3 major projects for upgrading priorities. Of the 3 projects, the first consists of 2 independent sections of the Princes Highway. These projects are:

1. Duplication of Princes Highway between Gerringong and the Jervis Bay Intersection south of Nowra. This project on completion will see the stated NSW Government intention of providing 4 lanes of divided carriageway to the Jervis Bay Interception. This project is divided into 2 subprojects.

1A: Gerringong to Bomaderry — this project is estimated to cost $1,000 million.

1B: Duplication in South Nowra from Kinghorne Street to south of Forest Road. This project connects to the current jointly funded NSW Government ($9m) and Australian Government ($15m) duplication project from Forest Road to the Jervis Bay Road - this project is estimated to cost $70m.

2. Realignment of the Princes Highway at Victoria Creek (near the Bega Valley and Eurobodalla boundary). This project will realign the highway for approximately 5kms, at an estimated cost of $60m.

3. Realignment of Princes Highway at Dignams Creek. This project will realign a very poor section of the Princes Highway at Dignams Creek which has been the subject of recent road crashes. The current estimated project cost is $70m.

It is stressed that the latter two projects were identified as high priority projects in the NSW State Coroner’s report of an inquiry 2008 into recent fatal crashes on the Princes Highway.

The three projects are shown on Figure 1 (project 1A & B) and Figure 2 (Projects 2 and 3).
1.1.2 Goal of the Princes Highway Upgrade (Gerringong to Bega)

The Princes Highway is the main and most direct link between Sydney (and the Illawarra) to the Shoalhaven, South and far South Coast of NSW and the East/North East Region of Victoria. The Princes Highway is an essential corridor for:

- Local Industry and Agriculture;
- A major tourist route with peak traffic occurring in holiday periods, particularly the summer, Easter and long weekends;
- A link to services in the regional centres of Bega, Batemans Bay, Ulladulla and Nowra for the surrounding smaller towns and villages across the region;
- Residents in the Far South Coast, South Coast and Nowra use it to access higher order medical, educational, and social services in Wollongong, Metropolitan Sydney and the ACT;
- A freight and bus route particularly for the South Coast and Far South Coast and for East and North East Victoria. There are no rail services to the south of Nowra.

The goals of the three projects on the Princes Highway between Bega and Gerringong are to:

- Improve road safety;
- Improve transport and travel efficiency (particularly between Gerringong and Jervis Bay);
- Enhance environmental performance of the road corridor by reducing travel time and reducing energy consumption (through efficient grades and alignments) reduce
likelihood of environmental impacts at crash sites and eliminate delays and congestion at peak times;
- Support regional and local economic development by the provision of efficient transport infrastructure compatible to the current and projected regional growth;
- Optimise the benefits that improved transport capacity can offer and minimise the impacts on the local social environment,
- Provide value for money by adoption of community supported “best practice” options for upgrading works.

1.1.3 Future Deficiencies and Trends

The current deficiencies on the Princes Highway are well documented and known to the NSW Government, local Government and to local communities.

The deficiencies are such that planning for the three projects is well advanced with the likelihood of project funding and construction occurring in the next few years.

The traffic volumes on the Princes Highway are detailed in the NRMA Princes Highway Audit Report 2005 which displays traffic volumes as recorded at the RTA traffic stations in 1990 and 2000.

In addition, the most recent data (RTA 2003) indicates traffic volumes continue to grow at an average of 2-3% per annum. Table 1 shows a more up to date indication of the AADT at specific locations on the Princes Highway.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Omega Hill (North of Gerringong)</td>
<td>19293</td>
<td>18731</td>
</tr>
<tr>
<td>Nowra at Shoalhaven River Bridge</td>
<td>44723</td>
<td>52287</td>
</tr>
<tr>
<td>Falls Creek, North of Jervis Bay Road</td>
<td>19652</td>
<td>18744</td>
</tr>
<tr>
<td>Conjola Creek</td>
<td>NA</td>
<td>6060</td>
</tr>
<tr>
<td>Victoria Creek</td>
<td>3205</td>
<td>NA</td>
</tr>
</tbody>
</table>

![Graph showing traffic volume from Waterfall to various locations on the Princes Highway]
In some cases, for example Shoalhaven River Bridge, the predicted growth (2-3% pa) is being exceeded.

In addition the Princes Highway also experiences a crash rate in excess of the State average for 2 lane non-divided carriageway (32.8/100 MVKT). An example of this is the section of the Princes Highway at Conjola where 155/100 MVKT was recorded in the period 2001/2006. In Kiama and Shoalhaven the crash rate in 2005 was 44.7/100 MVKT and Shoalhaven 34.1 MVKT. It is also acknowledged that the high fatality crash numbers on the Princes Highway prompted the State Coroner to conduct an inquiry into the recent fatalities.

It is also recognised that in the early 2000’s a total of 26 deaths occurred on the Princes Highway south of Kiama in just over a 12 month period. One of these crashes prompted a Federal Government financial contribution to a Princes Highway safety project between Forest Road and the Falls Road at Falls Creek (work nearing completion at this time).

Whilst in NSW there has been a steady reduction in the crash rate and the number of fatalities recorded, it is noted in the statement to the Coronial Inquest Dr Soames Job said:

“The most effective approach to removing the road toll is an approach called: Safe Systems. This approach acknowledges that humans do, and will continue to make mistakes. Human error is inevitable. What is not inevitable is that such error on our roads will lead to death or serious injury. It is possible to develop a transport system where this does not occur. This involves three key elements:

1. Vehicles which provide effective protection ( and systems which help with point 3 below)
2. Roads which are forgiving of error, such that , at the appropriate speed, an error will not result in fatal injury
3. Appropriate speeds, such that the forces which human body can tolerate are not exceeded”

The four sections of the Princes Highway contained in this report clearly are NOT forgiving of driver error. Until they are upgraded to the modern engineering specifications, they will continue to impact on drivers using them at appropriate speeds.

1.1.4 Likely Causes
In the 3 projects contained in this report, the issues identified in the audit are directly linked to the fact that the alignment of the Princes Highway (horizontal and vertical) is inadequate for the current travel speeds and traffic volumes to which the Princes Highway is currently exposed. Without these upgrading works there is little likelihood of the causes being addressed.

Table 2 identifies the recognition of the need for upgrading on the Princes Highway works at a strategic level.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1A Gerringong to Bomaderry</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>1B Kinghorne Street to Forest Road</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Victoria Creek</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3 Dignams Creek</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

*planning funds only allocated
Whilst the need for planning work is identified by the NSW Government for the 3 projects, no commitment has been made for construction works funding.

1.1.5 The Impacts of the Problem
The 3 projects are proposed to meet the following objectives:

- Improve road safety by improving alignments and improving standards by applying best practice engineering and design standards;
- Improve the efficiency of the Princes Highway (particularly between Gerringong and Forest Road) by eliminating poor alignments, improving travel speed, reducing congestion (4 lanes proposed) and eliminating long term delays and costs (in some cases, delays to trucks of 17 hours have occurred due to there being no alternate route available for 8 tonne or greater trucks between Gerringong and Bomaderry) at crash sites, and improving vertical alignments, providing greater fuel efficiency and reducing greenhouse emissions;
- Support regional and local economic development by the provision of a safe and effective transport corridor to Wollongong and Sydney, to the north and NE Victoria in the south;
- Enhance potential environmental benefits to threatened/vulnerable communities in existing corridor;
- In addition, the 3 projects are chosen due to significant constraints on the Princes Highway. These include:
  - Substandard local geometry at Foxground, Victoria Creek and Dignams Creek;
  - Narrow carriageways with inadequate shoulders;
  - Lack of rest areas for the management of driver fatigue (both heavy and recreational);
  - Flood vulnerability at various creek crossings,
  - Lack of Highway capacity (i.e. number of lanes).

The concern of PHocus is that the failure to address these issues will continue to have a significant impact on the South Coast and Far South Coast communities.

1.1.6 Proposed Solutions for Addressing the Problem
The problems outlined above can only be addressed by the reconstruction and duplication of the 2 lane highway between Gerringong and Jervis Bay Road (project1) and realignment of the Princes Highway in projects 2 and 3.

Table 3 below identifies:

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>Project Status</th>
<th>Estimated Cost in 2008 $’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Duplication and Realignment Gerringong to Bomaderry (4 lanes)</td>
<td>Extensive community consultation complete. Preferred option announced October 2008. Project Determination 2009. Project ready for construction 2010/11. * Note 1</td>
<td>$1,000m</td>
</tr>
<tr>
<td>1B</td>
<td>Duplication Kinghorne Street to Forest Road South Nowra (4 lanes)</td>
<td>Consultation with LGA complete. Design in progress. Project ready for construction in 2009/10</td>
<td>$70m</td>
</tr>
<tr>
<td>2</td>
<td>Victoria Creek South Coast 2 lanes</td>
<td>Realignment concepts being prepared. Planning funds available. Construction possible 2010</td>
<td>$60m</td>
</tr>
<tr>
<td>3</td>
<td>Dignams Creek South Coast 2 lanes</td>
<td>Planning to be advanced in 2008/9. Construction possible 2011</td>
<td>$60m</td>
</tr>
</tbody>
</table>

* Note 1 PHocus believes that an early start could be made if construction funds were allocated immediately.
*Note 2 in all projects, the case for upgrading is acknowledged by the NSW Government and planning funds are allocated and being expended under the NSW Government Budget Allocation.

1.1.7 Priority Actions to Implement the Solution

The position of PHocus is that the condition of the Princes Highway is such that the NSW Government on its own is not able to fund the necessary works in a time frame to meet the existing and increasing transport and safety demands.

Whilst planning funds are being allocated, the concern of PHocus is that available construction funds are very limited and priority in the State is being given to the Sydney metropolitan area, the Hume Highway and the Pacific Highway.

Whilst it is recognised that the Princes Highway is a State Road, the recent history is that Federal Government funds have been allocated to the Highway on a project by project basis. The funding partnership has been negotiated by PHocus. A priority action is for a joint funding agreement using both State Government funds and funding under Infrastructure Australia to be negotiated for the Princes Highway upgrading.

Recent history of joint funding is shown in table 4.

Table 4

<table>
<thead>
<tr>
<th>Princes Highway Project</th>
<th>Cost</th>
<th>Federal Government Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pambula River flood plain crossing</td>
<td>$17m</td>
<td>$5m</td>
</tr>
<tr>
<td>Safety Improvements Forest Road to Jervis</td>
<td>$23m</td>
<td>$15m</td>
</tr>
<tr>
<td>Bay Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kiama to Oak Flats major upgrade</td>
<td>$180m</td>
<td>$34m</td>
</tr>
<tr>
<td>Conjola Mountain realignment</td>
<td>$45m</td>
<td>$10m</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>$64m</td>
</tr>
</tbody>
</table>

Table 5 shows some hypothetical funding matrix.

Table 5

<table>
<thead>
<tr>
<th>Project</th>
<th>Estimated Cost</th>
<th>Construction time in years based upon:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$50m/annum</td>
</tr>
<tr>
<td>Project 1(A &amp; B)</td>
<td>$1070m</td>
<td>21+ years</td>
</tr>
<tr>
<td>Project 2</td>
<td>$ 60m</td>
<td>2 years</td>
</tr>
<tr>
<td>Project 3</td>
<td>$ 60m</td>
<td>2 years</td>
</tr>
<tr>
<td>Total:</td>
<td>$1190m</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen, funding scenarios of $50m and $100m per year are unsustainable in terms of meeting the real needs of this region and the current identified highway deficiencies. A partnership is required between the NSW Government and the Federal Government to negotiate a joint funding strategy using State, Infrastructure Australia and Auslink funds. The issues are sufficiently critical to warrant such actions. This scenario is not new as negotiated partnerships are in place for both the Hume and Pacific Highways in NSW.
1.2 Initiative Profile

1.2.1 Overview

In developing the initial profile for a partnership funding agreement between the NSW Government and the Federal Government, consideration has been given to a number of Strategic documents prepared by PHocus and its partners, and the NSW Government.

These are listed below.


- South Coast Transport Strategy, Nov 2000. Prepared by Maunsell McIntyre P/L for Shoalhaven City Council and South Coast Councils. A (short term) recommendation was to seek additional funding from the Federal Government for the upgrade of the Princes Highway and (long term) recommendation to upgrade the Princes Highway to 4 lanes to the Jervis Bay Road turnoff by 2010;

- Sd&D Economic Study of the Princes Highway, 2005;

- A Case for Extension of the Princes Highway from Wollongong to South Nowra as part of the Auslink Network, October 2007;

- Illawarra and South Coast NSW Freight study Dec 2005;

- NSW State Plan;

- NSW State Infrastructure Strategy 2007 & 2008;

- NSW State Budget 2008;

- Illawarra Regional Strategy 2006-31 NSW Government, Dept. of Planning;

- South Coast Regional Strategy 2006-31 NSW Government, Dept. of Planning;


  - Evidence presented by Shoalhaven City Council to the committee on the Princes Highway and MR92 SECTIONS 5.18-5.25

  - Evidence presented by SEATS Section 5.20-5.27

- Evidence presented by Bega Valley Section 5.28

- Sydney to Wollongong Auslink National Network Corridor Study;

- NSW Government -RTA-Gerringong to Bomaderry Princes Highway Upgrade, Value Management Workshop- Background paper May 2008 and Gerringong to Bomaderry upgrade-Preferred option update Gerringong and Berry Access Option October 2008;

- NRMA Motoring & Services Princes Highway Audit 2005. In this report the NRMA questioned why the Princes Highway south of Wollongong is not part of the Australian Government’s Auslink Network. It also calls for “significant funding injection on the Princes Highway due to the scale of works and limitations such as topography”;

- NRMA Motoring & Services Better Roads Project 2005 The issues raised included: the current state of the Princes Highway impacts negatively on regional industries and communities; safety record of the Highway resulted in unacceptable rate of fatality and injury; need for bypass roads, including Berry and upgrade bridges, including Dignams Creek; and a call for Federal Government funding under Auslink Program,

- In addition, PHocus is aware that the RTA has a Corridor Study for the Princes Highway from Wollongong to the Victorian Border. This was undertaken in mid 2008. It has not been released by the NSW Minister for Roads.
All three projects have been developed by the RTA to enhance road safety by adopting current standards in both new road design and construction. In terms of Project 1 (A & B) the initiative involves increasing the capacity of the highway by replacing essentially a 2 lane carriageway with a 4 lane divided carriageway.

In regard to projects 3 & 4, the highway will be realigned and widened to provide 2 new 3.5m travel lanes, 2 new 2m wide sealed shoulders and a 100kph alignment.

Table 6 (below) outlines the typical engineering standards.

<table>
<thead>
<tr>
<th>Project</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A: Gerringong to Bomaderry</td>
<td>2 traffic lanes Southbound</td>
</tr>
<tr>
<td></td>
<td>2 traffic lanes Northbound</td>
</tr>
<tr>
<td></td>
<td>Central Barrier/Median</td>
</tr>
<tr>
<td></td>
<td>Sealed Shoulders</td>
</tr>
<tr>
<td></td>
<td>100kph design speed</td>
</tr>
<tr>
<td></td>
<td>1:100 year flood protection</td>
</tr>
<tr>
<td></td>
<td>Berry Village Bypass</td>
</tr>
<tr>
<td>1B : Kinghorne to Forest Road</td>
<td>2 traffic lanes Southbound (widen East side)</td>
</tr>
<tr>
<td></td>
<td>2 traffic lanes Northbound (widen West side)</td>
</tr>
<tr>
<td></td>
<td>Central Barrier/Median</td>
</tr>
<tr>
<td></td>
<td>80 kph Warra Warra Road to Kinghorne Road</td>
</tr>
<tr>
<td></td>
<td>100 kph Warra Warra Road to Forest Road</td>
</tr>
<tr>
<td></td>
<td>Roundabout at Warra Warra Road for separation of urban and rural precincts and access/turning opportunities</td>
</tr>
<tr>
<td></td>
<td>Off-road cycleway/footpath</td>
</tr>
<tr>
<td>Projects 2 &amp; 3, Victoria Creek &amp; Dignams Creek</td>
<td>2 lanes rural road standard</td>
</tr>
<tr>
<td></td>
<td>Sealed shoulders</td>
</tr>
<tr>
<td></td>
<td>100kph design speed</td>
</tr>
<tr>
<td></td>
<td>1:100 year flood protection</td>
</tr>
</tbody>
</table>

All projects have been subject to or currently are subject to extensive community consultation, environmental scrutiny, landscape design and comply with current NSW and Australian Government environmental and planning legislation.

In regard to project 1A, the community consultation has been vigorous - since March 2006. The Value Management Workshop held in May 2008 outcomes have been accepted and adopted by the RTA (pink or green routes, between Gerringong and Austral Park Road) and agreement reached that the upgrading of the existing alignment for the remaining portion of the corridor is appropriate.

In addition, a recommended minor modification of the alignment of the bypass section at Berry was also accepted by the NSW Minister for Roads in October 2008.

1.2.2 Initiative Rating and Justification
The need for upgrading the Princes Highway is well recognised in relation to the 3 projects within this report.

It is highlighted that the Illawarra and South Coast is undergoing significant economic growth with both private and public initiatives either being proposed or funded.

Examples of these initiatives are:

- **a) Port Kembla Port**: work on the new inner harbour facilities is due for completion in late 2008.
This port is a major economic driver for the Illawarra and South Coast. It is the closest specialised industrial port to Sydney and is recognised as the most significant freight transport asset in the Illawarra and South Coast Region. It provides a local gateway to global trading networks.

In 2005/6 591 ship visits were recorded and 26 million tonnes of cargo handled. A new berth was opened in October 2007 and this will enable the previous bulk cargo to be expanded to include general and break bulk cargo, cars and containers. In 2005/6 the Port Kembla Port generated approximately $560m of output for the region and contributed $670m to the NSW economy.

It is forecast that in 2008/9 the Port will be responsible for the (direct and indirect) employment of 1240 jobs in NSW -1090 of which will be in the Illawarra region.

An outer harbour development plan is now being subject to community consultation and environmental assessment. It is expected that the project will be submitted for Project Approval to the NSW Government in early 2009. This expansion is aimed to accommodate growth in existing trades and the needs of new industry. It will provide new opportunities for the Illawarra and South Coast Region of NSW.

The Princes Highway to the South of Wollongong is seen as an essential road transport corridor with access to large areas of employment lands in the Shoalhaven, Berrima and Goulburn Regions.

b) Manildra Group (Bomaderry)
The group is a major global supplier of flour, starch, glutens and food products. Ethanol is being supplied for fuel blending across NSW.

Major expansions are in place which will significantly add to the outputs from the plant. The company has an application before the NSW Government for further expansion works to a value of $200m.

c) Defence Industry
Shoalhaven and Jervis Bay are home to 2 major defence establishments in NSW. Major expansion is planned at HMAS Albatross in 2010 to embrace the HATS (Helicopter Aircrew Training System). This will double base activity. Currently the base generates approximately $7.5m per annum in direct wages and $15m is spent on supplies and services.

HMAS Cresswell is a RAN College establishment together with 4 other departments. 105 personnel are employed and 500 junior officers receive training at the facility annually. HMAS Cresswell is subject to an $80m upgrade programme.

d) Maria's Farm, Bomaderry
This 34 hectare glass house project in Bomaderry was recently announced by the then Minister for Regional Development Tony Kelly MLC. It will produce strawberries, tomatoes, capsicums and broccoli for the Illawarra and Sydney markets. 260 direct jobs are forecast in Shoalhaven. Transport of fresh vegetables to Sydney will occur daily. The project will cost $130m.

e) South Coast Correctional Facility
This $140m correctional facility is under construction in South Nowra adjacent to project1B. It will employ approximately 200 people when operational in 2010/11.

f) Albatross Technology Park and Flinders Industrial Estate South Nowra
Both areas are the hub of employment lands in the Shoalhaven. In the Illawarra Employment Lands survey undertaken by the NSW Government these areas are seen as having great
potential to satisfy the needs of general industry and aviation technology based industry in the Illawarra.

g) Shoalin Temple
This project is subject of NSW planning application to the Minister of Planning. It has been accepted by the Minister as a Part 3A project. It is expected to cost from $300-500m and to be a major tourist, accommodation, educational and recreational facility for the Shoalin movement from China. Up to 500,000 people are expected to visit the completed facility annually.

h) National Gas Cogeneration Plant, West Nowra:
Planning is well advanced on this project.

1.2.3 Regional Growth Strategy – NSW Government
In addition the NSW Government adopted Illawarra and South Coast Planning Strategies for the period 2006-31 highlight the importance of both regions to the ongoing economic growth and sustainability of NSW.

Table 8 below identifies the planned growth in the 4 local government areas served by the 3 projects.

<table>
<thead>
<tr>
<th>Sub region</th>
<th>New Dwellings by 2031</th>
<th>Increase in population by 2031</th>
<th>Increase in jobs by 2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illawarra</td>
<td>38,000</td>
<td>47,600</td>
<td>30,000</td>
</tr>
<tr>
<td>Shoalhaven</td>
<td>23,600</td>
<td>34,000</td>
<td>14,400</td>
</tr>
<tr>
<td>Eurobodalla</td>
<td>10,700</td>
<td>15,500</td>
<td>6,200</td>
</tr>
<tr>
<td>Bega Valley</td>
<td>8,600</td>
<td>10,900</td>
<td>5,200</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>80,900</strong></td>
<td><strong>108,000</strong></td>
<td><strong>55,800</strong></td>
</tr>
</tbody>
</table>

In both documents, the importance of the Princes Highway is recognised as being essential to enable the economic growth in the region to occur.

In addition, Bernard Salt, KPMC in an address to the Illawarra group of the Property Council of NSW on 08 October 2008, made the following three very pertinent points:

1. “Strong population growth will create opportunity in Shellharbour and Shoalhaven. The property industry must secure presence and infrastructure to deliver expected population growth.
2. Wollongong must continue to broaden its economic base to include high technology and innovation businesses. The Innovation Campus at Wollongong University supports this goal.
3. Culturally, Wollongong should reassert its independence from Sydney and its authority over the south coast of New South Wales. This should be pursued through the development of infrastructure centred on Wollongong rather than on linkages to Sydney.”

1.3 Appraisal Key Results and Assumptions

1.3.1 Overview
The 3 projects submitted are being developed by the RTA on behalf of the NSW Government. Unfortunately, details in regard to project appraisals are limited and it is the view of PHocus that such information should be available from the RTA. In accordance with RTA policies much information is not released to the public and it is inappropriate for limited community funds being spent to duplicate analysis and obtain authoritative data.
However, project 1A has been the subject of considerable analysis and it is the understanding of PHocus that all projects are economically and environmentally viable.

From the information available, Project 1 is the most advanced in terms of project development and could commence construction within 12-18 months if funds were available.

### 1.3.2 Monetised Benefits and Costs

**Project 1 Gerringong to Forest Road**

Project 1A Gerringong to Bomaderry

The NSW Minister for Roads has announced a preferred route option for the project. The route is divided into 4 sections Section A (Kiama Bends to Belinda Street) is to be duplicated on the existing alignment. Similarly Section D, Croziers Road to Bomaderry will be duplicated on generally the same alignment.

The preferred option for the Berry Bypass (Section C orange route) has been approved as follows

- Construction Costs based on 2007 dollars is $155m
- NPV is -0.9
- BCR is 0.99
- NDVI is -0.01

Section B (Belinda Street to Berry) is the most complex section and pink and green options are both subject to further consideration.

Table 9 shows a comparison summary of economic performance

<table>
<thead>
<tr>
<th>Route</th>
<th>Cost</th>
<th>NPV</th>
<th>BCR</th>
<th>NDVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink Route</td>
<td>$235m</td>
<td>77.1</td>
<td>1.42</td>
<td>0.42</td>
</tr>
<tr>
<td>Green Route</td>
<td>$340m</td>
<td>40.3</td>
<td>1.17</td>
<td>0.17</td>
</tr>
</tbody>
</table>

In addition it is estimated that upgrading the Highway in Project 1A will reduce injury crashes on both the Princes Highway and the parallel route for light traffic (The Sandtrack) from an average of 38 per year to 16-18 dependent on the chosen route.

In project 1B the project under detailed design recognises the current AADT of 20670 (South of Quinns Lane). The approved expansion in the South Coast Planning Strategy will see this volume grow to approximately 29700 VPD in 2016. The replacement of substandard width alignment will reduce crash rates to levels compatible to NSW Government targets. Positive BC ratios will be achieved by both projects.

### 1.3.3 Non Monetised Benefits and Costs:

In all projects the opportunity will be available to improve facilities of the Princes Highway Corridor. The opportunities include:

- Provision of pedestrian and cyclist facilities in new works areas;
- Minimise risk of serious environmental impacts from crash events;
- Improve highway performance by reducing greenhouse gas emissions due to delays and congestion;
- Enhance existing environmental effects by re engineering sections where existing corridor conflicts with sensitive environment;
- Enable Berry to be bypassed and remove emissions, noise, vibrations from “unique village area”;
- Provide improved truck inspection areas,
- Provide greater access to rest areas for trucks and domestic drivers.
1.4 Initiative Rating and Justification

1.4.1 Expand Australia’s Productive Capacity
As outlined previously, the Port Kembla Port expansion is seen as the major economic driver in the region. Improved road transport to the south along the Princes Highway will improve the accessibility of the existing manufacturing industries on the South and Far South Coast region to this opportunity (both for imports and exports). The large areas of employment lands in the south region provide great opportunity for new initiatives viz the Port.

In addition, the improved Princes Highway will open up the prospect of expanding the existing job networks to meet the new jobs target of 55,800 by 2031 in the region. This number is required to sustain a population increase of 108,000 over this period.

Linked to the planned expansion at Manildra, Defence Establishments, Bega Cheese, and the new initiatives at Maria’s Farm, ShaoLin Temple, Energy Cogeneration and the South Coast Correctional facility, many new job opportunities within the region are being created.

Such increases in productivity will be secured if these industries can implement the most cost effective form of road transport via access to a freight corridor which meets best practice road standards. This is not only limited to road geometry but will give access to modern initiatives of HML and Intelligent Access Programs.

1.4.2 Increase Australia’s Productivity
Productivity can be increased via improved road transport access to the north and south via the Princes Highway. Increasingly, the Illawarra Business Community is seeing the expanding business opportunities being generated on the Princes Highway corridor. In addition, improving the Princes Highway and its East–West connections to the west can enhance travel efficiency and increase profitability in existing business. The assurance that an upgraded Princes Highway can be provided by 2015/18 under a $200m per annum joint funding initiative will improve business confidence and encourage new investment in the region.

1.4.3 Expand Australia’s Productive Capacity and Build on General Competitive Advantages
The defence industry that exists on the South Coast is one sphere where increased economic capacity is achievable. The commitment of the Australian Government to grow the Australian capacity by growing Australian partnerships and technical capability provides opportunity for HMAS Albatross in particular.

The existing agricultural, forestry and fishing industries are identified as being important to maintain as viable industries. The tourism industry is also well established but suffering from road congestion and delays at critical holiday periods. These industry sectors will benefit from the projects outlined in this application.

In addition, the Port Kembla Port expansion will open the South Coast to new opportunities for export specialisation which is currently being thwarted by the inefficient north south road transport corridor. Such industries will achieve import replacement in some areas and expand the export of manufactured and agricultural products to the Asia/Pacific basin.

1.4.4 Develop Our Cities and/or Regions
The South Coast Regional Planning Strategy describes the role that the South Coast will play in the development of NSW. The Strategy identifies the planned growth of Nowra, Batemans Bay and Bega to “Major Regional Centre” status. Similarly, Vincentia, Ulladulla, Moruya and Merimbula are planned as Major Towns.
The NSW Government has identified a series of essential infrastructure projects to achieve these outcomes. PHocus believes that the Princes Highway upgrade is the key infrastructure need for the strategies to be achieved.

1.4.5 Reduce Greenhouse Emissions
In developing the realignment and upgrading projects shown as project 1A and 1B, congestion reduction is seen as a key element. If the project does not proceed over a 10-15 year period the 3% traffic growth predicted will result in increased congestion, slower travel times and require increased vehicle operating costs.

A modern, efficient and appropriately engineered highway upgrade will offset these issues and improve efficiency.

At this time, the reductions have not been quantified. However, the RTA in their project planning has recognised the issue as one of the key project objectives.

A modern highway will also encourage B double truck use (a reduction in total truck numbers is an outcome), the adoption of purpose designed HML vehicles and IAP opportunity will further reduce emissions per tonne of freight hauled.

The grades selected for Project 1A are set at a 6% maximum level to reduce emissions.

1.4.6 Improve Social Equity, and Quality of Life, in Our Cities and/or Regions
By improving linkages to social, education, health services the traditional issues relating to rural and regional living will be minimised. The increased safety and reduced travel times will encourage greater regional transport to capitol cities and major regional centres. The opportunity to improve access to higher education at a secondary and tertiary level is seen as a very desirable outcome. It will assist in meeting the documented coastal unemployment issues and encourage opportunities for the region’s youth to expand their skills base.

1.4.7 Linkages
The upgrading of the Princes Highway is part of the SEATS Inc. Regional Strategy for improving linkages between regions both for economic and social outcomes. The opportunity to improve access to the East West escarpment crossing corridor connections of MR92, Kings Highway, and Browns Mountain Road will be provided by these projects. The reduced travel times will also assist in developing business linkages to the ACT region and improve access from the Wollongong area to the expanding opportunities of the South Coast.