

# Wyong Shire Key Infrastructure Study

FINAL



Prepared for Wyong Shire  
Council

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# 1 Introduction



## 1.1 Background

To meet the short and long term needs of the state's growing population, increasing densities and anticipated higher demand on mass transit, New South Wales requires significant investment in major transport infrastructure.

Three planned key transport infrastructure projects have been identified by Wyong Shire Council (Council) as having the potential to significantly and directly impact on Wyong Shire and the Central Coast as a whole. These projects include Sydney's second airport, the East Coast High Speed Rail (HSR) and an alternative vehicular route to the F3 freeway to link Sydney and the Hunter Region. These projects are considered to be necessary to address the increasing demand on the corridor from Sydney to the Hunter as the Central Coast and the Hunter Region meet their anticipated growth potential over the next 25 years.

The nationally significant Second Sydney Airport and East Coast HSR projects have both received renewed recent attention as the pressure on existing infrastructure increases. The new push for these projects, along with the evident need for both an alternative freeway linking Sydney and the Hunter region and an enhanced utilities corridor covering the same distance, constitute a basis for consideration of the multi-layered impact of these integrated projects on affected regions such as the NSW the Central Coast.



Figure 1 Potential Key Infrastructure



In response to current planning activity for the three infrastructure projects, Wyong Shire Council has engaged Cardno to conduct a study to:

- Determine the status of the key infrastructure projects;
- Identify local Central Coast infrastructure that may be required to support the key projects; and
- Ultimately arrive at a professional opinion regarding the potential impediments to each of the three projects proceeding.

The combined possibilities of these three projects cannot be underestimated. As a package they have the potential to be the largest transport infrastructure project in Australian history. Wyong Shire Council is to be congratulated for initiating this Strategic Review to assist with plan making. It is up to the broader civic and political community to lend weight to Council's initiative in order to place the projects high on the National infrastructure agenda.

The proposed key infrastructure has the potential to impact on the region's economy, environment and people for decades to come. It also presents a unique opportunity for development, employment and social change.

Cardno have been interested in these key infrastructure projects for some time. In 2009 the Company, in collaboration with other industry and regional experts, identified a potential site for Sydney's second airport in the Central Coast's Somersby region. Initial investigations by Cardno with the private consortium led to development of a proposal to locate the airport at Peats Ridge. In 2010, this concept proposal was presented to both local Central Coast representatives and the Federal Minister for Infrastructure and Transport, the Hon Anthony Albanese MP.

## 1.2 Content and purpose of this report

Cardno was initially commissioned by Wyong Shire Council to carry out a study that would provide advice with regard to:

- An outline assessment of the status of planning of each of the three items and planned future actions necessary prior to any likely government commitment to proceed;
- At a regional level, other key transport infrastructure items required to support the future growth of the Shire and/or the provision of the proposed F3 Links, East Coast HSR and the second Sydney Airport; and
- The broad costs and benefits to Council and the community to be realised by the delivery of the identified infrastructure items.

Initially, Cardno carried out a review of the currently available reporting on the three projects and conducted consultations with a range of Local, State and Federal Government Agencies. The process culminated in a presentation and workshop conducted with Council's Executive Team in early November 2011. It was resolved at the workshop that Cardno should at this point:

- Prepare a report on the findings of the research and consultation process to date; and



- Revisit the matter later in 2012, after a number of key reports have been issued, in order to provide a fulsome report on the status of the three projects.

In response, the purpose of this report is to provide a current time snapshot of the strategic planning position of the three projects. To achieve this, the report includes:

- A précis of the outcomes of the research process;
- A summary of critical information and key messages resulting from the work to date;
- A bibliography of reports reviewed; and
- Written notes on each of the stakeholders' consultations.

Subsequently to the initial 'state of play' reporting process, in June 2012, Cardno completed a review of the Joint State and Federal Government Study on aviation capacity in the Sydney Region (released in March 2012).

This edition of the report includes the outcomes of that review. The final edition of the report will be issued when the final phased of the Federal Government's East Coast High Speed rail Study is released and has been reviewed by the consultant team. At the time of writing it is not clear when the report will be released.

## **2 Planning status of the projects**



## 2.1 Overview

Cardno has undertaken a desktop review of documentation provided by Wyong Council as well as additional documents sourced from both Council and the internet. Documents reviewed are listed in the Bibliography (Appendix A). Face to face interviews were also conducted with a range of critical Government agencies in order to gain an understanding of the current planning status of each project. Following is a précis of the outcomes of the literature review and the stakeholder consultation process. The précis separately covers:

- Strategic planning on the Central Coast;
- Planning for the F3 Freeway links;
- The East Coast High Speed Rail;
- The 2<sup>nd</sup> Sydney Airport; and
- Local Central Coast transport infrastructure.

Under each heading, a summary is provided firstly of the pertinent components of the relevant planning policies and reports and secondly of the outcomes of the stakeholder consultations. It should be noted at this point that the comments made during stakeholder consultations reflected the opinions of the particular officers being interviewed and did not necessarily represent the opinions of their respective employers. Having said this, the comments hold considerable weight as they were offered by senior personnel who have specific expertise in the areas of responsibility of their respective Agency employers.

## 2.2 Central Coast Strategic Planning

The Central Coast is expected to experience considerable growth over the next two decades. Seventy percent of that growth will occur in Wyong Shire. Strategic planning is in place to assist Wyong Shire to meet projected demands.

### 2.2.1 Strategies

#### State Level

The *Central Coast Regional Strategy 2006-31* (NSW Department of Planning, 2008) encapsulates current State level strategic planning for the Wyong Shire.

The *draft Central Coast Transport Strategy* (NSW Government, October 2010) supports the Regional Strategy and provides a vision for the Central Coasts regional transport network.

The *draft North Wyong Shire Structure Plan*, (NSW Planning, November 2010) facilitates achievement of the Regional Strategy targets for new housing and jobs within the Shire.

The *Lower Hunter Regional Strategy, 2006-31* (NSW Department of Planning, 2006) is relevant to Central Coast regional planning because it plans for significant housing and employment growth on land adjacent to the Wyong Structure Plan Area.

## Local Level

Wyong Shire Council strategic planning is articulated in a portfolio of Statutory Planning Instruments, policies and strategies. Critical overarching Instruments and strategies include:

- The Wyong Local Environmental Plan, 1991;
- The draft Wyong Local Environmental Plan, 2011 (yet to be exhibited);
- The Wyong Shire Residential Development Strategy, 2002;
- The Wyong Shire Retail Strategy, 2007;
- The Wyong Shire Cultural Plan, 2005; and
- The Wyong Shire Water Plan 2050.

These are supported by a series of local strategies which currently include:

- The Wyong / Tuggerah Planning Strategy, 2005;
- The Entrance Peninsular Planning Strategy, 2009; and
- The Toukley Planning Strategy, 2010.

### 2.2.2 State Level Planning

*The Central Coast Regional Strategy 2006-31 (NSW Department of Planning, 2008)*

The Strategy addresses planning projected to 2031 for the Gosford and Wyong Local Government Areas. It includes a Plan to accommodate a projected regional population increase of 100,000 people by 2031.

#### General Summary

The Strategy:

- Identifies a demand for 56,000 dwellings to 2031 to accommodate the increased population and falling household occupancy levels;
- Supports creating capacity for 45,000 new jobs in the Region to 2031 (6000 in Gosford, 5500 in Tuggerah-Wyong, 18000 in remaining centres, 5000 in employment lands and 10,500 in the area identified as the Wyong Structure Plan Area);
- Promotes Gosford as the regional city and Tuggerah-Wyong as the major regional centre;
- Identifies the North Wyong Shire Structure Plan Area, incorporating the Wyong Employment Zone and the new Warnervale Town Centre, as the focus for new employment lands and new Greenfield residential development (10,500 new jobs, 19,000 new dwellings); and
- Provides a framework for future rail and road transport infrastructure to be identified and prioritised.

Under the Strategy, the two Central Coast Councils are charged with the responsibility of providing, either through Local Environmental Plans or local planning strategies, sufficient quantities of zoned land to enable dwelling capacity and employment generation targets to be achieved.



Figure 2 Central Coast Strategic Planning – Key initiatives (Central Coast Regional Strategy, 2008; Lower Hunter Regional Strategy, 2008)

Critical to infrastructure planning for Wyong Shire, the *Lower Hunter Regional Strategy* (NSW Department of Planning, 2008) identifies significant capacity for residential and employment lands within the southern portion of the Lake Macquarie Local Government Area. The Strategy identifies Morisset as an emerging major centre and Wyee as a new employment and residential zone with combined capacity to generate 1600 new jobs and up to 2500 additional dwellings.

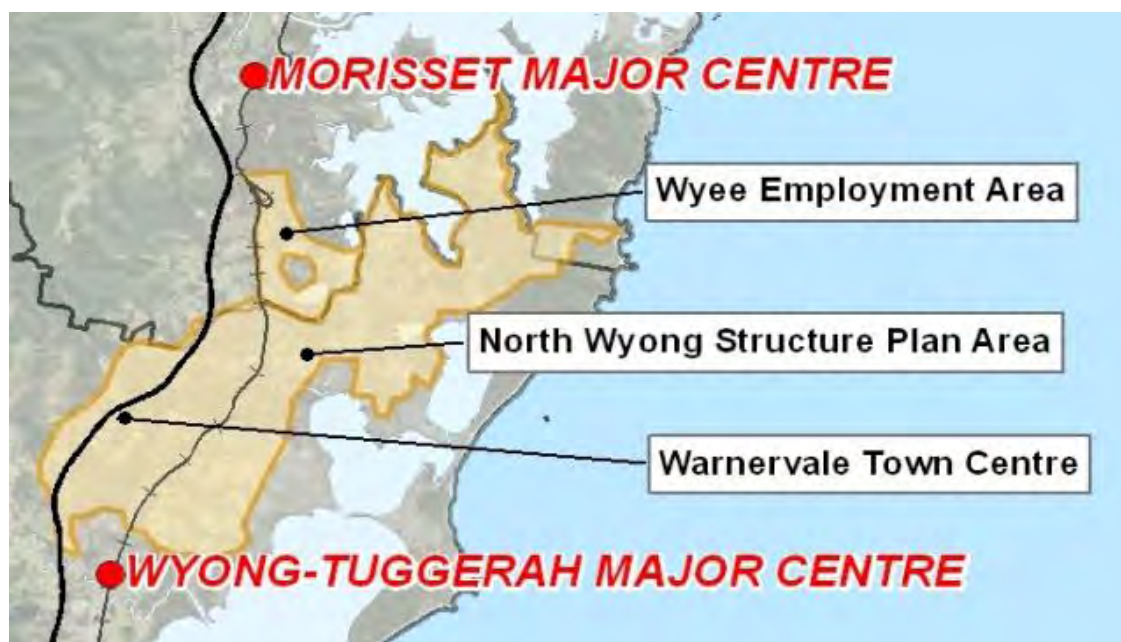


Figure 3 Critical growth areas in the Lower Hunter and North Wyong districts

### Economy and employment

The Central Coast economy has become important as a market for goods and services, as a focus for primary and secondary production and as a labour supply for Sydney.

Critical components set to grow in the local economy include:

- Retail;
- Community services (health, education, public administration, trades, property and business services as well as hospitality services); and
- Knowledge based institutions, which are emerging as major contributors to the local economy.

Infrastructure planning will be a major component of continued economic and employment growth. Improved regional connections, including stronger links to Sydney will induce additional investment and may spur new local employment opportunities.

Wyong Employment Zone has been recognised as a State Significant Site. This will assist in the delivery of employment targets that are set out in the Central Coast Regional Strategy.



## Regional transport

### Trends and issues

The Region is highly car dependent with insufficient public transport or cycling links between centres, rail stations and other destinations.

There are substantial commuter movements to / from the region via rail and road. The F3 Freeway and Sydney – Newcastle rail line are the main out of region movement corridors. As a consequence, Central Coast commuters are forced to compete with the national and state private and commercial freight functions.

The rail corridor is located on the western fringe of the heavily populated coastal areas. It provides a regional link between Tuggerah-Wyong, Gosford Centre and other centres to the north and south and the main interregional link to the lower Hunter and metropolitan Sydney. Buses play a critical role in connecting to the rail corridor and providing inter-regional public transport.

Road and rail infrastructure play the most significant role in moving freight to, from and through the Central Coast.

There is an increasing demand for logistics centres in strategic locations, particularly near major roads including the F3 Freeway.

Warnervale Airport (owned by Wyong Council) operates as a local airport. Its future is being considered as part of the Wyong Employment Zone (WEZ) rezoning.

### Significant proposals

#### *Road upgrades*

- Wyong - upgrades / road widening projects to improve access to the North Wyong Structure Plan Area / Warnervale Town Centre / Wyong employment Zone.
- Gosford - various upgrades to main roads in central and southern Gosford.

#### *Rail upgrades*

- Wyong – North Warnervale – new rail station; Tuggerah Rail Station Interchange and Carpark
- Gosford – Central coast stabling to accommodate new outer suburban cars; Woy Woy commuter carpark extension.
- A Rail Clearways Plan aims to improve capacity and reliability on the CityRail Network. – An additional platform at Hornsby Station is planned to improve reliability for Central Coast services.

#### *Bus Services*

- Strategic bus corridors are proposed to improve connections between the rail corridor and the coastal population centres.

## Implications for transport infrastructure

The plan for the Gosford regional city includes development of the rail station as a transport hub.

The plan for the Tuggerah-Wyong major centre includes improved transport links, with an emphasis on bus services.

Council and State Government are required to undertake integrated land use and transport planning to ensure that opportunities to benefit from infrastructure are realised.

## Implications of the proposed major infrastructure

### F3 to M7 Link

Improved road access may result in a population spike and accelerated demand for residential land on the Central Coast.

There may also be accelerated demand for logistics centres and general industrial development, particularly in the North Wyong Structure Plan Area because of adjacency to the link intersection with the F3.

*The Draft North Wyong Shire Structure Plan, (NSW Planning, November 2010)*

### Overview

The Structure Plan was prepared to create a platform for planning in the northern portion of the Wyong Shire, the area identified in the Central Coast Strategic Plan as the key locality to support the region's growth. The Plan provides land capacity to accommodate:

- 17,800 new dwellings (43,000 persons) on 850 hectares of Net Developable Land (NDL); and
- 12,100 – 17,000 new jobs on 455 hectares of NDL.

Short term release areas are at Bushells Ridge, Warnervale Town Centre and the Wyong Employment Zone.

*The Draft Central Coast Regional Transport Strategy, (Transport NSW, 2010)*

### Overview

The Strategy is a shadow document to the Central Coast Regional Strategy derived to facilitate Integrated Land Use and Transport Planning within the region. It identifies that the region's transport challenges are framed by:

- Difficult topography and resulting dispersed settlement patterns;
- Increasing population with a growing number of young and elderly families; and
- A significant commute out of the region.

Against this background, the Strategy maintains in the 25 year timeframe that:

- Projected populations of the Central Coast will continue to rely on roads for private/public/ commercial transport;
- The F3 will remain the principal regional movement corridor;
- The Sydney-Newcastle rail line will remain the principal regional public transport mode; and
- The region's transport network needs to provide:
  - Local connectivity to support jobs close to home and access to local services;
  - Maintained / improved connections to key centres out of the region.

#### Precis of proposed initiatives

The Strategy commits in 10 years to:

- Various upgrades to the F3 & investigations of the F3 to M7 link;
- Road / rail upgrades to support the North Wyong Structure Plan and the Tuggerah-Wyong major regional centre;
- North Warnervale Rail Station & Transport Interchange;
- Strategic bus corridors and Bus Priority measures; and
- Implementation of the NSW Bike Plan via Wyong and Gosford strategies.

The Strategy commits beyond 2020 to:

- Investigation of the Gosford to Sydney fast rail connection; and
- Planning for the Outer Sydney Orbital connection to the Central Coast.

### **2.2.3 Local level planning**

The Wyong local planning system is currently under review in accordance with State requirements to adopt a standardised consolidated Local Environmental Plan. At the time of preparation of this report, Wyong has not yet issued a draft of its consolidated Plan. It is expected that the draft will be released for comment in early 2012.

The suite of local planning policies and strategies is consistent with the State based strategic planning for the region and generally provides a platform for delivery of the targets set by these.

### **2.2.4 Agency responses and concerns**

In interviews with local agencies a number of pertinent opinions were voiced with regard to the challenges for strategic planning on the Central Coast. Notwithstanding that these are opinions only of the relevant officers interviewed, they are of value to the study as a snapshot of issues of concern to senior personnel working within the current regional planning framework of the Central Coast. Pertinent issues raised are based on a critical need for Government intervention to kick start the development proposed in the Strategies. Specifically, a number of interviewees considered that:

- In the current and likely medium term economic climate, the targets set by the planning strategies will not be met without Government commitment to

infrastructure provision and 'anchor investment' on key sites. Sites mentioned specifically included the Warnervale Town Centre and Gosford Landing;

- Local transport infrastructure on the Central Coast is at capacity and will require a substantial upgrade to encourage development and serve future populations;
- State government should view the Central Coast as a key growth area on par with the North and South Western Sydney Growth Centres; and
- Warnervale will not develop without the Sparks Rd upgrade. With regard to this particular issue, DP&I personnel reported that Wyong Council, Landcom and Woolworths have committed to jointly fund the entry road off Sparks Road and have requested that the State fund the Sparks Road intersection.

## 2.3 F3 Freeway

It has long been accepted that there is a critical need for a second major freeway north out of Sydney to link Western Sydney, Central Coast and the Hunter Region. Current literature reports that peak period capacity on a six-lane F3 is likely to be exceeded by 2021. Central Coast based traffic makes up about 60% of the total daily traffic on the F3 and growth within the region will clearly have a significant impact on the efficient function of the Freeway. A solution to the problem is clearly critical to Wyong Shire.

### 2.3.1 Literature Review

Cardno has reviewed the three critical studies of the F3 to Sydney Orbital link:

- The F3 to Sydney Orbital Link Study (SKM, 2004);
- Interim report – F3 to Sydney Orbital Link Study, (Masson Wilson Twinney, 2004); and
- Review of the F3 to M7 Corridor Selection, prepared by Mahla Pearlman AO, 2007.

In addition to the above, we have reviewed the following supporting reports:

- Central Coast Regional Organisation of Councils Submission to the Hon Mahla Pearlman Review, dated 2 April 2007;
- Cardno review and presentations (2010 / 2011);
- The Strategic Planning Department Director's Report presented at the September 10 2003 Ordinary Meeting of Wyong Shire Council; and
- State Government Hansard (Page 651) of 11 May 2011.

### F3 to Sydney Orbital Link Study (SKM, 2004)

Sinclair Knight Merz (SKM) was commissioned by the New South Wales Roads and Traffic Authority (RTA) to carry out a strategic study for the Australian Government to identify a route for the National Highway connecting the F3 and the Western Sydney Orbital (now the M7) or the M2 Motorway (M2) to relieve pressure on Pennant Hills Road (the interim National Highway).

A Newsletter (Newsletter No. 3) released by SKM in May 2003 stated that the aim of the study was to identify a new route that would:

- Alleviate traffic congestion and improve travel reliability on the National Highway;
- Reduce the operating costs of long-distance commercial and freight transport;

- Improve road safety on the National Highway;
- Improve local amenity (reduce traffic, air and noise emissions and severance) for people living and working along Pennant Hills Road;
- Minimise social and environmental impacts during construction and operation;
- Provide opportunities for improved public transport;
- Integrate with the regional transport network;
- Serve the future growth needs to long-distance transport; and
- Be economically justifiable and affordable to government.

SKM produced its final report in 2004. The report included assessment of three broad corridor types as illustrated in Figure 4.

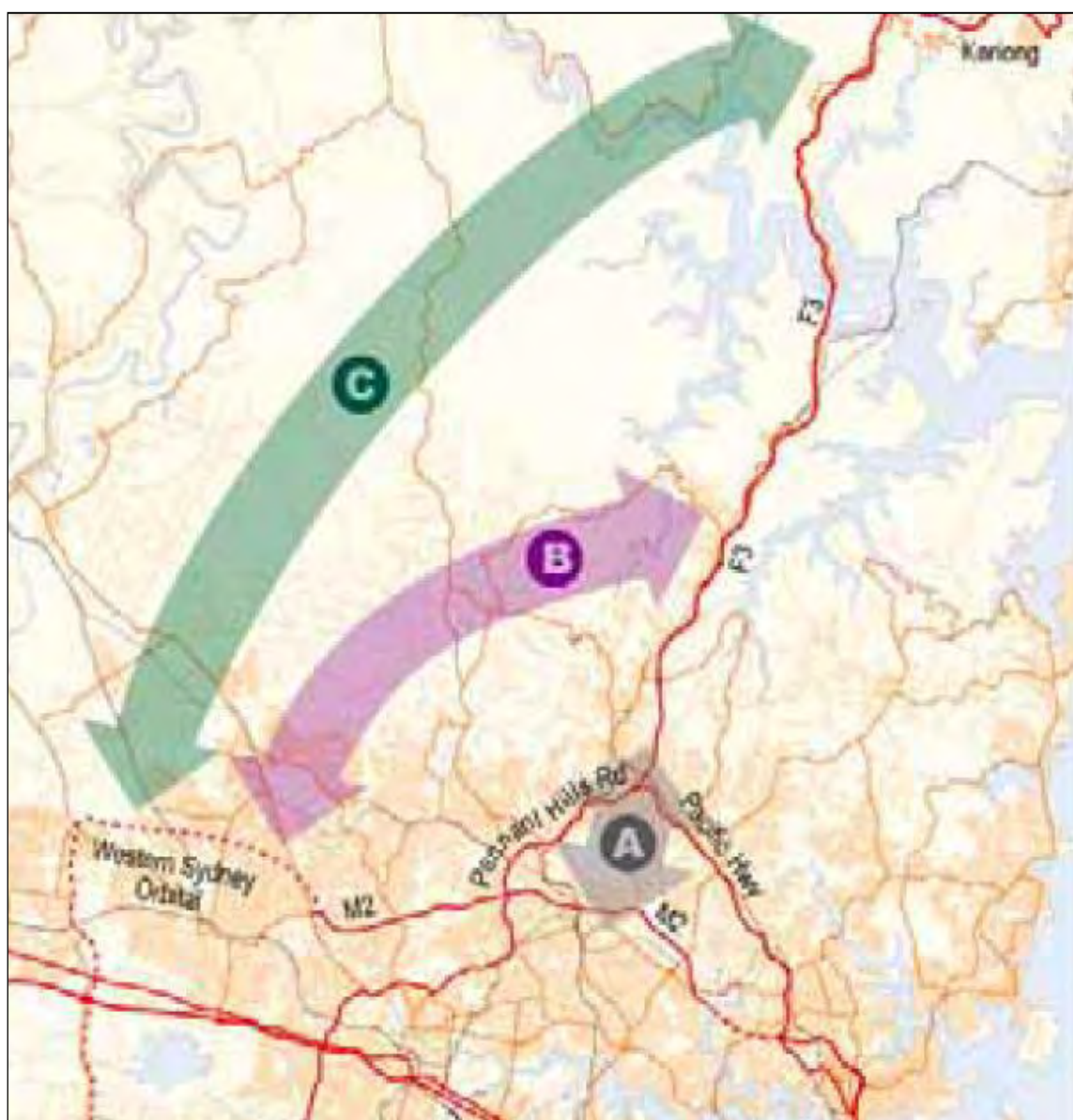


Figure 4 F3 Link Corridor Options (Source: F3 to Sydney Orbital Link Study, prepared by SKM)

The corridors were described in the F3 to Sydney Orbital Link Study as follows:

### Type A Corridors

Type A corridors include the more easterly options, which form a southern extension of the F3 corridor to connect with the M2 Motorway. All the Type A options would be mostly in tunnel under existing roads and/or residential areas. Some Type A options would involve a tunnel under the Lane Cove River and Lane Cove National Park.

Type A corridor options range from an easterly alignment connecting with the M2 Motorway at Macquarie Park, to a westerly alignment, generally following Pennant Hills Road and connecting with the M2 Motorway at the existing M2/Pennant Hills Road Interchange.

Type A corridor options would continue to use the F3 as the major road transport link between Sydney and the north.

### Type B Corridors

Type B corridors include options within the central study area that would connect the Sydney Orbital between Pennant Hills Road and Dean Park to the F3 between Wahroonga and the Hawkesbury River. The options would bypass the developed areas of Hornsby.

Type B corridor options would generally consist of above ground sections and tunnels under existing residential areas. Most options would cross the Berowra Creek Valley with major bridge structures. Some options would include tunnels under the Mt Colah area and Castle Hill, Cherrybrook and West Pennant Hills residential areas.

Type B corridor options would continue to use the F3 corridor, north of Mt Colah/Berowra as the major road transport link between Sydney and the north.

### Type C Corridors

Type C corridors include the more westerly options which would connect the Sydney Orbital between Windsor Road and Dean Park with the F3 north of the Hawkesbury River.

All Type C options would consist of above ground and tunnelled sections, and a major new crossing of the Hawkesbury River. It is also assumed that some tunnel sections would be required under Marramarra National Park. Most options would involve above ground sections through the Schofields/Kellyfield/Annangrove area and run along parts of the existing Old Northern Road alignment in the Glenorie area. Some options would also include tunnels under existing residential areas at Baulkham Hills and Castle Hill.

Type C options would form a second major road corridor between Western Sydney and the north. Traffic would continue to use the F3 corridor north of Mt White as the major transport link between Sydney and the north.



## Preferred Corridor

The F3 to Sydney Orbital Link Study concluded that a Type A corridor Purple option (linking the F3 to the M2) would meet the terms of reference under which it was appointed and would satisfy the objectives and criteria underpinning the Study. It stated as follows:-

*"A1: The Purple Option be adopted as the preferred corridor for a new link, which best satisfies National Highway objectives between the F3 Freeway at Wahroonga and the M2 Motorway."*

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It was concluded that a Type A Corridor would best meet the project objectives by:

- Reducing traffic volumes and congestion on Pennant Hills Rd;
- Minimising community impacts;
- Minimising costs; and
- Minimising impacts on National Parks, reserves and other bushland areas, endangered ecological communities and indigenous heritage sites.

The study also recognised that a western route (Option 'C' route) may be needed in the longer term (20 to 25 years) to service an increasing population and employment demand in the west and north-west of Sydney.

## Preferred Route

Within the preferred Type A corridor, four sub options were identified as illustrated in Figure 5.



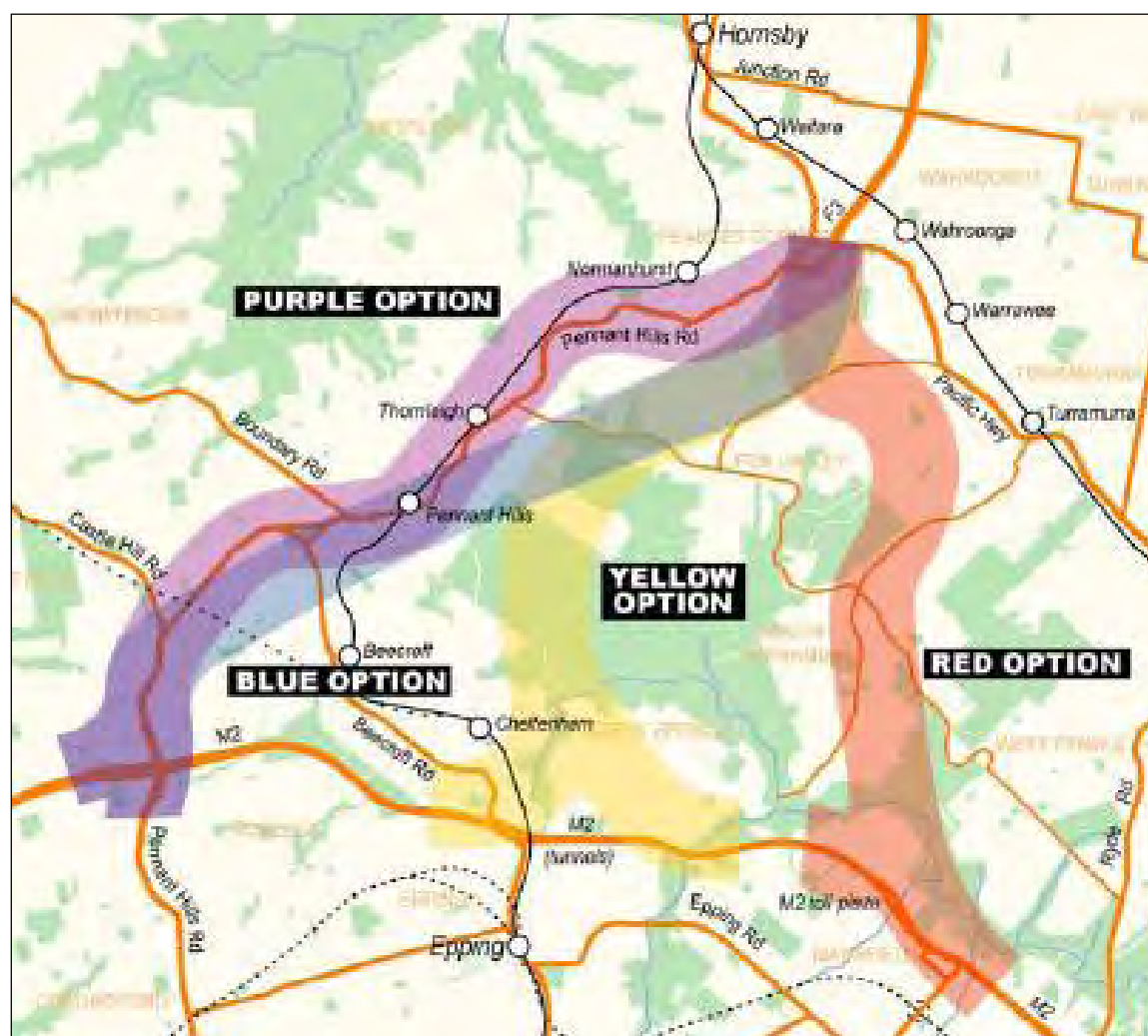


Figure 5 Sub-options within the preferred Type A Corridor. (Source: F3 to Sydney Orbital Link Study, prepared by SKM)

The SKM Study carried out a further analysis of the four sub-options and made the following conclusion:

*"..... that the Type A Purple option linking the F3 with the M2 Motorway best meets National Highway objectives and is justified on social, economic and inter-regional transport grounds. The study recommends that the Purple option be the preferred option for the new National Highway link."*

The identified purple option has a northern connection with the F3 at Wollongong and a southern connection to the M2 at the existing Pennant Hills Road / M2 interchange (at that time). Its alignment would generally follow Pennant Hills Road and it would comprise dual 2km tunnels from the F3, a short (500 metres) section where it would daylight in an open cut adjacent to the railway corridor and in the vicinity of Brickyard Park at Thornleigh, and dual 5.5km long tunnels to the M2. The interchange at the northern end, at Wollongong, would directly connect the new link with both the F3 and Pennant Hills Road. A new link/M2 interchange would allow for all traffic movements.

In May 2004, the Australian Government accepted and endorsed the recommended 'purple option' as the preferred route. The northern interchange (at Wahrenonga) would directly connect the new link with the F3 with new links to and from Pennant Hills Road.

#### Capacity Issues of the purple option

The study identified that the capacity of the F3 would need to be increased over some sections if the benefits of the new link are to be maximised. Specifically, it was identified that there would be a need to increase the capacity of the F3 over some sections south of the Hawkesbury River crossing by 2011. Further capacity enhancements and/or traffic demand management measures on the F3 were considered likely to be required beyond the timeframe of the study (2021).

#### Local Government response

In 2003, Wyong Council lodged a submission to the public exhibition of the draft Report (*Director's Report, Strategic Planning Department, September 10 2003 Ordinary Meeting of Council*) expressing a preference for the 'Red Option' corridor. Council's resolution read:

*That Council make a submission advising:*

*That in relation to the upgrading of Pennant Hills Road:*

- a. Council prefers the Red Option.*
- b. DOTARS, before proceeding with further work, identifies the consequences of the preferred option with regard to traffic congestion at the southern end connection with the M2.*
- 2. That upgrading of the F3 Freeway south of the Hawkesbury River into 6 lanes be expeditiously carried out by the Federal Government.*
- 3. That SKM, DOTARS and the local Federal Members be advised that Council views the creation of an alternative major additional transport corridor to the F3 as a priority for the Central Coast and for Australia and that planning for such a route should commence as a matter of urgency.*
- 4. That Council request support on Item 3 from the Hunter Regional Organisation of Councils.*

*The Central Coast Regional Organisation of Councils (CCROC) supported the yellow option on the basis that it would provide F3 traffic with more direct access to the M2 for access to the M7 and more direct access to the CBD and there would be significant traffic relief benefits for both the Pacific Highway and Pennant Hills Rd. (Letter to Hon Mahla Pearlman, 2 April 2007).*

## Interim report – F3 to Sydney Orbital Link Study (Wilson Masson Twiney, 2006)

Following the publication of the SKM Study, Transurban Ltd submitted that a Type A corridor Yellow option would provide a better route than the Type A corridor Purple option based on different traffic forecasts produced by Transurban's modelling. To assess that assertion, a desktop review of the traffic forecasts used by SKM and Transurban was carried out by Masson Wilson Twiney, Transport and Traffic Consultants.

The Masson Wilson Twiney report concluded that "despite the more recent traffic modelling showing similar results for both the Yellow and Purple Options, the Purple Option would better serve the transport functions required in the F3 to Sydney Orbital Corridor".

### Future Actions

The report noted that traffic capacity on a six-lane F3 between Sydney and the Central Coast is likely to be exceeded in peak periods by 2021. A decision would need to be made regarding long term options for the corridor. Options canvassed included an eight lane F3 and a Type C option. The report stated that at that a future time, the decision making process may determine that a Type C option is warranted.

## Review of the F3 to M7 Corridor Selection (Hon Pearlman, 2007)

On 19 February 2007, the Federal Minister for Local Government, Territories and Roads, the Hon. Jim Lloyd MP, announced the establishment of an independent Review of the F3 to M7 Corridor Selection, to examine the technical underpinnings and the robustness of the process followed to ensure the decisions taken by governments previously on the route selection of the preferred 'purple' option were soundly based.

The Review concluded the following:

1. *"That the assumptions and data used in the SKM 'F3 to Sydney Orbital Link Study 2004' were valid and reasonable at the time of the study;*
2. *That there have been changes affecting land use and transport flows since the SKM Study's publication, but that these changes reinforce the selection of the preferred route; and*
3. *That the SKM study recommendations progress as follows:*
  - a. *The preferred route follow a Type A corridor Purple option and that this be progressed to the next stages of investigation including: detailed concept design, economic and financial assessment and environmental impact assessment; and*
  - b. *A Type C corridor be planned now."*

The Pearlman Review was completed in August 2007. The Review's recommendations were reviewed by Government and accepted by the Hon. Jim Lloyd MP.

### 2.3.2 Agency responses and concerns

Cardno interviewed both Gosford and Wyong Council urban and transport planning officers regarding their current attitudes to the F3 options. Responses are summarised as follows:

- Both Councils support the F3 to M2 connection to relieve traffic congestion and potentially encourage growth on the Central Coast.
- Both Councils support an alternative link from the F3 to the M7 by 2021 and believe feasibility and corridor selection should begin now.
- Both Councils believe the regional significance of the Kariong Interchange has been overlooked in planning to date.
- Wyong Council considers an F3 Freeway interchange at Doyalson is critical to the successful growth of North Wyong.

#### 2.3.3 F3 to M2 Project Status

A review of State Government Hansard (Page 651) of 11 May 2011 has provided the most recent documented status update for the F3 Freeway Duplication. The Hon. Duncan Gay stated that:

- No planning work has been undertaken since mid-2009. This has been due to a lack of funding.
- In 2008, 2009 and 2010 submissions were made for funding – Infrastructure Australia did not allocate any funding or include it in their national infrastructure priority list.
- In 2009 \$5 million was allocated towards the F3 - M2 link in the Federal budget but NSW did not use these funds.
- In May 2011 Federal funding for the F3 - M2 link was cut from the National Building Program's forward budget estimates.
- The change in Government may move things forward.
- The Liberal Government had made it clear before the election that they will commence construction on one of the key missing links in the Sydney Orbital road network by 2015. Infrastructure NSW will determine whether it will be the F3-M2, the M5 East duplication, the M4 East extension or the F6.
- An application will need to be made to Infrastructure Australia to get funding.

As part of this review process, Cardno also interviewed Transport for New South Wales (TfNSW - the planning arm of the former Roads and Traffic Authority) to gain information on the current status of freeway planning for the Sydney to Hunter corridor. TfNSW provided valuable information on two levels:

With regard to the southern extension of the F3:

- TfNSW is committed to the F3 to M2 option (Option A “Purple Link”).
- A funding submission to Infrastructure Australia was made in May 2011, notwithstanding that previous funding submissions were rejected in 2008, 2009 & 2010.
- Subject to funding, construction of the link is scheduled to commence in 2014 for completion in 2018.

Regarding options and progress for an F3 duplication:

- Transport for NSW is carrying out early feasibility analysis for an ‘Outer Sydney Orbital’ that would initially link the south west and north west growth centres and then potentially extend north to link with the F3 and south to Port Kembla (Figure 6). The concept is consistent with the Sydney Metro Plan, 2036 which identifies an “outer Sydney orbital serving Western Sydney and linking to the Central Coast”.
- TfNSW informs that the first priority of the Orbital would be to link the W. Sydney Growth Centres.
- TfNSW reports that the Orbital is not high on its current priorities list. The major focus of the agency at present is the Sydney North West Rail Link.



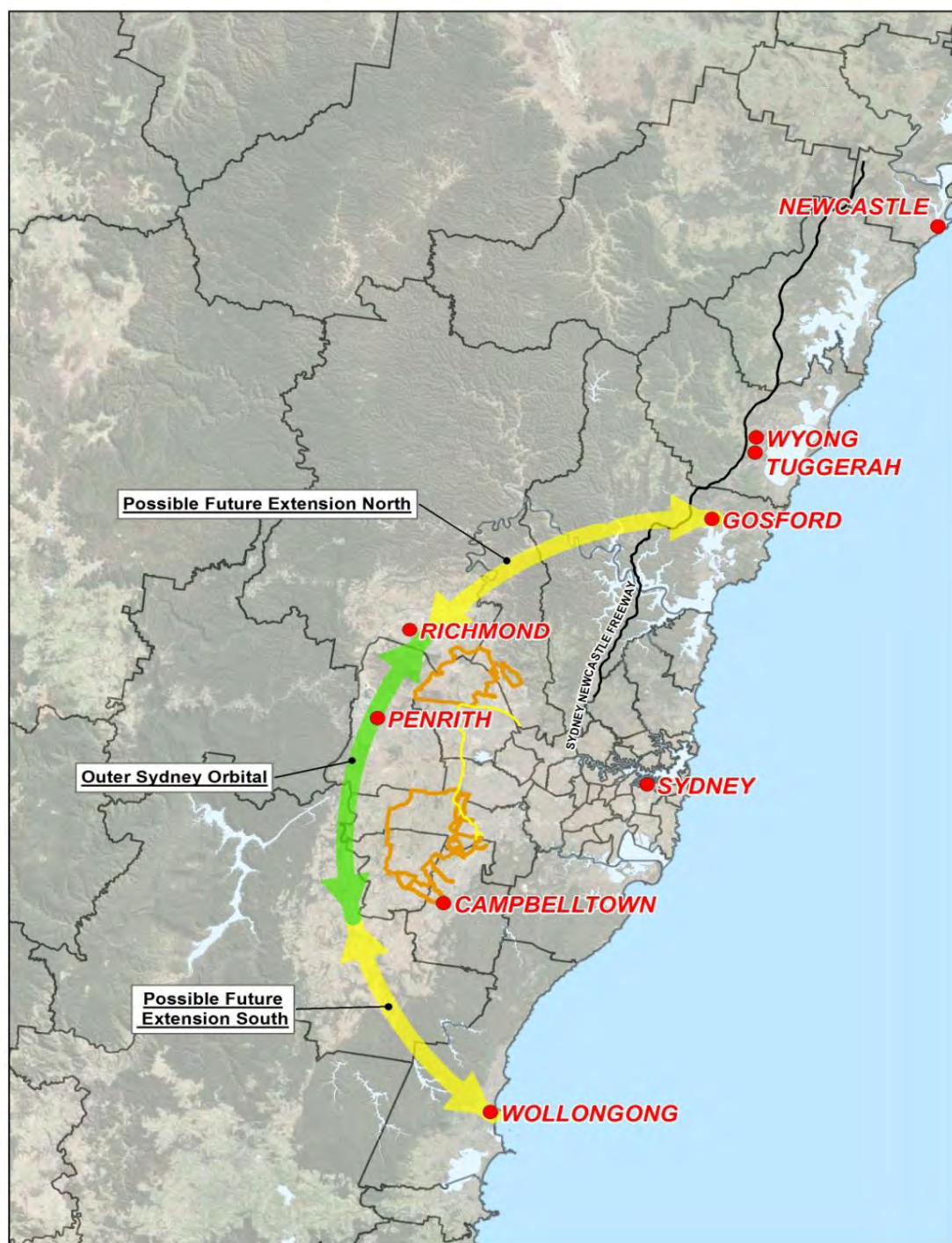


Figure 6 Possible Outer Sydney Orbital

## 2.4 High Speed Rail

### 2.4.1 Background

Feasibility and options for a High Speed Rail (HSR) network on the east coast of Australia linking Melbourne, Sydney and Brisbane are currently being considered by the Australian Government. In August 2010, the Federal Minister for Infrastructure and Transport commissioned a 2 phase study.

A Phase 1 report was released in July 2011. It considered:

- Range of costs;
- Potential corridors and stations;
- Potential future demand; and
- Potential social and regional development impacts.

A Phase 2 report is in production at the time of writing. It will consider:

- Financial feasibility analysis;
- Identify optimum route alignment;
- Refine patronage and cost estimates; and
- Investigate potential financing options.

Government has made no commitment beyond the completion of the 2-phase feasibility study.

### 2.4.2 Literature review

#### High Speed Rail Study – Phase 1 (AECOM, July 2011)

The salient outcomes of the Phase 1 Study are:

- At a National level:
  - The Melbourne to Brisbane Corridor has been costed at \$61-\$108billion (in \$2011).
  - The acquisition and preservation of future corridors now (at an estimated cost of \$6billion in \$2011) could reduce future land acquisition costs.
- At a regional level:
  - The report shortlists the Newcastle to Sydney (Central Coast) corridor for Phase 2 analysis. The corridor is costed at \$10.7-17.9billion in \$2011.
  - Staged development of the corridor is recommended with Sydney to Gosford/Wyong forming the first stage followed by Wyong to Newcastle.
  - A corridor following the F3 Freeway alignment is preferred (see Figure 7).
  - The Central Coast is identified as an area of sufficient demand to warrant a rail station.



- Kariong and Ourimbah are identified as alternative options for a Central Coast station. The report does not directly identify a preferred Central Coast station location.

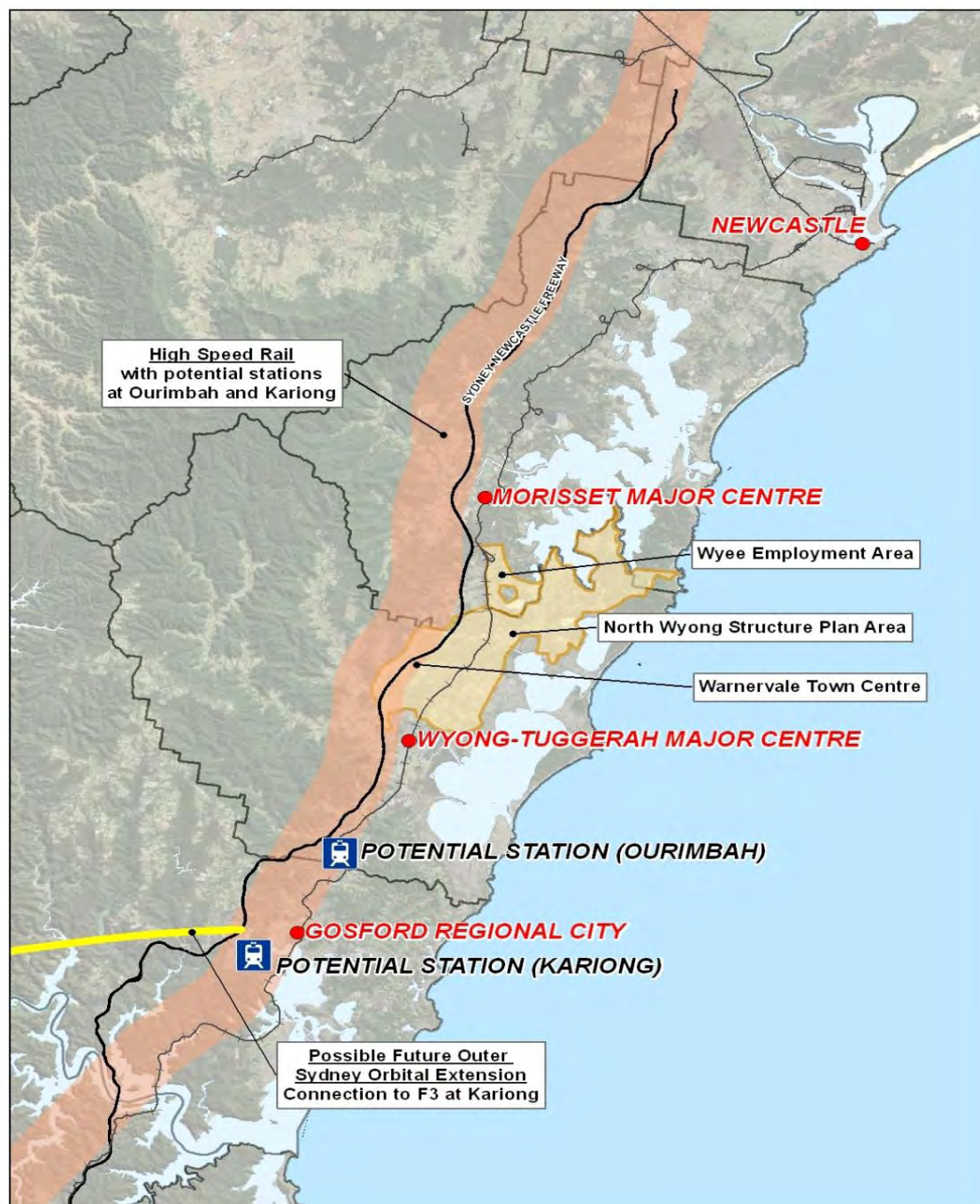


Figure 7 East Coast High Speed Rail – potential Central Coast corridor

### 2.4.3 Agency responses and concerns

Wyong Council lodged a written submission to the Phase 1 Study (2 September 2011). Gosford Council did not make a formal submission. The following responses to the Study have been assembled from the Wyong submission and from Interviews with Wyong and Gosford Council executive staff.

- Wyong and Gosford Councils both support the HSR following the F3 Freeway alignment.
- Both Councils consider Ourimbah as a preferable location to Kariong for a Central Coast station on the basis that Ourimbah would provide better proximity to the emerging population and employment centres in the North Wyong Structure Plan and Wyee employment areas as well as the Ourimbah campus of the University of Newcastle and the freeway. Ourimbah is generally a more convenient location and will be the centroid of the Central Coast's future population.
- Wyong Council officers stressed that the Northern Wyong / Southern Hunter strategies should be given due consideration in station selection in the Phase 2 analysis.
- Wyong Council requested that government priority be placed on construction of the Sydney-Central Coast stage of the HSR.

### 2.4.4 Project Status

Cardno staff conducted an interview with Mr. Richard Farmer, General Manager, High Speed Rail in the Policy and Research Division of the Federal Department of Infrastructure and Transport (DIT). Mr. Farmer provided the following information on the current status of the Project:

An announcement that the Phase 2 Study has been commissioned was imminent at the time of interview.

Phase 2 of the Study will:

- Assess market needs and user benefits.
- Develop preferred alignments.
- Look at systems development, staging, costing; environmental / social / economic appraisal, finance and implementation planning. It's still the beginning of a long decision making process.

The completion of the Phase 2 Study will still be the beginning of a long and protracted decision making process.

Mr Farmer's opinion is that Central Station would be the most likely Sydney station for the HSR and the route would tunnel under metropolitan areas.

With regard to local government consultations, Mr Farmer stated that DIT are not consulting directly with Councils due principally to the very large number of local government areas involved. However, individual presentations to Councils can be arranged.

To register support for a HSR station at Ourimbah in lieu of Kariong, Wyong / Gosford should lodge a formal submission to DIT with supporting information.

When asked to comment on the synergy between the HSR Central Coast corridor and the possible Central Coast location for a second Sydney airport, Mr Farmer stated that DIT are consulting closely with the group doing the Federal aviation study. Mr. Farmer's opinion is that the Peats Ridge site is unlikely to be shortlisted by the study.

## 2.5 Second Sydney Airport

### 2.5.1 Background

Studies and proposals to develop Sydney's second airport date back decades. Sites considered as options for an airport occur in the western outskirts of Sydney, the southern tablelands and Canberra and the Central Coast and Hunter. Central Coast and Hunter sites that remain under consideration at present include Newcastle, Somersby and Peats Ridge.



Figure 8 Sites that have been considered for a second Sydney airport

Of the studies carried out to date, only the *National Aviation Policy White Paper* (the Australian Government, December 2009) is publicly available.

A joint study by the Commonwealth and NSW Governments has recently been released. The outcomes of the study with regard to implications for Wyong and the Central Coast are reviewed in Section 5.4 of this Report.





Figure 9 Potential second Sydney airport sites on the Central Coast

## 2.5.2 Literature review

### National Aviation Policy White Paper, 2009

The purpose of the White paper was to set out a comprehensive long-term aviation policy framework and provide a range of initiatives to support the development of the Australian aviation industry at all levels.

The White Paper:

- Sets out the Government's commitment to a continuation of Australia's excellent aviation safety record and to strengthen aviation security systems;
- Provides a policy framework for the development of the aviation industry at all levels – international, domestic, regional and general aviation; and
- Sets out initiatives to ensure better planning and integrated development on and around airports and to lessen the adverse effects of aviation activity on the environment and communities.

With respect to aviation in the Sydney region, the Paper:

- Recognises that to meet the demands of a growing population, the Sydney Region will require a second major airport. The Sydney Kingsford Smith Airport cannot handle projected long-term growth in the region.
- Commits the Australian Government to working with the NSW Government to develop an Aviation Strategic Plan as part of an integrated transport plan for the Sydney region. The Strategic Plan is to be released in 2011.
- Recognises that the key issue in examining new aviation capacity for the Sydney region has to be the successful integration of future aviation requirements with the NSW land use and infrastructure planning regime. This includes economic and employment node development and having key linkages with land transport and other infrastructure networks.

The Paper confirms that a new airport will not be located at Badgerys Creek.

*"The development of an integrated planning approach to examining future Sydney region airport capacity does not support the construction of an airport at Badgerys Creek. Badgerys Creek is no longer an option. It has been overtaken by years of urban growth in the area and is inconsistent with future NSW spatial planning and land use development for the south-west region of Sydney."*

### Federal / State Joint Study on Aviation Capacity for the Sydney Region

At the time of preparation of Cardno's initial report to Council (December 2011), this study had not been released. Cardno reported that the study was foreshadowed by the White Paper and is required to consider short and long term aviation needs within the Sydney region. The terms of reference and objectives of the study are articulated in a document on the Department of Infrastructure and Transport website entitled '*Aviation Strategic Plan for the Sydney Region – Terms of Reference*'.

The Strategic Plan is required to consider the immediate and long-term aviation infrastructure requirements for the Sydney region and the capacity of the existing aviation infrastructure to serve the region. It is to examine:

- Current and future state land use and land transport planning strategies;
- Sydney's future requirements for transport and economic infrastructure, including future employment nodes;
- Existing and required transport infrastructure to support additional aviation capacity for the region;
- The need for other supporting infrastructure (energy, communications, gas, water etc);
- The availability and application of off-airport protection measures to ensure existing and future airport capacity is protected from inappropriate development which may limit its effective long-term operations and growth;
- The interaction between airports in the region, including Sydney (Kingsford Smith) Airport;
- Economic investment and environmental opportunities and challenges associated with future land use; and
- Existing airport policy and legislative requirements.

At the time of its initial report Cardno had discussed the Joint Study with officers of Transport for NSW who reported that the study is examining "up to 10 potential sites with priority to a shortlist". They also confirmed that Badgerys Creek was no longer an option as an airport site but that Central Coast sites remained on the agenda.

In March 2012 *The Joint Study on aviation capacity in the Sydney region* was issued to the Premier of NSW and the NSW Minister for Infrastructure and Transport. The specific outcomes of the report of relevance to Wyong and the Central Coast are summarized in Section 5.4.

### **2.5.3 Agency responses and concerns**

#### State Government attitudes

Cardno discussed implications of a major airport on the Central Coast with officers of the Central Coast office of the Department of Planning and Infrastructure (DP&I). The Department did not make a submission to the Joint Study. However, major implications of a Central Coast airport for planning in the region were identified by DP&I and Cardno staff. These included:

- Environmental and amenity impacts;
- Impacts of substantially accelerated growth, including bringing forward demands for local infrastructure;
- Major increase in development interest and development opportunities in proximity to any selected site and across the region; and
- New constraints on land use in proximity to the selected airport site and at a regional level in response to flight paths, noise and building height restrictions.

## Central Coast Council attitudes

Executive officers of both Wyong and Gosford Councils were given the opportunity to offer opinions regarding the regional implications of a second Sydney airport locating on the Central Coast.

- Neither Gosford nor Wyong Councils made submissions to the Joint Aviation Capacity Study.
- Wyong Council's previous Mayor expressed support for the Peats Ridge site. Opinion within Council is that an airport would immediately kick start development on the Central Coast and that investment would begin immediately after an announcement.
- Council officers have expressed support for Newcastle as a second airport site as a second preference if the Central Coast option is unsuccessful.
- An airport is considered to be the catalyst to provision of other key infrastructure on the Central Coast.
- Officers have expressed preference for a freight rather than passenger airport. It is considered that a freight based airport would create an immediate stimulus to local industrial development and airport support uses which would in turn kick start development of the employment zones identified in the regional planning strategies.

Gosford Council urban and transport planning officers expressed reservations regarding an airport on the Peats Ridge site based on:

- The potential for lost resource opportunities (agricultural land / sand mining / spring water).
- Opinion that the site is fog prone.
- The fact that significant strategic studies for Central Coast plateaus and valleys (identified in the Central Coast Regional Strategy) remain outstanding and that an airport site should not be considered in isolation of these.

The Gosford Council officers see advantages in the Newcastle site associated with HSR access to Sydney / Central Coast.

### 2.5.4 Project status – June 2012 update

*The Joint Study on aviation capacity in the Sydney region* (March, 2012) concluded that regional population growth and local development constraints will result in the need for an additional airport to supplement the capacity of Sydney (Kingsford Smith) Airport from around 2030. Governments will need to have determined the location and commenced investment into another airport site capable of handling Regular Public Transport (RPT) aircraft within the next five years (*Joint Study – op cit Executive Summary, P.8*).

The Study examined options for sites for a second RPT airport within the broader Sydney region, from the Hunter region in the north to Canberra in the south and the Blue Mountains in the west. Localities were assessed to find a suitable site for either a:

- Type 1 airport – a full service airport with a runway length of up to 4,000 metres, capable of serving all market segments and accommodating a future parallel runway layout; or



- Type 3 airport – a limited service airport with a runway length of up to 2,600 metres, capable of serving all market segments but with a single runway layout only.

A four phase assessment process resulted in a short list of 17 potential sites in 5 localities within the greater Sydney region. The final phase of the assessment involved a comparative analysis to identify sites considered more suitable in each geographic area. The phase included application of technical criteria (such as strategic planning context, accessibility to Sydney, construction / earthworks costs, noise impacts, airspace interaction, land acquisition costs, capacity for expansion, topographic constraints and infrastructure costs) and a high level cost / benefit analysis. The sites were rated against each criterion as 'More suitable', 'Suitable' and 'Less suitable'.

Contrary to the findings of the 2009 White Paper and the subsequent advice provided to Cardno from Transport for NSW officers, the Joint Study identified the Badgerys Creek site as the best site for an additional RPT airport for Sydney, notwithstanding government statements and commitments that the site is no longer suitable for airport development. Wilton, South of Sydney in the Cordeaux-Cataract locality, was identified as the next best site if Badgerys Creek is ruled out.

Within the Central Coast locality, three sites (Peats Ridge, Somersby and Wallarah) were carried through to the final short list of potential airport sites. The following table extracted from the Study report indicates the results of the technical assessment. Preliminary site development overlays onto topographic maps (marked 'For Discussion Only') were also provided for each site. The findings of the Study with regard to each of these sites are summarized below.

Table 49 Central Coast locality suitable sites

Criterion	Type 3 Airport Sites			Maximum Type 1 Airport Sites	
	Peats Ridge	Somersby	Wailarah	Somersby	Wailarah
1 – Comparative transport upgrade costs (\$ millions) <sup>1</sup>	✗✗ \$260	✓✓ \$80	✓✓ \$70	✗✗ \$80 (road) \$2,190 (rail)	✓✓ \$110 (road) \$740 (rail)
2 – Proximity to growth centres	✓✓ Not affected	✓✓ Not affected	✓✓ Not affected	✓✓ Not affected	✓✓ Not affected
3 – Earthworks platform comparative cost (\$ millions)	✗✗ \$410	✗✗ \$430	✓✓ \$180	✗✗ \$530	✓✓ \$280
4 – Noise impacts (PEI: N70, person-events)	✓✓ 45,500	✗✗ 236,600	✗✗ 1,048,700	✗✗ 670,600	✗✗ 2,534,200
5 – Mine subsidence areas (MSAs)	✓✓ n/a	✓✓ n/a	✓✓ n/a	✓✓ n/a	✗✗ Surrounded by MSAs
6 – Property acquisition (number of lots)	✗✗ 110	✓✗ 140	✓✗ 200	✓✗ 190	✗✗ 500
7 – Airspace interaction capacity (movements per hour)	✗✗✗ 4	✗✗✗ 4	✓✗ 4	✗✗✗ 4	✗✗✗ 4
8 – Potential to expand to a maximum Type 1 airport	✗✗ No	✓✓ Yes	✓✓ Yes	✓✓ n/a	✓✓ n/a
9 – Major flood risk	Non Major	Non Major	Non Major	Non Major	Non Major
10 – Other major costs	No major items	No major items: Closure of Somersby Airfield	Freeway, rail and major power realignment Closure of Somersby, Mangrove, Mountain Airfields	No major items.	Freeway, rail and major power realignment Closure of Somersby, Mangrove, Mountain Airfields

Notes: 1. For Type 3 – road upgrade cost only.

2. Must be integrated with Sydney (Kingsford-Smith) Airport airspace management and may be unable to operate for periods of time due to close connection with Sydney (Kingsford-Smith) Airport, such as during major wind shifts, which requires change of runway at Sydney (Kingsford-Smith) Airport. It may also be further constrained by military airspace associated with RAAF Base Richmond and RAAF Base Williamtown.

3. As per comment above.

4. As per comment above.

Source: WorleyParsons/AMPC and Airservices Australia.

Figure 10 Central Coast Locality – suitable airport sites (Ref: *Joint Study on aviation capacity in the Sydney region, Australia Govt / NSW Govt, March 2012, P.299*)

## Peats Ridge

The Peats Ridge site was rated as More suitable against 3 criteria, Suitable in 3 criteria and Unsuitable in 2 criteria. Area constraints meant that the site was rated as unsuitable for development of a Type 1 airport. It also received an Unsuitable rating for Airspace interaction capacity (movements per hour) because it was considered to be operationally connected to Sydney (Kingsford-Smith) Airport. In this regard, the Study considered that the day to day capacity of an airport on the site in terms of aircraft movements would be likely to be seriously affected by the necessary interaction with Sydney Airport (*Joint Study, op cit Part 8, P.300*).

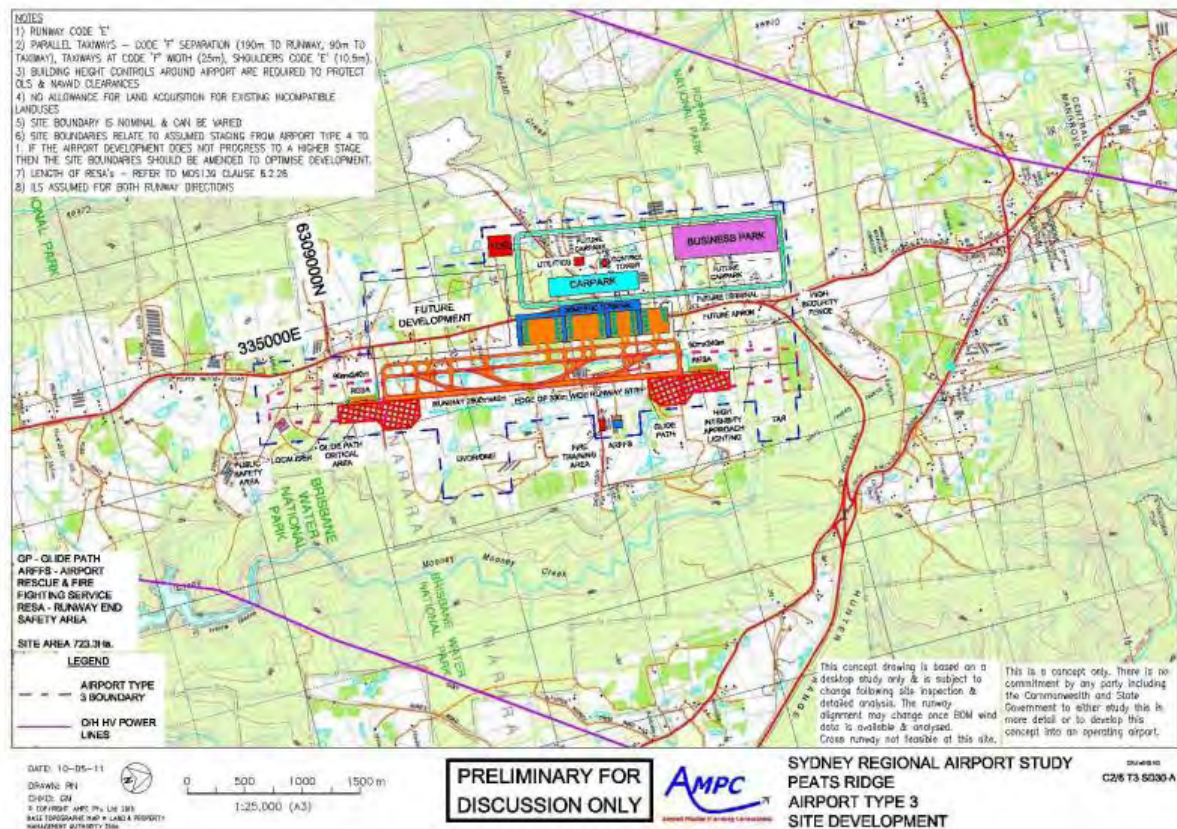


Figure 11 Peats Ridge Site – Preliminary Site Development for Type 3 Airport (Ref: *Joint Study on aviation capacity in the Sydney region, Australia Govt / NSW Govt, March 2012, Technical Papers Vol.4, Appendix 3 – Concept Plans*)

## Somersby

For a Type 3 airport, the Somersby site was rated as More suitable against 4 criteria and Suitable against 3 criteria. As with the Peats Ridge site, Somersby was also rated as unsuitable with regard to Airspace interaction capacity, again because of considered operational connections with Sydney Airport. Unlike Peats Ridge, the site was identified as being capable of expansion to a Type 1 Airport. A subsequent assessment for suitability for a Type 1 Airport resulted in More suitable ratings against 3 criteria and Suitable ratings against 4 criteria. The Unsuitable rating against Airspace interaction capacity was retained.



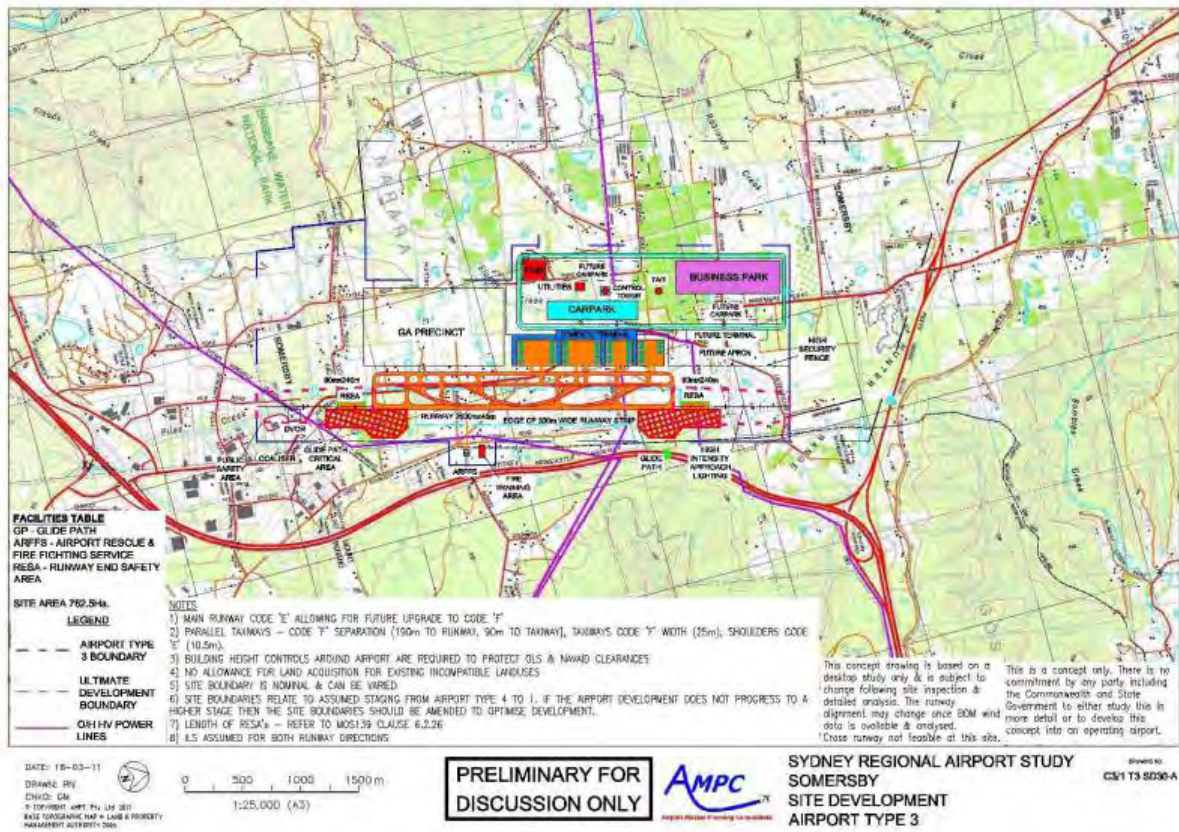


Figure 12 Somersby Site – Preliminary Site Development for Type 3 Airport (Ref: *Joint Study on aviation capacity in the Sydney region, Australia Govt / NSW Govt, March 2012, Technical Papers Vol.4, Appendix 3 – Concept Plans*)

## Wallarah

For a Type 3 airport, the Wallarah site was rated as More suitable against 5 criteria and Suitable against 2 criteria. The site received a Suitable rating against Airspace interaction capacity due its geographic location in relation to Sydney Airport. In this regard, the Study makes the following comment:

*“Wallarah, while not subject to such a limitation in regard to Sydney (Kingsford-Smith) Airport, is operationally affected by other airspace issues such as RAAF Base Williamtown and would still require detailed consideration of a number of airspace management issues in order for it to be able to operate at 100% of theoretical runway capacity” (Joint Study op cit P.300)*

The site was rated as capable of development for both Type 3 and Type 1 Airports, although it received Unsuitable ratings for noise impacts for both Types due to its proximity to urban development.

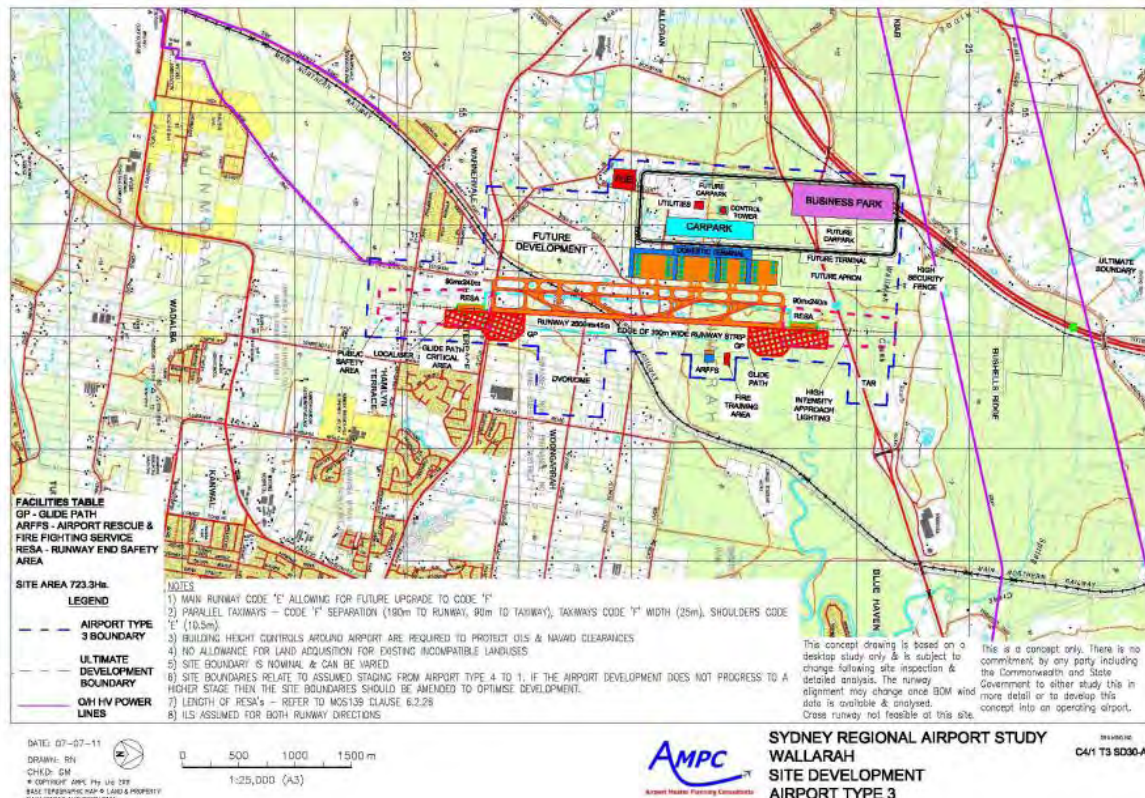


Figure 13 Wallarah Site – Preliminary Site Development for Type 3 Airport (Ref: *Joint Study on aviation capacity in the Sydney region, Australia Govt / NSW Govt, March 2012, Technical Papers Vol.4, Appendix 3 – Concept Plans*)

## Wyong Council officers' response

Wyong Council officers have reported that the Wallarah site as identified in the Joint Study is unacceptable. The proposed site encompasses the proposed Warnervale Town Centre (B2 Zoning) and proposed North Warnervale Railway Station. Council has been working with the NSW Premiers Department and Cabinet and the NSW Department of Planning, for a number of years on the development of this Town Centre. The Town Centre is to provide 48,000 m<sup>2</sup> of retail, bulky goods and commercial area and approximately 1700 dwellings. This is a very important project for both the State Government and the Local Council.

The Joint Study identifies land north of the proposed Wallarah site as being "potential area suitable for aviation infrastructure". Council suggests that the Sydney Aviation Taskforce consider moving the proposed Wallarah site for a Type 3 further north into this area so that it does not interfere with the development of the proposed Warnervale Town Centre. Council has prepared a plan identifying a potential amended indicative location for a Type 3 Airport (Figure 14). The site protrudes into the Lake Macquarie City Council area. There have been no discussions with Lake Macquarie City Council or due diligence carried out. There are challenges for a Type 1 Airport in this vicinity; however a Type 3 will fit in with Wyong Council's strategic planning. A type 3 airport at this location could be considered for air freight.



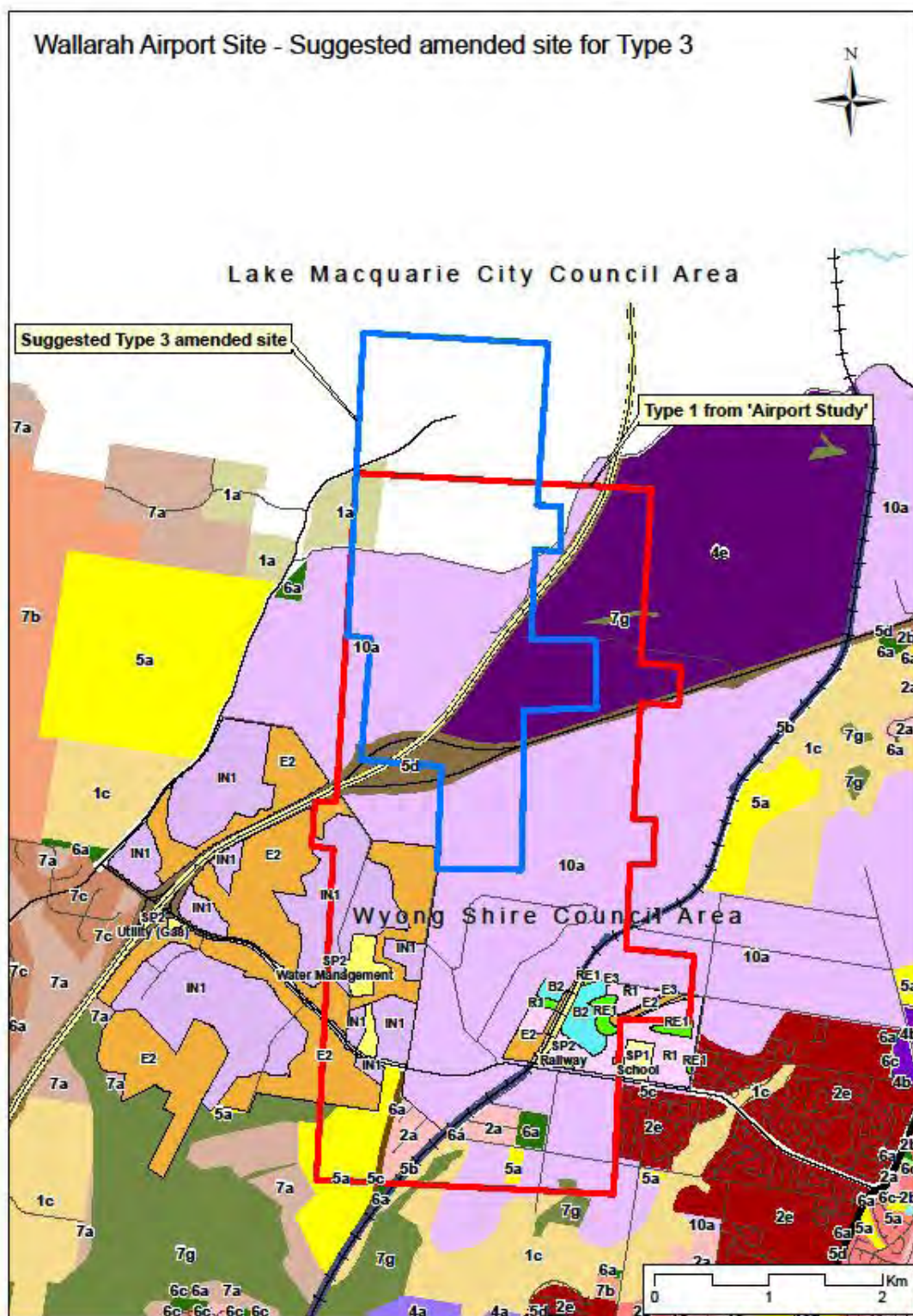


Figure 14 Wallarah option - Wyong Council officers' preferred indicative location for a Type 3 Airport (blue outline) compared to the proposed Sydney Study Type 1 Airport (red outline).



### Summary of outcomes

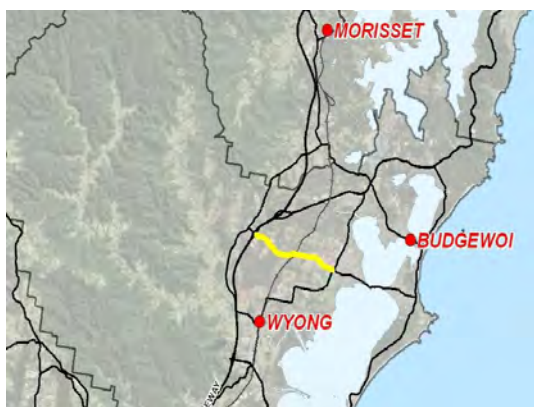
- The Study identifies Badgerys Creek as the most suitable site for a second airport in the Sydney Basin. However, as the Study acknowledges, the site does not have current support from State or Federal governments;
- Wilton is identified as the second most suitable site. However, the Study's qualitative assessment of the site identifies partial mine subsidence hazards and major costs from a range of impacts including proximity to water catchments and major power lines as well as the requirement for closure of two local airfields and conflicts with three others.
- On the Central Coast, setting aside the issue of potential conflicts with Sydney Airport, both Wallarah and Somersby have been assessed as suitable sites for Type 1 RPT airports. Peats Ridge has been identified as suitable for a Type 3 airport.
- Wyong Council officers have identified a conflict between the Airport Study preliminary proposal for location of an airport at Wallarah and Council's strategy for development of the Warnervale Town Centre and Rail Station. Council has provided a preferred indicative location for a Type 3 Airport at Wallarah.

## 2.6 Local infrastructure

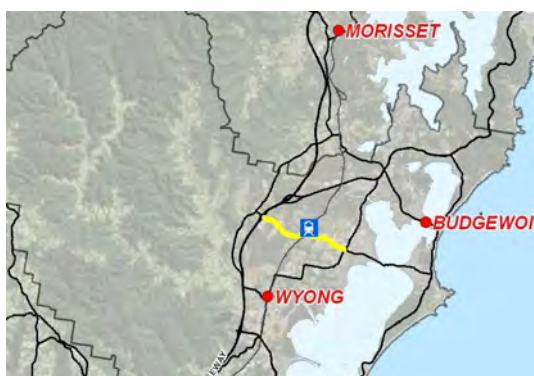
As an adjunct to the investigations into the status of the three items of major transport infrastructure, Cardno has also canvassed Wyong and Gosford Councils to identify their priorities for their respective local road networks and has consulted the Central Coast office of Roads and Maritime Services with regard to their program for local road infrastructure delivery. The results of these investigations are summarised below.

### 2.6.1 Local infrastructure priorities

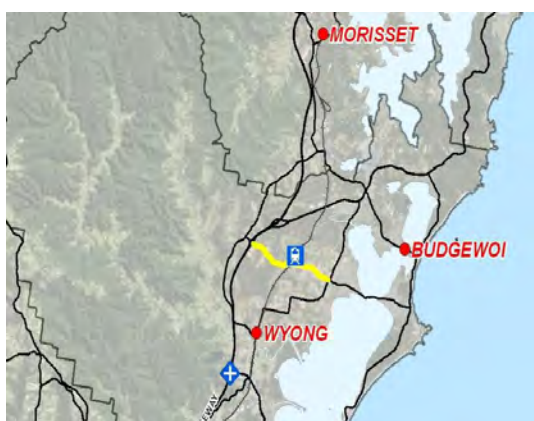
Wyong local priorities (with or without the F3 links):



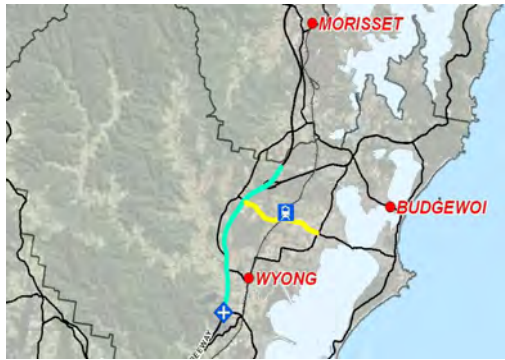
- Sparks Road upgrade



- North Warnervale Station / Transport Interchange



- Wyong Road / F3 Freeway interchange upgrade



- F3 Freeway widening (Tuggerah to Bushells Ridge) & Pacific Hwy upgrade at Wyong Town Centre

Figure 15 Wyong Local Infrastructure Priorities



- Kariong interchange is at saturation point and requires a solution



- Central Coast Highway upgrades (to relieve pressure on the interchange)



- East-west bypass (potentially Erina to Gosford). The Transport NSW Gosford TMAP includes a bypass. Transport for NSW has informed Council they will investigate the link in 2012.

Figure 16 Gosford Local Infrastructure Priorities

## 2.6.2 Local infrastructure - planning

Discussions with NSW Roads and Maritime identified the following priorities for roads related infrastructure works on the Central Coast.

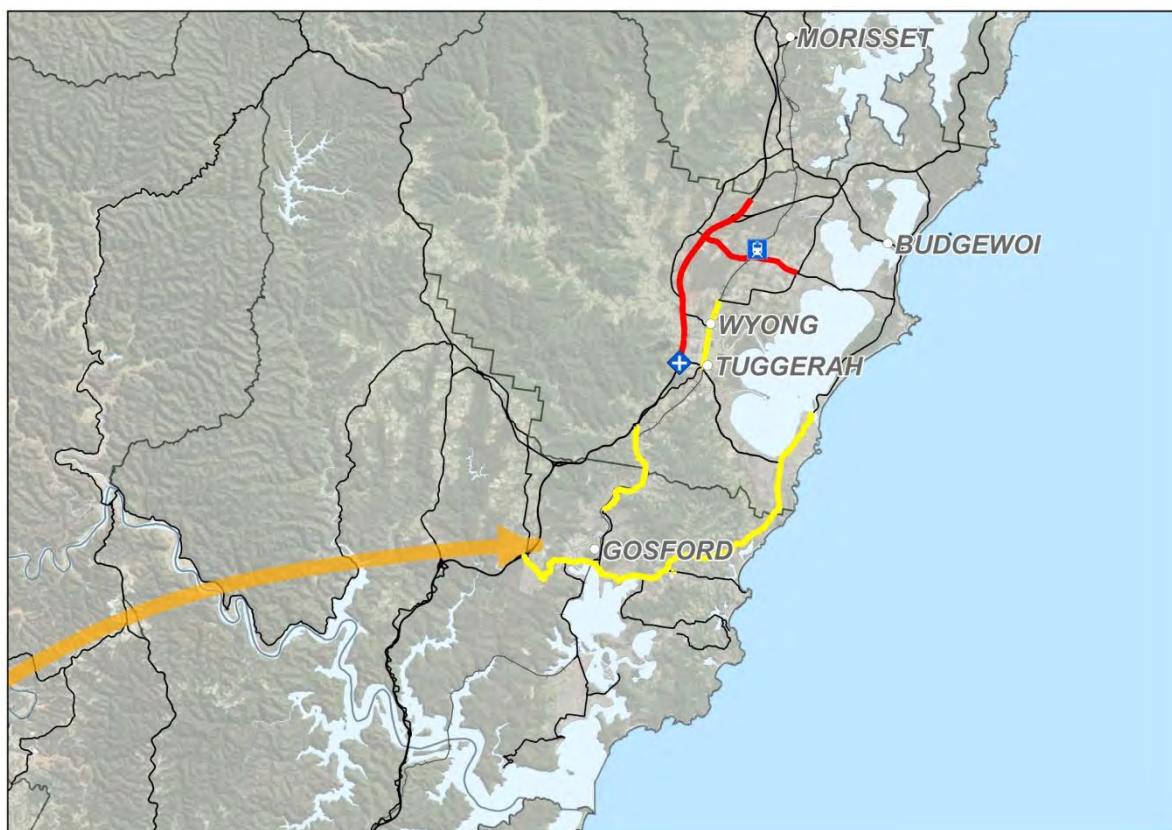


Figure 17 Central Coast Infrastructure – current planning

Yellow: Projects listed in the NSW 2011 / 2012 budget (funding allocated to planning, preconstruction or construction):

- Central Coast Highway;
- Brisbane Water Drive, Manns Road Intersection Upgrade (Planning and Preconstruction);
- Carlton Road to Matcham Road, widen to 4 lanes;
- Matcham Road to Ocean View Drive, widen to 4 lanes;
- Wisemans Ferry Road Intersection Upgrade (Planning and Preconstruction);
- F3 Freeway;
- Wyong Road Interchange Upgrade;
- Pacific Highway;
- Wyong Town Centre Upgrade (Planning);
- Wyong Road Intersection Upgrade (Planning);
- Lisarow to Ourimbah, Railway Crescent to Glen Road, widen to 4 lanes (Planning);
- Narara to Lisarow Upgrade, Manns Road to Railway Crescent (Planning); and
- Terrigal Drive Improvements.

Blue: Funding application made - F3 to M2 Link (not on map)

Red: planned future infrastructure (in Regional Transport Strategy but not budgeted):

- F3 Freeway widening – Wyong Rd to Doyalson Link;
- North Warnevale Station & Transport Interchange; and
- Sparks Rd Upgrade.

Orange: Future planning and investigations required – Outer Sydney Orbital

## 3 Key Messages





The research and consultation process for this study has identified a number of key results that may inform decisions for future planning for key infrastructure, particularly with regard to implications for the Central Coast. These are summarised below under the headings in the body of the report along with a final overview.

### 3.1 Overview

- It is critical to appreciate the national significance of the three infrastructure projects reviewed in this report. Singularly they are nation building projects that will have major long term implications for growth on the East Coast. As a package they have the potential to be the largest transport infrastructure project in Australian history.
- With respect to the Central Coast region, the key infrastructure has the potential to impact on the region's economy, environment and people for decades to come. It also presents a unique opportunity for development, employment and social change.
- There appears to be a lack of collective integrated planning for the three infrastructure components and a services corridor is not under consideration. It is to be noted, however, that coordination between the Federal Government divisions investigating High Speed Rail and Sydney aviation capacity is reportedly occurring.
- A united LGA front (Hunter, Central Coast, W. Sydney and potentially Illawarra) is needed to lobby State and Federal Government and progress the initiatives.
- The Central Coast Development Corporation could potentially act as a coordinating agent for Central Coast Councils to drive infrastructure initiatives.

### 3.2 Strategic planning

- Central Coast strategic targets will not be achieved without Govt investment in infrastructure and anchor development.
- The Sparks Road upgrade is critical to commencement of the Warnervale Town Centre and Wyong Employment Zone development.
- Transport for NSW has reported that funding for structure planning assistance is available via the Department of Planning and Infrastructure. Council may wish to take advantage of this with regard to planning for Precinct 7A at North Wyong (and potentially for other sites). TfNSW suggested that Council should apply to DP&I and that TfNSW would be likely to support such an application.
- Funding is also available for Cycle Way planning

### 3.3 Freeway infrastructure

- The F3 to M2 connection is planned for commencement 2014, subject to successful funding application (A submission has been lodged and a response is expected in early 2012)
- The Outer Sydney Orbital is under consideration with a link between the Western Sydney Growth Centres as first priority and with possible secondary extensions north to Central Coast and south to Port Kembla. The Orbital is consistent with the Metro Plan 2036

### 3.4 High Speed Rail

- The Phase 1 Joint Study prioritises the Sydney to Newcastle link with Sydney to the Central Coast as first stage.
- The Sydney to Central Coast link has been costed at \$10.7-\$17.9billion (\$2012)
- Wyong and Gosford Councils both support the rail proposal and favour Ourimbah over Kariong as a Central Coast station.
- Government is committed to completing Phase 2 of the study but dates are not being made available at this point.
- Council should consider preparing a detailed submission, preferably in collaboration with Gosford Council, to make an argument to Federal Government for location of a Central Coast station at Ourimbah rather than Kariong.

### 3.5 Second Sydney airport

- The Joint State / Federal Sydney Aviation Capacity Study, released in March 2012, favoured Badgerys Creek as a 2<sup>nd</sup> airport site with Wilton as the next best site.
- On the central Coast, the Study identified Peats Ridge, Somersby and Wallarah as suitable sites for Type 3 airports (limited service, single runway) and Somersby and Wallarah as suitable for upgrade to Type 1 airports (full service, potential dual runway).
- Through ground truthing, Wyong Council officers have identified that the preliminary site for the Wallarah airport would conflict with current planning for the Wyong Town Centre and rail station. Council has identified a preferred indicative location for a Type 3 Airport at Wallarah.

### 3.6 Local critical infrastructure

- Planned and funded:
  - F3 / Wyong Rd interchange.
- Planned with funding proposals submitted or imminent:
  - F3 – M2 link.
  - Central Coast Highway upgrades.
  - Pacific Highway, Ourimbah to Lisarow.
- Required but not funded:
  - Sparks Road upgrade.
  - Warnervale Station and transport interchange.
  - Sparks Road / Warnervale Town Centre Intersection.
  - Wyong Road Intersections.
  - F3 Freeway widening.
  - Kariong interchange upgrade and East-West bypass.

## Appendix A – Bibliography

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Wyee Structure Plan. Lake Macquarie City Council, November 2010.

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Wyong Shire Council, Strategic Planning Department Directors Report on Additional Major Road Transport Corridor, 10 September, 2003.

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## Appendix B – Stakeholder consultations

## STAKEHOLDER CONSULTATIONS

As part of the study we identified the following stakeholders to consult regarding their involvement in each of the key infrastructure projects, their knowledge of local priority projects and their opinion as to what local infrastructure would be required to support the projects.

The key stakeholders consulted comprised:

- Wyong Shire Council Planners.
- Gosford City Council Planners.
- NSW Department of Planning and Infrastructure.
- Central Coast Regional Development Corporation.
- Transport for NSW (formerly NSW Department of Transport).
- Roads and Maritime Services (formerly Roads and Traffic Authority).
- Australian Government Department of Infrastructure and Transport.

Interviews were conducted with each of the targeted stakeholder groups. Notes recording the outcomes of each of these meetings are included in this Appendix.

## Roads and Maritime Services (Central Coast)

Meeting 27 October 2011 – Notes prepared by Cardno

### Present

Craig Leckie	RMS Network Manager
Glen Weymer	RMS Central Coast Manager
Steve McDonald	WCC – Transport Engineer
Anissa Levy	Cardno
John O’Grady	Cardno
Julie Quinn	Cardno

### NOTES

Current structure of RTA will soon change – will become NSW Roads and Maritime Services. Maritime and Roads both have registry functions and deal with safety.

The Central Coast RTA deal with network performance, deficiencies, assessment management – mostly east of the freeway and covering Gosford and Wyong. They provide travel time information and SMS congestion levels to registers commuters.

They have a list of priority projects. Annual investment was approx. \$30 Mill 10 years ago, now around \$100M.

The RMS informs strategies – they support the Central Coast Transport Strategy.

Craig is a significant advocate of cycle paths. See Bike Plan.

### Priority Projects:

- Duplicate the Central Coast Highway.
- Tuggerah Interchange about to go out for tender. Increase capacity northbound – entry and exit from freeway.
- Planning Pacific Highway Wyong Rd duplication - road over rail bridge.
- Wyong Town Centre – Johnson – Cutler Drive duplication.
- Sparkes Rd Freeway to Pacific Highway – 4 lanes, plan for 6.
- San Remo capacity upgrade.
- Wyong Road roundabouts – planning.
- Doyalson Link Road.
- Kariong to Somersby 4 lanes, lower priority for 6 lanes.

Just completed Erina Heights (4.5km for \$155M) – huge constraints.

In Wyong it is easier and cheaper to upgrade – the streets are wider.

Informal car parking to car pool definitely exists. These are growing in number up and down the freeway. It is not within the RMS Charter to provide these car parks.

Central Coast Regional Development Corporation

Meeting 4 November 2011 – Notes prepared by Cardno

Present

Brett Phillips                      General Manager

John O'Grady                      Cardno

NOTES

#### Function of the CCRDC

The CCRDC was established under the Growth Centres (Development Corporations) Act to be the State Government's leader for prime developments on Government land on the NSW Central Coast.

Role is to pave the way for revitalization, growth and investment across the Central Coast.

Current lead role or key participant in the following Central Coast projects:

- Implementation of the Gosford City Centre Master Plan.
- Mt Penang Parklands.
- Warnervale Town Centre.
- Wyong Employment Zone.
- The Landing at Gosford.
- The Entrance Town Centre revitalization.

#### Comments on local development interest

Brett's opinion is that development on the Central Coast doesn't stack up in the current economic climate.

Government needs to make anchor investments to kick start development on the Central Coast.

Sparks Road intersection needs Government funding – Warnervale won't develop without the investment.

Gosford Landing – government needs to pay an economic rent to stimulate development on this site.

Regional infrastructure aside, local transport on the Central Coast is inefficient and at capacity. It needs to be upgraded urgently to encourage development and secure future populations.

Government should view Central Coast as a key growth area (same distance from Sydney CBD as Penrith).

The region would benefit greatly from a single amalgamated Local Government Area.

CCRDC could potentially act as a coordinating agent representing the Central Coast to drive infrastructure initiatives.



Federal Department of Infrastructure and Transport – High Speed Rail Policy and Research Division

Meeting 8 November 2011 – Notes prepared by Cardno

Present

Richard Farmer           DIT – General Manager, High Speed Rail Policy and Research Division

Anissa Levy               Cardno – Market Sector Leader, Transport

John O’Grady             Cardno – Senior Town Planner

## NOTES

Commissioning of Stage 2 of the joint study will be announced this Sunday with a 1 year timeframe for delivery.

Phase 2 will:

- Assess market needs and user benefits.
- Develop preferred alignments.
- Look at systems development, staging, costing; env / social / economic appraisal, finance and implementation planning. Its still the beginning of a long decision making process.

Richard's opinion is that Central would be the Sydney station. The route would tunnel under metro areas.

DIT are consulting closely with the group doing the aviation study. Richard thinks the Peats Ridge site is highly unlikely to make the cut.

DIT are not consulting directly with Councils but Richard has done presentations on request.

To register support for a HSR station at Ourimbah in lieu of Kariong, Wyong / Gosford should lodge a submission to DIT with supporting information.

Department of Planning and Infrastructure, Central Coast

Meeting 4 November 2011 – Notes prepared by Cardno

Present

Robert Hodgkins      Senior Planner, Department of Planning and Infrastructure, Central Coast

John O'Grady          Cardno

## NOTES

Draft North Wyong Structure Plan to be finalized by end 2011 or early 2012.

Mount Penang site is going through a State Significant Site process.

Tuggerah-Wyong is also going through a State Significant Site process.

## Upcoming projects

Gosford Council has commenced preparation of a planning strategy for Erina as part of their program of work to address a 2000 dwelling shortfall in Central Coast Strategy housing projections for the Gosford district.

Infrastructure NSW is preparing a 20 year State Infrastructure Strategy for coordination of major infrastructure of value >\$100m. Will be broken up into 5 year Infrastructure Plans – Sector State Infrastructure Strategy Statements.

The Central Coast Centres Hierarchy proposes the development of a strong network of mixed use centres. The region's 'Big Box' retail centres' are likely to change over time into mixed use centres.

Woolworths, Lake Munmorah has been approved – Woolworths has stated that they would like to be operating by 2013.

Woolworths Warnervale – Part 3A Application has just come off public exhibition.

Warnervale Town centre Project Steering Group has been set up by the Premiers Dept and Council and meets monthly. Leonie Baldwin (Premiers Dept) is the Regional Coordinator and Chair of this Group..

Sparks Road – Landcom / Woolworths / Council will joint fund the access road but need State input to fund the intersection.

Robert's opinion is that lower density development will dominate development in the medium term and higher densities will not start to appear until the market for this type of development strengthens.

SIC Plans are in place for Warnervale and Wyong Employment Zone.

Govt has announced a review of the State Infrastructure Contributions framework.

Gosford Council

Meeting 1 November 2011 – Notes prepared by Cardno

Present

Eddie Love                      GCC - Director, Traffic and transport

Michael Bowman              GCC - Advisor, Strategic Planning

Steven Green                  GCC - Advisor, Transport Planning

John O'Grady                  Cardno

Julie Quinn                      Cardno

## NOTES

The Kariong interchange is at saturation levels. Council has made submissions regarding the need to do a regional study for a Kariong link road. An East-West Bypass, possibly from Erina to Gosford, is required to relieve pressure on the interchange. A new interchange at Ourimbah may be an alternative or both the by-pass and interchange may be required.

The RTA is only upgrading the Kariong interchange access road incrementally – no long term planning. Council would like to see the possibilities investigated.

A bypass was investigated in the 1974 Gosford – Wyong Structure Plan. Land from Springfield to Gosford has been purchased. Advice received from Transport NSW has stated that they will investigate this next year.

Transport NSW T Map (see website) shows bypass investigated.

Growth in Gosford will be mostly in centres – Gosford and peninsula.

They supported the yellow option linking F3 to M2 as it addressed Pacific Highway traffic issues. Gosford don't mind which option goes ahead but they do support it, even now.

Eddie Love commented that the main competitor to fast rail is air travel. Not sure the relatively small number of commuters which would benefit would offset the cost. Most people will still fly unless stations are located right in well connected locations. Examples in UK? Need to research.

Gosford made a submission regarding the VFT – they are interested in investigating linkages into Gosford. Kariong would require some sort of link/loop into Gosford and Erina etc. Ourimbah would probably be supported as it's in a location near to the Freeway and university and more central to the Coast growth areas.

Officers do not support Peats Ridge airport location – loss of agricultural land, sand mining, water (natural springs – a state resource). Significant strategic studies for Central Coast

Plateaus (required by Regional Strategy - S.5.12) have not been carried out – note water catchment. No scheduling yet... Noise will be an issue. Peats Ridge is prone to fog.

Eg of lobbying – NBN Gosford exchange.

Hornsby and Gosford Councils have voted a small sum to carry out joint investigations into the F3 to M7 link.

Department of Transport (Transport for NSW)

Meeting 31 October 2011 – Notes prepared by Cardno

Present

Vijey Susindran	Transport for NSW
Kris Nguyen	Transport for NSW
Steve McDonald	Wyong Shire Council
Anissa Levy	Cardno
John O'Grady	Cardno

NOTES

#### Overview

Main focus of the Dept at present is the NW Rail Link.

#### F3 Duplication

State made a submission to Infrastructure Australia for funding of the F3 southern connection (the "Purple Option") in May 2011. Response expected in early 2012. If funded, construction is to begin in 2014 for completion in 2018. The proposal is to create a tunnel connection under Pennant Hills Road.

Outer Sydney Orbital first mentioned in a former Govt Policy document - the Illawara to Hunter / Central Coast.

Metro Plan to 2036 raises connection between Western Growth Centres as a high priority.

#### HSR

Federal govt program – Dept of Infrastructure and Transport, Policy and Research Division. Key personnel: Gary McGraph / John Brennan / Richard Farmer.

#### 2<sup>nd</sup> Airport

Joint State / Fed investigation – report likely to be issued in 3-6 months.

Looks at about 10 sites including Peats Ridge.

#### Warnervale TC

Precinct 7A

Lies SE of the Warnervale TC – A precinct study has been prepared by a private developer. Wyong Council should be aware that it can apply to DP&I for structure planning as a basis for the precinct plan. Transport for NSW would support the process.



SIC levy for the Warnervale TC is yet to be determined. S.94 has been capped at \$30k per residential lot.

Wyong Shire Council Executive Team

Workshop 10 November 2011 – Notes prepared by Cardno

Present

Michael Whittaker	WSC - General Manager
Greg McDonald	WSC - Director Infrastructure Management
Gina Vereker	WSC - Director Environment and Planning
David Jack	WSC – Director Corporate Services
Maxine Kenyon	WSC – Director Community and Recreation Services
Roger Collins-Woolcock	Cardno – General Manager, SE Australia and New Zealand
Anissa Levy	Cardno – Market Sector Leader, Transport
John O’Grady	Cardno – Senior Town Planner

## NOTES

Cardno did a presentation of outcomes of the research and consultation phase of the Study.

Discussions after the presentation lead to conclusion that Cardno should prepare a letter to Council outlining a new scope to completion:

1. Cardno to compile the outcomes of the work to date into an interim report to be delivered in the short term (next two to three weeks). The report would include:
  - A précis of the research process including a bibliography of reports reviewed and critical information gleaned from each report;
  - Written notes on each of the stakeholders’ consultations; and
  - A summary of critical information and key messages resulting from the work to date.
2. Roger Collins-Woolcock, Cardno’s General Manager (SE Australia and New Zealand), will attempt to organise a meeting between Council, Cardno, John Taylor (Chairman CCRDC and one of the project proponents) and key personnel from Infrastructure NSW prior to Christmas 2011. The purpose of the meeting would be to provide a state of play report on the three infrastructure items, as per Cardno’s findings, and make a case for placing the combined three item infrastructure package on the Infrastructure NSW agenda as a critical Nation building exercise. We will also try and engage Infrastructure Australia in these discussions so that there is co-ordination of the State and Federal efforts in relation to this project
3. If the above meeting can be arranged, Cardno would compile a focussed presentation package.
4. Cardno would revisit the project after release of the East Coast High Speed Rail Study, Phase 2 and the Federal / State Joint Study on Aviation Capacity, probably in the last quarter of 2012. In this process Cardno would review the reports and carry out fresh

consultations with key stakeholders. We would then prepare and issue a report to Council that would include:

- Up to date reporting on the status of the three projects; and
- Analysis of each project with a particular objective to identify critical studies required and key potential impediments to the progression of each.

Wyong Council

Meeting 27 October 2011 – Notes prepared by Cardno

Present

Greg, McDonald	WSC - Director Infrastructure Management
Gina Vereker	WSC - Director Environment and Planning
Paul, Bowditch	WSC - Manager Place Management
Danielle Dickson	WSC – Manager, Major Projects
Steven, McDonald	WSC - Transportation Engineer
Jenny, Mewing	WSC - Strategic Planner
Kathryn Heintz	WSC - Strategic Planner
John O’Grady	Cardno
Julie Quinn	Cardno

NOTES

Infrastructure Needed

Freeway exit required at Allison Road – Sparks Rd exit is not sufficient. A second connection would encourage industrial development in North Wyong and the WEZ and would encourage regional transport.

Northbound motorway link at Warnervale – distance between the entry and exit ramps.

Commuter car parks required.

Ways of dissipating traffic once it leaves the F3 into the local traffic.

North end Sparks Road.

Stormwater harvesting scheme needs to be funded. NWEZ...

Positives – F3 to M2

30% commute – better community outcomes if people are able to get home earlier. But it is a priority to create jobs on the Central Coast.

Questionable whether it’s worth supporting a Type A corridor.

Travel distance / time will be reduced.

Safety may improve.

Toll – price dependent. If the toll meant that the infrastructure arrived 10 years earlier, Council would be likely to support it.

Would a better location for the interchange be at Mount White rather than Kariong?

Rail

Council supports a very fast train station at Ourimbah.

However, this would result in the requirement for upgrade of the Pacific Highway south of Lisarow and back to Gosford. RTA are considering this??

New bus terminal here?

Need to check Lake Macquarie – Wyee Structure Plan.

If there's only one station there will be huge demand on that one station. Need a town centre? Question for the study: What land would Council need to set aside to ensure the station and associated infrastructure can be catered for?

Need to consider Hunter Link – look at the change in traffic patterns. People will come south as it's now quicker. People may live on the Central Coast as it's still close to the mines. More people may commute to the Central Coast or Sydney from the Hunter.

Airport

Need a site that is already disturbed.

The benefits to Wyong? Danielle already checked Badgery's Creek report prepared in the late 80s but it wasn't really relevant. Most benefits will be employment – during construction and operation.

If the airport comes to the Central Coast, the rest of the large infrastructure projects will follow.

If the option is Wyong there will be debate within the community.

Need to consider Water Supply Catchment (we now have a copy of WaterPlan 2050)

Small mining communities are suffering, regional cities are benefitting (fly in fly out mining employees)

The area around the airport would probably be prioritized for growth as employment land. Should it be an identified growth centre?

The airport wouldn't affect the settlement strategy – might speed things up. Settlement strategy informing mapping? Where we think the growth should be. Support growth with infrastructure quickly – management cost harder... Investment will start as soon as anything is announced. Eg. Warnevale – lots of speculation.

Wyong Council supported the Peats Ridge location at a meeting earlier in the year.

Land use planning will be used to protect the community. Preferred land uses would be employment lands – a freight airport would be preferable.

Mention of iconic development sites being investigated to attract tourism.

Discussion between John O'Grady (Cardno) and Steve McDonald (Wyong Traffic Engineer)

4 November 2011

#### Immediate critical transport infrastructure issues

Sparks Road upgrade is current no.1 priority for Wyong.

Wyong TC – Pacific Hwy, Johnson Road to Cutler Drive high priority for Wyong-Tuggerah renewal.

Central Coast Hwy – a submission for regional funding of the Central Coast Highway upgrade is planned. There is high community interest.

The Entrance Gateway requires urban design upgrade.

#### Medium term issues

F3 Freeway / Motorway link (Doyalson) is critical conflict point. No northbound access to Motorway. Coal trucks are forced to do u-turns.

Pacific Highway / Louisiana Rd intersection – 4-way intersection with safety issues (sun glare). Upgrade of high priority. RMS (RTA) says intersection upgrade needs to be development funded.

Cycleway development is ongoing in the Shire – 50/50 funded by Council / RMS.