



Report

# STATE SIGNIFICANT SITE STUDY

## Wyong Employment Zone



Prepared by

**WYONG SHIRE COUNCIL  
FUTURE PLANNING**

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# EXECUTIVE SUMMARY

The Central Coast has a growing need for local employment opportunities. Current unemployment rates for Wyong Shire exceed the state average (8.3% and 5.3% respectively in June 2006). Over one third of Central Coast residents commute outside the region for employment. The resulting impacts of this extend to residents' social and community networks.

At the same time, the Central Coast is experiencing population growth at a rate in excess of 1.4% per annum placing pressure on land resources and the natural attributes that attract people to the region.

The Wyong Employment Zone covers an area of over 744 hectares. Council is seeking to change the zoning and planning controls of the land to facilitate the development of an industrial / employment precinct. The proposal has been justified against a strategic context and the relevant metropolitan, regional and local planning strategies. The change in land uses permitted on this land would have significant economic development and employment generating potential by facilitating the creation of an industrial precinct in excess of 330 hectares. It would also result in the protection of 349 hectares of environmental land to assist in the protection of the only remaining north-south wildlife corridor located to the east of the F3 freeway. The WEZ is identified in the draft Central Coast Regional Strategy as a major new industrial land release area. The WEZ has the potential to create 6,000 new jobs and an estimated \$1.9 billion of new investment on the Central Coast. The WEZ therefore represents a major part of State Government policy in attempting to achieve its target of creating 35,000 new jobs on the Central Coast over the next 25 years.

A Local Environmental Study was originally prepared to support the WEZ rezoning. However, on 3 July 2006 the Minister for Planning agreed to consider the WEZ as a potential State significant site. Under the provisions of State Environmental Planning Policy (Major Projects, 2005). On 1 September 2006 the Director General issued directions for preparation of a State Significant Site (SSS) Study.

Extensive studies (supporting documentation) have been undertaken to extract the key issues, evaluate options and formulate the recommendations for the development of the Wyong Employment Zone. Key government agencies have been consulted as part of a Local Environmental Study process. All issues raised by Government agencies have been detailed in this Study. The agencies consulted include:

- Department of Premier and Cabinet (formerly Premiers Department)
- Department of Water and Energy (formerly Department of Energy, Utilities and Sustainability).
- Mine Subsidence Board.
- Hunter Central Rivers Catchment Management Authority.
- Central Coast Aero Club Limited.
- Civil Aviation Safety Authority.
- Department of Environment and Climate Change(NSW).
- NSW Department of Primary Industries - Mineral Resources.
- NSW Department of Primary Industries - Fisheries.
- NSW Department of Primary Industries - Agricultural.
- Roads and Traffic Authority.
- NSW Rural Fire Service.

- Gosford Council.
- Lake Macquarie Council.
- Energy Australia - Newcastle.
- Hunter Regional Development Committee.
- Kores Australia Pty Ltd.
- Department of State and Regional Development NSW.
- (Department of Natural Resources) (responsibility now assumed by Department of Water and Energy and Department of Environment and Conservation).

**Note:** Council also consulted with the Central Coast Aero Club and Catchment Management Authority.

## Major Findings

The SSS Study concludes that the area referred to as the WEZ is suitable to be rezoned to an industrial precinct (subject to the recommendations outlined in this study) and is an efficient use of that land. The SSS Study identifies zonings and uses for the area that are appropriate to its existing and future natural, cultural, economic and built environment. Key findings include:

- The WEZ has the potential to provide for significant employment opportunities for the geographic market of the Central Coast.
- The WEZ is located within a sensitive natural environment and is adjacent to the state significant Porters Creek wetland. It also contains large areas of high conservation value habitat. Bio-certification of the WEZ is being sought from the Minister for Environment. This will allow for a more strategic approach to conserving habitat with high conservation values.
- The development of the WEZ needs to avoid areas of physical constraint and high environmental value (for example, regionally significant terrestrial and aquatic biodiversity, riparian corridors, resource lands) and occur in a sustainable manner as detailed in the recommendations.
- Staging of the WEZ will influence the timing of industrial land release and ability to fund key infrastructure including traffic, roads, water quality and treatment devices, utilities, open space and communications infrastructure. This will be supplemented by developer funded agreements and section 94 contributions.
- The WEZ provides the opportunity for significant water reuse and stormwater infrastructure at a regional level (which does not place unacceptable pressures on town water supply or on environmental flows).
- The draft Central Coast Regional Strategy identifies the WEZ as a major new industrial land release area which will be providing an important role in creating new employment opportunities on the Central Coast.

# **SECTION 1 - INTRODUCTION**



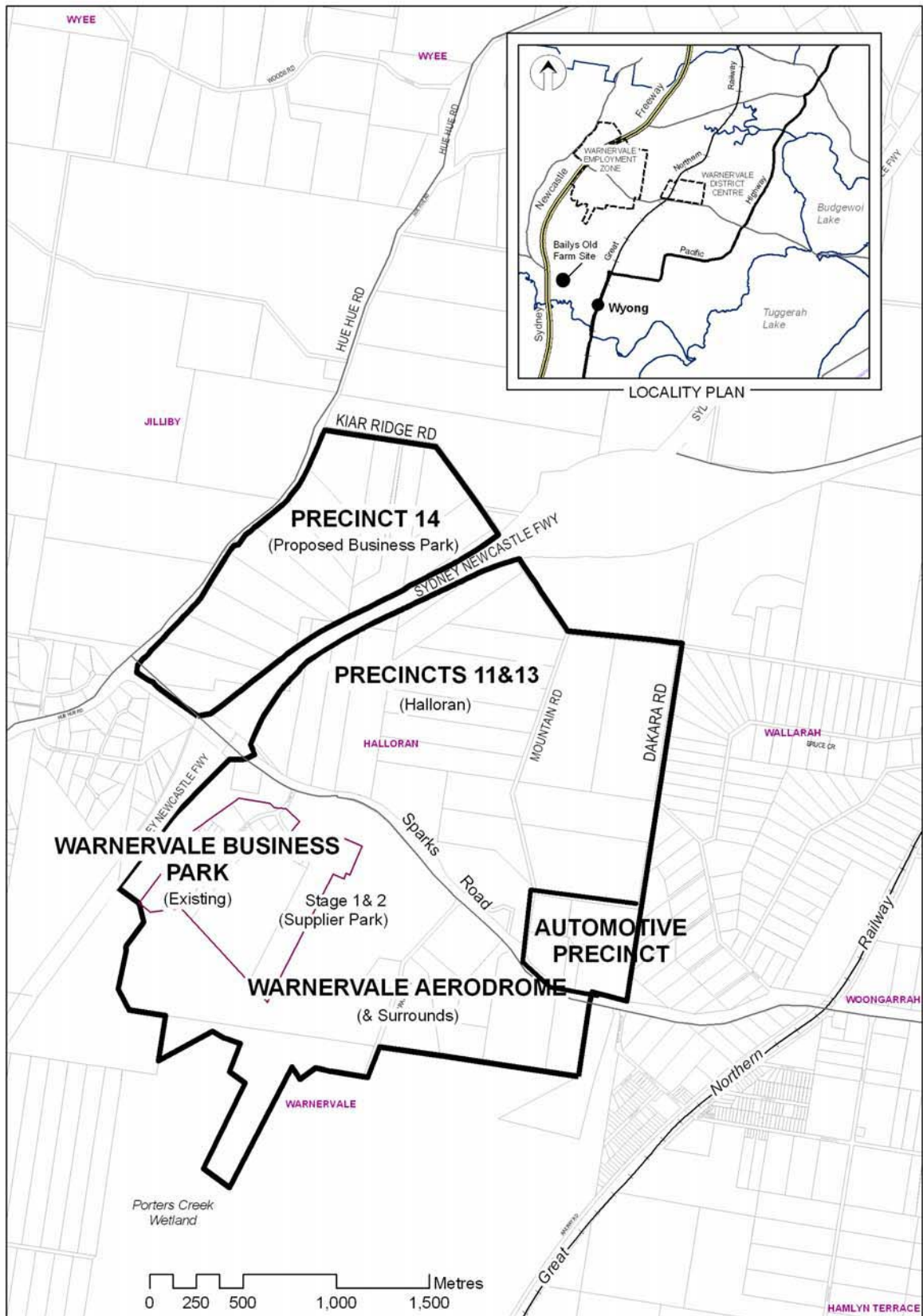
## 1.1 Introduction

The provision of employment opportunities in Wyong Shire is a key direction in Council's Management Plan 2006/2007. Local employment growth needs to support the rapidly growing population of the Central Coast, providing new and existing residents with the choice to live and work on the Central Coast.

Figure 1.1 shows the location of the Wyong Employment Zone (WEZ). The WEZ is located approximately six kilometres north west of Wyong and covers an area of approximately 744 hectares. It is bounded by Porters Creek Wetland catchment to the north, Porters Creek Wetland to the south, the Great Northern Railway to the east and Hue Hue Road to the west. The area is referred to as the WEZ to simplify the locational description.

This State Significant Site (SSS) Study evaluates the proposed rezoning for the WEZ to facilitate industrial and employment generating land uses. An Local Environmental Study (LES) was originally prepared to support the WEZ rezoning. This document was later refined to provide a SSS Study to justify the inclusion of the WEZ as a State Significant Site under the provisions of the State Environmental Planning Policy (Major Projects), 2005. The SSS Study includes an assessment of the site and the surrounding areas to provide a suitable planning context and to assist in determining likely impacts arising from industrial development of the site. The study includes data compilation and collation, analysis / description of land capability and suitability, identification of planning policy issues, synthesis of information, conclusions and proposed planning policies for the WEZ from detailed specialist reports included as Appendices. It assesses the suitability of the WEZ for industrial development and recommends a preferred land use option, with appropriate mitigative measures to balance any impacts of the development on the sensitive surrounding environment.

Figure 1.1: Wyong Employment Zone Location



## 1.2 Background

In 1996 Wyong Shire Council carried out a review of the current supply of employment generating lands and investigated opportunities for the development of additional land in the short term. The investigations revealed that a proportion of the land immediately north of the Warnervale Airport (known as Precincts 11 and 13) may be suitable for employment generating purposes. As a consequence, Council resolved in October 1996 to carry out detailed investigations into the land by way of an LES.

In November 2004, Council resolved to prepare a draft Local Environmental Plan (LEP) to rezone areas within Precincts 11 and 13 - Halloran, Precinct 14 - Business Park, and the airport lands - Sparks Road, Warnervale. The resolution stated:

- 1 *That a draft Local Environmental Plan be prepared to:
  - a *Rezone appropriate areas within the study area as shown in Attachment 1 to 4(c) (Business Park Zone) and 4(e) (Regional Industrial and Employment Development Zone) with appropriate environmental zonings to reflect environmental constraints.*
  - b *Revise the provisions of Clauses 46 and 47 of Wyong Local Environmental Plan, 1991 to reflect height restrictions and sound insulation requirements required for a local airport as opposed to the current provisions which reflect the requirements of a regional airport.*
  - c *Introduce appropriate provisions to allow for the continuation of a local airport.**
- 2 *That the Department of Infrastructure Planning and Natural Resources be advised of the decision within 28 days.*
- 3 *That Council write to all relevant government agencies, including the Premier's Department, advising them of Council's resolution to proceed with this rezoning and requesting them to deal with the various steps in the rezoning process as a matter of priority.*
- 4 *That Council prepare an environmental study pursuant to Section 57(1) which incorporates the expanded Airport Supplier Park study area.*
- 5 *That the Department of Infrastructure, Planning and Natural Resources be requested to confirm the validity of extending the existing specifications for an environmental study to cover the expanded Airport Supplier Park study area pursuant to Section 57(1) of the Environmental Planning and Assessment Act 1979.*
- 6 *That an appropriate draft Development Control Plan and Section 94 Contribution Plan be prepared.*
- 7 *That Council's Section 149 Certificates be noted.*
- 8 *That this matter be reported back to Council prior to applying for the Section 65 Certificate.*

On 10 August 2005, Council resolved to amend the original resolution to include some additional land into the boundaries of the WEZ. The resolution stated:

- 1 *That the original draft Wyong Employment Zone Local Environmental Plan Study Area Maps be amended to:*
  - a *Explore the feasibility of an industrial rezoning of a small portion of Part Lot 62 and 64 DP 755245, Sparks Road, Warnervale and rezone the remaining portion of the site to 7(a)(Conservation).*
  - b *Refine study area boundaries to allow for formalisation of conservation areas to be defined within the Wyong Employment Zone study area.*
- 2 *That Council enter into a legal agreement with the owners of Part Lot 62 and 64 DP 755245, Sparks Road, Warnervale subject to the dedication, at no cost to Council of residual conservation areas which will be defined through the Wyong Employment Zone study process.*
- 3 *That the owners of the land agree to pay any reasonable costs incurred by Council in relation to the additional staff time involved in resolving issues resulting from the inclusion of the subject site into the WEZ and the cost of any additional reports required to be undertaken over the subject site.*
- 4 *That the General Manager be authorised to sign any legal agreement in respect to Recommendations 2 and 3 above.*
- 5 *That the Department of Infrastructure, Planning and Natural Resources be advised of the decision.*
- 6 *That Council write to all relevant government agencies, including the Premier’s Department, advising them of Council’s resolution to slightly expand the WEZ study area boundaries.*
- 7 *That Council include the additional areas within the environmental study being prepared for the draft LEP pursuant to Section 57(1) of the Environmental Planning and Assessment Act 1979.*
- 8 *That the subject site be included within any draft Development Control Plan and Section 94 Contribution Plan.*
- 9 *That Council’s Section 149 Certificates be noted.*

In February 2006, consultants were engaged to prepare reports for the potential rezoning of Part Lot 62 and Lot 64 DP 755245, Sparks Road, Warnervale.

On 28 June 2006, Council resolved the following:

- “1 *That the Department of Planning be requested to issue a certificate pursuant to Section 65 of the Environmental Planning and Assessment Act 1979 to permit exhibition of the attached draft Local Environmental Plan.*

- 2 *That staff report as soon as possible on the Draft Contribution Plan, Regional Stormwater Infrastructure Plan and Asset Protection Zones.*
- 3 *That Council authorise for the Common Seal of the Wyong Shire Council to be affixed to the final Deed of Agreement between the Wyong Shire Council and participating land owners.*
- 4 *That Council authorise the Mayor and the General Manager to execute all documents relating to the final Deed of Agreement between the Wyong Shire Council and participating land owners.*
- 5 *That Council respectfully requests the Minister for Planning to call in the Wyong Employment Zone under State Significant development to assist in fast tracking the precinct.”*

On 3 July 2006 the Minister for Planning agreed to consider the above site as a potential State Significant Site under the provisions of the State Environmental Planning Policy (Major Projects), 2005. In considering whether to include the site in Schedule 3 of the Major Projects SEPP, the Minister has requested that a SSS Study be prepared.

### **1.3 Justification of the Rezoning and State Significance of the WEZ**

The generation of local employment opportunities has been a priority for Wyong Shire Council for some time. The draft Central Coast Regional Strategy identifies the WEZ as a major new industrial land release area. Figure 1.2 shows the location of the WEZ in relation to other major employment precincts which occur on the Central Coast. It will assist in securing additional employment generating land in accordance with the objectives of Council’s Management Plan. It is estimated that this land release will provide up to 6,000 jobs and an estimated \$1.9 billion of new investment on the Central Coast .

Key statistics on growth and unemployment are as follows:

- Wyong Shire currently experiences a growth rate of 1.4% or approximately 1,948 people per year.
- The state government predicts that an additional 64,000 people will move to the Central Coast in the next 20-25 years (41,600 into Wyong Shire).
- It is estimated that 1,500 jobs per year will be needed to keep pace with population growth.
- Wyong Shire currently has an unemployment rate of 8.3% (NSW 5.3% in June 2006).
- Wyong Shire’s workforce participation rate is 4.3% lower than the NSW average.
- One-third of Wyong Shire’s workforce commutes outside of the region for work on a daily basis.

There is a clear need to provide industrially zoned land in the short term. The release of additional industrial land as part of the WEZ will make a significant contribution to regional employment and increase the opportunity for people to work locally.

Figure 1.2: Employment Lands and Precincts



### 1.3.1 Major Considerations

The major considerations for the WEZ are:

- The immediate need for employment generating land in Wyong Shire.
- The need to protect Porters Creek Wetland.
- The high ecological and conservation values of much of the site.
- The strategic location of the WEZ for industrial development.
- The need for links to the aerodrome, F3 Freeway and proposed Warnervale Town Centre.
- The local demand for industrial / employment lands.
- The WEZ's role as part of a regional employment corridor.
- Avoidance of significant agricultural land and productive resource land.

### 1.3.2 Social and Economic

#### *Social*

Commuting affects the economy through escape spending and the negative environmental impact of vehicle travel. It also has an affect on the lifestyles and quality of life of those commuting. This is largely because long term commuting is disruptive to the family in terms of time spent together, energy levels and ability to cope with family stress; and the social structure of the community in terms of the ability and time to participate in activities. Providing local employment opportunities can provide increased opportunities for social interaction.

The Wyong Community Plan (2002) provides an overview of the needs and aspirations of the community and sets the direction for Council in the planning and provision of human services and facilities.

Information on unemployment and infrastructure needs is relevant to the current rezoning investigations in terms of land use options, supply and demand for employment generating development and the provision of social infrastructure. Employment is seen as an essential prerequisite for economic, social and environmental sustainability. The document sets a very persuasive case for employment growth in Wyong Shire, and in particular, local jobs to reduce the dependence on commuting to Sydney for work.

A key role of Council in providing employment growth is identified in the Wyong Community Plan as:

*“Providing infrastructure and serviced industrial land within the Shire to support economic development, including development of the Central Coast Employment Corridor and Warnervale District Centre.”*

## ***Regional Employment - Supply / Demand***

Parsons Brinckerhoff and Hill PDA were commissioned by NSW Planning Department to undertake the Central Coast Employment Lands Study. This study was not adopted by either the State Government or Wyong Shire Council. The study aimed to provide the strategic regional context for land use decision making for employment lands on the Central Coast. The regional employment nodes identified in this study include:

- Somersby.
- Gosford.
- Erina.
- Lisarow.
- The Wyong / Tuggerah Regional Centre.
- North Wyong.
- Warnervale (Including the then Halloran Area).
- Charmhaven.
- Bushells Ridge.
- The planned Warnervale Town Centre.

The total supply of employment land on the Central Coast was estimated to be 1,843 hectares, of which approximately 1,206 hectares is currently zoned for employment purposes (data error rate 10%). The Wyong / Tuggerah Regional Centre was identified as an emerging area of importance for office employment, governance and administration. Gosford, Erina and Wyong / Tuggerah all have sufficient capacity for future development and redevelopment including mixed-use and business development. The key issues identified in the *Central Coast Employment Lands Study* are summarised in Appendix 2.

## ***Local Employment***

A major challenge for the Shire is to improve its employment profile and gain political support in order for it to be viewed by industry, and promoted by government, as the logical place for the establishment of new businesses.

At present there is a large supply of vacant industrial land in Wyong Shire although much of this is not serviced and there is only limited availability of large serviced industrial lots. The location and area of this land is shown in Table 1.1. In addition to the land on the list, an estimated additional 650 hectares of land is likely to become available for employment and commercial uses from broader recommendations outlined in the Warnervale District Planning Strategy (Woods Bagot, 2002). This additional 650 hectares of land is all located within ‘urban districts’ and the employment corridor identified in *Shaping the Central Coast*.



Council's long term employment strategy focuses on the development of the employment corridor. This is shown in the draft Regional Planning Strategy *Shaping the Central Coast* prepared by DUAP (now DoP) (See Figure 1.3). The establishment of the Central Coast Employment Corridor has been a strategic goal since 1977. Its rationale appears to have been its favourable transport location over an area of low coal mining potential in a region of high population growth. More detailed investigations by Council have revealed the existence of a number of significant environmental constraints in much of the employment corridor which has reduced some of the anticipated employment benefits.

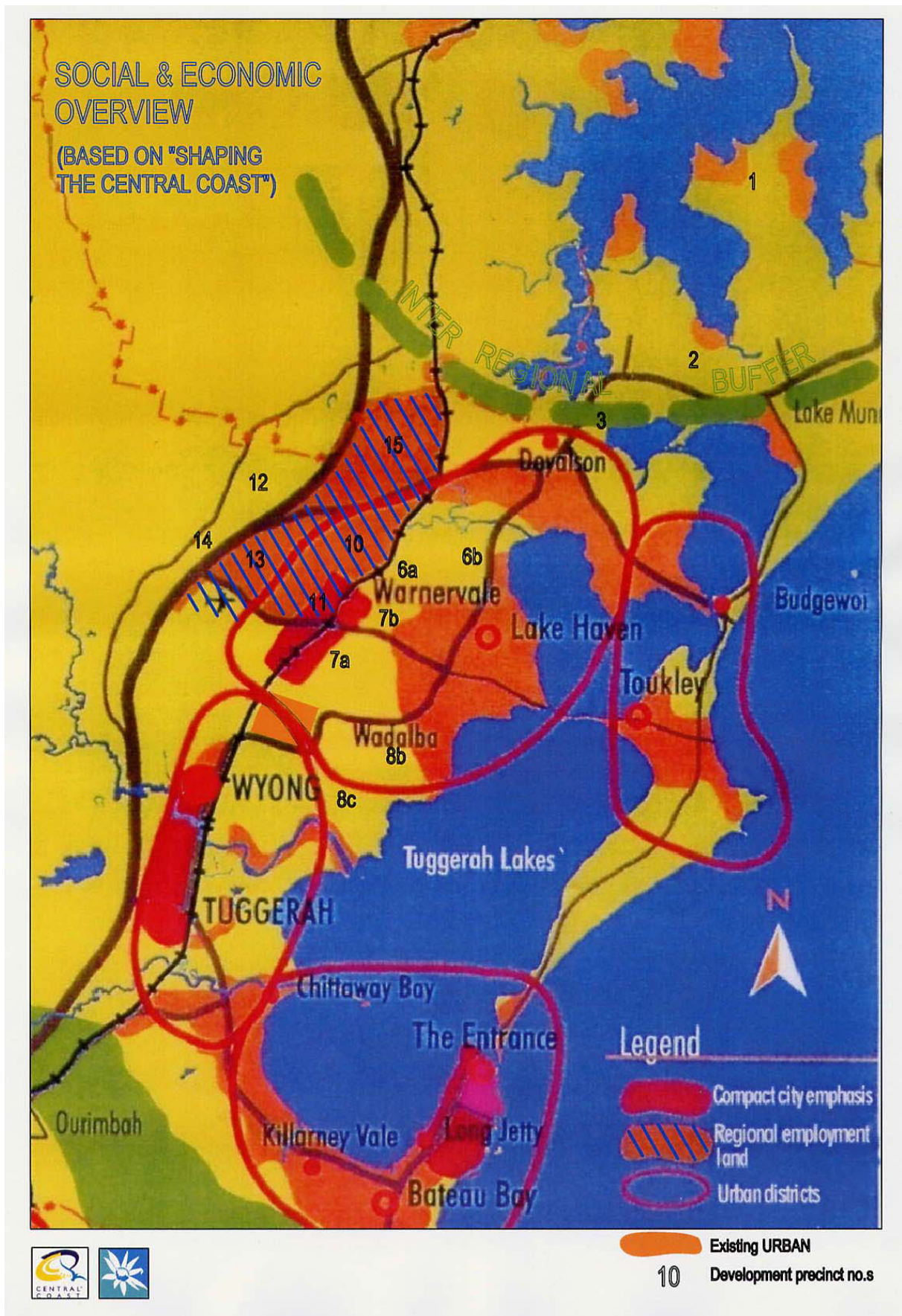
Table 1.2 was taken from the Wyong Shire Council Land Monitor (2005) and gives an indication of the current situation with respect to industrial land. All land in Wyong Shire zoned industrial, that is 4(a), 4(b), 4(d) and 4(e), is monitored by Council's Land Monitor. As can be seen from Table 1.1 approximately 75% (612 hectares) of the 814 hectares of vacant zoned industrial land available in the Shire is located at Bushells Ridge or is likely to be required for infrastructure as part of the Wyong Coal Project. This land has major servicing constraints and may be of significant conservation value. Consequently, there may only be about 202 hectares of developable vacant industrial land available in the Shire. As can be seen from Table 1.1 the major industrial land holdings are thus located in Berkeley Vale, Tuggerah, North Wyong, Warnervale (west of the aerodrome) and Charmhaven. Table 1.2 indicates that there is a reasonable variety of industrial lot sizes available in Wyong Shire. It also confirms that there are only 25% of the immediately available industrial lots in Wyong Shire are larger than 1 hectare in size.

**Table 1.1: Industrial Land**

Area	Occupied Lots	Area	Vacant Lots	Area	Total Lots	Area
Bateau Bay	0	0	1	0.9	1	0.9
Berkeley Vale	66	103.3	8	26.9	74	130.2
Bushells Ridge	1	20.0	25	612.2	26	632.3
Charmhaven	52	28.7	6	7.9	58	36.6
Doyalson	11	7.2	1	3.9	12	11.2
Gwandalan	1	1.2	1	4.6	2	5.8
Long Jetty	4	1.1	0	0	4	1.1
Fountaindale	24	16.4	3	1.0	27	17.4
North Wyong	60	70.7	26	63.1	86	133.7
Ourimbah	10	5.3	10	8.0	20	13.3
Tuggerah Business P	34	26.3	32	22.1	66	48.4
Tuggerah Station	15	24.6	40	19.6	55	44.1
Tuggerah Straight	177	46.4	21	10.0	198	56.4
Tumbi Gardens	32	8.3	1	0.2	33	8.6
Warnervale	7	193.3	22	33.6	29	226.9
	<b>494</b>	<b>552.8</b>	<b>197</b>	<b>814.0</b>	<b>691</b>	<b>1,366.9</b>

Source: Wyong Shire Council Land Monitor (2005).

Figure 1.3: Social and Economic Overview of Wyong Shire (DUAP, 2002)



**Table 1.2: Vacant Industrial Land Servicing within Wyong Shire**

Lot Size	Available for Immediate Development	Not Fully Serviced	Total
Under 1,000m <sup>2</sup>	10	0	10
1,000m <sup>2</sup> - 2,000m <sup>2</sup>	19	0	19
2,000m <sup>2</sup> - 3,000m <sup>2</sup>	35	1	36
3,000m <sup>2</sup> - 4,000m <sup>2</sup>	35	3	38
4,000m <sup>2</sup> - 5,000m <sup>2</sup>	32	0	32
5,000m <sup>2</sup> - 6,000m <sup>2</sup>	8	1	9
6,000m <sup>2</sup> - 7,000m <sup>2</sup>	10	4	14
7,000m <sup>2</sup> - 8,000m <sup>2</sup>	4	0	4
8,000m <sup>2</sup> - 9,000m <sup>2</sup>	6	3	9
9,000m <sup>2</sup> - 1ha	4	1	5
1ha - 5ha	40	14	54
5ha - 10ha	9	2	11
Over 10ha	3	19	22
<b>Total</b>	<b>215</b>	<b>48</b>	<b>263</b>

Source: Wyong Shire Council Land Monitor (2005)

Whilst the WEZ rezoning concept seeks to satisfy some specific employment niches through the provision of an Automotive Precinct and Business Park. The majority of the WEZ rezoning seeks to create regional employment opportunities. The regional focus is recognised through the widespread use of the 4(e) (Regional Industrial and Employment Development) in the WEZ. A major focus will be to create a mix of allotments, a large number of which will be over 0.5 hectares in size. This action is likely to significantly increase the supply of allotments between 1-10+ hectares within Wyong Shire.

The 4(e) (Regional Industrial and Employment Development) zone was first introduced into Wyong LEP 1991 when Bushells Ridge was rezoned in the mid 1990s. A review of vacant land at the time revealed that there was a significant shortage of large industrial lots. This was found to be a significant weakness which affects the targeting of strategic industries and improving the diversity of the employment base in Wyong Shire (Central Coast Regional Development Corporation and Department of State and Regional Development (1997)). The original employment benefits anticipated to arise from the rezoning of Bushells Ridge has not eventuated due mostly to environmental constraints. Hence, a large portion of the WEZ is proposed to be rezoned to 4(e) (Regional Industrial and Employment Development) to make up for this shortfall. This will ensure that sufficient areas of land are provided for 'large lots' for regional employment activities which might be seeking to relocate in Wyong Shire. Lot sizes for target firms were analysed as part of the Bushells Ridge Strategy in 1997 and 1.5-2 hectares was generally a minimum requirement whilst large food manufacturers required much larger sites (up to 30 hectares). A copy of this lot size analysis is provided in Appendix 3 to the SSS Study.

The construction of the Warnervale District Centre including the new railway station and transport interchange is likely to commence by 2008 (see Appendix 4). This is likely to provide major impetus for demand for industrial land in the immediate locality. In the long term the accessibility of this land from the railway and freeway may generate demands for land well beyond that estimated from local needs, a fact recognised in its designation as part of major employment corridor since the 1980's. In short, the attributes of the site suggest that current land demand and local supply / demand issues may ultimately be of lesser importance than its regional significance. Given that Bushells Ridge appears unlikely to provide the anticipated contribution to the regional employment corridor, the WEZ is seen as a significant substitute to provide the necessary employment growth.

Economic sustainability requires a range of jobs - from highly skilled to basic / unskilled - and a range of industries - from across all industry sectors. This minimises the risk from low investment businesses such as call centres moving to another region / country and adds to the diversity of the economy. The robustness of the economy can be developed by local business supporting one another.

At present, there are not many large parcels of industrial land available in Wyong Shire which can accommodate the needs of large firms or new industries. Industry is being squeezed out of Sydney due to the diminishing supplies of employment land, redevelopment of existing employment lands and escalating prices. The WEZ is one of few places that offer opportunities in the metropolitan region which provide a viable location to provide for both Sydney and the region's economic growth.

Some specific opportunities that the WEZ rezoning seeks to address are:

- A shortage of large industrial lots exists on the Central Coast. It is proposed to set aside sufficient large areas of land for regional employment to satisfy the requirements of large firms.
- An automotive precinct is proposed to be located to the north of Sparks Road, Halloran. A specific enabling clause has been created to allow 'motor showrooms' as a permissible use. This would allow the establishment of premises which sell cars, caravans and boats. Successful automotive precincts tend to be characterised by a large number of premises which cluster together. A specific clause has also been created to ensure that this precinct is only used for automotive related activities.
- To provide additional land adjacent to the existing Warnervale Business Park. This land (referred to as the Supplier Park) is adjacent to the existing Woolworths Distribution Centre.
- The Tuggerah Business Park is approaching full development and has been highly successful in attracting employment. Council's Retail Consultant is of the view that there is a demonstrable need to create another business park elsewhere in the Shire. It is sensible that this be located near to where most of the Shire's population growth is expected to occur.
- Upgrading of surrounding infrastructure (eg. road networks and sewer).

### **Total Investment Value**

Based on the total area of area of industrial land of 334 Ha which will ultimately be available in the WEZ the total investment value of investment that will be made in the WEZ can be estimated as follows:

1. Value of fully serviced industrial land which is subdivided and ready to be built on is on average \$170 per square metre.
  - Assume 334 Ha available x \$170 per square metre = \$0.57 billion
2. Estimated cost of investment in structures based on advice from from the development industry is \$800 per square metre.
  - Assume 50% of the land area is normally used for buildings once roads, setbacks and landscaping is excluded = 167 Ha
  - Assume 167 Ha X \$800.00/m<sup>2</sup> = \$1.34 Billion

Consequently the total value of investment which will occur in the WEZ is estimated to be in the vicinity of \$1.9 billion dollars.

### **1.3.3 Environmental**

In the document Ecologically Sustainable Development (Commonwealth of Australia, 1992), Ecologically Sustainable Development (ESD) is defined as “Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends”.

To achieve ESD both NSW and the Commonwealth government requires the following principles to be considered under each item:

#### *The precautionary principle*

Key development impacts associated with the proposal are documented in this SSS Study. Impacts have been predicted based on comprehensive environmental studies on flora and fauna, flooding, integrated water cycle management, contaminated lands and acid sulphate soil assessment. All impacts have been assessed and predicted to the best of Council’s capabilities. The proposed WEZ development concept has been based on a thorough appreciation of land capability and suitability considerations.

A major issue with the development of the WEZ is the management of Porters Creek Wetland. The WEZ drains directly to this wetland so it is essential that stormwater draining from industrial development does not have adverse impacts on wetland ecology and function. A sophisticated IWCM Strategy has been developed by Ecological Engineering (2006) to prevent water cycle changes arising from industrial development. Large areas of threatened species habitat, Endangered Ecological Communities (EECs) and wildlife corridors will also be protected.

#### *Inter-generational equity*

The WEZ has the potential to create 6,000 local jobs. One-third of Wyong Shire’s workforce commutes outside of the region for work on a daily basis. Wyong Shire currently has an unemployment rate of 8.3% which is significantly higher than that of the NSW average of 5.3% (June

2006). The WEZ has the potential to bring many economic benefits to the local area which will benefit current and future generations.

For many the WEZ will mean more choice of local jobs, less time spent getting to and from work, which means more people will be able to spend more time with their families and getting involved in community activities. The creation of the WEZ within close proximity to many new urban release areas, means that more people will have the ability to live closer to their place of employment, which means that less time and money need to be expended on transport. This is also good for the environment as it will result in an urban landscape which will require less fossil fuel usage than other urban landscapes where residential and employment districts are separated by greater distances.

Despite these benefits, there will still be impacts associated with the removal of native vegetation, filling of floodplains and impacts associated with construction activities whilst development proceeds.

#### *Conservation of biological diversity and ecological integrity, and*

Biodiversity conservation is an important component of sustainability. An important biodiversity issue in the WEZ is the loss of native vegetation due to habitat removal. Whilst these impacts have generally been planned to occur in less sensitive locations generally as advised by Murray and Bell (2007), they still involve a nett loss of native vegetation within the study area. This is more than balanced out by the following major biodiversity gains:

- Permanent protection a environmentally sensitive habitat, regional and local wildlife corridor networks.
- Introduction of sophisticated IWCM Strategy to maintain natural wetting and drying cycles of existing vegetation of swamp forest communities and high species diversity and the regionally significant Porters Creek Wetland.
- Enable areas of highest conservation value (including Aboriginal cultural heritage) to be better protected by introduction of new conservation zonings.
- Funding environmental management actions to enhance habitat qualities in disturbed areas e.g. restoration of corridor gaps and bushland restoration etc.

#### *Improved valuation and pricing of environmental resources*

The principle of polluter/impact generator pays should remain. The costs of purchasing privately owned conservation land which has been identified for conservation purposes as part of the WEZ rezoning strategy, funding of habitat rehabilitation and providing IWCM Strategy infrastructure to manage impacts associated with industrial development will largely be developer funded.

## **1.4 Study Specifications**

### ***Local Environmental Study***

The Director-General originally outlined specifications for the preparation of a Local Environmental Study (LES), including justification of the preparation of the draft Local Environmental Plan (draft LEP) for Precincts 11 and 13 - Halloran. Council was originally advised on 14 January 1997, pursuant to Section 57(2) of the *Environmental Planning and Assessment Act, 1979* (EP&A Act 1979), that the

DoP had no specific requirements. Later when the study area boundaries of the WEZ were expanded following the 24 November 2004 Council decision, the Director-General advised that the following additional requirements would apply to any LES:

- The LES should apply to the entire area of the proposed LEP, that is, any studies conducted as part of the previous proposal will need to be extended to cover new areas including Precinct 14 and the airport area.
- Any existing studies will also need to be reviewed to ensure that they remain current.
- The LES should consider updates to state and regional planning policy and strategy made since January 1997 including, but not limited to:
  - *Shaping the Central Coast* (including policies regarding urban development to the west of the F3 Freeway).
  - SEPP 55 - Remediation of Land.
  - Draft SEPP 66 - Integration of Land Use and Transport and the ILUT policy package including *Improving Transport Choice - Guidelines for Planning and Development* and *The Right Place for Business and Services - Planning Policy*.
- An analysis of the need for land for different types of employment and the appropriateness of the subject land compared to other potential sites. Such analysis is to consider the document *Sydney's Economic Geography - Trends and Drivers* (DIPNR 2004) available from the Department of Planning's (DoP) website. The timing of land demand and supply is also to be considered.
- An analysis of the infrastructure requirements to service the WEZ including an analysis of funding options.
- Discussion of the relationship of the WEZ with the Warnervale urban release area and surrounding precincts previously identified for development, in particular how those areas may develop in the future.
- Cumulative impacts of any proposed filling of flood liable land.
- Consideration of any adverse impacts on the future operation of the Warnervale Airport.

In addition to these requirements, the DoP also advised Council that it would need to make its intentions clear on future land use proposals to the east of the WEZ, this being the Bruce Crescent area. The western parts of Bruce Crescent are identified as longer term employment areas by broader structural planning work done around the Warnervale Town Centre site by Woods Bagot (2001) (see Appendix 4). It is considered logical to specify the timing and likely range of uses within this area, as part of future project work which would need to be conducted jointly with the DoP and Council in completing a settlement strategy for the northern part of Wyong Shire.

The DoP also requested Council to consult with some additional public authorities and bodies. These were subsequently added to the Section 62 consultation list.

All of the above issues were originally addressed in an LES document for the WEZ which was prepared by Wyong Shire Council (2006).

## ***State Significant Site Study***

On 3 July 2006, the Minister for Planning agreed to consider the WEZ rezoning as a potential State significant site under Clause 8(2) of the State Environmental Planning Policy (Major Projects) 2005.

In considering whether to include the site in Schedule 3 of the Major Projects SEPP, the Minister requested on 1 September 2006 that the Director General make arrangements for a study to be undertaken by Council that will assess:

- a The State or regional planning significance of the site having regard to the ‘Guideline - State Significant Sites’;
- b The suitability of the site for any proposed land use taking into consideration environmental, social or economic factors, the principles of ecologically sustainable development and any State or regional planning strategy;
- c The implications of any proposed land use for local and regional land use, infrastructure, service delivery and natural resource planning;
- d Those parts of the site which should be subject to Part 4 of the EP&A Act, with Wyong Council as consent authority;
- e The recommended zonings for the site;
- f The development controls for the site that should be included in Schedule 3;
- g The means by which developer contributions should be secured in respect of the site and a regional contributions framework;
- h Aboriginal heritage and archaeology issues and their impact on zoning boundaries;
- i Riparian corridor and floodplain management issues and their impact on zoning boundaries; and
- j Appropriate arrangements for the compulsory acquisition of land by Wyong Council for open space purposes.

The original WEZ LES has been updated in the form of a SSS Study which justifies the inclusion of the WEZ as a site of State and Regional Significance.

## **1.5 Consultation**

Key government agencies have been consulted under Section 34A and Section 62 of the EP&A Act 1979, in preparing the original Local Environmental Study. The results of these consultations were retained to inform the SSS Study process. Input has been through various avenues including public meetings and information sessions, letters and press releases (eg. newspapers).



The agencies consulted are as follows:

- Department of Premier and Cabinet (formerly, Premiers Department).
- Department of Water and Energy (formerly, Department of Energy, Utilities and Sustainability).
- Mine Subsidence Board.
- Hunter Central Rivers Catchment Management Authority.
- Central Coast Aero Club Ltd.
- Civil Aviation Safety Authority.
- Department of Environment and Climate Change (formerly, Department of Environment and Conservation (NSW)).
- NSW Department of Primary Industries - Mineral Resources.
- NSW Department of Primary Industries - Fisheries.
- NSW Department of Primary Industries - Agricultural.
- Roads and Traffic Authority.
- NSW Rural Fire Service.
- Gosford Council.
- Lake Macquarie Council.
- Energy Australia - Newcastle.
- Hunter Regional Development Committee.
- Kores Australia Pty Ltd.
- Department of State and Regional Development NSW.
- (Department of Natural Resources) (responsibilities now assumed by Department of Water and Energy).

The main issues raised are summarised in Appendix 1 and have been addressed in the relevant sections of this report.

Following is a list of outstanding issues as they stand at the moment:

- Agreement in principle to biocertify the draft LEP with Department of Environment and Climate Change (DECC).
- A number of DoP approvals to address various Section 117 Direction requirements would normally be required as part of a traditional rezoning process. DoP staff have advised that these requirements do not need to be addressed as part of the SSS Study process.
- Develop specific provisions to ensure that future development under Part IV of the Environmental Planning and Assessment Act 1979 is not affected by the *Native*

*Vegetation Act 2003* and designated development provisions under Schedule 3 of the EPA Regulations for constructed wetlands which need to be built as part of the WEZ IWCM Strategy.

- Unable to finalise Section 94 Contribution Plan for the WEZ until regional infrastructure levy costs are known.

# **SECTION 2 -**

# **THE STUDY AREA AND**

# **OUTLINE OF THE WEZ**

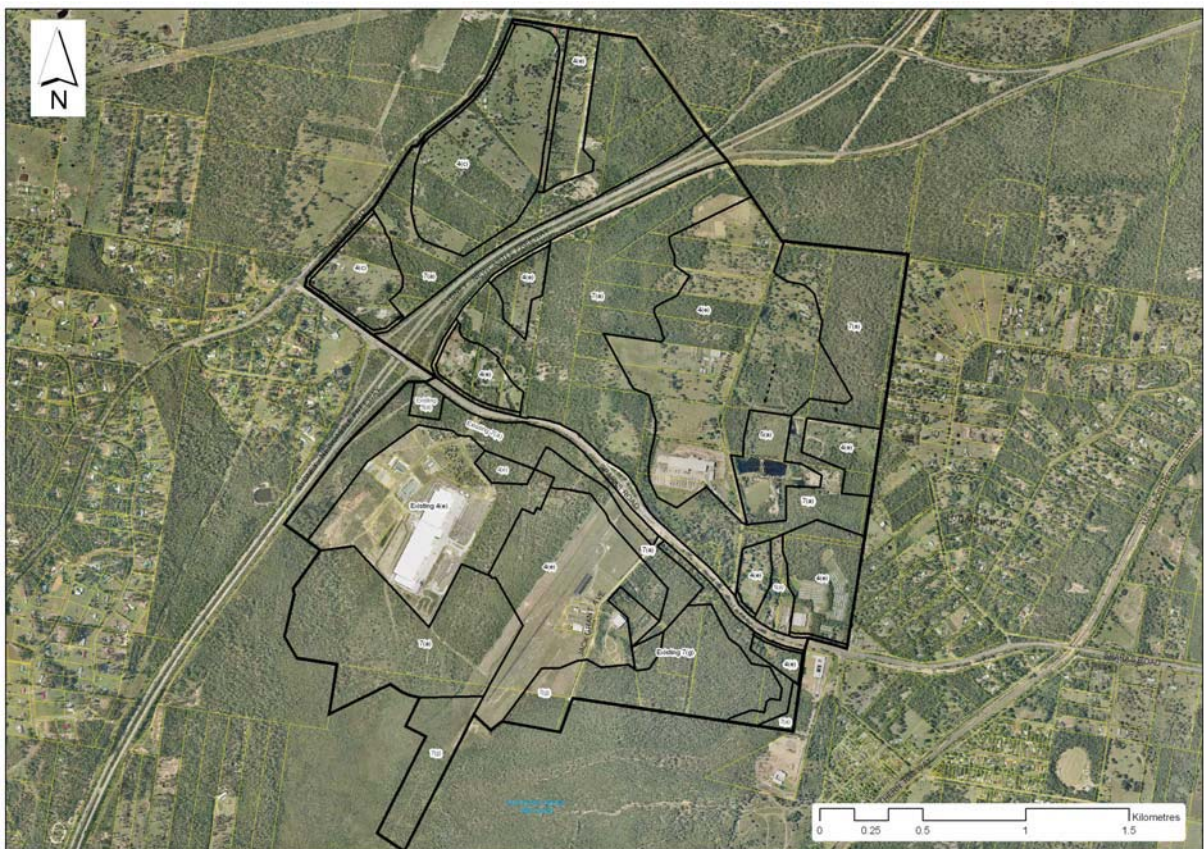
# **REZONING PROPOSAL**

## 2.1 Description of Study Area and Land Use Pattern

Figure 2.1 shows the Wyong Employment Zone (WEZ). This encompasses the areas of Precincts 11 and 13, Precinct 14, the existing Warnervale Business Park, the Warnervale Aerodrome and its surrounds. The total area is approximately 744 hectares, of which 334 hectares will form a new employment precinct (most of which is subject to this rezoning proposal). The area is referred to as the WEZ to simplify the locational description.

The WEZ is located approximately six kilometres north west of Wyong. It is bounded by Porters Creek Wetland catchment to the north, Porters Creek Wetland to the south, the Great Northern Railway to the east and Hue Hue Road to the west.

Figure 2.1: Aerial Photograph of the Wyong Employment Zone



The current land uses within the WEZ are shown in Figure 2.2. The area is scattered with rural residential development, ancillary structures and limited agricultural activities. The existing Warnervale Business Park, and the Woolworths Distribution Centre, is situated on the western side of the aerodrome (within the WEZ).

The majority of the WEZ is held under private ownership. Although Wyong Shire Council has substantial land holdings in the vicinity of Warnervale Aerodrome, a land tenure map is provided in Figure 2.2.

**Figure 2.2: Land Tenure within the WEZ**

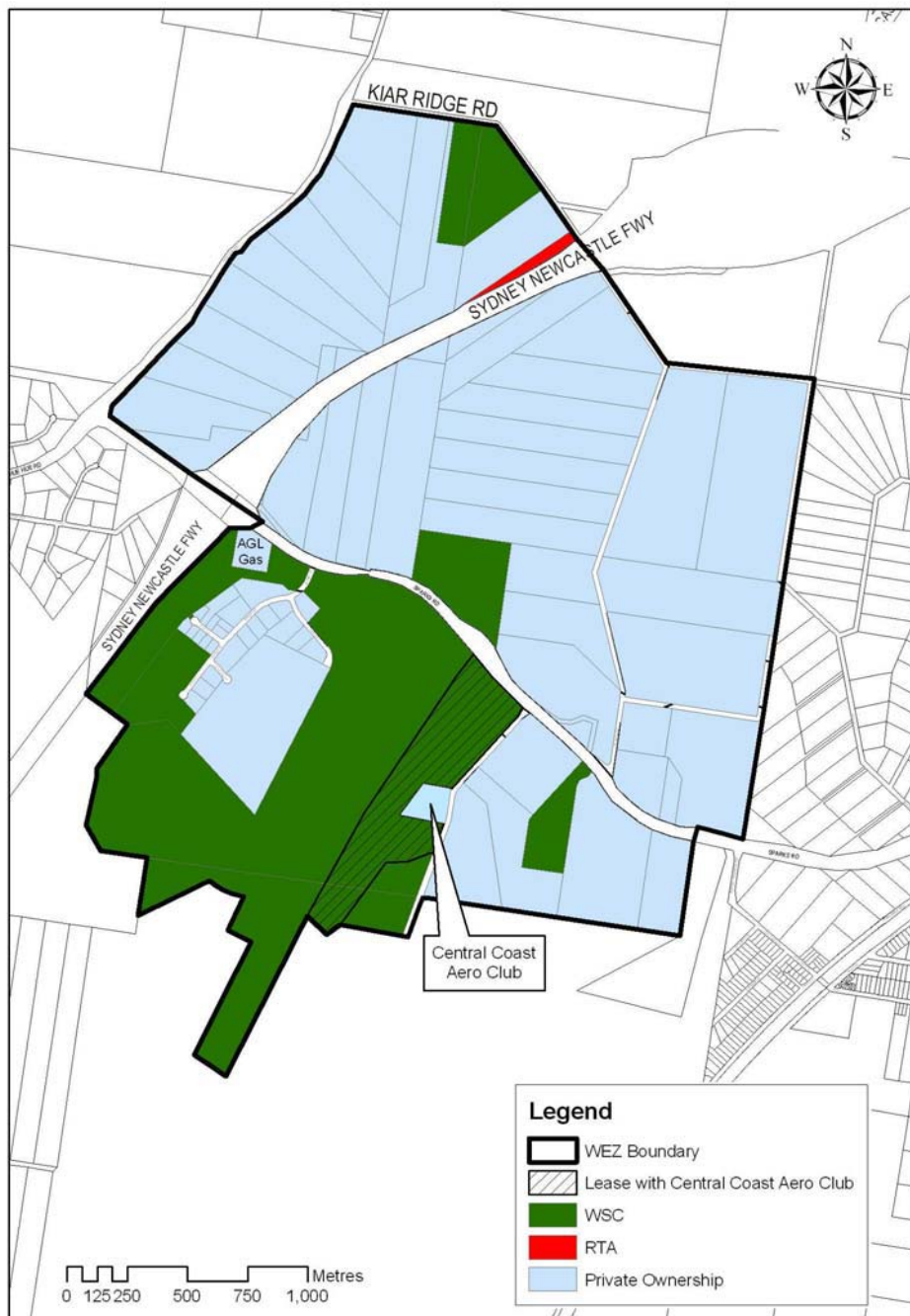
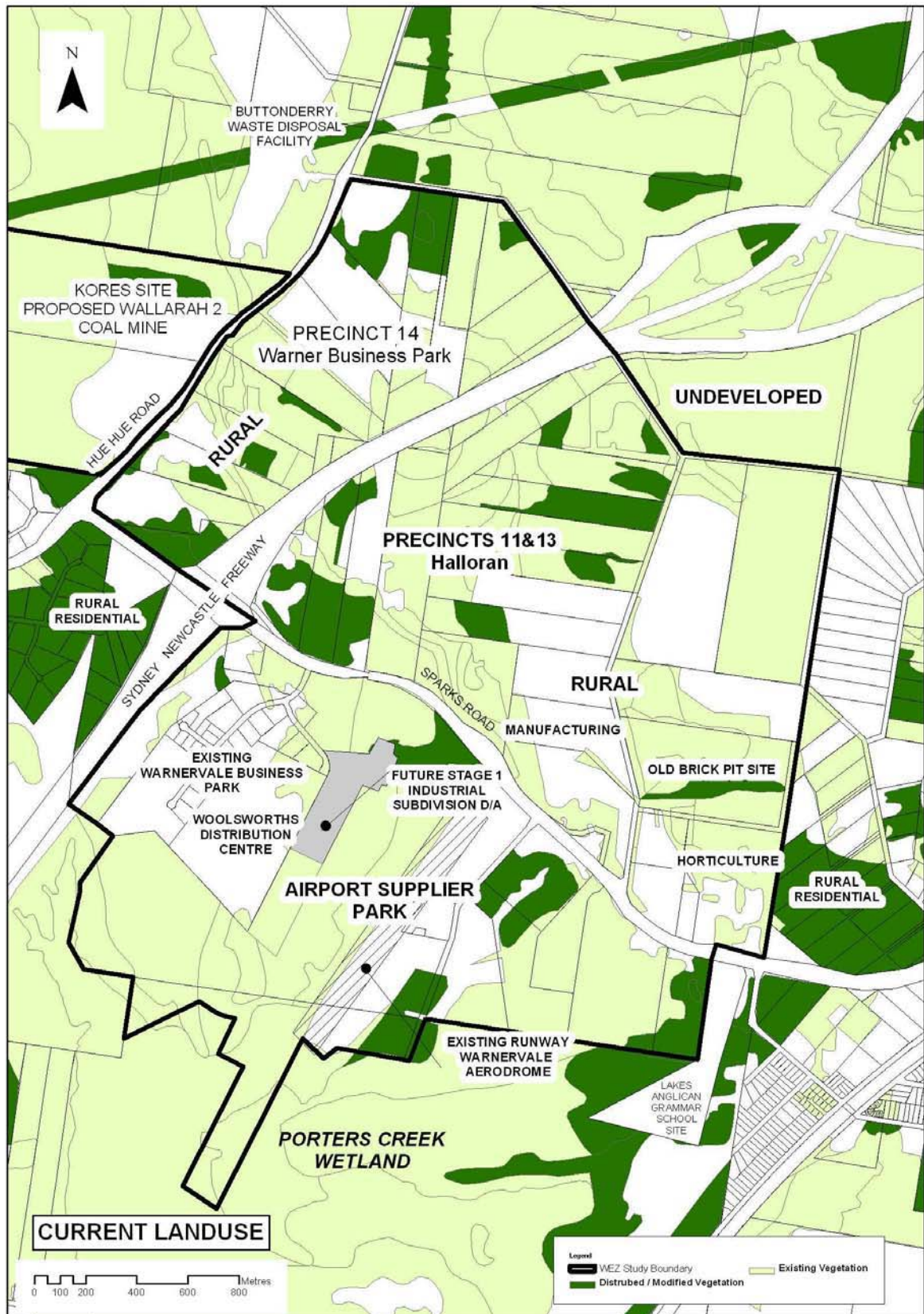


Figure 2.3: Current Land Uses within the Wyong Employment Zone



As discussed previously, the WEZ is strategically located near transport corridors including the F3 Freeway and Sparks Road. The area is surrounded by rural residential development to the east (Bruce Crescent), Buttonderry Tip to the west (approximately 2 kilometres), vegetated corridors to the north and Porters Creek Wetland to the south. The Great Northern Railway passes under Sparks Road two kilometres east of the site. Kores owns a site immediately to the west of Hue Hue Road Jiliby which is proposed to form part of the Wallarah 2 Coal Project.

The existing Warnervale railway station services the village of Warnervale and the new Lakes Anglican Grammar School (Years K-12). A new railway station is planned north of Sparks Road (2 kilometres to the east of WEZ) to service the proposed Warnervale Town Centre and surrounding residential development which extends further east to the Pacific Highway. A high level of community services and facilities are proposed within the development of the town centre (including community development and learning centre / library, community art and cultural centre, indoor recreation and aquatic centre, primary care network and youth precinct). People employed in industry locating within the WEZ will be able to utilise these proposed facilities and services.

The Warnervale District Centre development is likely to commence by 2009. Development of employment lands (currently Bruce Crescent rural residential) immediately to the east of Halloran is a mid to longer term prospect but is acknowledged as the most likely land use by the Warnervale District Planning Strategy (2002).

## 2.2 Outline of the WEZ Rezoning Proposal

It is proposed to rezone the area referred to as the WEZ by including the site in Schedule 3 of State Environmental Planning Policy (Major Projects), 2005. Approximately 334 hectares of developable land is likely to be created within the broader WEZ which is over 744 hectares. The rezoning will also enhance existing conservation areas by securing wildlife corridors which link Porters Creek Wetland Buttonderry Creek in public ownership. Degraded habitat will also be enhanced with a well funded bushland regenerating program.

The broad elements of the industrial release strategy for the WEZ are shown in Figure 1.1. If all of the rezoning proposals are successful it will create a large employment cluster of (approximately) 334 hectares (this includes the existing Warnervale Business Park). At a minimum this will generate approximately 6,000 jobs for the region.

Key components of the WEZ and key development statistics are summarised in Table 2.1 and Sections 2.2.1-2.2.4.

**Table 2.1: Key Statistics on draft EPI for the WEZ:**

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**Summary Statistics**

- Study area = 744 hectares.
  - Existing conservation zones = 95 hectares.
  - Proposed new conservation zones = 283 hectares.
  - Combined area of conservation zones = 349 hectares.
  - Combined area of existing Warnervale Business Park and new industrial zonings = 334 hectares.
- 

**WEZ Precincts**

***Precinct 14, Jiliby***

- Warner Business Park = 65.5 hectares.
- Kiar Ridge Road Industrial Land = 12.4 hectares.

***Warnervale Aerodrome and Surrounds, Warnervale***

- Existing Warnervale Business Park = 48 hectares (currently zoned industrial).
- Supplier Park - Stage 1 = 8 hectares (currently zoned industrial).
- Supplier Park - Stage 2 = 17 hectares.
- Aerodrome Stage 3 = 31 hectares (includes road Jack Grant Avenue).
- Surrounds areas east of Jack Grant Avenue and south of Sparks Road = 12 hectares approximately exact amount cannot be determined until investigations are completed.

***Precincts 11 and 13, Halloran***

- Automotive Precinct = 23 hectares.
- Regional Employment Lands = 117 hectares.

**Note:** Detailed locations of precinct locations are shown in Appendix 9.

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**2.2.1 Precincts 11 and 13 - Halloran**

It is proposed to rezone the majority of the land which is suitable for development in Precincts 11 and 13 to 4(e) (Regional Industrial and Employment Development Zone). There is currently a shortage of large land holdings for regional employment purposes on the Central Coast. The availability of large industrial lots is critical to provide for these activities. It is expected that Precincts 11 and 13 - Halloran will provide a key location for regional employment. It is also recommended that an automotive precinct be created to the north of Sparks Road which will be accessed off Mountain Road and Stage 2 of the Link Road (in the future).



The creation of this automobile precinct will create opportunities for these activities to locate in the northern part of Wyong Shire. This will not be a strip development. No direct access from Sparks Road will be provided and large areas of landscaping will be required to maintain and enhance visual amenity along Sparks Road. A specific enabling clause will be needed to permit ‘motor showrooms’ as a permissible land use and ensure that development is restricted to automotive related activities only, thereby ensuring that the designated function of the automotive precinct is not lost.

### **2.2.2 Precinct 14 - Proposed Business Park / Industrial Area**

It is proposed to create an upmarket business park which would be similar to the existing Tuggerah Business Park. It is proposed to rezone this area to 4(c) (Business Park Zone) to provide for a similar range of land uses to that which currently occurs within the Tuggerah Business Park. Some limitations on floor space for office and commercial uses are also recommended by Leyshon (2005) Council’s Retail Planning Consultant when specific advice was sought on business park floor space restrictions whilst the Wyong Shire Retail Strategy was being developed at the time. Minimum floor space controls on office and commercial uses were recommended to ensure that the new business park proposal does not have an adverse impact on the new town centre at Warnervale and the existing Wyong Town Centre.

### **2.2.3 Existing Warnervale Business Park**

The rezoning which permitted the existing Warnervale Business Park was gazetted on October 9 1998. It is zoned 4(e) (Regional Employment and Development Zone). The Woolworths Distribution Centre occupies almost half of the land within the Warnervale Business Park. Its recent opening represents a significant economic activity which will lead to increased economic activity arising from other developments which seek to be within close proximity to the regional Woolworths Distribution Centre

### **2.2.4 Warnervale Aerodrome and Surrounds**

#### ***Supplier Park - Stage 1 and Stage 2***

Council recently approved a development application to enable the release of industrial allotments to the east of the site where the Woolworths Distribution Centre has been constructed (shown as Stage 1). This site is currently zoned 4(e) (Regional Industrial and Employment Development Zone) and is approximately 14 hectares in size. This includes 8 hectares of this land to create two large industrial allotments. The remaining 6 hectares is environmentally constrained. Further development is proposed in Stage 2, however this will require rezoning as part of tis proposal.

Council is currently liaising with Woolworths about creating an industrial area (within stage 2) which will have strong logistic relationships to their distribution warehouse. This would attract certain suppliers to co-locate with warehousing and local manufacturing.

### ***Aerodrome - Stage 3***

The Warnervale Airport Site will continue to operate as a local airport until such time that Council makes a decision on the ultimate future use of the site. This area is referred to as Stage 3. It is expected that this area will have a warehousing and distribution focus. It is proposed to rezone this area to 4(e) (Regional Employment Development Zone).

### ***Surrounds (South East)***

On 10 August 2005, Council added a property on the southern side of Sparks Road so that it was included in the WEZ Study area. Some land owners to the east of Jack Grant Avenue also expressed interest in having their land included in the WEZ rezoning.

Three of the four land owners which expressed an interest in being included in the WEZ rezoning project have entered into a legal agreement with Council. This legal agreement identifies the amount of suitable industrial land on each property. It also establishes each party's obligations thus enabling the transfer of conservation offsets into Council ownership (at no cost).

## **2.3 Existing and Future Land Use Zoning Comparison**

A comparison of existing and proposed land use zonings within the Wyong Employment Zone is provided in Table 2.2.

**Table 2.2: Wyong Employment Zone**

<b>Current Zones under Wyong LEP</b>		<b>Proposed Zones under draft LEP</b>	
<b>Zone</b>	<b>Area (ha)</b>	<b>Zone</b>	<b>Area (ha)</b>
1(c) (Non Urban Constrained Lands Zone)	17.35	1(c) (Non Urban Constrained Lands Zone)	2.80
4(c) (Business Park Zone)	0	4(c) (Business Park Zone)	65.53
4(e) (Regional Industrial and Employment Development Zone)	61.41	4(e) (Regional Industrial and Employment Development Zone)	268.30
5(a) (Special Uses Zone)	130.16	5(a) (Special Uses Zone)	23.81
5(d) (Arterial Road Reservation Zone)	25.14	5(d) (Arterial Road Reservation Zone)	25.14
6(a) (Open Space and Recreation Zone)	14.10	6(a) (Open Space and Recreation Zone)	0.00
7(a) (Conservation Zone)	39.65	7(a) (Conservation Zone)	296.59
7(g) (Wetlands Management Zone)	55.51	7(g) (Wetlands Management Zone)	52.37
10(a) (Investigation Precinct Zone)	390.95	10(a) (Investigation Precinct Zone)	0.00
Road	9.97	Road	9.70
<b>TOTAL</b>	<b>744.24</b>		<b>744.24</b>

# **SECTION 3 - STATUTORY PLANNING FRAMEWORK**

## 3.1 Introduction

This section of the WEZ SSS Study examines the current planning and development status of the WEZ and the strategic context for future development. The overall strategic planning context provided by a range of state, regional and local planning policies is outlined. This section of the report addresses the relevant statutory planning controls that relate to the site.

The broad issues established for the Wyong Employment Zone (WEZ) by existing planning policies are:

- The critical need for employment lands in Wyong Shire.
- Council’s role in providing serviced employment lands.
- The need for satisfactory linkages to nearby growth areas, transport and infrastructure.
- Location close to proposed residential development (short distance to travel for potential employees).
- Porters Creek Wetland.
- Local and regional conservation needs.
- Environmental management needs.
- Location close to F3 Freeway and railway.

These issues will need to be reflected in any proposals for industrial development of the Halloran area. There has been an ongoing commitment to industrial development expressed in a range of regional and local planning policies. The area is essential for meeting both the short and longer term employment needs of the growing local population. In particular, development of this area offers the chance to reduce some local reliance on commuting to Sydney for work.

## 3.2 Environmental Planning Instruments

Under the *Environmental Planning and Assessment Act, 1979* (EP&A Act 1979) the following environmental planning instruments have been considered in the preparation of the draft Local Environmental Plan (draft LEP) for the WEZ.

### 3.2.1 Regional Environmental Planning Policies

No specific regional environmental plan applies to the WEZ. However, there are several state policies and principles that apply to the Central Coast region.

#### ***Regional Policies and Principles***

In December 2005, the Department of Planning released the NSW Government’s Metropolitan Strategy. The Strategy takes a regional and sub-regional approach to planning Sydney’s future.

Separate regional strategies are being developed for 10 sub-regions, including the draft Central Coast Regional Strategy. There are nine directions these documents respond to. They are:

- 1 Plan for balanced growth within natural resource constraints.
- 2 Strengthen the regions.
- 3 Manage growth and value non-urban areas.
- 4 Build liveable new communities.
- 5 Renew existing areas.
- 6 Strengthen employment centres and precincts.
- 7 Connect centres with the transport network.
- 8 Target infrastructure.
- 9 Use appropriate funding and governance arrangements.

The Metropolitan Strategy is a broad framework document which outlines a vision for Sydney for the next 25 years to promote and manage growth and guide the future of Sydney's economy, environment and communities.

The *Cities for the 21st Century Planning Strategy* and subsequent documents, prepared by the then Department of Urban Affairs and Planning (DUAP), set a vision for the Greater Metropolitan Planning Region of Sydney, which includes Newcastle, the Central Coast and Wollongong, to create:

*"a dynamic, sustainable and diverse community built on the Region's prominent position in the New South Wales, Australian and Asian Pacific economies and one which enhances its special natural and cultural environments".*

This document reinforces the state government's commitment to the Central Coast and provides strategic direction for issues of development, transport, employment and tourism.

The WEZ rezoning is not inconsistent with the broad planning principles being advocated in these documents. The WEZ will in fact reinforce the commitment by state and local government to provide strategic direction for employment, transport and development.

### **3.2.2 State Environmental Planning Policies**

The following SEPPs have been considered in the preparation of the draft LEP.

#### **SEPP (Major Projects), 2005**

##### **State and regional significance of the WEZ**

It is proposed to add the WEZ to Schedule 3 of State Environmental Planning Policy (Major Projects), 2005.

A State significant site must be of State or regional planning significance because of its social, economic or environmental characteristics.

When considering whether a site can be categorised as being of State significance, the Minister must consider whether the site meets one or more of the following criteria:

- (a) *Be of regional or state importance because it is in an identified strategic location (in a State or regional strategy), its importance to a particular industry sector, or its employment, infrastructure, service delivery or redevelopment significance in achieving government policy objectives;*

The WEZ is identified in the draft Central Coast Planning Strategy as a major new industrial land release area. The WEZ has the potential to create 6,000 new jobs on the Central Coast. The WEZ therefore represents a major part of State Government policy in attempting to achieve its target of creating 35,000 new jobs on the Central Coast over the next 25 years. Increasing economic development and increasing local employment is fundamental to reducing the amount of workers commuting outside of the region over the next 25 years.

The WEZ has some strategic attributes which make it a desirable location to establish an employment node. These include:

- Close to Sydney-Newcastle Freeway.
  - Located nearby the planned Warnervale Town Centre and proximate to planned residential developments which means that potential employees can live within close proximity to their place of employment.
  - Builds a large employment cluster around the existing Warnervale Business Park where Woolworth's has already built a regional distribution centre.
  - Located between two major cities (Sydney and Newcastle) which make the location attractive to a large range of potential firms.
- (b) *Be of regional or state environmental conservation or natural resource importance in achieving State or regional objectives. For example, protecting sensitive wetlands or coastal areas;*

The WEZ study area and areas immediately downstream contain a number of State and regional conservation issues which must be properly addressed as part of the SSS Study planning process. These include:

- Porters Creek Wetland is the largest freshwater wetland on the Central Coast. This wetland is recognised to be of State conservation significance as it is designated as a SEPP 14 - Coastal Wetland.
- Porters Creek Wetland and swamp forest communities within the WEZ study area require a continuation of the natural wetting and drying cycles to maintain its existing vegetation of swamp forest communities and high species diversity. The wetland contains many threatened species and endangered communities of State and national significance.
- Effective wildlife corridor planning outcomes are required to be incorporated into any planning for the WEZ to ensure that Porters Creek Wetland is linked to the extensive natural areas which exist in the Wallarah Creek catchment. This wildlife corridor is extremely important for as it forms the only major north-south wildlife corridor which is located to the east of the F3 - Freeway in Wyong Shire.

- Regional approach to stormwater re-use and the development of stormwater infrastructure to protect downstream ecosystems and also to ensure that unacceptable pressures are not placed on town water supplies in times of water shortages.
- (c) *Be of regional or State importance in terms of amenity, cultural, heritage or historical significance in achieving State or regional objectives. For example, sensitive redevelopment of important heritage precincts;*

The WEZ consists of land which is characterised by rural-residential development and large areas of natural vegetation have been maintained. It does not contain any environments which contain heritage cultural, heritage, or historical values of State and regional significance. However, any landscape treatment along the freeway and Sparks Road needs to be sensitively treated. Hence the WEZ represents a significant gateway for visitors entering Wyong Shire.

- (d) *Need alternative planning or consent arrangements where:*
- (i) *added transparency is required because of potential conflicting interests;*
  - (ii) *more than one local council is likely to be affected;*

The best mechanism for this to occur is through its inclusion on Schedule 3 of SEPP (Major Project), 2005. As part of establishing future planning regime for the site, a streamlined approach is required to assess development applications to rapidly ensure that the economic benefits of new development are not hindered by red tape. This would be benefited by ensuring that resource and biodiversity planning issues have been dealt with all issues strategically upfront in the WEZ rezoning process. Future planning controls for the site which will be set up by the State will need to be addressed as part of the Schedule 3 Amendment to SEPP (Major Projects), 2005, to ensure that a number of separate legislative requirements are switched off.

### ***SEPP 14 - Coastal Wetlands***

The aim of SEPP 14 is to ensure that certain mapped coastal wetlands are preserved and protected in the environmental and economic interests of the State. The subject site is located within the Porters Creek catchment. Porters Creek Wetland is a SEPP 14 wetland, however no development is proposed within the areas nominated on the SEPP 14 maps (see Figure 3.1).

Despite this, the integration of water sensitive urban design principles (WSUD) into the design of the proposal will assist in managing stormwater runoff entering the wetland.

### ***SEPP 44 - Koala Habitat Protection***

The aim of SEPP 44 is to:

*“Encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline”.*

This Policy requires an assessment to be made of the presence of specific plant species and the potential of the site to support Koalas. Potential Koala habitat as defined in SEPP 44 (>15% nominated trees) occurs in pockets of the WEZ. However, Council’s environmental consultant has confirmed that no core Koala habitat occurs within the WEZ. Consequently, the proposal is not inconsistent with the provisions of this policy.

### ***SEPP 55 - Remediation of Land***

The aim of SEPP 55 is to provide a state wide planning approach to the remediation of contaminated land and ensures that Councils receive appropriate information, either at the rezoning or development application stage. A contaminated lands study has been completed which identified areas which will require more detailed assessments at the development application stage. A number of Areas of Environmental Concern (AEC) have been identified in the WEZ. It is recommended by Council’s consultants that Stage 2 Environmental Site Assessments, including field investigations and laboratory analyses, be undertaken on those properties during redevelopment to assess the potential AECs for the presence of contamination. Depending on the results of the investigations, preparation of a remedial action plan may need to be undertaken on those properties prior to lodgement of development applications.

### **3.2.3 Wyong Local Environmental Plan, 1991**

On 24 November 2004, Council resolved, amongst other items, to prepare a draft Local Environmental Plan (draft LEP) to commence rezoning the WEZ.

On 3 July 2006 the Minister agreed to consider the WEZ as a potential State significant site. Hence, the rezoning would be enacted by inclusion on Schedule 3 of State Environmental Planning Policy (Major Projects), 2005. Existing land use zonings under Wyong LEP 1991 are proposed to be used in the WEZ LEP instrument which would be enacted through a Schedule 3 amendment to SEPP (Major Projects), 2005.

### ***Current Zoning***

Under *Wyong Local Environmental Plan, 1991* (Wyong LEP 1991), the following zones apply to the site and are illustrated in Figure 3.1:

- Zone No 1(c) (Non-Urban Constrained Lands Zone) - This zoning applies to land that may be physically constrained.
- Zone No 5(a) (Special Uses) - This zone applies to the land associated with the Warnervale Aerodrome and the Warnervale Education Site. The zone is used to designate land for specific community uses, public facilities and services.
- Zone No 6(a) (Open Space and Recreation) - This zone identifies land allocated to meet the open space and recreational needs of the local community.
- Zone No 7(a) (Conservation) - This zone identifies land with aesthetic, ecological or conservation value. The zone assists in protecting vegetation communities surrounding the aerodrome, Porters Creek Wetland and the vegetation corridor on the southern side of Sparks Road. A 40 hectare minimum lot size standard applies to subdivision.

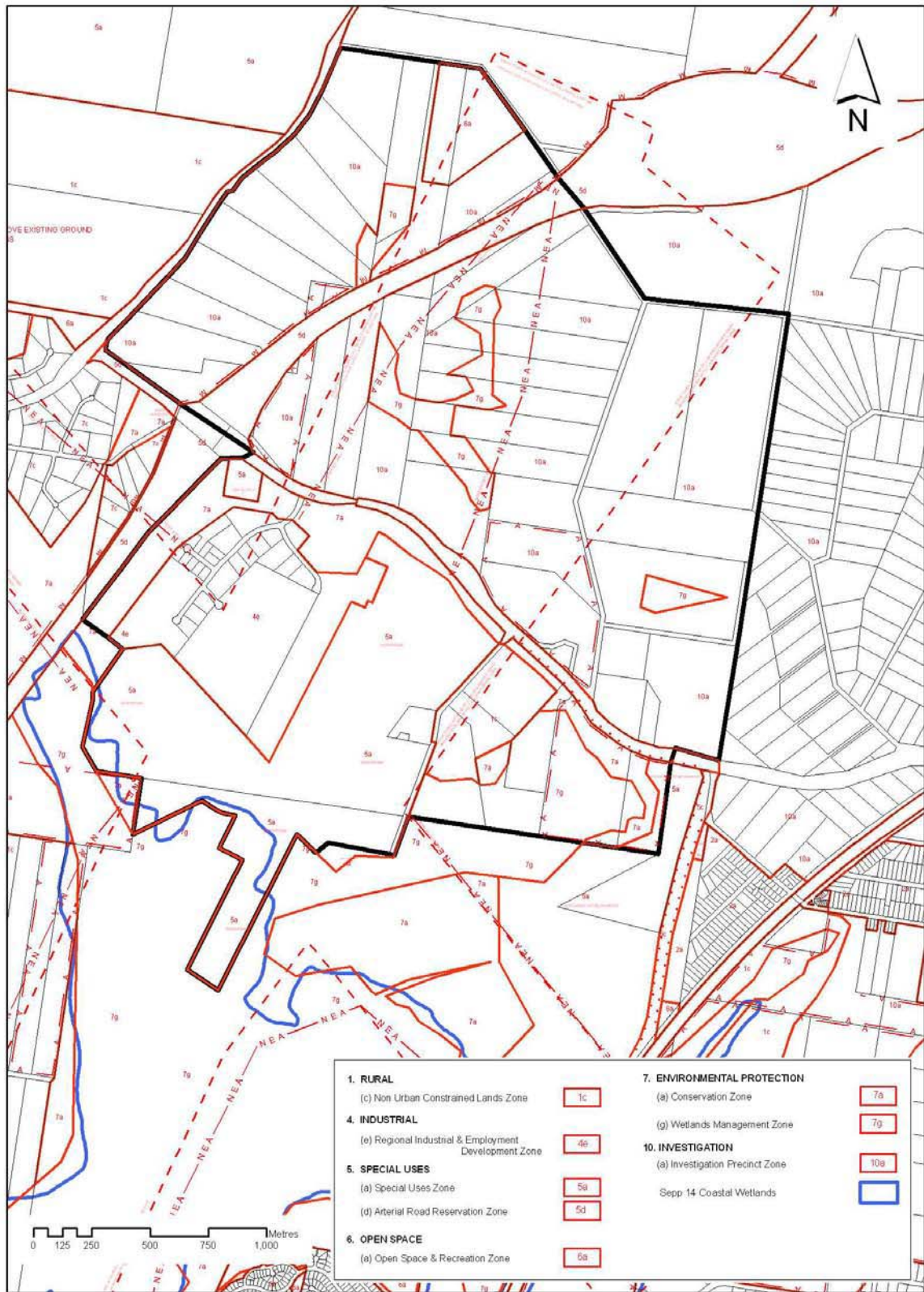


- Zone No 7(g) (Wetlands Management) - This zone applies to wetland vegetation communities and limits permitted uses to those having minimal impact on ecological integrity. A large part of the Porters Creek Wetland and some of the WEZ are subject to this zone. The associated DCP 2005 Chapter 30 - Wetlands applies to both the 7(g) zoned land and also to adjoining areas on which the health of wetlands depends.
- Zone No 10(a) (Investigation Precinct) - This zone applies to the majority of the WEZ and surrounding rural land. While this zone allows for a range of non-urban and rural activities, the primary intention of the zone is to conserve the land for future urban development. No provision for subdivision is proposed in the 10(a) Zone.

The following specific clauses of Wyong LEP 1991 also apply to various parts of the WEZ:

- Clause 18 - Restriction on development - lot amalgamation.
- Clause 23 - Flood prone land.
- Clause 28 - Tree management.
- Clause 34 and 35 - Development of known or potential archaeological sites and development within the vicinity of heritage items, archaeological site or potential archaeological sites.
- Clause 41A - Development of land within zone 7(g) (Wetlands Management).
- Clause 46 - Development of certain land near Warnervale Airport - This clause sets out the height restrictions applicable to buildings and structures within the identified obstacle limitation area.
- Clause 47 - Sound insulation of buildings near aerodromes - This clause requires appropriate noise protection measures to be implemented for any residential development within the identified noise exposure area.

**Figure 3.1: Current Zonings under the Wyong LEP 1991 and position of SEPP 14 - Coastal Wetlands Boundary**



### **3.3 Draft Environmental Planning Instruments/Policy**

#### ***Draft Central Coast Planning Strategy***

The State government acknowledges the WEZ as an area of State and regional employment significance in the draft Central Coast Regional Strategy. The WEZ is shown as a major new employment precinct in this document. The WEZ represents a significant element of State government policy which is attempting to achieve its target of creating 35,000 new jobs on the Central Coast over the next 25 years.

The development of the WEZ therefore represents a significant element of the State government's job creation policy. It also has a significant role to play in increasing local employment which will lead to less people commuting to work (currently 25% of the Central Coast workforce commutes to work outside of the region).

The conservation outcomes which are integrated into the WEZ proposal will also assist in the management of sensitive ecosystems in the regionally significant Porters Creek Wetland and establishing key regional wildlife corridors.

#### ***Draft SEPP 66 - Integrating Land Use and Transport***

Draft SEPP 66 encourages developments to provide more effective integration of planning for transport with planning for future development of urban land. The rezoning will not preclude the ability to service the area by public transport, thereby improving the choices of transport available to the community. High quality pedestrian linkages and public transport will be required to link WEZ rezoning to the proposed railway station and transport interchange at the new Warnervale Town Centre.

#### ***Draft SREP - Mine Subsidence***

Draft SREP (State Regional Environmental Plan) - Wyong's Development Areas and Coal Mining, 1987 was produced by the then Department of Environment and Planning. This SREP sought to establish time frames for underground coal mining so as to minimise conflicts with urban local release programmes in the northern part of Wyong Shire. Although the draft SREP was not formally adopted, in the absence of a more comprehensive regional plan, it has been used as the basis for broad planning decisions in Wyong Shire since its release. The sequencing proposed in the draft SREP has largely been followed and the system of development precincts has been used as the basis for ongoing strategic assessments.

No other draft environmental planning instrument that is, or has been placed, on public exhibition applies to the WEZ.

### 3.4 Other Relevant Acts and Policies

#### ***Rivers and Foreshores Improvement Act, 1948***

The intent of the *Rivers and Foreshores Improvement Act, 1948* (RFI Act 1948) is to prevent erosion or degradation of ‘protected lands’ as defined in Section 22A of the Act. A permit under Part 3A of the RFI Act 1948 is necessary to approve works that have the potential to cause adverse impacts on ‘protected waters’, such as increased erosion or sedimentation, bed lowering and bank collapse and obstructing or detrimentally affecting stream flow, leading to long term stability problems.

Any works associated with the future development of the WEZ lands which involve excavation on ‘protected land’ will require a permit under the RFI Act 1948 (though development is encouraged to be excluded from these areas in the first instance, including structural works for stormwater capture and treatment and bushfire asset protection zones).

The Department of Natural Resources advise that:

- Buttonderry Creek, its tributaries and the first order watercourses to the west of the Creek, are ‘protected waters’.
- There are no ‘protected waters’ on lands other than Buttonderry Creek within the WEZ.

Riparian buffer widths and detailed vegetation requirements will be incorporated into the proposed Development Control Plan for the WEZ to ensure these requirements and principles are implemented.

#### ***Roads Act, 1993***

The Roads and Traffic Authority (RTA) has powers under the *Roads Act, 1993* in relation to road works, traffic control facilities, connections to roads and other works on the classified road network. As Sparks Road (MR509) is a classified State road, RTA concurrence is required for connections to the road under Section 138 of the Act, with Council consent. The RTA is the consent authority for all traffic control signals under Section 87 of the Act. Council is the roads authority for Sparks Road and all other roads in the area, except the F3 Freeway.

#### ***National Parks and Wildlife Act, 1974***

The Department of Environment and Conservation has the responsibility for the protection and care of native flora, fauna and cultural heritage. Depending upon final location of the proposed development, it may be necessary to seek a consent to destroy in accordance with Section 90 of the *National Parks and Wildlife Act, 1974* (NPWS Act 1974).

### ***Native Vegetation Act, 2003***

The *Native Vegetation Act, 2003* (NV Act 2003) regulates vegetation removal in Wyong Shire on non-urban zoned land. This Act requires either a Property Vegetation Plan or a development approval to be obtained for most forms of native vegetation removal which occur on non-urban zoned land. This role is undertaken by the Catchment Management Authority (CMA).

Once the WEZ is rezoned, no approval will be required by the CMA for any vegetation removal undertaken in any of the proposed industrial zones. However, there still exists a requirement for any vegetation removal which is associated with drainage works, constructed wetlands and other infrastructure which are proposed to be located within 7(a) (Conservation) zones to obtain CMA approval. These works have a critical role to play in servicing future industrial land. However, it would not be logical to rezone these areas to an urban zoning as they will ultimately be managed under a Council owned 7(a) (Conservation) zoning. The Department of Planning has indicated that it is prepared streamline this process in order to ensure that public utility undertakings are assessed under Part V of the EP&A Act. Hence the Native Vegetation Act 2003 will not apply.

### ***Environmental Planning and Assessment Regulations***

There is the potential for key aspects of WEZ infrastructure, namely constructed wetland elements which are associated with the development of the IWCM Strategy to be designated development under Schedule 3 of the EP&A Regulations. This is because the wording of "artificial waterbodies" under the EP&A Regs. This provision requires any waterbody within 40m of a wetland or environmentally sensitive area which has an aggregate waterbody of >0.5ha to be "designated development". The definition of "artificial waterbodies" also includes constructed wetlands. This means that most constructed wetlands proposed within the WEZ will need to be supported by an Environmental Impact Statement (EIS).

## **3.5 Development Control Plans**

Development Control Plans (DCPs) provide more detailed controls than those provided in an LEP for the development of land.

A large number of DCPs would apply to any future industrial development which occurs within the study area. The main ones:

### ***DCP 13 - Interim Conservation Areas***

This DCP identifies potential conservation areas which are under investigation for either the conservation of threatened species and protection of wildlife corridors. This policy requires detailed ecological investigations to be undertaken within affected areas. This DCP shows that there are major unresolved corridor and threatened species issues in parts of the WEZ study area. Detailed flora and fauna investigations were undertaken as part of the rezoning process.

### ***DCP 30 - Wyong Shire Wetland Areas***

DCP 30 - Wyong Shire Wetlands aims to protect important wetland areas and maintain the functions of low lying land. Large parts of the study area are affected by this policy. Relevant provisions will need to be created in order to ensure that applicants fully understand which provisions of DCP No 30 are relevant as this DCP was conceived at a time prior to the development of plans to rezone the WEZ as an industrial precinct.

### ***DCP 67 - Engineering Requirements for Development***

This DCP applies controls which are applicable for works associated with subdivision and building development.

### ***DCP 73 - Warnervale Business Park***

This DCP applies to specific industrial development controls to the Warnervale Business Park which is located within the WEZ study area. This policy has been developed to accommodate development that satisfies the objectives of the 4(e) (Regional Business and Employment Development Zone). It has also been developed to create a high quality ‘business park’ environment and recognises the environmentally sensitive nature of the site.

This DCP will eventually need to be amended and suite of controls expanded to cover new parts of the study area which have been identified to contain industrial development potential.

## **3.6 Other Council Policies and Reports**

The following Council Policies that apply to the subject land have been reviewed:

- Policy A5 - Aboriginal Heritage.
- Policy F4 - Flood Prone Land Development.
- Policy L1 - Landscape.
- Flora and Fauna Guidelines for Development.
- Green Corridors Policy - G1.
- Potentially Contaminated Land.

In most cases, the above documents provide both general guidance and specific development standards applicable to development proposals on land in the Shire. The broader issues raised in these documents are addressed within the study.

### ***Warnervale District Planning Strategy (June 2002)***

The area immediately to the east of the WEZ is identified as employment lands. Satisfactory links are required between the WEZ and the proposed employment lands. A copy of the District Structure Plan is provided in Appendix 4. The *Warnervale District Planning Strategy* was endorsed by Council on 28 August 2002. This document was prepared by Woods Bagot (2002) and included broad illustrative structure planning concepts to define principles for the development of Warnervale town centre and its immediate surrounds.

### ***Warnervale Development Area - Integrated Planning Assessment (1996)***

The Warnervale Development Area (WDA) generally covers all of the land south of Sparks Road between the F3 Freeway and the Great Northern Railway and extends south to include the Porters Creek Wetland. The *Integrated Planning Assessment* report (August 1996) and addendum (September 1997) discuss the potential cumulative impacts of a range of development opportunities including:

- The upgrading of the existing aerodrome;
- A new industrial area to the west of the aerodrome;
- An extractive industry to the west of the aerodrome to provide on-site fill material for the upgraded runway (Council no longer proceeding with proposal) and the industrial area; and
- A higher education facility and community botanical gardens generally between the existing aerodrome and Warnervale village.

The main potential impacts identified by the *Warnervale Development Area - Integrated Planning Assessment* relate to loss of vegetation, reduction of fauna habitats and potential degradation of water quality. Council has since abandoned earlier plans to establish a regional airport at Warnervale.

As a consequence of the above findings and the potential for development within the Warnervale Development Area, due consideration will need to be given in the current study to:

- The provision of a fauna corridor linking Porters Creek Wetland to habitat areas to the north of Sparks Road;
- Limiting the extent of development to ensure that there is no significant reduction in habitat;
- The cumulative impacts of increased traffic movements;
- The supply and demand for industrial land; and
- The control of runoff from the site.

### ***Bushells Ridge Industrial Park Strategy (July 1997)***

The Bushells Ridge Industrial Park is the northern extremity of the proposed ‘employment generating corridor’ identified by Wyong Council and acknowledged by other regional and state authorities. The southern edge extent of the corridor is the industrial land adjoining the aerodrome. Bushells Ridge comprises 635 hectares of land zoned 4(e) (Regional Industrial and Employment Development) located between the F3 Freeway and the Great Northern Railway on the northern boundary of Wyong Shire. There are also very significant environmental concerns (See DCP No 13 - Interim Conservation Areas for Wyong Shire) that apply to the area.

The strategy report details the rationale, concept plans, financial analysis and actions required to establish Bushells Ridge as a major industrial park with a direct employment potential of at least 20,000 and an associated multiplier effect of at least 40,000 throughout the wider region.

Given the proposal for the Wallarah 2 Coal Mine and environmental concerns applying to this area, alternative employment land strategies, such as those advocated by the WEZ rezoning, are required to meet short term employment goals as this area only has limited employment land available for development. The creation of a rail spur in the precinct as part of the Wallarah 2 Coal Mine might open up some new industrial opportunities as well.

### ***Central Coast Regional Economic Development Strategy (March 1997)***

The principles of this Strategy promote:

- The creation of employment opportunities in line with population growth;
- Preservation of the region's natural environment;
- Integration of land uses;
- A range of large and small businesses;
- Environmentally friendly industries; and
- Planning for a sustainable future.



# **SECTION 4 - SITE ANALYSIS**

## 4.1 Natural Environment

The Porter's Creek catchment, in which the Wyong Employment Zone (WEZ) is located, is approximately 1,235 hectares. The Porters Creek Wetland south of the site has been recognised as a state significant wetland (State Environmental Planning Policy No 14) and is a highly sensitive ecosystem with a diverse range of threatened flora and fauna.

### 4.1.1 Topography, Soils and Ecology

#### *Topography*

The WEZ is made up of varying topography with moderate to steep slopes in the areas referred to as Precincts 11 and 13 and Precinct 14 and low lying land surrounding the airport (see Figure X). The main landscape features are the hill, elevation approximately 50 metres AHD, and ridgeline on the northern boundary of the WEZ. The WEZ generally occurs on the southern and south-western slopes, of an east-west trending ridge to the north of the WEZ. The lower slopes are bisected by numerous drainage depressions and creeks, which weep into north-south trending marshy floodplains. All low lying areas are flood prone and drainage lines merge into swamps and wetlands, the excess flowing southwards into what is known as the Porters Creek Wetland to the south of the Airport.

#### *Soils and Geology*

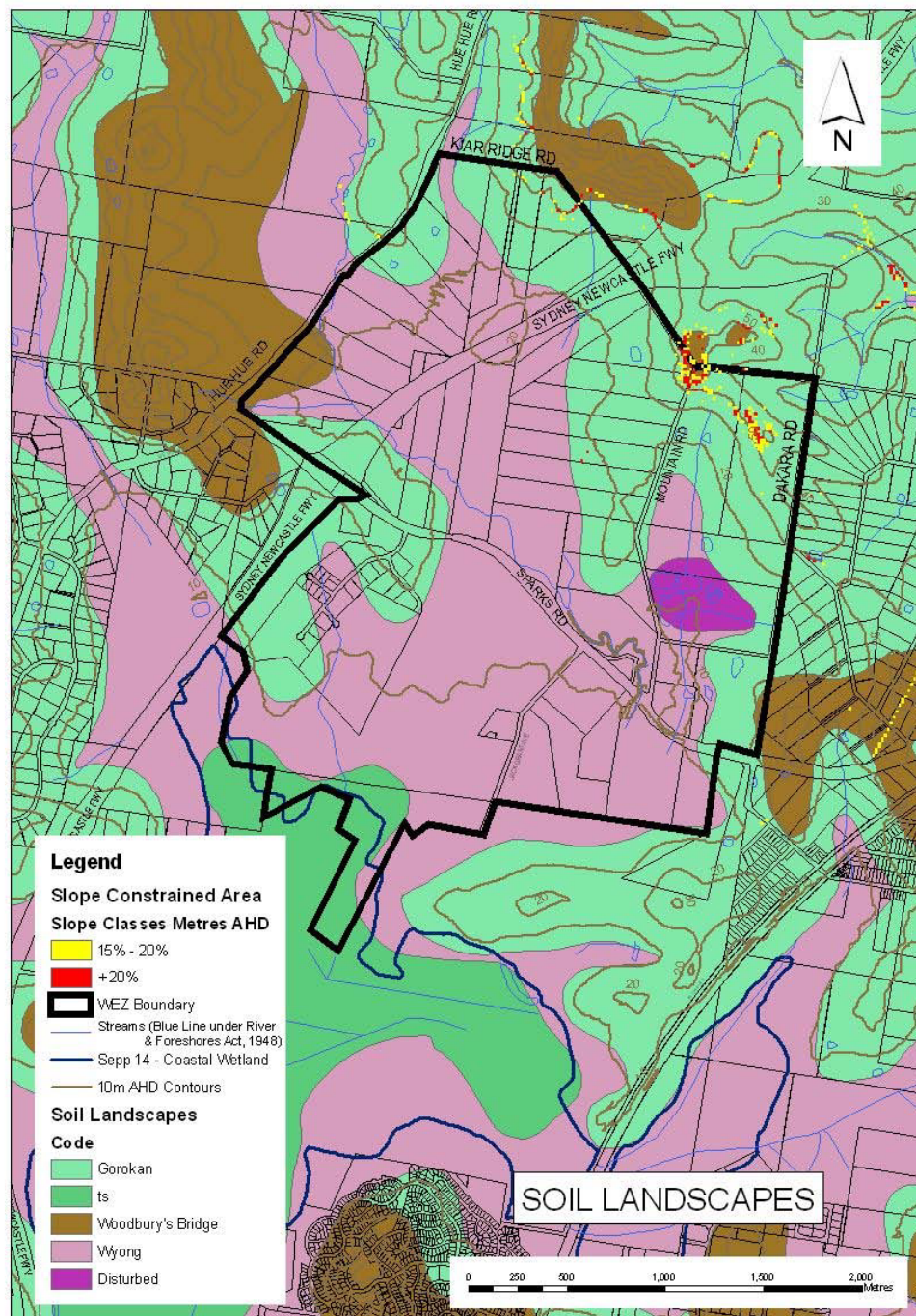
Several studies have been completed for the WEZ and describe the soil and geology through the area as the Hornsby Plateau consisting of hard Hawkesbury Sandstone, of Middle Jurassic Age, which is underlain by the Narrabeen Group (Ecological Engineering 1999, Storm 2002; and CMP&F 1997). The Narrabeen Group can be subdivided into the Gosford (sandstone and siltstone) and Clifton (softer compiled of sandstone, claystone and shales) sub-groups. The WEZ is underlain by the Clifton sub-group of Lower Triassic age.

Soils in the WEZ are generally comprised of fine to medium grained weathered sandstone, underlain by heavy clays on a weathered meta-sedimentary substrate, with darker organic, swamp muds and soils in the low lying areas. Different soil landscapes which occur in the WEZ are shown in Figure 4.1. The main soil landscapes are Gorokan, Wyong and Woodbury's Ridge Soil Landscapes.

- **Gorokan** - This soils landscape typically consists of topsoils of between 50-150cm in depth supported by solid podzolic (yellow) soils consisting of silty clays, clays, claystone, sandstone and shale. They are highly erodible, acidic, low fertility and generally impermeable. The typical vegetation on this landscape is low open forest, partially cleared for urban development and grazing.
- **Wyong** - This soil landscape occurs across the low lying poorly drained areas of the site. This system is typified by broad, poorly drained floodplains and flats, formed on Quaternary sediments of sand, silt, gravel and clay. The soils have low fertility, moderate erodibility, high acidity and localised potential for acid sulphate soils. This landscape is highly susceptible to flooding and waterlogging which creates conditions suitable to the establishment of sedgeland and heathland vegetation. The original closed forest typical of this landscape has been widely cleared for settlement and the establishment of pasture for grazing, with only isolated pockets of forest remaining.

- Woodbury's Bridge** - Several outcrops of the residual Woodbury's Bridge system have been identified on the ridgetops in the north-east of the WEZ. The general topography of this system is characterised by gently undulating rises to rolling hills, with the higher land and ridgelines containing moderate slope gradients up to 20% and rising to 56 metres AHD. The soil consists of claystone and siltstone, with some sandstone, which have low fertility and moderate to high erodibility. The main vegetation type is tall open forest with a grassy understorey, now extensively cleared. All areas of the Woodbury's Bridge unit have been shaded as likely to experience erosion, as have all areas with a slope greater than 10% within the Gorokan Landscape Unit.

Figure 4.1: Soil Landscape Map and Steep Land

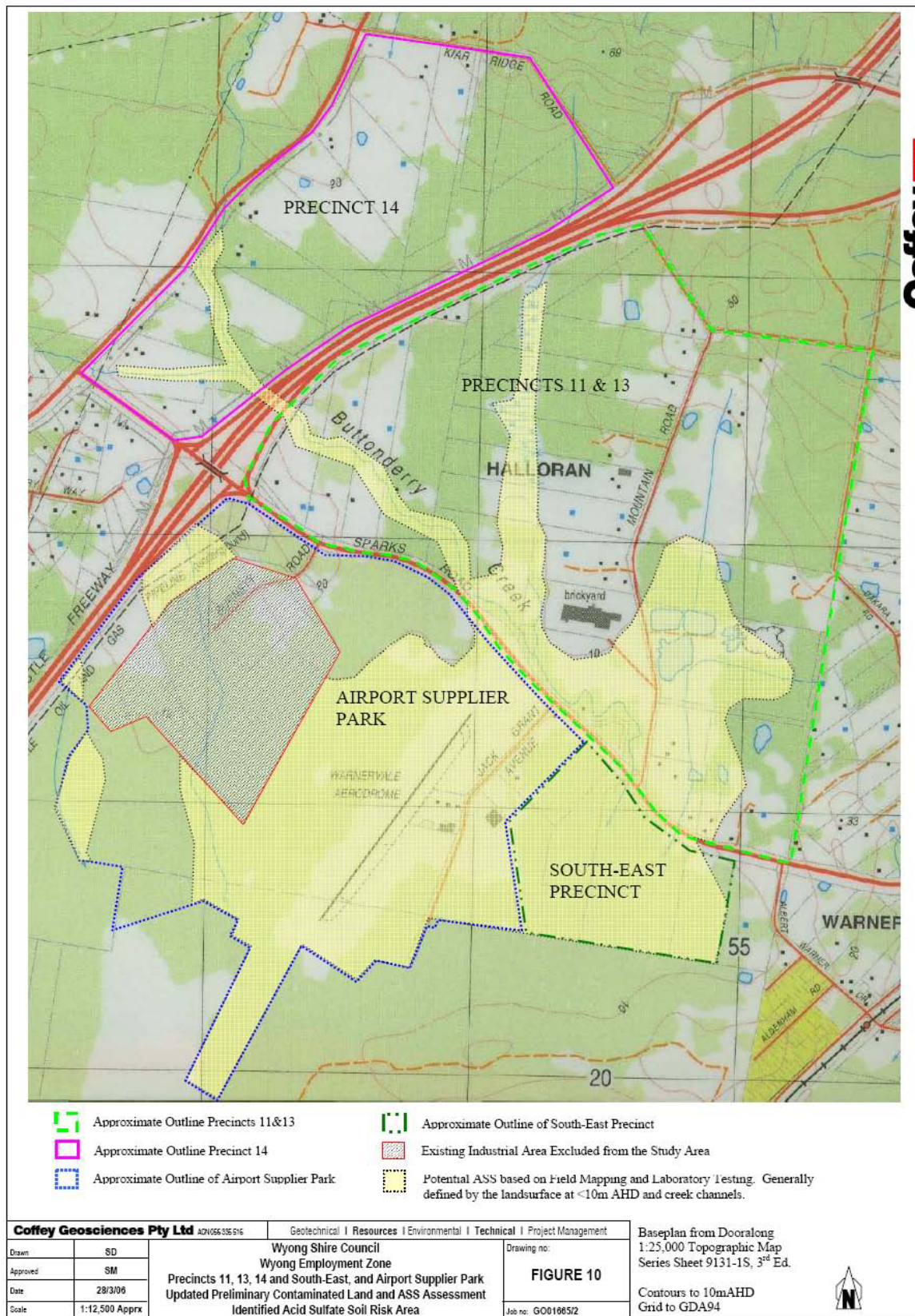


### ***Acid Sulphate Soils***

Acid sulphate soil (ASS) mapping conducted by the Department of Conservation and Land Management (1993) indicates a potential presence under the low lying parts of the WEZ. The survey work completed within the WEZ has included a review of available published ASS Risk Maps, topographic (landform), previous ASS reports, and proposed rezoning and development works to ascertain the potential impacts to surface landscape and groundwater features. The potential for acid sulphate soils is greatest along creek lines and lower lying land.

Coffey (2006) concluded that the majority of Precincts 11, 13 and 14 are not considered to have a risk of ASS soils (Figure 4.2). The southern central portion of Precincts 11 and 13, close to the intersection of Sparks Road and Mountain Road, along Buttonderry Creek and an associated area of swamp on an old road alignment are considered to have low potential to support ASS. The majority of the Airport Supplier Park is considered by Coffey (2006) to have low potential for ASS due to the low elevation of the area. The Buttonderry Creek area, which traverses Precincts 11 and 13 and Precinct 14 is considered to have the potential for ASS. This area also has high riparian corridor and conservation values. A detailed ASS assessment would be recommended to be conducted prior to any significant works that would disturb the subsurface profile in those areas (shown in Figure 4.2). If ASS are identified at those particular locations / development areas shown in Figure 4.2 then an ASS management plan would need to be prepared to manage the disturbances. Note that this does not include filling on floodplains.

Figure 4.2: Potential Acid Sulphate Soils

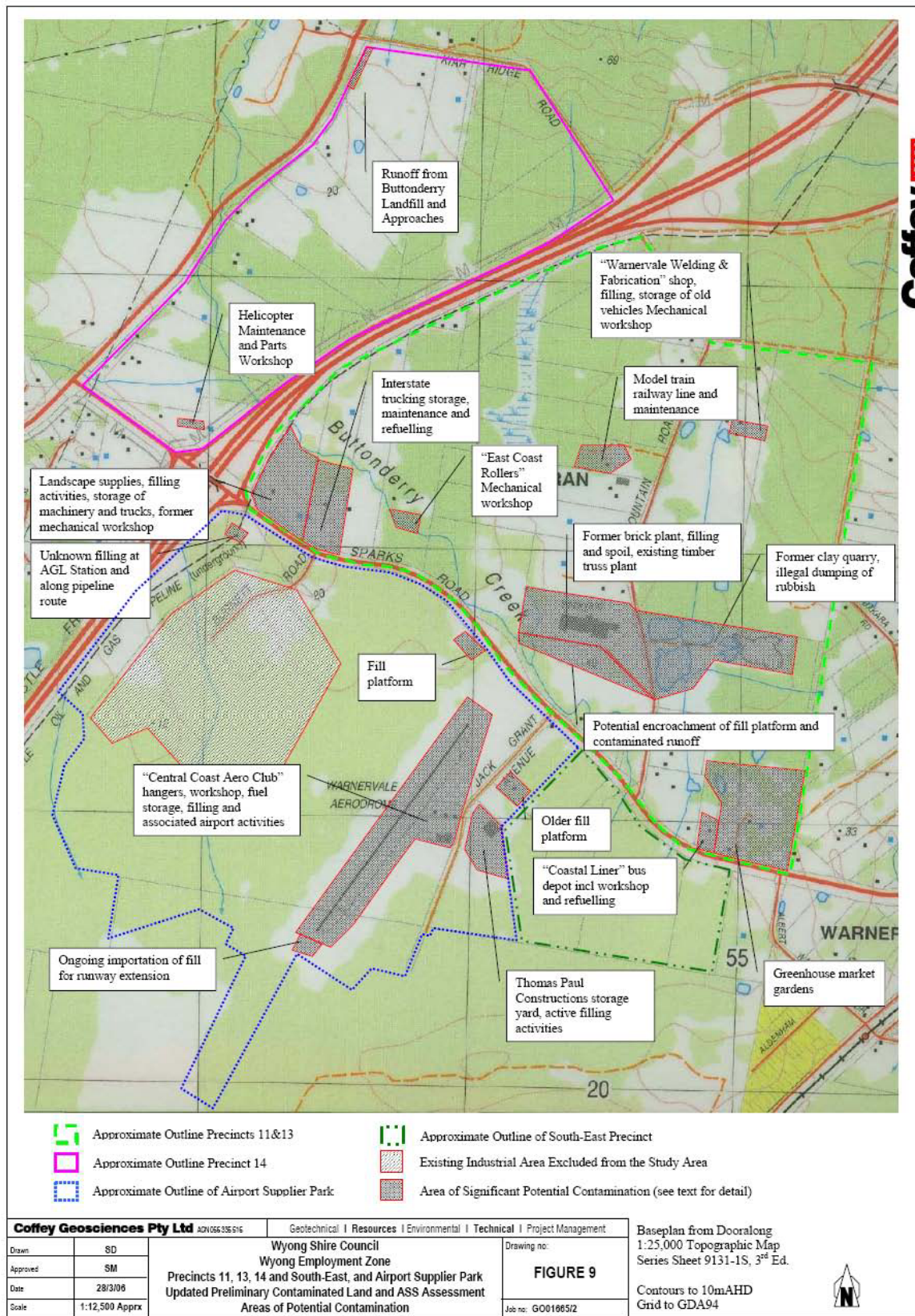


### ***Contaminated Land***

A preliminary contaminated lands assessment was conducted by Coffey Geosciences Pty Ltd (2006) of the WEZ. The objectives of the study were to identify all past and present potentially contaminating activities, identify potential contamination types, assess and discuss the existing site conditions, provide a preliminary assessment of site contamination, and provide preliminary advice on remediation and management of any identified site contamination.

Figure 4.3 shows the areas of significant potential contamination and Table 4.1 lists those properties with the potential contamination source.

Figure 4.3: Areas of Significant Potential Contamination within the WEZ



The main potential contamination issues in the WEZ that would affect the commercial / industrial development are listed in Table 4.1.

**Table 4.1: Potential Contaminated Sites**

Lot Description	Potential Contamination Source
Lot 67 & Lot 74 DP755245	Brick manufacturing (and current timber manufacturing) and clay quarrying
Lot 74 DP 755245 onto Lot 1 DP796730	Potential encroachment of the fill platform and contaminated water runoff
Lot 2 DP801029	Transport depot
Lot 21 DP259530	Potential contaminated fill material, landscaping supplies, and vehicle storage and maintenance activities
Lot 22 DP259530	Trucking business
Lot 3 DP801029	Horticulture activities
Lot 94 DP776142	Earthmoving machinery maintenance activities
Part of Lot 113 DP755245	Steel welding and fabrication
Lot 15 DP 259530	'Heli Aust' helicopter operation
Lot 8 DP 239704	Potential run-on of contaminated materials from Buttonderry Landfill
Lot 3 DP 1007500, Lot 211 DP 812718 & Lot 212 DP 812718	Aerodrome
Lot 3 DP 1007500	Imported fill along the northern boundary
Lot 9 DP 240709	Filling and potential excavation machinery maintenance
Lot 5 DP 239691	Filling

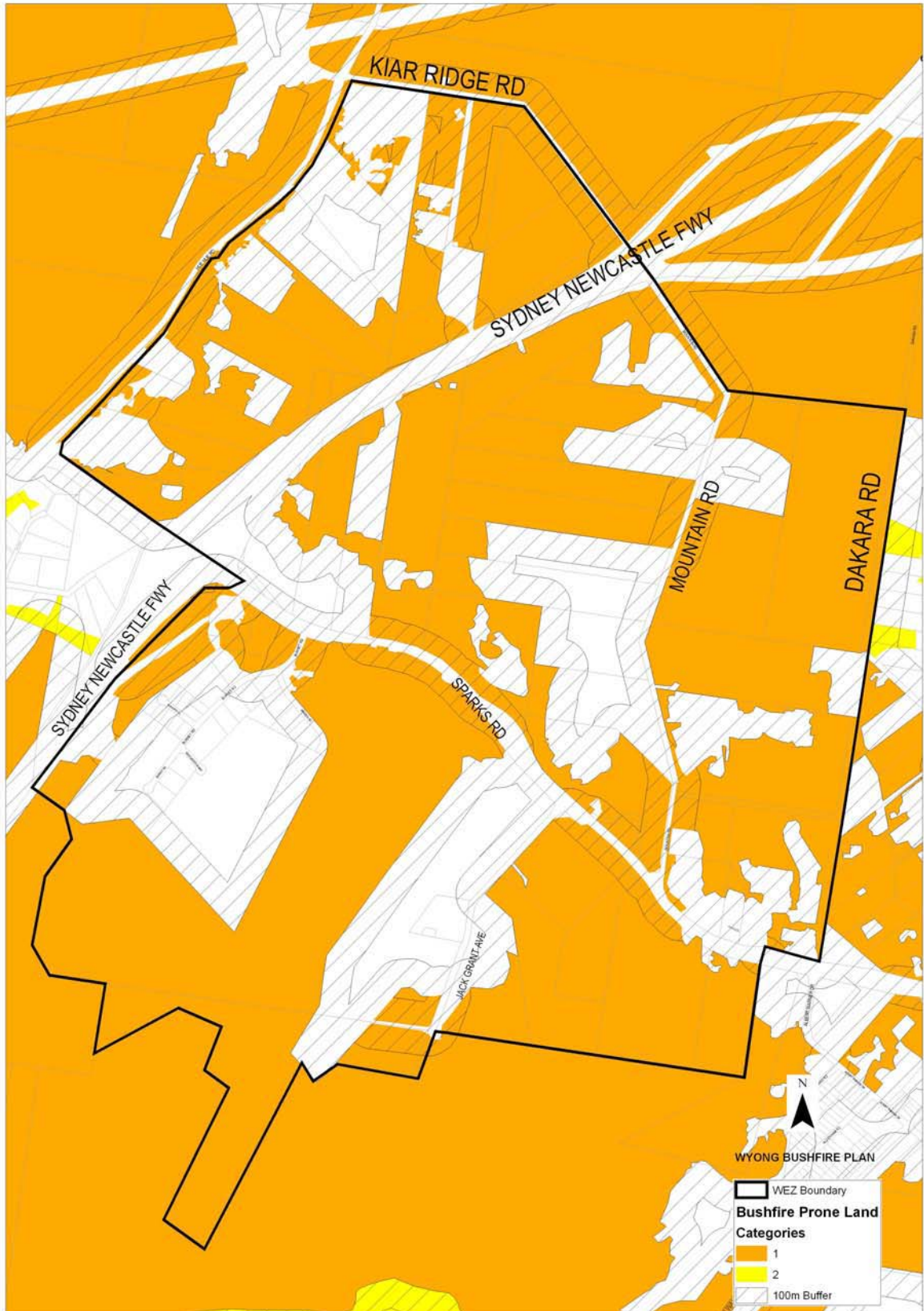
**Note:** Given that the majority of the precincts have been used for rural-residential or aerodrome use for at least 30 years, those parts that are proposed to be retained for more sensitive (eg. ecological use) may also require Stage 2 assessments (and remediation) prior to those proposed uses. Specifically, assessments may be required on Lot 96 DP 867428, Lot 94 DP776124, Lot 5 DP 240205, Lot 7 DP 259530, Lot 1445 DP 747246, Lot 5 DP 239691, Lot 62 DP 755245 and Lot 64 DP 755245.

### ***Bushfire Prone Lands***

Due to the current vegetated state of the area, a large portion of the WEZ is classified as Bushfire Prone Land by mapping which has been endorsed by the Rural Fire Service.



Figure 4.4: Bushfire Prone Lands Mapping



## **Mineral Resources and Coal Mining**

The draft Sydney Regional Environmental Plan - Wyong Development Areas and Coal Mining indicates that Precinct 14 has coal mining potential and is within a Mine Subsidence District. All other parts of the WEZ are outside of the Mine Subsidence District.

BHP Billiton originally carried out detailed exploration (for the Wyong Coal Project) of a large area of land in Wyong Shire with the view to establishing the viability of a large underground coal mine. The Wyong Coal Project and the exploration lease has recently been purchased by Kores Australia Pty Ltd. This exploration lease covers a large portion of the WEZ (generally all land to the west of Mountain Road). Kores is finalising its plans for the Wallarah No 2 Coal Project (W2CP) which is a new project that is reconfiguring earlier mining plans which BHP Billiton had when they owned the project. The W2CP will involve the underground extraction of export thermal coal with associated surface facilities and infrastructure. The project comprises an underground longwall mine, coal handling plant (dry processing only), storage facilities, rail loop and loading infrastructure, an underground drift entry, ventilation shafts and gas management facility. Preliminary plans for the proposal show that a ventilation shaft and buildings will be constructed to service the project on land abutting the WEZ to the west of Hue Hue Road, Jilliby. An underground drift also passes through Precinct 14 (within the WEZ) to Precinct 15 - Tooheys Road (outside of the WEZ) where the majority of surface infrastructure is proposed to be located for the W2CP. No subsidence is predicted to result from the construction and operation of the drift.

The Department of Primary Industries has indicated the need to consider the potential implications of long term recovery of methane from deep coal seams particularly to the south of the subject site. Given that the likelihood of mining is low, because of the proximity to high value infrastructure (ie. the F3 Freeway) and geological problems, no building or construction requirements are necessary for industrial development to the east of the F3 Freeway.

Historically clay resources have been extracted from the 'Old Brickpits' site to the east of Mountain Road, Halloran on land owned by Hudson Pty Ltd. The Department of Primary Industries has confirmed that there are no valid licenses for extractive or prescribed minerals under the *Mining Act, 1992* within the WEZ.

### **4.1.2 Drainage and Hydrology**

The WEZ is located within the northern catchment of the Porters Creek Wetland. The study area drains into Buttonderry Creek and ultimately into the Porters Creek Wetland. A number of important aquatic ecosystems are present down stream of the WEZ including a mosaic of natural wetland and heathlands that have formed within the flat, wide waterways of the region. Many of these systems are sensitive to changes in hydrology and there are indications within Porters Creek Wetland that some of these wetland communities are suffering die-back due to wetter conditions associated with development in the catchment.

Drainage is controlled by both the topographical features and development such as roads, landfill, open drains, culverts and pipes. Mountain Road generally follows a north-south spur of higher land that bisects the site into two sub-catchments (refer to Figure 4.5). The western sub-catchment drains directly to Buttonderry Creek while the eastern sub-catchment flows via artificial drains to a culvert under Sparks Road. Three culverts drain under Sparks Road: one at Buttonderry Creek near the Mountain Road-Sparks Road intersection, the second at an overflow channel about 200 metres west of the intersection and the third, draining the eastern sub-catchment, some 200 metres east of the Mountain Road intersection. The F3 Freeway culverts are located 250 metres to 300 metres apart, with the discharge from the two smaller culverts flowing across the floodplain to join with the central tributary drainage line which, in turn, joins Buttonderry Creek some 600 metres west of Mountain Road.

The natural drainage east of Mountain Road has been highly modified by road drainage, clearing, quarrying of the brick pits and construction of drains on private property near Sparks Road. The natural drainage east of Mountain Road appears to have been a general southerly flow through wetland areas rather than a defined channel.

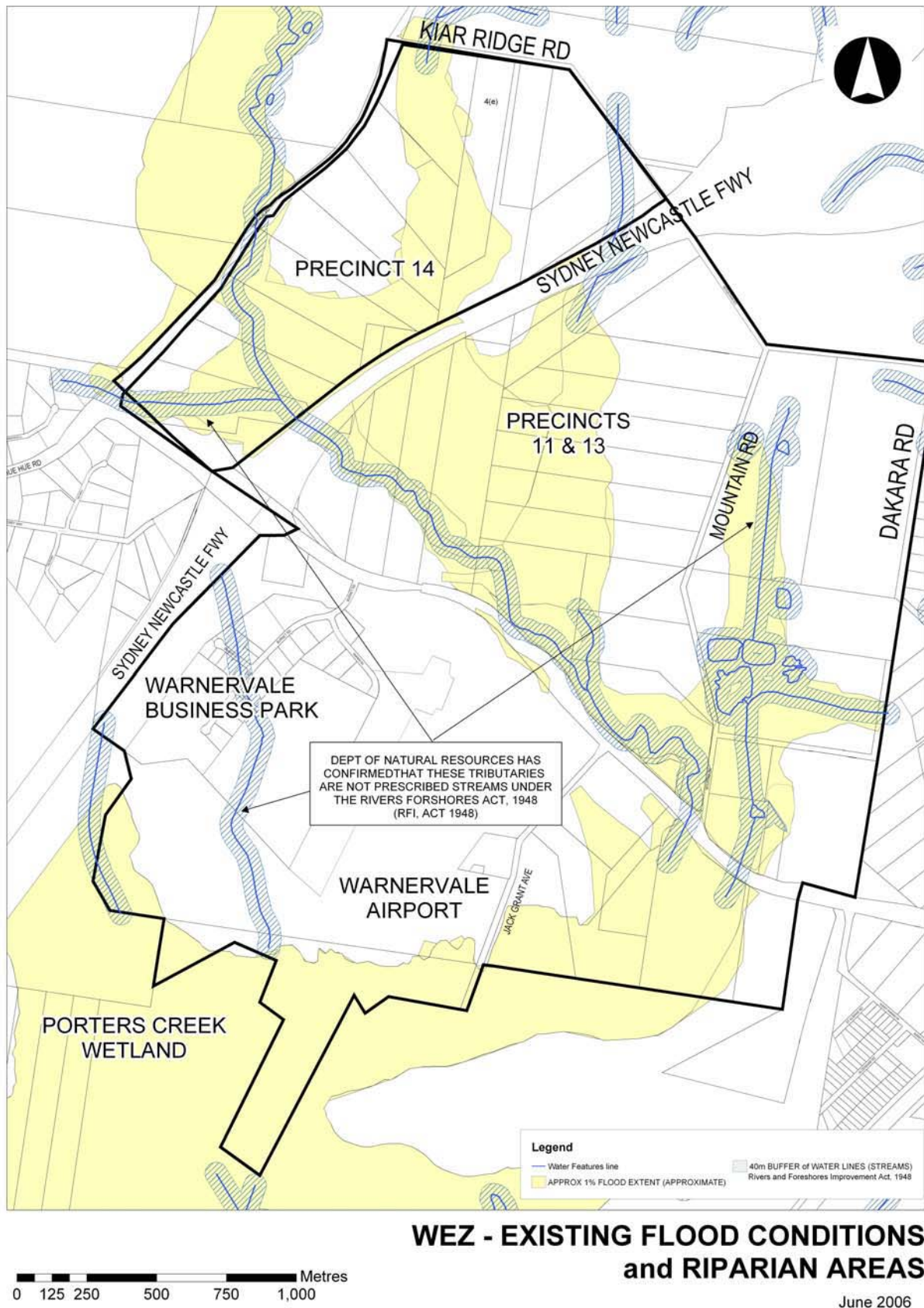
The study area is part of the Buttonderry Creek catchment which is itself part of the Porters Creek Wetland catchment. The upstream part of the Buttonderry Creek catchment, located on the western side of the F3 Freeway, covers an area of some 9.1 square kilometres.

An investigation of hydrology and flooding was undertaken in the study area by Matrix (2005) and DHI (2006). These studies identified the extent of floodprone lands and modelled the effects of filling in selected areas. These studies indicate that extensive parts of the study area are inundated by the 1% AEP flood as indicated by Figure 4.5. The floodprone areas as identified are consistent with the topography of the area. Flood depth is estimated at 0.5m - 0.75m over the floodplain and represents 'low hazard' conditions, as defined by the NSW Floodplain Development Manual.

Sparks Road was raised to above the 1% AEP flood level approximately 15 years ago. The upgrading of Sparks Road included augmentation of the culvert on Buttonderry Creek and the replacement of the most eastern culvert on Sparks Road.

Streamlines (bluelines) are shown on Figure 4.5 and these are buffered by a 40 metre line on either side. A site inspection of conditions on site has revealed that in some situations there is no bed or bank within these areas. The former Department of Natural Resources advises that Buttonderry Creek, its tributaries and the first order watercourses to the west of the Creek, are '*protected waters*' under the *Rivers and Foreshores Improvement Act, 1948* (RFI Act 1948). While the preference is to exclude development from the protected lands that buffer the protected waters, any works which involve excavation on '*protected land*' will require a permit under the RFI Act 1948.

Figure 4.5: Current Flood Affected Land



### 4.1.3 Flora and Fauna

#### *Survey Approach*

Murray and Bell (2007) have undertaken ecological investigations to identify and assess potential constraints to development of the Wyong Employment Zone in the Wyong Shire. Flora and fauna surveys were conducted in accordance with Council's Flora and Fauna Guidelines for Development. Full details of the survey methodology are contained in the report by Murray and Bell (2007).

#### *Vegetation*

A flora and fauna study was conducted over the study area by Murray and Bell (2007). As part of this study, 10 distinct vegetation communities were mapped. However, a number of mixed and disturbed community types were also mapped. Vegetation types were described in accordance with the mapping protocols established by Bell (2002) when Wyong Shire's vegetation was mapped. These vegetation communities can be related to equivalent regional vegetation mapping units identified by regional vegetation work conducted for the Lower Hunter and Central Coast Regional Environmental Management Strategy in 2003. Vegetation types present in the WEZ are shown in Figure 4.6. Each vegetation type and regional equivalents are described in Appendix 6.

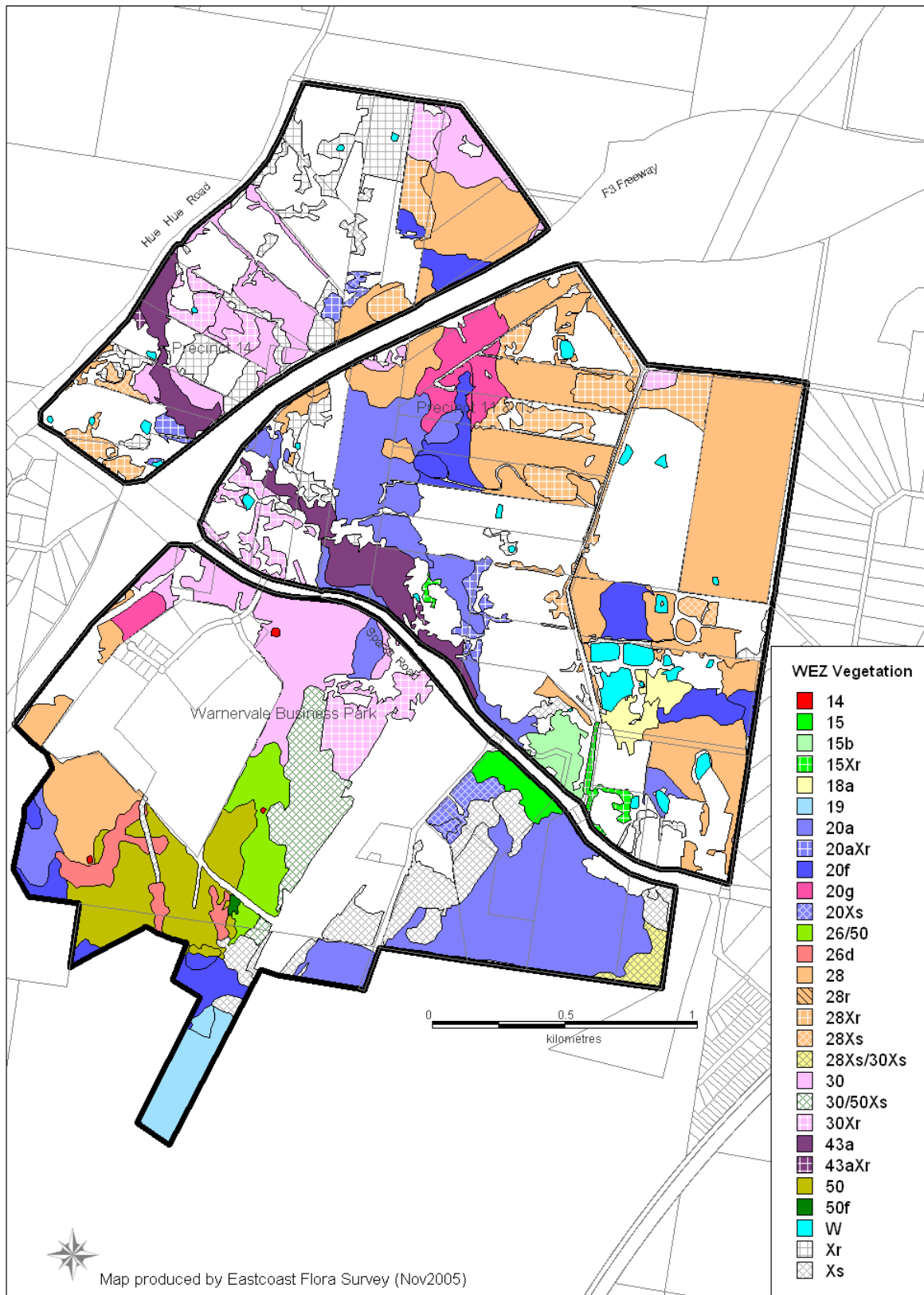
#### *Fauna Habitat Values*

Based on fauna habitat assessment and vegetation mapping of the study area, 10 fauna habitats are described for the study area:

- Open Forest.
- Open Forest / Woodland.
- Regrowth Forest / Woodland.
- Swamp Forest.
- Riparian Forest.
- Melaleuca Low Forest.
- Wet Heath.
- Wetland.
- Water.
- Cleared / Open Space.

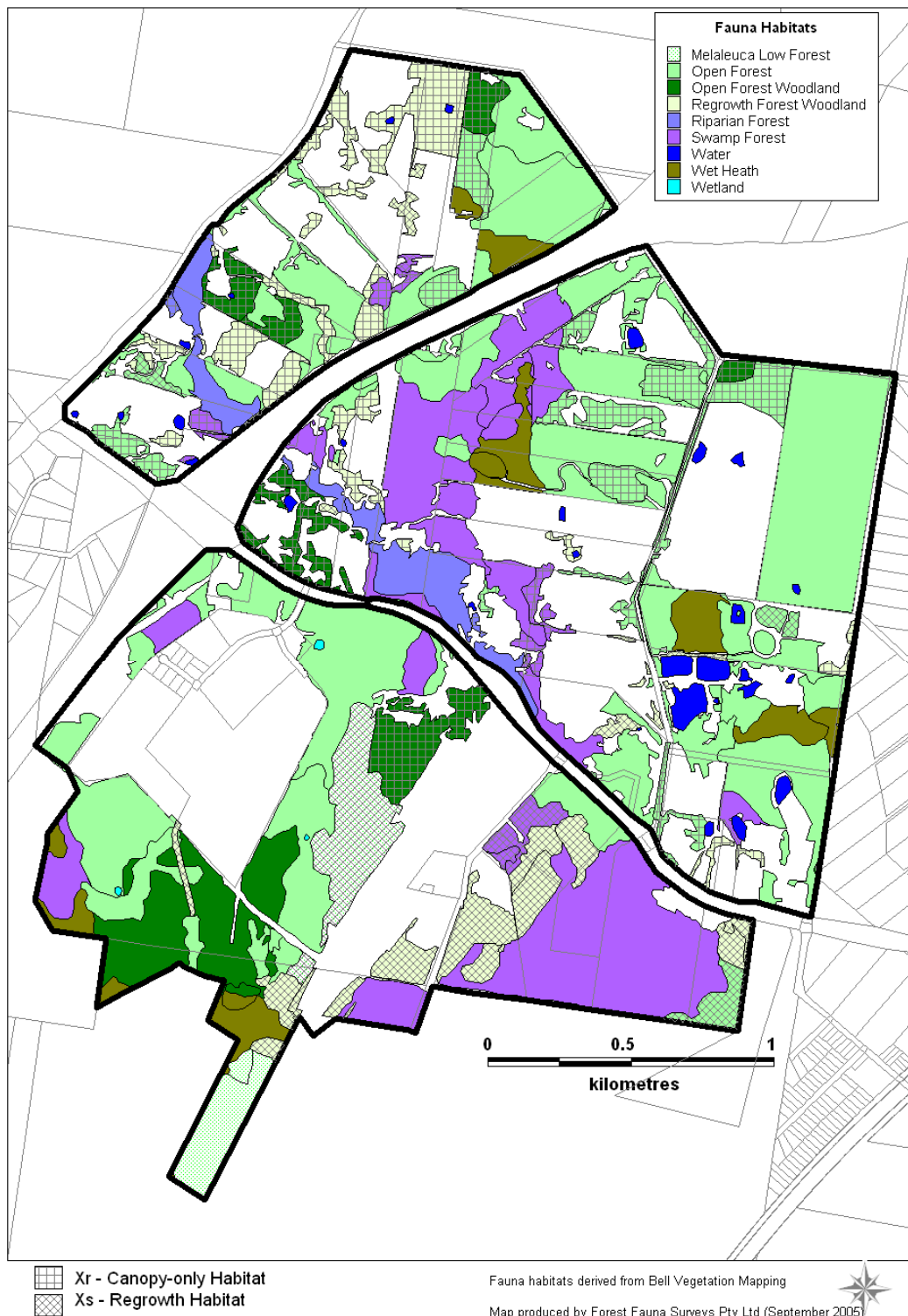
The distribution of these fauna habitat types is shown in Figure 4.7.

Figure 4.6: Vegetation Types as Mapped by Bell and Murray (2006)



Note: xr - disturbed plant community (scattered tree canopy only)  
 xs - regrowth (regenerating plant community)  
 alpha-numeric codes symbolise vegetation sub-types  
 vegetation units are described in Appendix 6

Figure 4.7: Distribution of Fauna Habitats, Wyong Employment Zone



## **Wildlife Corridors**

The Squirrel Glider Conservation Management Plan prepared by Smith (2002) identified a number of key objectives and targets to protect and maintain a viable population of the threatened Squirrel Glider within Wyong Shire. Following from recommendations of the Squirrel Glider Conservation Management Plan, Wyong Shire Council introduced Development Control Plan 13 (DCP13) - Interim Conservation Areas to identify areas with significant biodiversity constraints (Smith, 2002). Whilst DCP13 was formulated using the Squirrel Glider, as a surrogate for a suite of threatened species.

Smith (2002) identified 10 major vegetation remnants within Wyong LGA that would achieve performance targets for the conservation of the Squirrel Glider. One of the performance targets was that each of the major remnants identified were linked by at least one designated corridor with a minimum width of 250 metres where there is existing vegetation. Corridors were also recommended to not exceed 1,000 metres in length where possible (Smith, 2002).

A number of wildlife corridor routes presented in the WEZ are shown in Figure 4.8.

## **Threatened Species, Endangered Ecological Communities and Endangered Populations Recorded in Study Area**

Flora and fauna investigations were undertaken in the Wyong Employment Zone to identify potential ecological constraints to development of the land. The investigations sought to identify the presence, or likely presence of threatened species, their habitat(s), endangered ecological communities and key threatening processes.

Murray and Bell (2007) have documented the presence of threatened species under the following federal and state legislation:

### **National Environment Protection and Biodiversity Conservation Act 1999**

- 5 vulnerable flora species; and
- 1 vulnerable fauna species.

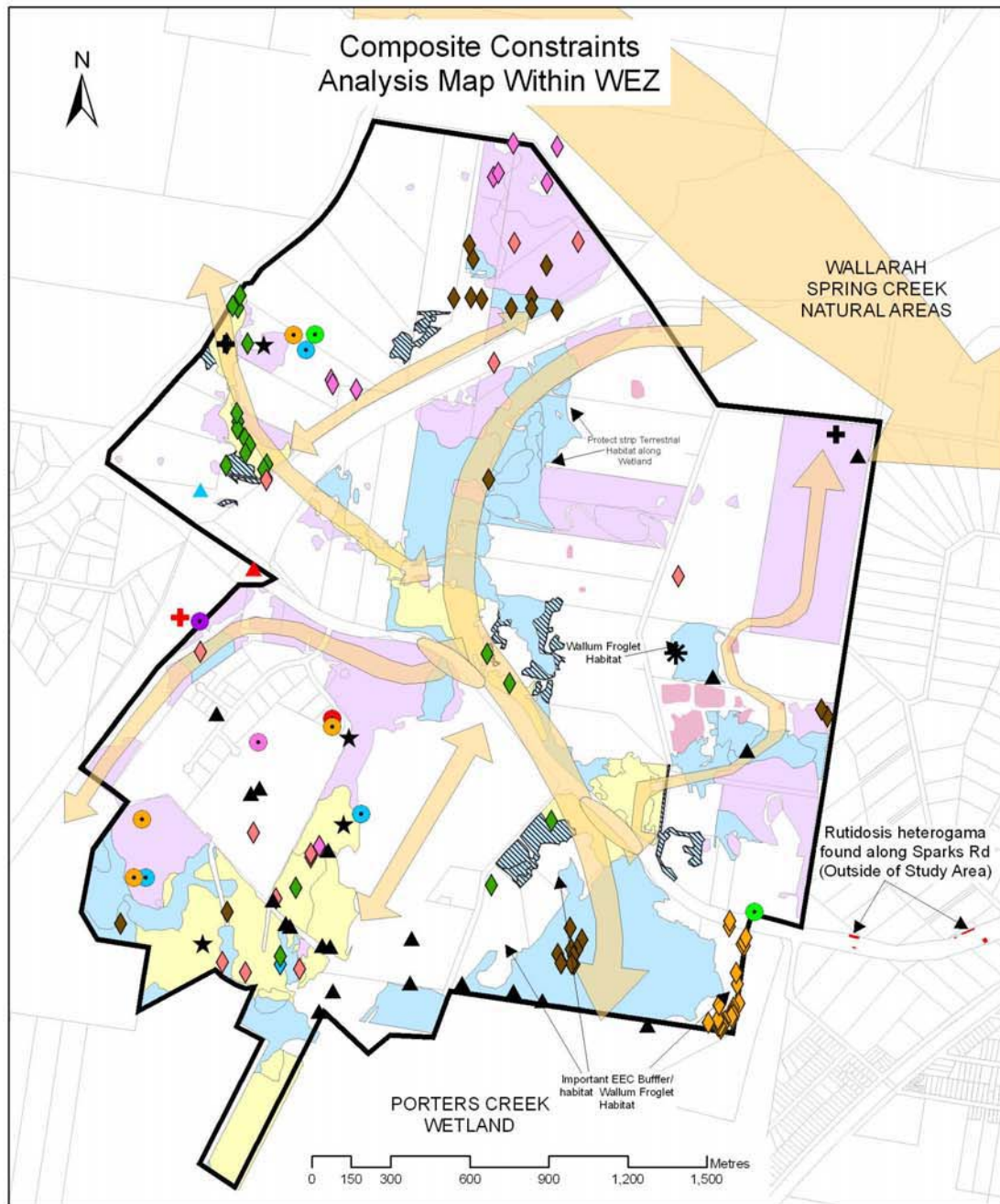
### **NSW Threatened Species Conservation Act 1995**

- 5 vulnerable flora species;
- 1 endangered flora population;
- 11 vulnerable fauna species;
- 2 endangered ecological communities; and
- 1 Endangered Population.

Threatened species, endangered ecological communities and endangered populations recorded in the study area are listed in Table 4.2.



Figure 4.8: Composite Threatened Species and Biodiversity Attributes Map within WEZ



**Composite Constraints  
Analysis Map Within WEZ**  
May 2007

**Table 4.2: Threatened Species, Endangered Ecological Communities and Endangered Populations recorded in Study Area and Locality**

Threatened Species	Status		Recorded in Study Area	Locality Record
	EPBC Act 1999	TSC Act 1995		
<b>Flora</b>				
<i>Angophora inopina</i>	Vulnerable	Vulnerable	+	+
<i>Arachnorchis tessellate</i>	Vulnerable	Vulnerable	+	+
<i>Grevillea parviflora</i> subsp. <i>Parviflora</i>	Vulnerable	Vulnerable	+	+
<i>Melaleuca biconvexa</i>	Vulnerable	Vulnerable	+	+
<i>Tetratheca juncea</i>	Vulnerable	Vulnerable	+	+
<b>Fauna</b>				
Glossy Black Cockatoo		Vulnerable	+	+
Powerful Owl		Vulnerable	+	+
Masked Owl		Vulnerable	+	+
Squirrel Glider		Vulnerable	+	+
Yellow-bellied Glider		Vulnerable	Tentative ID	Tentative ID
Grey-headed Flying-fox	Vulnerable	Vulnerable	+	+
Eastern Freetail Bat		Vulnerable	+	+
Little Bent-wing Bat		Vulnerable	+	+
Eastern Bent-wing Bat		Vulnerable	+	+
Large-footed Myotis		Vulnerable	+	+
Greater Broad-nosed Bat		Vulnerable	+	+
Eastern Falsistelle		Vulnerable	Tentative ID	+
Eastern Chestnut Mouse		Vulnerable	Tentative ID	
Wallum Froglet		Vulnerable	+	+
Giant Barred Frog	Vulnerable	Endangered		+
Green-thighed Frog		Vulnerable	Tentative ID	+
<b>Endangered Population</b>				
<i>Eucalyptus parramattensis</i> subsp. <i>parramattensis</i> in Wyong and Lake Macquarie LGAs			+	+
<b>Endangered Ecological Communities</b>				
River Flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South-East Corner bioregions (RFEFCF)			+	+
Swamp Sclerophyll Forest on Coastal Floodplains NSW North Coast, Sydney Basin and South-East Corner bioregions (SSFCF)			+	+

The location of threatened species, EEC's and endangered population is shown below in Figure 4.8.

### **Analysis of Ecological Constraints**

The study area supports habitat for threatened species, an endangered population and two endangered ecological communities. The vegetation extent that comprises endangered ecological communities within the Wyong Employment Zone is 181.1 hectares, or 25.5% of the study area. The occurrence of 2 endangered ecological communities will impose constraints upon development upon those areas that support vegetation communities which qualifies as EEC's.

The habitat of specific threatened species will also influence the development potential within parts of the Wyong Employment Zone. In particular, habitats which are restricted in local and regional distribution, such as Wet Heath, support attributes for threatened species such as Eastern Chestnut Mouse (*Pseudomys gracilicaudatus*) and Wallum Froglet (*Crinia tinnula*). The extent of Wet Heath within WEZ is 21.49 hectares (3.0% of study area). The significance of the Eastern Chestnut Mouse record within WEZ is that it is the only record of the species in Wyong Shire. Known regional records include Myall Lakes National Park in the north and Brisbane Water National Park in the south. The occurrence of this species in WEZ is therefore highly significant at a local and regional scale.

For other threatened species, vegetation communities within WEZ are a component of more widespread communities which continue outside the study area. For many flora and fauna species, dispersal corridors are essential for local and regional ecological functions. To the immediate south of WEZ is the Porters Creek Wetland which is the most significant wetland within Wyong Shire. Vegetation communities within, and along the periphery of the WEZ contribute significantly to the ecological health of Porters Creek Wetland. Functions include connectivity to, and buffering of adjoining vegetation communities, drainage and filtration of surface and subsurface flows, and physical protection of wetland edges.

Other physical constraints to development will be proximity to the major drainage lines within the study area, namely Buttonderry Creek. Buttonderry Creek serves as habitat for a suite of flora and fauna species and has high ecological function as a dispersal / corridor for fauna.

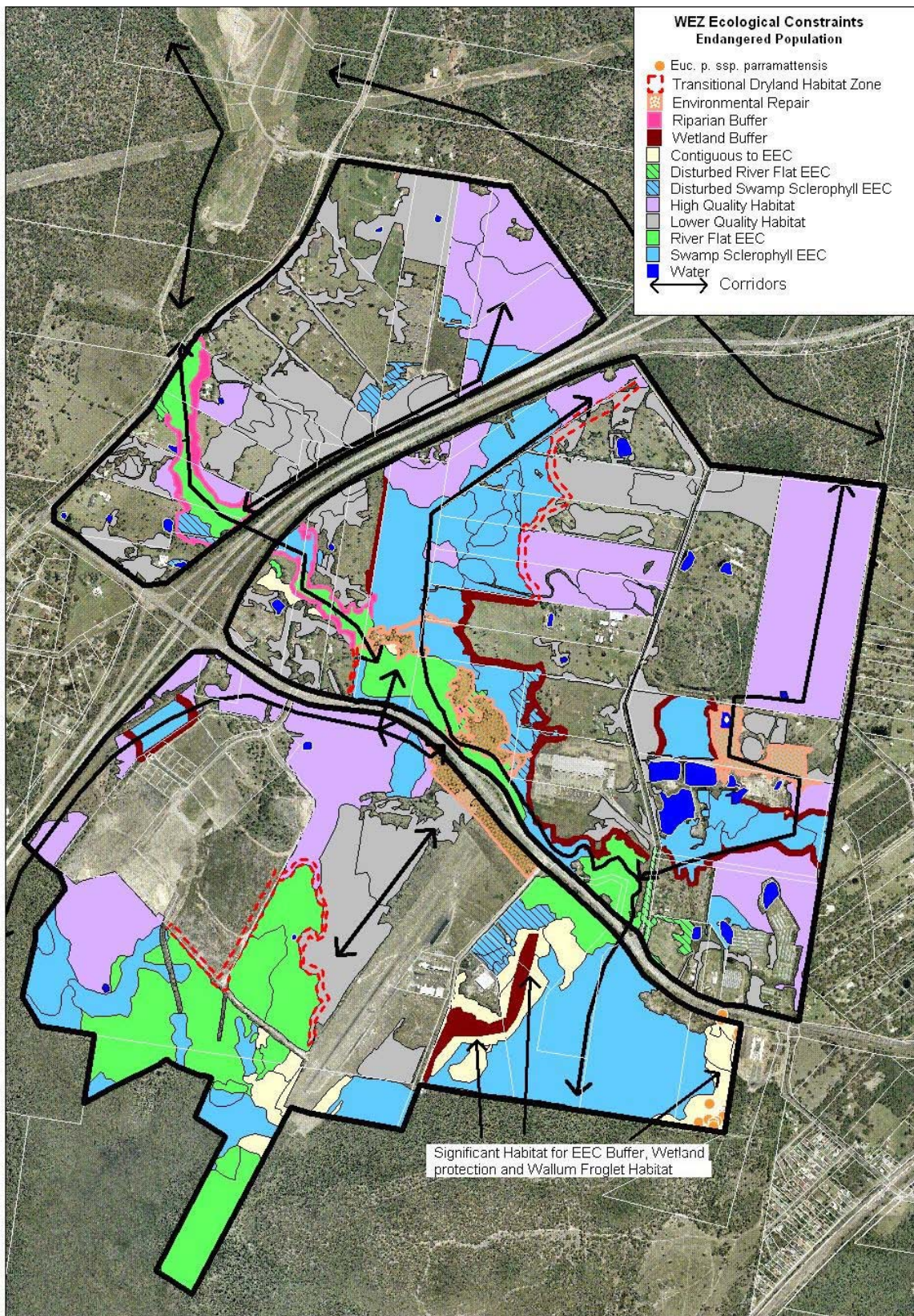
The physical condition of vegetation communities and fauna habitat attributes (ie. habitat trees) also present potential constraints to development. Vegetation communities with minimal disturbance, good connectivity to adjoining remnants, large patch size and high quality fauna habitat contribute to high conservation value in comparison to disturbed areas.

Previous ecological investigations within Precincts 11 and 13 by SKM, 2005 produced a conservation matrix to identify areas of high, medium and low conservation areas. Individual patches of remnant native vegetation were assigned conservation values based on selection criteria summarised below:

- Extent of vegetation cover;
- Condition of vegetation (and potential for regeneration of disturbed areas);
- Conservation significance of vegetation (EEC's score high);
- Habitat Values (exhibit high biodiversity and / or habitat for threatened species),
- Connectivity; and
- Presence of flora and fauna of conservation significance (SKM, 2005).

For consistency, this approach was expanded to encompass the entire WEZ area. Following analysis of each vegetation fragment within WEZ, a basic conservation rating system has been developed as illustrated in Figure 4.9. The draft EPI for the WEZ has generally been based on the conservation of areas of high habitat qualities, maintaining connectivity of habitat and protecting other areas with particular threatened species values which might not necessarily be apparent from reviewing Figure 4.9.

Figure 4.9: Potential Ecological Constraints to Development, Wyong Employment Zone



#### 4.1.4 Archaeological

##### *Aboriginal Heritage*

Archaeological investigations have been undertaken within the study area by Archaeological Surveys and Reports Pty Ltd (ASR). These were undertaken with the assistance of the Darkinjung Local Aboriginal Land Council. Aboriginal sites and relics that might be present were identified as part of this survey program.

The investigation was undertaken in three stages and a report produced for each stage, which for practical reasons these are referred to as Parts 1, 2 and 3 as listed below.

- Part 1 - The archaeological investigation for sites of Indigenous cultural significance on the site of proposed Industrial Lands, Sparks Road, Warnervale, Central Coast NSW (March 2004).
- Part 2 - The archaeological investigation for sites of Indigenous cultural sensitivity in Precincts 11, 13 and 14 Wyong Employment Zone, Halloran / Warnervale, Central Coast NSW (April 2005).
- Part 3 - The archaeological investigation for sites of Indigenous cultural significance on Part Lot 62 and Lot 64 DP 755245 and additional lands (March 2006).

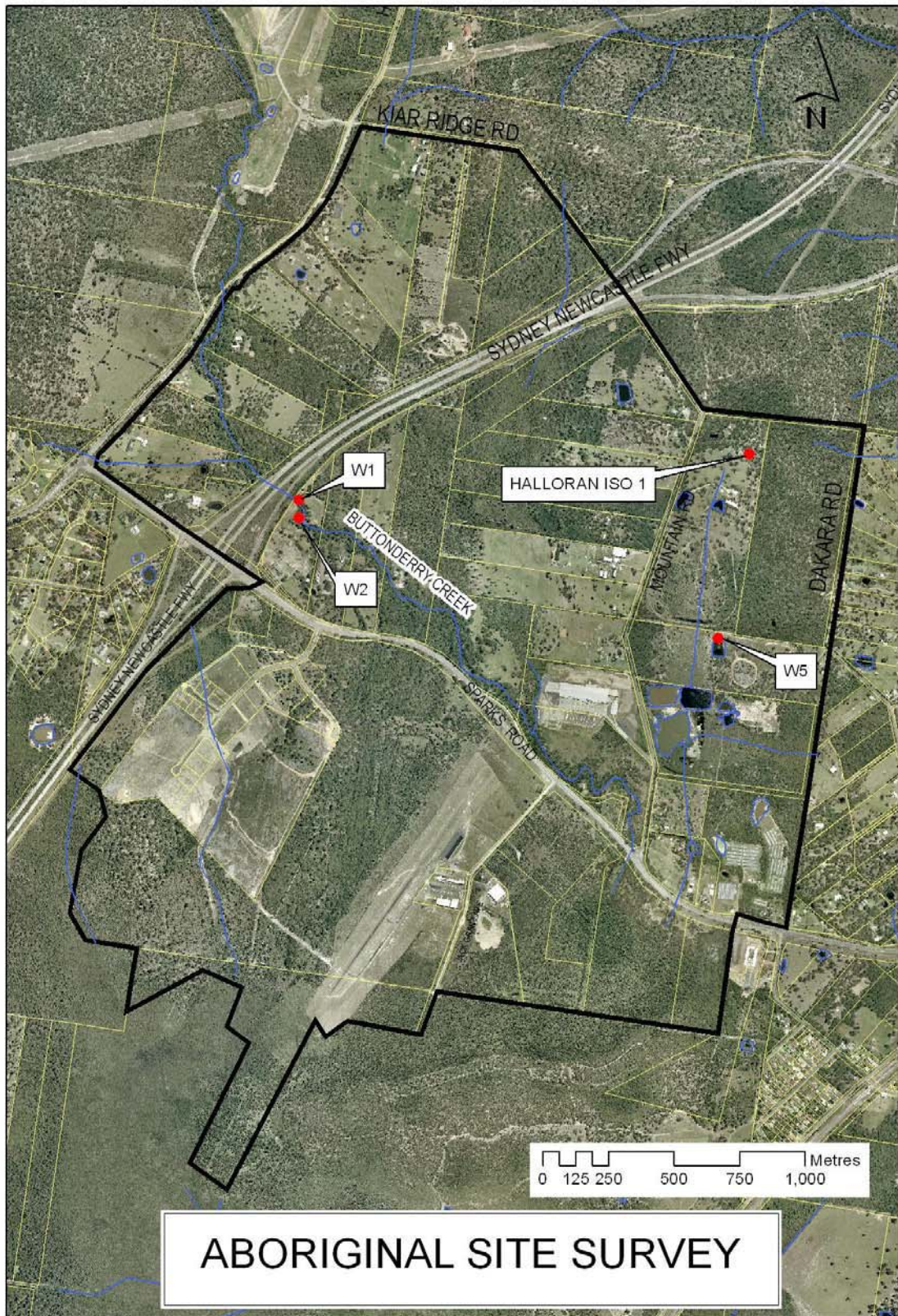
The main findings from these reports are summarised below:

- Evidence of Aboriginal occupation of the site was found by virtue of the Aboriginal artefacts which were located as part of the survey. The evidence of Aboriginal occupation is not archaeologically significant.
- There is the potential for significant archaeological materials to be buried around the margins of wetland areas.
- The Darkinjung LALC has recommended that a representative of Darkinjung LALC should be present to monitor any earthworks. For practical purposes, ASR recommends that such monitoring would only be necessary above the 10m AHD contour, and would take place when the initial clearing of those areas occurs.
- A single artefact was recorded during investigations conducted by Appleton over 2004 - 2006. This is referred to as IS04. Attempts were made to relocate three isolated artefacts (W1, W2 and W5) from earlier archaeological investigations by Silcox (1994) but was unsuccessful. These sites are shown in Figure 4.10. All artefacts were in the form of silcrete or mudstone flakes. They demonstrate an Aboriginal presence in the area but represent minute amounts of archaeological material in disturbed contexts and were classed as being of limited archaeological significance.

##### *European Heritage*

No items of European heritage significance were identified within the WEZ.

Figure 4.10: Results of Archaeological Survey



## 4.2 Built Environment

### 4.2.1 Current Land Use

The WEZ study area is surrounded by rural residential properties to the east and west, bushland to the north, and undeveloped wetland to the south.

The area is scattered with rural residential development, ancillary structures and limited agricultural activities (including horticulture and greenhouses). Land in the WEZ only has marginal agricultural capability. Some of the land owners in the WEZ currently have small herds of cattle and goats. There is also one large hydroponic operation to the north of Sparks Road and east of Mountain Road.

The majority of dwellings within the site are located near Sparks Road or Mountain Road. There are currently no residential subdivisions in the WEZ. The Lakes Anglican Grammar School has been developed on the eastern side of the Warnervale Airport to accommodate 355 students from Kindergarten to year 12 (outside of the study area).

There are some commercial activities being undertaken in the WEZ including the Hudson timber manufacturing plant (which is now leased by Bunnings) and the historical PGH clay quarry close to the intersection of Mountain Road and Sparks Road, Warnervale Landscape Supplies and a trucking business close to the intersection of Sparks Road and the F3 Freeway, and a passenger bus workshop and greenhouse market gardening along Sparks Road in the south east corner of the precincts.

Warnervale Business Park (40 hectares) exists to the south of Sparks Road. This area is rapidly developing with industrial uses and contains the Woolworths Distribution Centre. It is proposed to extend the Supplier Park to the east of this area. The Central Coast Aero Club runs the aerodrome to the east of this area.

To the east of the WEZ, there are rural residential properties in Bruce Crescent and the Great Northern Railway, which passes under Sparks Road. The existing Warnervale Village is located on the railway line and the proposed Warnervale Town Centre is located to the north along the railway line. The Buttonderry Creek Waste Disposal Site is located north west of Precinct 14.

### 4.2.2 Traffic and Transport

The study area is divided by the F3 Freeway which is the major Sydney to Newcastle traffic route. Access to the WEZ from the F3 freeway is via an interchange at Sparks Road. There will not be any other connections to the Freeway. The present access to the WEZ is via Sparks Road and Mountain Road, Burnett Road and Jack Grant Avenue. They are local access roads providing two traffic lanes. Burnett Road is sealed, Mountain Road is partially sealed and Jack Grant Avenue is unsealed.

The existing intersections on Sparks Road with Mountain Road, Albert Warner Road and Jack Grant Avenue are all referred to as standard Type C intersection.

The major collector / distributor roads in the vicinity of the WEZ are:

- Sparks Road;
- Hue Hue Road; and
- Pacific Highway.

The WEZ will be affected by a number of planned road network improvements including the link road from Wyong to Warnervale and roads associated with the Warnervale Town Centre.

A small railway station exists in Warnervale Village which is approximately 1.5 km to the east of the WEZ. Train stops to this station are relatively infrequent in comparison to other larger railway stations in Wyong Shire.

A new town centre is proposed at Warnervale (approximately 1 km to the east of the WEZ). This new town centre will contain a new railway station and will provide the opportunity to ‘park and ride’ for commuters travelling to Sydney (1.5 - 2 hours) or Newcastle (1 - 1.5 hours). The new Town Centre will also include a major bus-rail interchange which will connect to other bus routes connecting Lake Haven (Shopping Centre) Wyong and Tuggerah.

### ***Integration of Transport and Land Use***

Most of the WEZ is undeveloped, with the exception of the Warnervale Business Park, which is located off Burnett Road. The Warnervale Business Park is serviced by a regular bus service between 6.00am and 8.30pm weekdays by Coastal Liner Coaches. This service operates between the valleys and the existing Warnervale Station and Lake Haven Shopping Centre. It meets current demands. Bus stops are in the process of being formalised with the RTA along Sparks Road opposite Burnett Road. This service could easily be expanded to incorporate other parts of the WEZ as development proceeds.

Public transport also currently services the area surrounding the WEZ (primarily the existing residential development east of the railway line). As development occurs in the area it is anticipated that the Ministry of Transport will extend the route and increase the frequency of services to meet the demand.

State Rail proposes to construct a new railway station north of Sparks Road. The station will become the focus point of the new Warnervale Town Centre development. The rail system will become an important means of travel to places of employment. Public transport linkages to the station site are an important design consideration for the area.

### ***Pedestrian / Cycleway Access***

Other than an on-road cycleway along Sparks Road (using the road shoulders) there are no pedestrian or cycleway paths in the area. The study area is mostly in private ownership and no formal pedestrian or cycleway accesses are provided.

## **4.2.3 Infrastructure and Servicing**

### ***Development Servicing Plans for Water and Sewer***

Draft Development Servicing Plan No 15 - Warnervale North-West, Precincts 11, 13 and 14 and Warnervale Business Park has been developed to determine the contribution rates applicable for water and sewerage infrastructure servicing the study area. This plan has been developed to service existing and future developments which are anticipated to occur within the WEZ. These plans require IPART endorsement prior to being endorsed by Council. This is expected to occur in 2008. These plans also include a provision for the capital costs for water supply headworks. Figure 5.11 shows existing and planned infrastructure within the study area.



## **Water**

Existing and future development which is anticipated to occur within the WEZ can be adequately serviced for water. Development of serviceable land would require the extension of the reticulation system as outlined in draft Development Servicing Plan No 15 within the connection of 200mm water mains which will be located along future roads planned within the WEZ development.

The area is supplied from Kiar Ridge Reservoir and has a top water level of 85 metres AHD (with the exception of land 55 metres AHD) which is the satisfactory head pressure height for servicing the study area with mains water.

The Warnervale Business Park is currently serviced by a 200mm diameter water main which connects to a 375mm water main which runs along Sparks Road. A small water main of 150mm diameter currently runs down Jack Grant Avenue. Another 150mm diameter water main services up to the Hudson Site off Mountain Road, Halloran. All other parts of the WEZ are not currently serviced for water.

## **Sewerage**

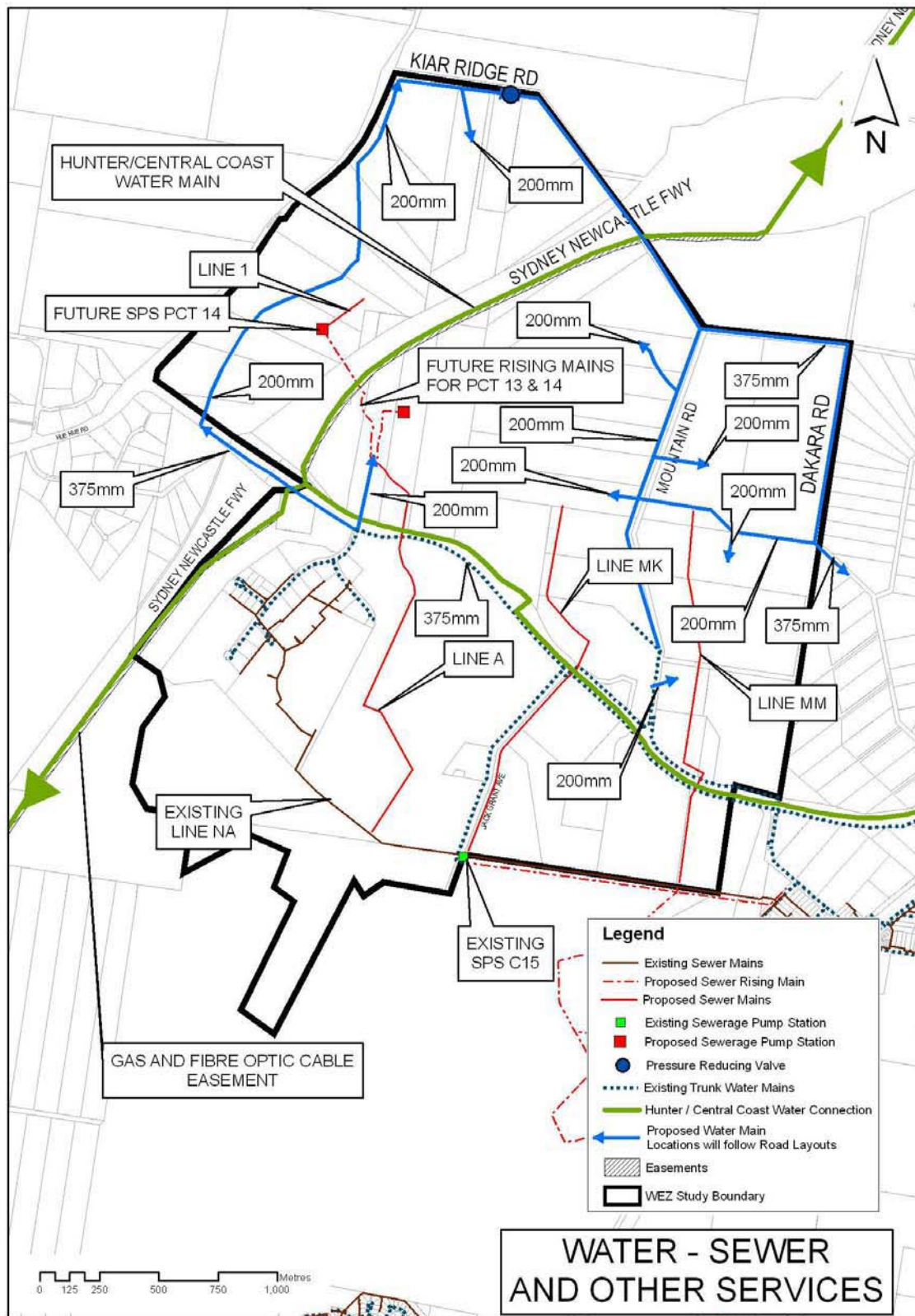
Most of the WEZ study area is not currently serviced by Council's reticulated sewerage system. The only exception to this is the Warnervale Business Park which falls within the Sewerage Catchment area of Sewerage Pump Station (SPS) C15 at the end of Jack Grant Avenue, Warnervale which is connected by way of an existing 375 mm diameter gravity main to Warnervale Business Park. A proposed carrier main is proposed to run along Jack Grant Avenue which will service areas to the north within Precincts 11 and 13. Sewerage Pump Station C15 has a 225 mm diameter rising main which runs in an easterly direction along Warnervale Road which eventually connects to SPS C12 which is located 2 kilometres to the east of Warnervale Village.

Draft Development Servicing Plan 15 makes provision for the servicing of other developments which are planned to the north of Sparks Road. This will require the construction of sewerage Line MK and Line MM to service new development to the east of Mountain Road, Halloran. It is also proposed to construct a new sewerage main (Line A) to the east of the existing Warnervale Business Park which will connect areas to the north of Sparks Road. Any underboring of Sparks Road will need to be carried out to RTA specifications. In order to service any development to the north of Buttonderry Creek (within the far eastern corner of Precincts 11 and 13) a new sewage pump station and associated rising main will be required to service any future development in the area. A new sewage pump station and associated rising main will be required to service Precinct 14. The rising main from Precinct 14 will drain into the proposed gravity system which is located on the eastern side of the freeway. This rising main will require underground thrust boring beneath the F3 Freeway to RTA specifications beneath the F3 Freeway.

## **Stormwater Drainage**

The site is centrally located within the largely undeveloped Buttonderry Creek Catchment. Buttonderry Creek itself runs along the southern boundary of the site adjacent to Sparks Road. With the exception of the culverts under the F3 Freeway and Sparks Road, the subject land has no engineered stormwater drainage system. Flow from the site discharges to Porters Creek Wetland and then via Wyong River into Tuggerah Lake.

Figure 4.11: Infrastructure and Services



## ***Existing and Proposed Regional Utilities***

### **Regional Water Main**

The demand for water for domestic, industrial and agricultural consumption is expected to increase significantly with continued urban growth in the areas to the east of the F3 Freeway. To satisfy that demand, Council has constructed a regional stormwater main which will allow water to be diverted from Hunter Water into Council's reticulated water supply system. A water main is proposed to be constructed to provide water from Hunter Water. It is proposed to be in 2006. This is located within an existing 20 metre wide utility easement on the eastern side of the F3 Freeway. It also includes a connection running along Sparks Road.

### **Fibre-Optic Cable**

A major fibre-optic cable is located in a major utility easement which exists on privately owned land on the eastern side of the F3 Freeway and on the southern side of Sparks Road. This is also the location of a major gas natural gas pipeline.

### **Gas Supply**

A high pressure gas main runs from the main gas pipeline easement on the western boundary of the site along Sparks Road to service areas to the east. Existing reticulated mains can be extended to meet the demands of development in the area.

### **Telephone / Telecommunications Services**

Network infrastructure can readily be extended to service development in the WEZ.

### **Electricity Supply**

Discussions with Energy Australia indicate that, due to the rate of urban development in the area, a significant upgrading of substations and feeder mains will be required to meet forecast demands. Implementation of required works to meet forward load projections is currently underway.

## **4.2.4 Warnervale Aerodrome**

Warnervale Aerodrome currently operates in the southern portion of the WEZ. The land is currently leased from Council to Central Coast Aero Club Ltd until August 30 2021. It can be characterised as being a local scale airport facility based on its dimensions (970 metres long) and the relatively small types of aircraft that use a single runway.

In December 1993, Council resolved to upgrade airport facilities by lengthening and widening the runway to 1800 metres and 150 metres respectively. The effect would be to raise the scale of the airport to what can be characterised a regional scale airport facility.