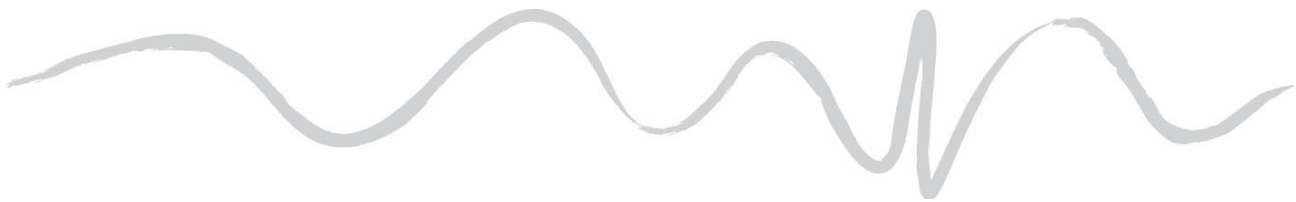




Appendix F

Economic Impact Assessment

Economic Impact Assessment
George Booth Drive Local Environmental Study



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Economic Impact Assessment

George Booth Drive Local Environmental Study

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Date: December 2010
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Executive Summary

GeoLINK have been engaged by Lake Macquarie City Council to prepare a Local Environmental Study associated with a proposed amendment to *Lake Macquarie Local Environmental Plan 2004* for land at George Booth Drive, Edgeworth. The proposal is to rezone land currently zoned Zone 10 Investigation to appropriate zones to cater for urban development and conservation.

This report provides an Economic Overview of the study area in its wider context, as a basis for the Local Environmental Study. The study area generally consists of the Site, which is located on Lot 88 DP755262; Lot 107 DP100048; Lot 17 DP849003 and Part Lots 6 and 7 DP 4647, the Pambulong Forest area, surrounding suburbs and in general the Lake Macquarie City Local Government Area.

In developing the Economic Overview of the study area, this report has studied and analysed the socio-economic profile of the surrounding suburbs and the Local Government Area (LGA). Planning Instruments relevant to the Lake Macquarie LGA were also considered, along with the LGA's retail, commercial and industrial supply and demand profiles.

From 2001 to 2006, the population of the West Wallsend Planning District (WWPD) grew by 951 people, which equates to 8.2 percent. This is far greater than the Lake Macquarie LGA which grew by 3% and NSW which grew by 2.7%. Accordingly, it can be said that WWPD including Edgeworth is experiencing high population growth, which is consistent with the information contained in the Lower Hunter Regional Strategy. The Lake Macquarie Draft Lifestyle 2020 Strategy indicates that by 2020 the population of WWPD will have surged to around 18,000 people.

Council's Lifestyle 2020 Strategy generally outlines that development activity should focus on Centres to allow for the appropriate and adequate provision of land, services and infrastructure. The Site forms part of the Pambulong Forest area and is located directly adjacent to the approved Pambulong Forest Marketplace which is described as a new and establishing town centre. Through appropriate rezoning, the study area is ideally situated to contribute to the future economic success of the LGA through the provision of key services where required, provision of housing, mixed use land and facilities for recreation.

Study of the LGA's retail profile shows that a total of 9.2% growth in the number of businesses and 23.4% growth in net lettable area occurred between 1997 and 2008. This has delivered a modest annual average growth rate of around 0.84% for businesses and a higher average annual growth rate of about 2.1% for net lettable area. However the main growth experienced in both the number of retail businesses and lettable floor space occurred between 1997 and 2002.

Study of the LGA's commercial profile shows that there has been a total of 46.3% growth in net lettable area between 1997 and 2008. This equates to an average annual growth rate of around 4.2% for net lettable commercial floor area. It should be noted however that most of the growth occurred between 1997 and 2002. Growth between 2002 and 2008 slowed considerably to only 1.5% growth occurring over the whole 6 year period of 2002 to 2008.

Despite growth having slowed in the retail and commercial sectors between 2002 and 2008, combined retail and commercial data for 2009 suggests a boost in growth. It is suggested that growth in floor area for the retail and commercial sector increased significantly by 27.4% between 2008 and 2009 alone. Floor space in the LGA has more than doubled since 1997 to 2009. In addition there is currently 56,800 square metres of retail and commercial floor space planned for development in the LGA in 2010 and this represents a 15% increase in the total currently available.

Study of the LGA's industrial profile shows that there is currently approximately 620.50ha of total existing industrial land stock and 91.61ha of land zoned for industrial development currently vacant in the LGA (Townson 2007). In addition, rezoning of land for industrial purposes has occurred in some areas and this will provide for an average annual growth rate of industrial development between 2.42% and 1.21% (assessed over a 5 and 10 year period respectively). Despite this land supply, Townson (2007) estimates that this would only be adequate to meet the two to five year land supply requirements based on current demand.

It has been identified that future growth in retail and commercial office space could be expected to be in the order of 186,000 square metres by 2030, which equates to an average growth rate of 9,300 square metres per annum or 1.7% per annum. Despite the continuing demand for retail and commercial floor space at the LGA level through to 2030, the locality of Edgeworth and the surrounding suburbs are well serviced for retail facilities. The proposed development site fronting the south of George Booth Drive would be well serviced by retail facilities through the establishment of the Pambulong Forest Marketplace located directly opposite.

It is considered that traditional supplies of industrial land will be or have been catered for with the relatively recent rezoning of land on Gimbert's Road Morisset and within the Pasminco land. However, "in order to facilitate knowledge based industry, consideration should be given to new enterprise living zones that are located close to major centres" (Townson 2007). In addition, Hooper (in Townson 2007) "highlighted the changing trends in the business mix, the need for identification of smaller parcels of urban industrial land to meet the demand of mixed residential/light trade and knowledge based industry". Hooper also highlighted that with the continual growth of the region, demand for freeway accessible land would grow (Townson 2007).

The findings of this economic assessment suggest that the provision of some commercial and low impact light urban industrial uses, considering the surrounding residential growth and establishment of the Pambulong town centre, would be a reasonable inclusion within a mixed use development scenario on the site. Predominately however, the site would be best suited to residential uses consistent with the relevant regional planning strategies, with the inclusion of mixed use precincts supporting low impact light urban industrial, light commercial and residential uses. Areas that support a live/work scenario and knowledge-based industries that also require efficient freeway access would be well suited to the site.

Zoning provisions/development consisting of residential (low and medium density) and mixed use (catering for low impact light urban industrial and some commercial inclusions) would be appropriate for the area and LGA and would help develop the Pambulong town centre. Such provisions should be sustained by demand for residential and light knowledge based industrial zoning in particular, proximal transport services and the development of the Pambulong Forest/Edgeworth urban areas and Pambulong town centre. The inclusion of mixed use zoning, rather than industrial zoning within a predominantly residential area would also help to avoid any potential land use conflicts which can arise if residential and industrial zonings are located close to one another.

Introduction

1.1 Background

Pursuant to Section 54 of the *Environmental Planning and Assessment Act 1979*, Lake Macquarie City Council (LMCC) has resolved to prepare a draft local environmental plan to rezone a 95 hectare parcel of land at George Booth Drive, Edgeworth (Lot 88 DP755262, Lot 107 DP100048 and part of Lots 6 and 7 DP4647). It is proposed to rezone the land in order to accommodate urban development and conservation. GeoLINK have been engaged by LMCC to undertake the required Local Environment Study (LES) for the property and a component of the LES is this Economic Impact Assessment (EIA).

One of the primary objectives of council in considering rezoning the subject site is to reinforce economic opportunities in the Cardiff / Glendale / Warners Bay / Edgeworth Corridor and encourage job creation to ensure that a majority of the growing population in the area will be able to source local jobs. In relation to economic issues, the scope of work outlined in council's project brief was to:

Ascertain the likely future demand for employment land that includes retail, commercial, community facilities or industrial zoned land within the study area, having regard to the overall development in the area. The economic analysis should determine the breakdown of likely demand for different future uses and based on these findings provide input into zones.

This report provides the results of an economic analysis and describes the economic context within which the Local Environmental Study will be prepared.

1.2 Area of Study

The study area contains the following allotments:

- Lot 88 DP755262;
- Lot 107 DP100048; and
- Part Lots 6 and 7 DP 4647.

The total area of the site is 99.15 ha.

The site is located at the juncture of three suburbs, being Edgeworth, Barnsley and Holmesville in the Lake Macquarie City Local Government Area. It is approximately 20 km from the Regional City of Newcastle and approximately 5 km from Lower Hunter Regional Strategy (LHRS) designated Emerging Major Regional Centre of Glendale / Cardiff. The site is 3 km from an on-ramp of the Sydney Newcastle Freeway. The site is a LHRS Proposed Urban Area and is adjacent to a LHRS Renewal Corridor. It is forecasted that an additional 160,000 people will live in the region by 2031 and 60% of these people will reside in new urban release areas, including this site.

Currently, the subject property is mostly vegetated with open eucalyptus forest, resulting in a designation by LMCC of the southern portion of the property as Native Vegetation and Corridor. This vegetation has been removed within two parallel electricity easements and along a four wheel drive track which traverses the site. The site has a central ridge, reaching a height of 60 m AHD, and gently slopes down to the north-

west and down to the south east. The site is lowest in the south western corner where some areas are less than 10 m AHD. The site has been identified by LMCC as bushfire prone.

There is a large tract of undeveloped land neighbouring the site on the opposite side of George Booth Drive which is zoned to allow residential and mixed use development. Rezoning of the land subject to this LES must be complimentary ensure the developments together meet the requirements of the local community and don't detract from one another.

1.3 Scope and Methodology

The objectives of this Economic Impact Assessment are to;

- assess the existing and future demand for employment lands in the locality. This assessment includes an analysis of the demand for commercial, retail and industrial development as well as community facilities.
- ascertain how development of the subject site might impact on other surrounding employment lands in terms of supply and land take up;
- determine economic impacts of rezoning the site for a mixture of urban development and conservation; and
- make recommendations on the zoning of the study area based on the aforementioned economic analysis.

The following methodology has been used to achieve this:

- review of the local and regional planning framework;
- undertake a socio-economic profile of the locality;
- conduct a retail, commercial, industrial profile and community facilities profile to determine floorspace, employment lands mix, and turnover rates for the future development of the land;
- analyse other employment generating developments within the catchment and determine economic impact as a result of the proposed rezoning;
- assess and document the ability of the rezoning to generate economic benefits for the LMCC LGA;
- analyse access to the study area by potential employees and users of the likely future development of the site;
- assess the rezoning potential to trigger additional development and/or relocation of commercial/ industrial or retail activities from their current location;
- identify the most appropriate types of land uses; and
- identify appropriate zone locations based on the aforementioned analysis.

Socio Economic Profile

2.1 Introduction

In order to understand the likely future demand for employment within the various economic sectors, it is necessary to understand the socio-economic profile of the existing community and to make educated predictions on the socio-economic profile of future residents. The following demographic profiling uses a combination of statistics that are specific to Edgeworth and statistics that group it with neighbouring suburbs, into an area known as the West Wallsend Planning District (WWPD). This district includes the suburbs of Barnsley, Estelville, Holmesville, Killingworth, Seahampton, Wakefield and West Wallsend. To provide a context for the statistical information gathered for Edgeworth and the WWPD, comparisons will be made to overall statistics for both the Lake Macquarie Local Government Area and New South Wales.

A Social Impact Assessment (SIA) has been prepared by GeoLINK as part of this LES which provides a detailed demographic profile of Edgeworth and WWPD. As such, the following demographic profile is a summary of the SIA and for additional detail the reader is referred to the SIA.

2.2 Population Growth

For the suburb of Edgeworth, comparing the 2001 census data with the 2006 data is not considered beneficial. According to the Australian Bureau of Statistics the suburb of Edgeworth had an area of 6.8 km² in 2001 and an area of 5.8 km² in 2006. This has led to what appears to be a decline in the population of Edgeworth on face value, when in fact this isn't the case. Therefore population data for the WWPD provides a much better understanding of growth in the area (for completeness, data for Edgeworth is shown in the following **Table 2.1** anyway).

From 2001 to 2006, the population of the WWPD grew by 951 people, which equates to 8.2 percent. This is far greater than Lake Macquarie LGA which grew by 3% and NSW which grew by 2.7%. Accordingly, it can be said that WWPD including Edgeworth is experiencing high population growth, which is consistent with the Lower Hunter Regional Strategy. Population figures are provided in **Table 2.1**.

Table 2.1 Population and Change 2001 - 2006

Area	2001	2006	Change
Edgeworth	7,776	5,906	-31.0%
WWPD	11,541	12,492	8.2%
Lake Macquarie LGA	177,619	183,138	3.0%
NSW	6,371,745	6,549,177	2.7%

Source: ABS (2001 and 2006)

The Lake Macquarie Draft Lifestyle 2020 Strategy indicates that by 2020 the population of WWPD will have surged to around 18,000 people.

2.3 Persons by Age

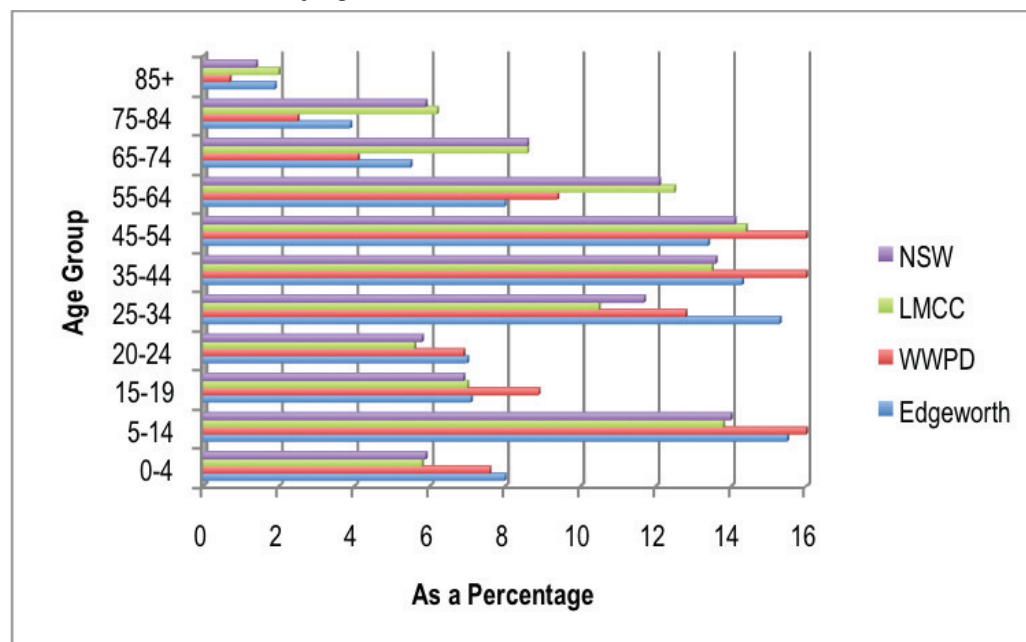
Comparisons between the demographic of Edgeworth and the WWPD indicate that there are slightly more residents fitting within the 65+ age bracket (10.3% in Edgeworth and 7.3% in WWPD). This is thought to be a reflection of the existence of the Hawkins Masonic Village (an aged care and retirement village establishment) in Edgeworth. This centre has the capacity to house at least 561 people which is 9.5% of the current population of Edgeworth (Aged Care Guide, 2008). A portion of this facility is adjacent to the subject site, on the opposite side of Northville Drive.

Compared to WWPD less residents of Edgeworth are aged between 35 and 55, whereas more residents are between 25 and 34. There are also a high proportion of children living in Edgeworth and WWPD compared to both LM LGA and NSW, indicating that Edgeworth is a popular locality for young nuclear families.

Compared to the State, Edgeworth and WWPD have higher percentages of zero to fourteen year olds and a lower percentage of people over the age of 54. These statistics confirm that the study area is popular with young nuclear families and is not experiencing the same level of aging population as either Lake Macquarie as a whole or New South Wales generally.

Furthermore, Edgeworth and WWPD contain an average of 14.1 percent of the population aged between 25 and 34, compared to 10.5 percent in the LM LGA and 11.7 overall for NSW. Implications of this can be a higher demand for unskilled part time work. This age group is less likely to have finished any tertiary education and therefore require employment which does not require tertiary qualifications. Furthermore, this indicates a potential for more couple with no children households. The following table contains a detailed population break down.

Table 2.2 Persons by Age 2006



Source: ABS (2006)

Table 2.3 **Persons by Age 2006**

Age Bracket	Edgeworth	WWPD	Lake Macquarie LGA	NSW
0 – 4	6.8%	7.1%	5.8%	6.4%
5 – 14	13.4%	14.7%	13.8%	13.4%
15 – 19	6.7%	7.8%	7.1%	6.7%
20 – 24	6.7%	6.8%	5.6%	6.6%
25 – 34	13.9%	13.4%	10.5%	13.6%
35 – 44	12.2%	14.1%	13.5%	14.6%
45 – 54	13.9%	14.8%	14.4%	13.8%
55 – 64	11.5%	10.4%	12.5%	11.0%
65 – 74	6.7%	5.2%	8.6%	7.1%
75 – 84	5.9%	4.2%	6.2%	5.1%
85 +	2.3%	1.5%	2.0%	1.7%

Source: ABS (2006)

Given that Edgeworth and WWPD seem to contain a higher percentage of young nuclear families, when determining new land use zonings for the subject site it will be pertinent to consider that providing employment and facilities for children and families will be beneficial. These facilities could include parks and open space, schools and child care centres.

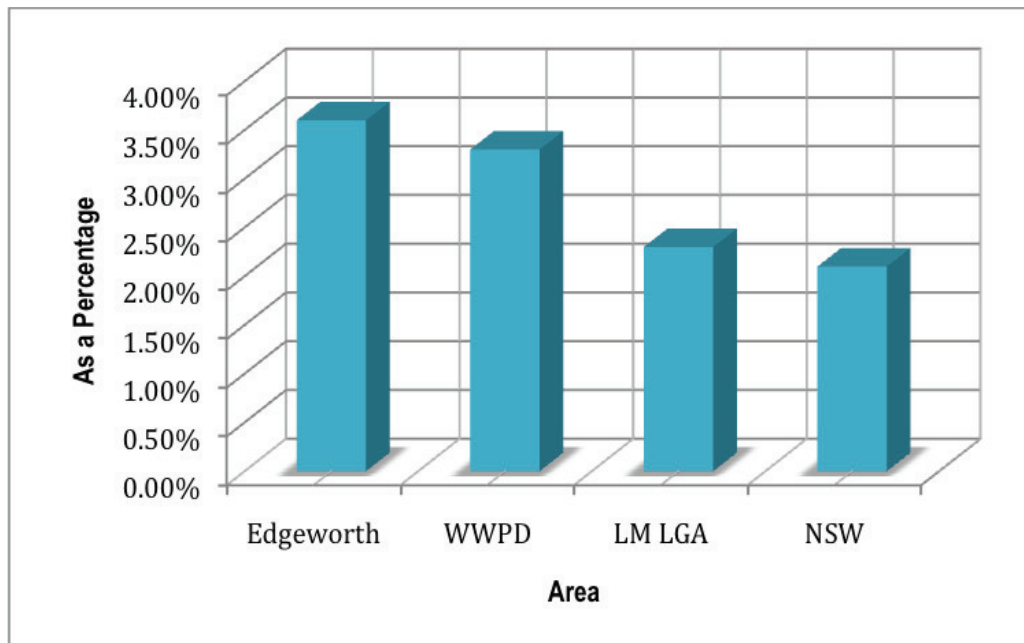
2.4 Household Structure

At 33 percent, the dominant household type in Edgeworth is a 'couple family', which is defined by the Australian Bureau of Statistics as a family based on two persons who are in a registered or de facto marriage with at least 1 dependant or non-dependant child. Lake Macquarie LGA has a similar number of couple families at 34 percent. Both Edgeworth and LM LGA report slightly higher percentages of couple families than NSW which has 30 percent. For both Edgeworth and LM LGA, one and two person households make up 58 percent of the total and three person households plus make up the remaining 41 percent.

2.5 Ethnicity

The percentage of residents of Edgeworth and WWPD who indicated on census night that they are Aboriginal or Torres Strait Islanders is greater than the overall percentage of indigenous persons for both Lake Macquarie LGA and New South Wales, as evidenced in **Table 2.4** below.

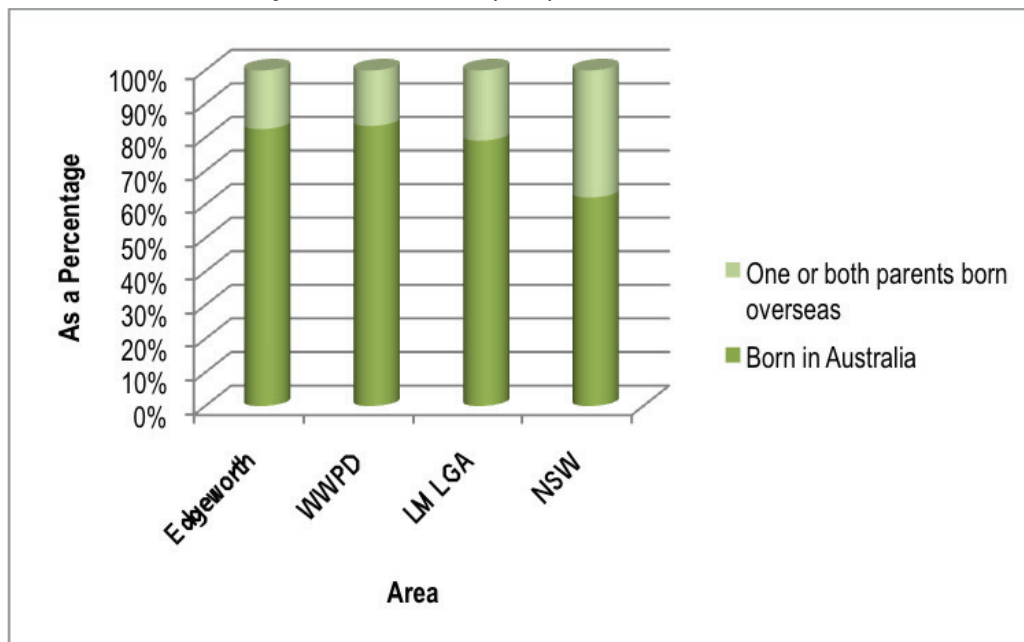
Table 2.4 Indigenous Status



Source: ABS (2006)

Table 2.5 below indicates the percentages of people born in Australia and the percentages of people with either one or both parents born overseas:

Table 2.5 Ancestry and Place of Birth (2006)



Source: ABS (2006)

Looking at the above table, it is clear that with regard to the birthplace of residents' parents, both Edgeworth and WWPD have lower percentages of overseas born parents than LM LGA and much lower percentages when compared to NSW. Furthermore, there is a marked difference between the

percentages of people born in Australia in Edgeworth / WWPDP / LM LGA to that of NSW. These statistics indicate that Edgeworth / WWPDP are culturally more homogenous than LM LGA and particularly NSW.

2.6 Housing Form

The following table indicates the percentage of various types of dwelling within the various areas of comparison:

Table 2.6 Dwelling Types (2006)

Area	Detached House	Semi-detached, Row, Terrace or Townhouse	Flat, Unit or Apartment	Other
Edgeworth	88.6%	9.7%	1.4%	0.3%
WWPD	93.4%	5.1%	1.1%	0.4%
LM LGA	87.2%	6.8%	4.5%	1.5%
NSW	71.4%	9.7%	17.7%	1.2%

Source: ABS (2006)

The majority of dwellings in Edgeworth and WWPDP are detached houses (89% and 93% respectively). These percentages are similar to the figure for LM LGA which has 87% detached houses but much higher than the figure for NSW which is 71%. Furthermore, as can be seen in **Table 3.5** Edgeworth and WWPDP have very low percentages of flats, units and apartments, when compared to NSW as a whole. These results indicated that Edgeworth and WWPDP have much lower than average housing density and housing choice.

Given that the Lower Hunter Regional Strategy indicates an additional 160,000 people will reside in the area, any residential development that occurs at the subject site should include a significant amount of semi-detached dwellings and units. This will maximise the available land, working to preserve ecologically significant land within the Shire, whilst also working to achieve the targets stated in the Regional Strategy. Furthermore, providing a mix of housing types, including units, will alleviate identified affordable housing shortages.

2.7 Income and Housing Affordability

The affordability of dwellings to either rent or buy in Edgeworth and the West Wallsend Planning District has been determined by comparing the cost of renting or buying in Edgeworth, WWPDP, LM LGA and NSW with individual and household incomes. The following table indicates mean loan repayments and mean rents for the areas of comparison:

Table 2.7 Mean Loan Repayments and Rents (2006)

Area	Mean Household Income (month)	Mean Loan Repayment (Month)	Mean Rent (Month)
Edgeworth	\$3,702.20	\$1,196.00	\$779.40
WWPD	\$4,358.20	\$1,176.60	\$851.50
LM LGA	\$3,992.30	\$1,300.00	\$801.00
NSW	\$4,485.90	\$1,517.00	\$909.00

Source: ABS (2006)

Based on the above table, mean loan repayments in Edgeworth are 21.2% lower than the NSW average and mean loan repayments in WWPD are 22.5% lower than the NSW average, whereas repayments overall for LM LGA are 14.3% lower than NSW. With regard to rent, the Edgeworth mean rate is 14.3% less than the NSW mean rate, the WWPD mean rate is 6.3% less than NSW and the LM LGA mean rate is 11.9% less than NSW. So, interestingly, while Edgeworth and WWPD are similar in their variance from NSW in terms of mean loan repayment rates, Edgeworth is quite different to WWPD in regard to mean rental rates. In any case, both rental and loan repayment rates in Edgeworth and WWPD markedly less from the averages for NSW.

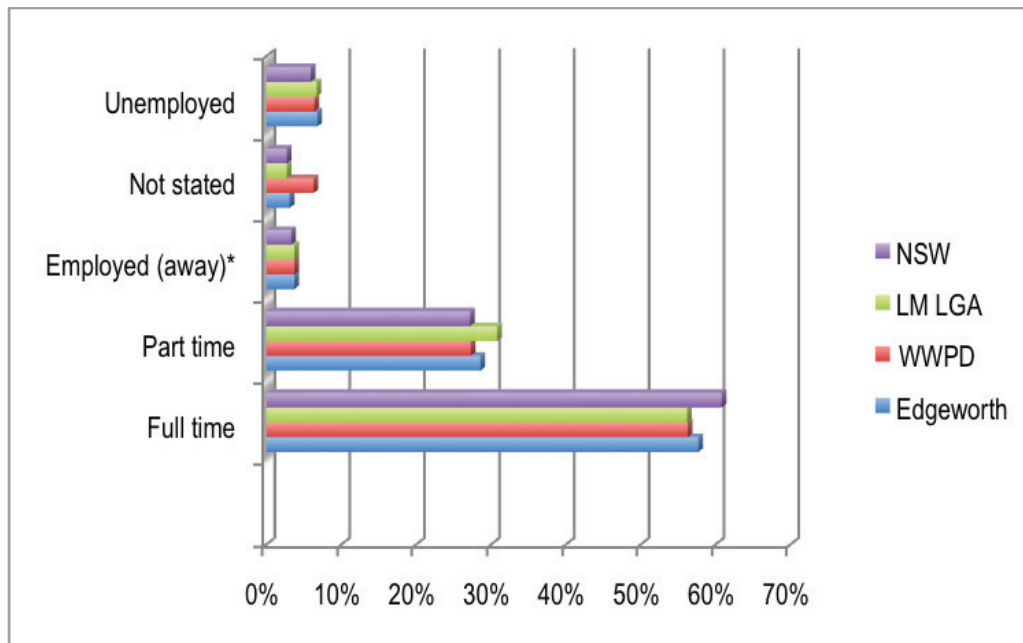
To translate these results to the affordability of housing in Edgeworth and WWPD, these rates must be compared to incomes. The mean household income in Edgeworth is 17.5% less than the NSW mean household income and the mean household income in WWPD is 2.8% less than the rate for NSW.

Therefore, there is greater difference between the cost of housing in Edgeworth / WWPD and the rest of NSW than there is difference between mean household incomes. This may indicate that fortunately, at the moment, housing is more affordable in Edgeworth and WWPD than the rest of Lake Macquarie and the State of NSW. It is therefore considered that the rezoning the subject site for urban development is likely to ensure that this affordability continues.

2.8 Employment and Education

As shown in **Table 3.5**, the unemployment rate for Edgeworth is relatively the same as the unemployment rate for the greater Lake Macquarie LGA (6.8% and 6.7% respectively) and is slightly higher than the unemployment rate of WWPD (6.4%). The rates for Edgeworth, WWPD and LM LGA are higher than the NSW state rate, which is 5.9%. Edgeworth and LM LGA show higher rates of part time employment than NSW, while the part time rate for WWPD is about the same as the NSW rate.

Table 2.8 Resident Workforce Status



* Comprises employed persons who did not work any hours in the week prior to Census Night.

Source: ABS Census (2006)

The statistics shown above indicate that unemployment in Edgeworth and WWPDP is around the same level as Lake Macquarie as a whole, but higher than the unemployment rate for NSW. Through rezoning the subject site there is potential to exacerbate the already higher than average level of unemployment, if the land is rezoned to allow for residential purposes only and no additional employment opportunities are generated.

Edgeworth has two main industries of employment been Manufacturing (15%), and Retail trade (14%). This may be a reflection of the low levels of educational attainment, though 50% of persons working in the Manufacturing industry have qualifications and 8.1% of persons working in retail trade have qualifications. Furthermore, of the total number of employed people in Edgeworth, 35% are either managers, professionals or technicians and tradespeople.

For the West Wallsend Planning District as a whole, the largest employment industry is also Manufacturing, followed by Retail Trade, then Health Care and Social Assistance. Lake Macquarie has a different largest employer sector to Edgeworth and WWPDP, being Healthcare and Social Assistance, followed by Retail Trade. The top employment sector in NSW overall is Retail Trade, followed by Education and Training.

The level of educational achievement for residents of Edgeworth and the wider WWPDP are quite similar. The majority of Edgeworth and WWPDP residents' highest level of education is year 10 or below (51.1% and 49.0% respectively). In Edgeworth, 16.7% of residents have completed year 12 as opposed to 15.2% of WWPDP residents. For both Edgeworth and WWPDP, 3.1% of residents have achieved a Bachelor Degree or higher.

These statistics for Edgeworth and WWPDP are quite different from LM LGA statistics, where more residents have completed year 12 (24.3%) and more residents have a Bachelor Degree or higher (8.5%). Additionally, the statistics for Edgeworth and WWPDP are very different from the NSW figures where only 33.2% of residents have completed year 10 or below, 34.0% of residents have completed year 12 and 13.2% have a Bachelor Degree or higher.

Table 2.9 Educational Achievement (2006)

Area	Completed year 10 or below	Complete year 12	Bachelor Degree or higher
Edgeworth	51.1%	16.7%	3.1%
WWPD	49.0%	15.2%	3.1%
LM LGA	44.5%	24.3%	8.5%
NSW	33.2%	34.0%	13.2%

Source: ABS (2006)

2.9 Key Demographic Findings

Population and Household Structure

- From 2001 to 2006, there was high population growth in WWPD (8.2%) which is predicted to continue in line with the relevant strategic planning documents for the area; and
- WWPD contains more young nuclear families than LM LGA and NSW and is not experiencing an ageing in population to the same extent as LM LGA and NSW.

Ethnicity

- A greater than average amount of Aboriginals and Torres Straight Islanders reside in Edgeworth and WWPD than the LM LGA and NSW average; and
- Edgeworth and WWPD have smaller percentages of residents with one or both parents born overseas than the LM LGA and NSW average.

Housing Type and Affordability

- Edgeworth and WWPD have a similar amount of detached houses as LM LGA, but a much higher proportion than NSW.
- Edgeworth and WWPD have very low levels of flats, units and apartments when compared to the NSW average;
- Mean household income in Edgeworth is significantly lower than WWPD and NSW as a whole (\$656 and \$783 respectively). It is lower than LM LGA but not to the same extent (Edgeworth is \$290 less).
- Mean loan repayments are similar for Edgeworth and WWPD, both are slightly lower than LM LGA mean repayment and significantly lower than the NSW mean repayment.

Employment and Education

- The unemployment rate for Edgeworth is similar to that of LM LGA, but higher than the NSW unemployment rate. The unemployment rate for WWPD is also higher than the NSW rate;
- The largest two sectors of employment in WWPD are Manufacturing and Retail Trade;
- The level of education achieved by residents of Edgeworth and WWPD is lower than LM LGA and significantly lower than the NSW average.

Planning Framework

3.1 Introduction

In order to determine need for additional urban development and also economic impact of such development it is important to have a good understanding of legislation, development controls, policies and strategies that will impact on the development of the subject site. This section identifies and reviews the Planning Framework that will influence the future economic development of the site.

3.2 State Plan

The NSW Government has prepared a State Plan for a new direction for NSW. The purpose of the State Plan is to deliver better results for the NSW community from government services. The State Plan focuses on five areas of activity of the NSW government:

- rights, respect and responsibility – the justice system and services to promote community involvement and citizenship;
- delivering better services – key services to the whole population including health, education and transport;
- fairness and opportunity – services that promote social justice and reduce disadvantage;
- growing prosperity across NSW – activities that promote productivity and economic growth, particularly in rural and regional NSW; and
- environment for living, planning for housing and jobs, environmental protection, arts and recreation.

There are a number of facets of the State Plan that are directly relevant to the future development of the site in terms of economic impact. Lake Macquarie City Council has been identified as an area for significant economic growth. The State Plan identifies regional development and economic growth as a key priority for NSW.

3.3 Lower Hunter Regional Strategy

The Lower Hunter Regional Strategy (LHRS) was released by the NSW Department of Planning in October 2006 to:

“...ensure this vital Region continues to grow and prosper in a sustainable way, while creating long-term business certainty and attracting more investment and jobs.”

The LHRS applies to the five Local Government Areas of Newcastle, Lake Macquarie, Port Stephens, Maitland and Cessnock.

The LHRS includes planning to allow an additional 66,000 new jobs, 160,000 new residents, 115,000 new dwellings to be generated in the region by 2030, based on the 25 year life of the Strategy. These estimates indicate that in 2031, the region will accommodate a population of approximately 675,000 people, an increase of 31 percent above the current population of 515,000. Based on current population dynamics, the population of the region will include an increasing proportion of older people, relative to that

of the rest of NSW. This trend is identified in the Strategy as being the result of a net migration of young people out of the Lower Hunter and net migration of older persons into the Lower Hunter.

A hierarchy of regional centres is a central objective of the strategy. One strategic goal of the strategy is for the 'majority of development to take place close to existing major centres and employment lands to make the most of the opportunities provided'. The Newcastle city centre is identified as the 'Regional City' that is supported by a range of major regional centres. The Newcastle city centre will be promoted through a planning process concentrating new commercial and residential development within and around it. Development in Newcastle as the regional city will concentrate on higher order activities including education and health, and higher density commercial developments. The main regional centres that will support the Newcastle city centre are considered to be:

- Charlestown;
- Cessnock;
- Maitland; and
- Raymond Terrace.

Two 'emerging' regional centres have also been identified as Morisset and Glendale/Cardiff. Emerging regional centres are regarded as those centres which will develop into new localised centres of population and commercial activity over time. There will be a focus on developing a higher proportion of new housing developments in these growth centres to boost economic and housing capacity. The subject site is 5 km from the Glendale/Cardiff 'emerging' regional centre. Furthermore, the site is designated under this regional strategy as a Proposed Urban Area and is connected to a designated Renewal Corridor, which the LHRS defines as a location for "economic renewal and/or housing renewal and intensification" (see **Appendix A** for more detail on the designation of centres, renewal corridors etc. under the LHRS).

Other important aspects of the LHRS that must be considered within the current project is that industrial land allocation in recent years has not been located near major transport nodes, in particular, public transport. And, the supply of industrial land has been impacted by retail development activity, which has utilised some of the land available for industrial development. This scenario impacts on residents in many ways, including increasing the requirement to drive to work which has an obvious financial cost as well as a flow-on effect on health and fitness, and reducing opportunities for local employment.

3.4 Lake Macquarie Lifestyle 2020 Strategy

The Lake Macquarie City Council produced 'Lifestyle 2020 Strategy' (LMCC 2000) that is a strategic plan providing 'long term direction for the overall development of the City and is a tool for managing private and public development in Lake Macquarie'. Lifestyle 2020 core values are sustainability, equity, efficiency and liveability.

Key strategic directions particularly relevant for this study include:

- Focus development activity on Centres to maximise accessibility – George Booth Drive/Edgeworth as a village centre is situated to provide support to the growing town centres of Glendale/ Cardiff and provide a link between the North Lakes and Pambulong Forest Estates;
- The supply of adequate land and housing – George Booth Drive/Edgeworth can provide for residential lands near employment areas (e.g. industrial lands and a commercial node);
- Ensuring provision of adequate infrastructure, services and facilities – George Booth Drive/Edgeworth can provide for solutions for co-location, shared use and flexible design of development;
- Character, heritage and cultural values – George Booth Drive/Edgeworth can be maintained consistent with the character and amenity of a village. Appropriate land zoning can also ensure buffering between areas of potential conflict (e.g. residential and industrial);

- Accommodate social and economic change by providing for mixed use development - George Booth Drive/Edgeworth provides for a mix of residential density, a central commercial node, and an industrial estate;
- Consolidating and encouraging growth of existing industrial lands and supporting the orderly future development of industrial, commercial and retail facilities; and
- Protecting existing and committed land uses that contribute to the economic base of the LGA.

Through appropriate rezoning, the study area is ideally situated to contribute to the future economic success of the LGA through the provision of key services where required, provision of housing, mixed use land and facilities for recreation.

3.5 Draft Lake Macquarie Draft Lifestyle Strategy 2020

The Draft Lifestyle Strategy 2020 presents particular goals and ideals for the future direction of specific areas. The aim was to provide a framework for the release and development of land in the LGA. The following elements of the Draft are relevant to this LES.

The study area is located in the West Wallsend Planning District. George Booth Drive, Pambulong Centre to the north and the subject site to the south, is identified as an area which is intended for a new Town Centre. The new Centre would connect to its nearest sub-regional centre; Glendale/Cardiff. It was also intended that the location provide a “Centre focus” for the planning district and would be an important bus transport node, whereby reducing residents’ reliance on private vehicles. Edgeworth is referred to as maintaining a commercial and employment focus for surrounding residential areas. It is also intended to increase population levels and housing diversity within a walkable distance of the Local Centre.

The Strategy also states that the area between West Wallsend and Killingworth should be developed as a “major employment area, catering for Core Industry”. The general tract of land that is being referred to is close to neighbouring the subject site and provides guidance as to the appropriate location of more industrial land in the proposed rezoning. Providing support to this assertion is that the Strategy suggests an extension to Government Road, linking the major employment area to the subject site, where “urban manufacturing and support services” type industry is suggested.

Based on the above excerpts, it is clear that there are definite goals set for the site that will need to be carefully considered and balanced when designing a new structure plan for the rezoning which ensures that minimal negative social impacts occur.

3.6 Newcastle - Lake Macquarie Western Corridor Planning Strategy

The Newcastle – Lake Macquarie Western Corridor Planning Strategy (NLMWCPS) was published by the Department of Planning in July 2010. The NLMWCPS sits under and informs the Lower Hunter Regional Strategy: 2006-2031 which identified lands to the west of Newcastle and Lake Macquarie as proposed urban, employment and environmental conservation lands. The broad objective of the NLMWCPS is to identify key planning principles and provide a broad strategic land use framework to guide future urban expansion and conservation outcomes in the identified western corridor area. The adopted planning principles and infrastructure requirements contained within the strategy are to be used as key considerations in the preparation of environmental studies that support rezoning proposals. The NLMWCPS provides a number of planning principles which must be considered when reviewing rezoning proposals. These planning principles were based on a constraints analysis, existing settlement

parameters, future growth areas and planning principles in the Lower Hunter Regional Strategy and stakeholder consultation. The strategy identifies the following as neighbourhood planning principles:

- A range of land uses to provide the right mix of houses, jobs, open space, recreational space and green space;
- Jobs available locally and regionally reducing the demand for transport services;
- Public transport networks that link frequent buses into the rail system;
- Easy access to major town centres with a full range of shops, recreational facilities and services along with smaller village centres and neighbourhood shops. Streets and suburbs plans that ensure residents can walk to the shops for their daily needs;
- A wide range of housing choices to provide for different needs and different incomes. Traditional houses on individual blocks will be available along with smaller, lower maintenance homes, units and terraces for older people and young singles or couples; and
- Conservation land in and around the development sites to help protect biodiversity and provide open space for recreation.

From these neighbourhood planning principles a preferred land use strategy is contained within the NLMWCPS. This planning strategy identifies three types of preferred land use within the western corridor to accommodate around 8,000 new housing sites, 1,500 hectares of employment lands as well as conservation lands. **Map 4 – Western Corridor Planning Strategy** within the document identifies the subject site for residential investigation. This will need to be given due consideration when preparing the proposed zoning for the site.

3.7 Lake Macquarie City Council Industrial Lands Study

Lake Macquarie City Council reviews its Industrial Lands Study on a tri-annual basis to review industrial lands stocks, monitor land stock levels and usage trends and to ensure adequate land is zoned for industrial purposes to meet economic demand. The latest version is the 2007 Industrial Lands Study prepared by Lake Macquarie City Council. The Industrial Land Study indicates that over the past decade a significant reduction in land stock has occurred with demand for industrial land outstripping supply. The only significant addition to supply over this period occurred at Cameron Park. The Industrial Land Study further indicates that the current stock is at currently around 91 ha with additional land proposed to come from the redevelopment of the Pasmenco site at Boolaroo (35 to 40 ha) and from the rezoning of land at Gimberts Road (35 ha) for industrial purposes. The study also notes that 36 ha at Red Head was rezoned from Industrial land to Environmental Protection which has contributed to the large reduction in zoned industrial land.

Notwithstanding the aforementioned proposed rezonings the industrial land study indicates that the long term demand as a result of employment growth from projected population increases and the need to provide employment close to or adjacent to urban development areas indicates that further industrial land needs to be planned for in the short term to ensure adequate industrial land is available in the five to ten year period.

3.8 Integrated Transport Centre

The intended site for the Lake Macquarie Integrated Transport Centre (ITC) is an area adjacent to the major emerging regional centre of Glendale/Cardiff and the Cardiff Industrial Park. It is well situated regarding access to Wyong, Maitland, the Port of Newcastle and Williamtown airport. The subject site sits 6 k m to the west of this proposed site.

The ITC is planned to include a new railway station, bus interchange, commuter car park and associated road infrastructure. A new link to the F3 freeway will improve the currently congested regional road network, making the area very attractive for all forms of development. Council has reported that the new

transport centre would facilitate the ongoing expansion of specialised manufacturing, technology based enterprises, aluminium and steel fabrication, call centres and construction based industries (LMCC 2002). LMCC estimate the provision of approximately 2,800 new jobs directly linked with the ITC and possibly another indirect 1,120 jobs, which will have obvious flow-on social benefits for the local community.

3.9 Background Studies

3.9.1 DA 22074/2007 Pambulong Forest Retail Development – Social Impact Assessment

The above mentioned Social Impact Assessment was prepared by Key Insights, November 2007 for the Pambulong Forest Retail Development, DA 22074/2007. The Retail Development relates to a proposed shopping centre for the Pambulong Forest release area. The proposed location of the centre is directly adjacent to the subject site. The Social Impact Assessment concentrated on a “Study Area” which covered West Wallsend, Barnsley, Holmesville, Seahampton, Cameron Park and Edgeworth, and included the subject site. Therefore the data collected for the Pambulong Forest Retail Development – Social Impact Assessment is relevant to this report. The data was mainly sourced from ABS, and used the 2006 census data. However, at the time of publication, not all data from the 2006 census was released.

The summary of demographic findings is presented below;

- A marked difference in age structure for the study site as compared to Lake Macquarie and NSW, with a high proportion of young children and persons in the 30-39 age bracket, suggesting young families;
- A low proportion of older residents;
- Low levels of overseas born residents;
- High proportion of children under 15 years of age;
- High representation of nuclear families*, and low representation of lone households;
- High concentration of households in middle income bracket, low concentration of low and high income brackets;
- Significantly lower taxable incomes than NSW;
- Lake Macquarie has a similar unemployment rate to NSW;
- Overwhelming dominance of detached housing, with higher density housing accounting for only 6%;
- Low rates of volunteering (Volunteering is an indicator of social capital); and
- High levels of home purchasing and low levels of renting.

* A nuclear family is a family group consisting of the father, mother and their children, as distinct from the extended family.

3.9.2 DA 22074/2007 Pambulong Forest Retail Development - Economic Impact Assessment

This Economic Impact Assessment was prepared by Hill PDA Consultants in October 2007 and relates to the Pambulong Forest Retail Development. The Pambulong Forest Retail Development is adjacent to the study area and fronts George Booth Drive. This Economic Impact Assessment is particularly relevant to the study area as any proposed rezoning within the study area will need to interrelate with the Pambulong Forest Retail Development.

The Development Application for the Pambulong Forest Retail Development will be constructed over two stages. The first stage includes:

- a 4200 m² supermarket;
- a 2367 m² of specialty shops;
- 305 m² of office / commercial space; and
- 330 carparks.

The second stage is proposed by the Development Application to occur three to five years after the development of the first stage and will include:

- a discount department store with a gross floor area of 7350 m²;
- a large format retail liquor store with a gross floor area of 1450 m²;
- an additional 4680 m² of specialty shops; and
- 294 additional carparking spaces arranged over two levels.

The purpose of the Hill PDA Consulting report was to establish economic impact of the proposed Pambulong Retail Development. In determining economic impact the Hill PDA report carried out the following scope of works:

- identification of the primary and secondary trade areas;
- estimation of the turnover of the proposed centre and the likely redistribution from existing and planned retails;
- consideration of impact on existing and proposed retail centres in the locality; and
- estimation of the economic benefits including employment generation, multiplier impacts, shopper convenience, price competition etc.

The Hill PDA report assesses impact by estimating the likely turnover of the new centre and then redirecting this turnover from existing and proposed centres. The likely turnover rates that were used in estimating turnover are:

- supermarket \$8500 / square metre;
- discount department store \$2700 / square metre; and
- specialty shops \$5500 / square metre.

The report estimates that the stage 1 will turnover \$49 million when it opens with turnover rates expected to increase at 1.5% per annum from its opening for 3 years when stage 2 is to be opened. Following the opening of stage 2 the centre is expected to turnover \$108 million.

The Hill PDA report has determined that the proposed floor space of stages 1 and 2 of the Pambulong Forest Retail Development would not result in an oversupply of retail floorspace. The report does indicate that other shopping centres in the vicinity of the proposed Pambulong Forest Retail Development, such as Maryland, Wallsend, Glendale and Edgeworth will suffer an immediate impact on turnover levels. The Report then goes on to state that it is not uncommon for nearby centres to suffer after the opening of a new centre. The Hill PDA report has determined that the economic benefits of the proposed Pambulong Forest Retail centre will outweigh the economic impacts on other retail areas in terms of job creation, multiplier effects and convenience to residents in the future Pambulong area. The report determines that the proposal meets growth and demand for retail services in the locality and that there is still sufficient growth in expenditure forecast to enable other existing centres such as Glendale to enjoy considerable capture of expenditure growth in the locality.

3.9.3 Economic Impact Assessment for Proposed Hotel on George Booth Drive

The Economic Impact Assessment was prepared by Castlecrest Consultants, January 2004 for the Harrigans Hotel, Pambulong Estate, George Booth Drive. The proposed development and operational business is multi-dimensional and includes restaurant, wine tasting, functions rooms and traditional inclusions associated with a free standing hotel (liquor sales, gambling, casual food and beverages).

The purpose of the Castlecrest Consultants report was to establish the economic impact of the proposed Harrigans Hotel. In determining economic impacts the report had the following objectives and scope of works:

- provide an economic overview of the development proposal;
- provide a market context and trade area for the proposal;
- review existing similar business operations within the trade area;
- assess demographics of the trade area and the significance in regard to the proposal;
- assess the future performance of the proposed development;
- assess the proposals contribution to local employment and other economic benefits; and
- comment on the impact of the proposal on other businesses within the trade area.

The report outlined the following findings:

- the Pambulong area within the region of Lake Macquarie and Newcastle has the capacity to provide and accommodate future populations growth;
- there is demonstrated capacity to for the Pambulong area to sustain increased residential sub-division over the next 15-20 years;
- the Pambulong trade area contains 7 similar business that may experience competition;
- the Harrigans hotel would form part of a large community development;
- based on past and projected population growth in the trade, there would be a substantial trade base that would support the development;
- the development would have the ability to capture a greater share outside trade and the tourism market;
- the development would not become dominant and the impact on existing traders would be acceptable;
- the potential positive impacts of the proposal in terms of output, employment and income would be significant;
- the potential negative economic impacts would arise primarily from competition, however these can be mitigated.

3.9.4 Statement of Environmental Effects for Pambulong Retail and Commercial Development

This Statement of Environmental Effects was prepared by Asquith and DeWitt Pty Ltd consultants relates to the Pambulong Forest Marketplace Development. The Pambulong Forest Marketplace Development is adjacent to the study area and fronts George Booth Drive. This Statement of Environmental Effects summaries the abovementioned detailed assessments and assess other general environmental impacts and is very relevant to the study area as any proposed rezoning within the study area will need to interrelate with the Pambulong Forest Retail Development. The description of the proposal has been outlined in **section 3.9.2** above.

The summary of findings is presented below:

- the proposal is an appropriate development for the site given the site context, location and commercial zoning;
- the development will provide new retail and commercial services to a new residential area;
- the main issues that concerned the proposal were urban design, construction, operations, social and economic effects, yet these effects were generally within acceptable levels and or can be managed and mitigated;
- there would be positive economic effects from the proposal;
- the proposal complies with planning controls and it would be unlikely for significant environmental impacts to result.

As a result, the proposed development of Pambulong Marketplace has been approved by LMCC.

Site Context

4.1 Centre Hierarchies

George Booth Drive/Edgeworth is situated amongst an established hierarchy of urban centres. The major centres are outlined in **Table 4.1**.

Table 4.1 Local Hierarchy of Centres

Centre	Centre Name
Regional	Newcastle
Sub Regional	Glendale / Cardiff and Charlestown
Town	Warners Bay, Mount Hutton, Toronto, Belmont, Morisset, Swansea
Neighbourhood	Edgeworth, Boolaroo, Speers Point, Lakelands, Hillsborough, Cardiff South, Argenton, Teralba, Booragul, Woodrising

Source: LMCC 2000 refer **Appendix A** for more detail on the designation of centres, renewal corridors etc. under the LHRS.

Glendale / Cardiff and Charlestown are the two closest major centres to Edgeworth. Glendale / Cardiff has large retail and commercial areas including Coles, Target, Aldi and Kmart along with Greater Union Cinemas. Cardiff Industrial Estate currently includes over 500 businesses and employs over 7,500 people (LMCC).

It should be noted that in the Draft Lifestyle Strategy 2020, George Booth Drive, Pambulong Centre to the north and the subject site to the south, are identified as an area which is intended for a new Town Centre. The new Centre would connect to its nearest sub-regional centre; Glendale/Cardiff. It was also intended that the location provide a "Centre focus" for the planning district and would be an important bus transport node, whereby reducing residents' reliance on private vehicles. Edgeworth in the Draft Lifestyle Strategy 2020 is referred to as maintaining a commercial and employment focus for surrounding residential areas. It is also intended to increase population levels and housing diversity within a walkable distance of the Local Centre. The approval of the DA 22074/2007 for the Pambulong Forest Retail Development was the first step in creating the Town Centre.

4.2 Accessibility

Road Network

TC Frith Avenue is a major arterial road forming part of a north-south transport corridor linking southern areas such as Toronto and Morisset to northern areas such as Glendale, Cardiff and Newcastle. 'Main Road' transects Lake Road (the continuation of TC Frith Avenue) and changes into George Booth Drive. George Booth Drive / Main Road not only service Edgeworth and the site, but also provide a link for traffic joining the Sydney Newcastle Freeway.

Glendale shopping centre and Cardiff Industrial Estate are located east of Edgeworth and the site. Traffic access is generally direct for traffic travelling along George Booth Drive and Main Road, such as local residents travelling from the suburbs of Edgeworth, Holmesville and West Wallsend.

Public Transport

Edgeworth and suburbs around the site are serviced by public transport routes (bus and rail). Major routes include:

- established bus routes that service West Wallsend and Edgeworth; and
- Cockle Creek and Cardiff Railway Stations, part of the Main Northern Railway, are both within approximately 6km of the site.

The development of the Integrated Transport Centre with a new station and improved pedestrian/cycle access to the Cardiff Industrial Estate will enhance the use of local public transport.

Retail, Commercial and Industrial Lands Profile

5.1 Lake Macquarie LGA Retail and Commercial Profile

5.1.1 Retail Profile

An outline of past retail activity in Lake Macquarie is shown below in **Table 5.1**.

Table 5.1 Retail Business Numbers and Lettable Floor Area

Commercial Centres	Number of Businesses			Net Lettable Floor Area (m ²)		
	1997	2002	2008	1997	2002	2008
Belmont	90	93	112	21072	21187	28013
Cardiff	48	46	22	7578	13481	5041
Charlestown	166	209	184	45288	59397	57478
Glendale	25	42	63	23911	42449	55843
Morisset	33	36	39	8436	6645	7740
Mt Hutton	35	36	39	13600	15623	16559
Swansea	39	40	30	9020	7803	8137
Toronto	66	81	66	21477	16454	16815
Warners Bay	48	60	51	6276	10688	8923
Total	550	643	606	156658	193727	204549

Source: base figures provided by LMCC Manager Economic Development

Please note anomalies exist in the data between survey years because of changes in collection boundaries and survey classification methods.

Survey information estimated for 1997 to 2008 shows there has been generally strong growth both in the number of retail businesses and floor area in the Lake Macquarie LGA. Although there has been some variation between centres, there has been a total of 9.2% growth in the number of businesses and 23.4% growth in net lettable area between 1997 and 2008. This equates to a modest annual growth rate of around 0.84% for businesses and a higher annual growth rate of about 2.1 % for net lettable area.

The main growth experienced in both the number of retail businesses and lettable floor space seems, however, to have occurred between 1997 and 2002, with growth slowing between 2002 and 2008. Trends between 2002 and 2008 showed a reduction in the number of retail businesses, yet an increase in floor area. Variation between centres exist, however there has was total decline of 5.8% in the number of businesses and growth of 5.3% in net lettable area between 2002 and 2008. This equates to an annual decline of around 0.97% for businesses and annual growth of about 0.88% for net lettable area.

During this same period there was a net increase in population in the Lake Macquarie LGA of around 0.8% per annum.

5.1.2 Commercial Profile

An outline of past commercial activity (net lettable floor area) in Lake Macquarie is shown below in **Table 5.2**.

Table 5.2 Estimated Commercial Business Lettable Floor Area

Commercial Centres	Net Lettable Floor Area (m ²)		
	1997	2002	2008
Belmont	13,209	21,991	37,661
Cardiff	8,232	24,587	17,269
Charlestown	16,894	54,307	38,415
Glendale	1,343	4,360	5,557
Morisset	2,180	2,265	4,806
Mt Hutton	1,320	1,136	1,364
Swansea	7,707	8,625	8,780
Toronto	26,748	27,490	34,852
Warners Bay	8,389	13,017	11,461
Total	86,022	157,778	160,165

Source: base figures provided by LMCC Manager Economic Development

Survey information estimated for 1997 to 2008 shows there has been generally strong growth both in lettable commercial floor area in the Lake Macquarie LGA. Although there has been variation between centres, there has been a total of 46.3% growth in net lettable area between 1997 and 2008. This equates to an average annual growth rate of around 4.2% for net lettable commercial floor area. It should be noted however that most of the growth occurred between 1997 and 2002. Growth between 2002 and 2008 slowed considerably to only 1.5% growth occurring over the whole 6 year period of 2002 to 2008.

5.1.3 Combined Commercial and Retail Profile and Current and Future Planned Retail and Commercial Area in the LGA

Despite growth having slowed in both the retail and commercial sectors between 2002 and 2008 as discussed in the previous sections, combined retail and commercial data for 2009 suggests a boost in growth. **Table 5.3** shows that growth in floor area for the retail and commercial sector increased significantly by 27.4% between 2008 and 2009 alone. Floor space in the LGA has more than doubled since 1997 to 2009.

Table 5.3 Retail and Commercial Floor Area

Retail and Commercial Centres	Net Lettable Floor Area (m ²)			
	1997	2002	2008	2009
Belmont	34,281	43,178	65,674	64,864
Cardiff	15,810	38,068	22,310	43,355
Charlestown	62,182	113,704	95,893	198,948
Glendale	25,254	46,809	61,400	61,400
Morisset	10,616	8,910	12,546	17,493
Mt Hutton	14,920	16,759	17,923	18,273
Swansea	16,727	16,428	16,917	21,983
Toronto	48,225	43,944	51,667	55,514
Warners Bay	14,665	23,705	20,384	20,616
Total	242,680	351,505	364,714	502,446

There is currently 56,800 square metres of retail and commercial floor space planned for development in the LGA representing a 15% increase in total currently available. LMCC has advised that the new retail and commercial floor space would become operable during the current (2010) year, and therefore provide a substantial boost to retail and commercial floor space (see **Table 5.4** for details).

Table 5.4 Current and Future Planned Retail and Commercial Area in the LGA

Centre	2009	Planned/Opening in 2010	Total
Charlestown	198,948	46,000	244,948
Morisset	17,493	4,800	22,293
Glendale/ Cardiff	104,755	4,200	108,955
Toronto	55,514	1,800	57,314
Overall	376,710	56,800	433,510

Source: base figures provided by LMCC Manager Economic Development

5.2 Industrial Profile - Lake Macquarie LGA

5.2.1 General

Current information on Industrial land supply has been sourced from the LMCC Industrial Land Study (Townson 2007). The survey found that there is currently approximately 620.50ha of total existing industrial land stock and 91.61ha zoned for industrial development currently vacant in the LGA (allowing for a 14.8% increase in industrial development).

Hooper (in Townson 2007) identified a decrease in total land stock with an increase in occupied land resulting in the City's Vacant Land holdings falling from 242.0 ha (2004) to only 91.61 in 2007. Constrained land remained static from 2004 to 2007 at 106.4 hectares. This decrease in vacant land was exacerbated due to 36 hectares being rezoned at Redhead from Industrial to Environmental Protection (Townson 2007). **Table 5.5** shows the long term industrial land uptake within the LGA.

Table 5.5 Long Term Land Uptake for the LGA

	1997	2001	2004	2007
Vacant Land	100-140	115 ha	242ha	91.61ha
Long Term take up rate pa	28 ha	20 ha	14ha	16ha
Land Stock in Years	4-5	5.6	5	3

Source: Townson 2007

Although vacant land stock was 91.61ha (2007), approximately 35 to 40 hectares at the Pasminco site and approximately 35 hectares at the Gimberts Rd underwent rezoning considerations during 2007 and this will boost industrial land supply in the City by 2010/2011, allowing for the two-five year industrial land supply period to be met (Townson 2007). **Table 5.6** shows the contribution of these new industrial release areas to the existing stock.

Table 5.6 Supply of Industrial Lands for the LGA (2007 data)

Area	2007 total land stock (ha)	New/Proposed rezoned land (ha)	Growth (%)	5 Year Average	10 Year Average
Existing 2007 land stock and the contribution of new release areas	620.5	75	12.1%	2.42%	1.21%

Source: Townson 2007

The results indicate that with the uptake of all new and proposed industrial lands, this will represent an average annual growth rate of between 2.42% and 1.21% (assessed over a 5 and 10 year period respectively). Despite this land supply, Townson (2007) estimates that this would only be adequate to meet the two to five year land supply requirements based on current demand.

Estimate of Demand for Retail and Commercial Floor Area Across the LGA

6.1 Estimated LGA Demand for Retail and Commercial Floor Area

Estimated demand for retail and commercial floor area has been calculated at the LGA as this was the information supplied by Council. Information and discussion on the demand for retail and commercial floor area specifically for the Edgeworth locality is provided in **Section 6.2**. The supply of retail and commercial floor space has been estimated based on information provided by LMCC. Current supply levels of retail and commercial space have been assumed to be 502,446 square metres of floor space (2009). LMCC estimate that a further 56,800 square metres is currently being developed or under planning (2010). Hence an adjusted supply of 559,256 square metres is (will soon be) available.

Information provided by LMCC has identified that future growth in retail and commercial office space could be expected to be in the order of 186,000 square metres by 2030, which equates to an average growth rate of 9,300 square metres per annum or 1.7% per annum. This would require up to 745,256 square metres of total retail and commercial floor area being available at the LGA level by 2030.

6.2 Estimate of Demand for Retail and Commercial Floor Area – Edgeworth and Surrounds

Despite the strong demand for retail and commercial floor space at the LGA level through to 2030, the locality of Edgeworth and the surrounding suburbs are well serviced for retail facilities. The proposed development site fronting the south of George Booth Drive would be well serviced by the establishment of the Pambulong Forest Marketplace. This development is located directly opposite the site, on the north of George Booth Drive and consists of a considerable retail centre development. The Development Application proposed the development of the Pambulong Forest Marketplace in two stages which are outlined as follows:

Stage one

- a 4 200sqm supermarket;
- 2 367sqm of speciality shops;
- 305 sqm of office/commercial space;
- A town square and landscaped area;
- 330 associated car parks.

Stage two

- a 7 350sqm discount department store;
- a 1 450sqm liquor outlet;
- an additional 4 860qm of specialist shops;
- 294 additional car parking spaces arranged over two levels.

Overall the application was for a proposal that will provide 21,230m² of gross floor area (Hill PDA 2007).

Hill PDA undertook an economic impact assessment in 2007 for the Pambulong Forest Marketplace.

The purpose of the Economic Assessment was to:

- identify the primary trade areas;
- estimate the turnover of the proposed centre and the likely redistribution from existing and planned retail centres. The
- consideration of whether or not impact on existing/proposed retail centres is significant and/or detrimental and, if so, determine/identify any mitigation measures; and
- estimate the economic benefits including employment generation, multiplier impacts, shopper convenience and price competition.

The assessment examined the existing supply of retail floor space, trade area definition, socio-demographics, household expenditure and floor space demand. The Economic Impact Assessment established that this development would impact upon some surrounding retail centres, particularly West Wallsend, however it determined that the impacts would not be significant or long-term. The development of Pambulong Forest Marketplace was considered to be suitable for the area and would provide retail floor space up to the capacity needed in the area (Hill PDA 2007). This development has been approved by LMCC.

Considering the approval of Pambulong Forest Marketplace and that it is expected to adequately meet the future demand for retail services in the local area, it is not considered that there is the need or demand for additional retail floor space within the local area, particularly around Edgeworth and the proposed rezoning/development site. It is therefore considered that unnecessary to rezone land within the study area that specifically provides for retail development.

Estimate of Demand for Industrial Land

Demand and supply estimates for industrial land use have been estimated at the LGA level and are based on 2007 data due to the level of information readily available. The information used was provided by LMCC and is contained within the 2007 Industrial Land Study (Townson 2007). As mentioned previously, supply levels of vacant industrial land at 2007 were estimated to be 91.61ha. Rezoning of land for industrial purposes at the Pasmenco site and Gimberts Road Morisset also began during 2007 and up to 75ha was/is being considered for rezoning. Portions of the Pasmenco and the Gimberts Road area are likely to become available in the short term 2010/11. Hence current (2010) vacant industrial land stocks may be in the region of up to 166.61ha. However considering that the data is based on 2007 information, it is likely that since this time, industrial land has continually been developed and therefore vacancy rates are lower than estimated above. If the average 2007 industrial land long-term take up rate of 16ha per annum (Townson 2007) is applied to the estimates, the adjusted current (2010) vacant land estimate is more likely to be in the vicinity of 118ha based on available data and these assumptions. This figure however may well be lower or higher depending on whether or not there has been the further provision or decline of industrial land since the 2007 Industrial Land Study was undertaken.

Generally, information provided by the 2007 Industrial Land Study has identified that “many of the industrial areas within the City (Lake Macquarie) have no vacant land or vacant premises” (Townson 2007). Future growth in industrial land is expected to occur as the Lower Hunter and Central Coast region continue to experience considerable population growth. The Lower Hunter Strategy projections of 36,000 new dwellings within the City of Lake Macquarie will have a resultant population increase of 60,000 people and a net increase in workforce of 25,000. The changing role of work and growth of knowledge-based industries will also change the nature of employment lands and considerations of future employment provision (Townson 2007). Townson (2007) states that “while there is a need to provide for traditional/general industrial land that is separated from residential areas to allow 24 hour operation and access, the bulk of development in the City will be lead by construction, knowledge based, logistics and technology driven manufacturing”.

It is considered that traditional supplies of industrial land will be or have been catered for with the rezoning of land on Gimbert's Road Morisset and within the Pasmenco land. However, “in order to facilitate knowledge based industry, consideration should be given to new enterprise living zones that are located close to major centres and may incorporate the existing 3(2) zoning” (Townson 2007). In addition, Hooper (in Townson 2007) “highlighted the changing trends in the business mix, the need for identification of smaller parcels of urban industrial land to meet the demand of mixed residential/light trade and knowledge based industry”. Hooper also highlighted that with the continual growth of the region, demand for Freeway accessible land would grow (Townson 2007). These suggestions and findings would strongly support the inclusion of light industrial/mixed use zoning within the site.

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Land Use Options

This section will discuss the findings of the above mentioned analysis, outline a suggested land use mix within the study area and also provide zoning options that will be able to accommodate this land use mix.

8.1 Zoning and Land Use Options

Based on the analysis above and consideration of the Pambulong Forest Marketplace development and planning considerations, the most appropriate zoning options for the study area is to provide for low to medium density residential development and mixed used precincts which facilitate low impact light urban industrial/commercial development.

Considering the substantial population increases projected for the Lower Hunter region and the City of Lake Macquarie, up to 36,000 new dwellings will be required by 2031 in Lake Macquarie alone. This factor combined with the site's close proximity to the approved Pambulong Forest Marketplace, the Sydney Newcastle Freeway and surrounding approved future residential areas support the provision of residential zoning. Low and medium density residential zoning would be well suited to the area considering the close proximity to the future town centre and associated goods and services (Pambulong Forest Marketplace).

Vacant Industrial lands and premises throughout the LGA of Lake Macquarie are considered to be low (Townson 2007). Furthermore, the need for smaller parcels of urban industrial land to meet the demand of mixed residential/light trade and knowledge based industry as highlighted by Hooper and Townson (2007) would suggest that the site is ideal for the inclusion of such zones and future development. In addition, the site's proximal location to the Sydney Newcastle Freeway would help satisfy demand for urban industrial land with efficient links to the freeway. The inclusion of residential and industrial land uses in close proximity to one another can however, typically pose potential land use conflicts and therefore the inclusion of a mixed use precinct is considered more appropriate rather than the provision of industrial zoning.

The demand for retail and commercial floor space in the LGA is expected to continue at a steady growth rate through to 2030. Pambulong Forest Marketplace development is considered to cater for substantial retail floor space and therefore, due to its proximal location to the site, further retail development would not be justified or necessary. Potentially, limited commercial areas however, would be suitable for inclusion in the site's rezoning as it would support the Pambulong Forest Market Place through synergies in use and this would be catered for under the mixed use zoning recommendation.

The provision of residential zoning, consisting of both low and medium density, would clearly sustain projected population growth, be consistent with the relevant regional planning strategies and be in line with surrounding zoning provisions and the area's urbanisation and development of a town centre. The provision of mixed used land within the study area would also be strongly justified and support the development of the town centre and urbanisation in and around Pambulong Forest Marketplace. These inclusions would help develop a mixed use urban area, which is both supported by, and also would in turn support, the Pambulong Forest Marketplace area. Such provisions would be sustained by the demand for and the lack of current supply of light urban industrial zoning classifications, proximal transport services and the development of the Pambulong Forest area.

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Economic Impact / Benefit

9.1 Economic Benefits of the Rezoning

9.1.1 Employment Generation

Rezoning and development of the site would result in considerable construction employment and construction multiplier effects. These effects are often large contributors to the economy and construction in general is a large contributor to the national economy and Gross Domestic Product.

Under a mixed use zoning and development scenario, the inclusion of some light knowledge based urban industrial and commercial areas would also result in operations generated employment as businesses establish and expand.

9.1.2 Location of jobs

As mentioned previously, mixed use development, including low and medium density residential zones has the improved benefit of locating residents next to and or adjacent to areas of retail, commercial and low impact light industrial uses. With the development of residential areas, combined with mixed use zoning, there is a greater potential for residents to gain jobs locally and consequently limit the need to travel greater distances to obtain employment.

9.1.3 Relationship with adjacent retail centre

The development of residential areas on the site would benefit greatly from proximal goods and services provided by the adjacent retail centre of Pambulong Forest Marketplace. Residents would have walkable access to everyday goods and services and in turn the retail sector of the area would be further boosted through demand growth. Additionally, mixed use zoning would also support the establishment and vitality of the Pambulong town centre.

9.1.4 Meeting Growth in demand for Employment Lands

Based on the analysis of this assessment, there is demand for mixed residential/light trade and knowledge based industry and industrial lands with efficient access to the nearby freeway (Towson 2007). Commercial demand would also be supported as projections suggest that vacant floor space will be continually required within the LGA. Generally the site offers a positive and efficient use of land which is suitable for the inclusion of appropriately considered mixed use, supporting employment.

9.2 Economic Impact

9.2.1 Impacts on similar employment land developments within the catchment

There are areas within the locality that do contain industrial and commercial facilities, however according to the assessment undertaken and available information, there is considerable demand for the provision of industrial and light knowledge based industrial zones in particular, especially in terms of a live/work precinct and due to declines in vacant land stocks throughout the LGA. The zoning and development of mixed use land may initially cause competition with some surrounding employment lands however, as the area is earmarked for considerable residential development around a new town centre, the demand for

mixed use areas (supporting low impact light industrial and commercial uses) is likely to continue and new provisions would complement the immediate locality and surrounding employment lands.

Conclusions and Recommendations

The site is immediately located adjacent to the development of the Pambulong town centre and is within approximately five kilometres of the Glendale/ Cardiff town centre which provides a large mix of commercial and retail alternatives. According to the information available, demand for retail and commercial areas within the LGA is expected to average a growth rate of 9,300 square metres per annum or 1.7% per annum according to estimates up to 2030. Retail area within the locality however, would be catered for by the Pambulong Forest Marketplace development and no further provision of retail use would be justifiable with regard to the subject site. The provision of commercial and low impact light urban industrial land, considering the surrounding residential growth and establishment of the Pambulong town centre, would be a reasonable inclusion within a mixed use development scenario on the site.

Predominately however, the site would be best suited to residential uses. Although there is considerable demand for releases of new vacant industrial land within the LGA, land use conflicts between residential and industrial uses can arise. Areas that support a live/work scenario and knowledge-based, low impact industries that also require efficient freeway access would be well suited to the site in terms of mixed use zoning.

Zoning provisions/development consisting of residential (low and medium density) and mixed use (catering for low impact light urban industrial and some commercial inclusions) would be appropriate for the area and LGA and would help develop the Pambulong town centre. Such provisions should be sustained by demand for residential and light knowledge based industrial zoning in particular, proximal transport services and the development of the Pambulong Forest/Edgeworth urban areas and Pambulong town centre.

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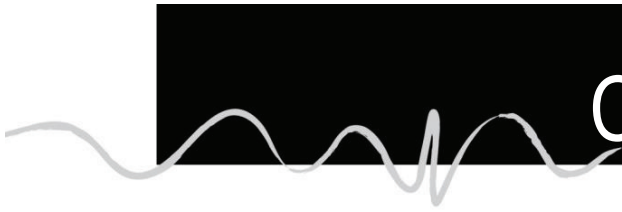
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Regional Centre Hierarchy – Lower Hunter Strategy

Centre Hierarchy	Commercial Centres Servicing the Lower Hunter	Key functions of centre
Regional city	Newcastle City Centre	High level administrative and public services, cultural and recreational activities, and higher density commercial and residential development.
Major regional centre	Charlestown, Glendale (emerging), Morisset (emerging), Maitland, Raymond Terrace, Cessnock	Location which concentrate businesses and employment in retailing, professional services and civic functions. Central location for regional transport.
Specialised centre	Port of Newcastle, Airport precinct University of Newcastle, John Hunter Hospital, Pokolbin vineyard and tourism precincts, Nelson Bay tourism precinct	Regionally significant areas of economic activity and employment.
Town centre	Belmont, East Maitland, Jesmond, The Junction, Lambton, Lochinvar (emerging), Mayfield, Mt Hutton, Rutherford, Swansea, Thornton, Toronto, Wallsend, Waratah, Warners Bay	District level shopping and commercial activities, medium to high density residential.
Renewal corridor	Hamilton–Islington (Tudor Street) Mayfield–Islington (Maitland Road) Broadmeadow–Adamstown (Brunker Road) Charlestown–Windale (Pacific Highway) Glendale–Cardiff (Main Road)	Economic/ housing renewal and intensification corridors along major transport routes.
Stand-alone shopping centre	Kotara and Greenhills retail and commercial Centres	Private commercial developments located away from other commercial areas.

Source: NSW Department of Planning (2006), *Lower Hunter Regional Strategy*, p. 16



Appendix G

Bushfire Hazard Assessment

