

## References and Data Sources

The following data layers were available for the current study:

- Department of Infrastructure and Planning, data set generated for Issues and Options Paper, 2008
- Gold Coast City Council, Velocity vector flooding data, 2008
- Gold Coast City Council, Tenure data, 2008.

## **Appendix A**

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### PB interviews schedule

## Appendix A: Interviews schedule

The following interviews were conducted to inform the site selection study.

**Table 1: Interviews schedule**

Name	Affiliation	Subject	Date
Keith Mason	Business	Water recycling and Jacobs Well	4 July 2008
Dr Leonie Pearson	CSIRO	Sugar cane and other crops	4 July 2008
Robert Pekin	Food Connect	Urban horticulture	7 July 2008
Duncan McGregor	Ex BSES	Sugar and alternate crops	7 July 2008
Bob Abnett	Department of Infrastructure and Planning	Marine industries	9 July 2008
Richard Clarke	GCCC Economic Development and Major Projects	Marine Industry Extractive industry	9 July 2008
Noel Pearson	GCCC Transport Planning	GCCC and DMR plans for road infrastructure (Richard Kretschmer, DMR invited, but did not attend)	9 July 2008
Sayed Khan	Gold Coast Water	Water supply and wastewater reticulation plan for the study area	9 July 2008
Hamid Mirfenderesk	GCCC	Flood strategies	9 July 2008
Peter Shields	Land Resources	Acid sulphate soils	10 July 2008
Eric Danzi	Canegrowers	Sugar cane including supplying Condong Mill	10 July 2008
Dr Nigel Preston	CSIRO	Prawns on the Logan River	14 July 2008
Richard Kretschmer	Department of Main Roads	Infrastructure requirements	5 August 2008
Len Yates	Department of Main Roads	Infrastructure requirements	5 August 2008
Mal Irwin	Department of Mines and Energy	Extractive Industries	5 August 2008
Nicole Warren	Queensland Transport	Railway infrastructure	7 August 2008
Therese Barber	Gold Coast City Council	Motor sport	15 September 2008

## **Appendix B**

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The social and economic impact of  
proposed land uses  
Prepared by Foresight Partners,  
September 2008



# Contents

	<b>Page Number</b>
<b>1. Introduction.....</b>	<b>1</b>
1.1 Background	1
1.2 Study area	1
<b>2. Demographic characteristics .....</b>	<b>2</b>
2.1 Population characteristics	2
2.2 Population projections	5
2.3 Working population characteristics	6
<b>3. Socio-economic impacts .....</b>	<b>10</b>
3.1 Summary of current land uses and economic activities	10
3.2 Summary of preferred location strategy	10
3.3 Socio-economic impacts	10
3.3.1 <i>Extractive industry</i>	11
3.3.2 <i>Marine industry</i>	12
3.3.3 <i>Motorsport and outdoor recreation</i>	13
3.3.4 <i>Social infrastructure</i>	14
<b>4. Conclusions .....</b>	<b>15</b>

# 1. Introduction

## 1.1 Background

This report was prepared as part of the Site Selection and Infrastructure Study for the North East Gold Coast Area on behalf of the Department of Infrastructure and Planning. It is based upon 2006 Census and population data and provides an analysis of the socio-economic impacts of the land uses and preferred sites identified in the body of this report. In this regard it builds upon and advances the demographic analysis presented in the *Demographic Report on North East Gold Coast Study Area* undertaken by the Planning Information and Forecasting Unit in March 2008 and reported in the *North East Gold Coast strategic land use, economic development and infrastructure study: issues and options paper*.

## 1.2 Study area

The study area is located in the north-eastern part of the Gold Coast City, bounded to the north by the Logan River, the Pacific Highway to the west, Yawalaph Road to the south, and the coast to the east.

Although geographical delimitation of the study area is relatively straightforward, aligning this area to administrative boundaries is more difficult. Primarily the difficulty lies in the fact that the North East Gold Coast Study area does not directly concord with census administrative geography. However, the fact that there have been significant administrative boundary changes between 1996 and 2006 adds to the complexity of the issue. These issues are discussed in more detail in the issues and options paper, so do not need to be elaborated here, though the difficulties in aligning appropriate census and demographic data remain.

## 2. Demographic characteristics

This section establishes a demographic and socio-economic profile of the North East Gold Coast study area benchmarked against the Gold Coast Statistical Division and Queensland. Analysis of the working population within the greater study area is also provided. Data are primarily drawn from the 2006 Census, though PIFU Statistical Local Area (SLA) population projections are also used to provide indicative future population sizes.

For the purposes of analysis, the North East Gold Coast study area has been divided into two regions – (i) Eagleby; and (ii) the Remainder, mainly comprising the Jacobs Well-Alberton and Ormeau areas (See Figure 2-1). Primarily this is because although approximately 55% of the study area population reside in Eagleby, given the location of preferred sites identified it is the more rural parts of the study area that will most likely be affected by any development strategy adopted. For completeness, comparative demographic statistics for Eagleby are provided, though not discussed.

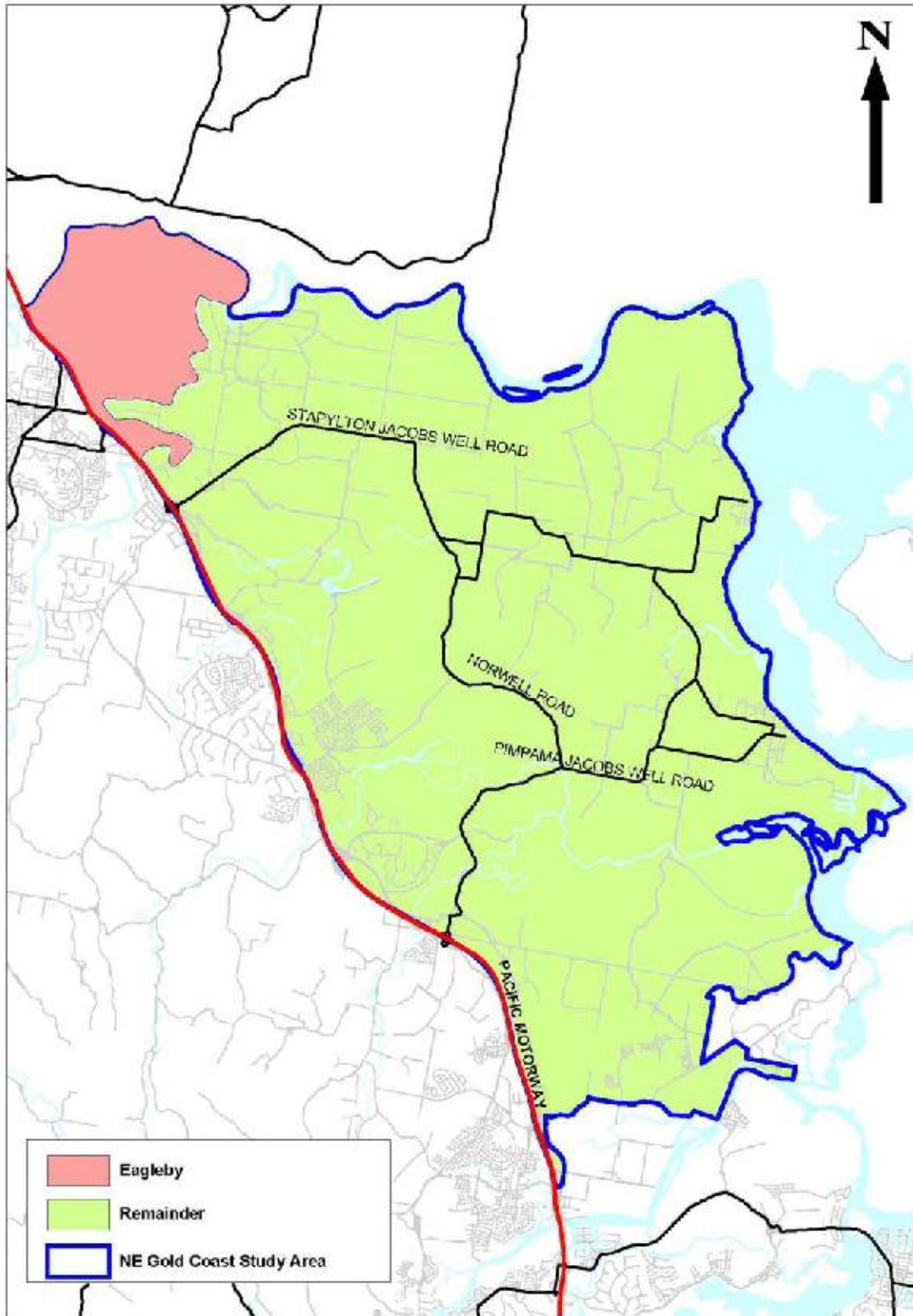
It should also be noted that different demographic characteristics and therefore different study area populations have been used in this study compared to the earlier PIFU demographic analysis. As a consequence, although the figures are closely aligned, they do not exactly match. The purpose of these statistics is to provide context to the socio-economic impacts discussed in Section 3.

### 2.1 Population characteristics

Key points of difference between the rural remainder of North East Gold Coast study area compared to the benchmarks of Gold Coast Statistical Division and Queensland are (Table 2.1):

- The population of the Rural Remainder North East Gold Coast study area is somewhat younger than the population of the Gold Coast SD, evidenced by a larger proportion of children aged 0-14 years and adults aged 25-44 years, with smaller proportions of persons at other ages. In comparison to Queensland, the two populations are relatively similar, though the North East Gold Coast remainder has relatively larger proportions of children aged under 9 years and fewer persons aged 10-24 years and 40-54 years (Figure 2.2). Such a structure indicates a large proportion of family households.
- Unemployment in the Rural Remainder of the North East Gold Coast is lower than both the GCSD and Queensland levels at 4.0%, 5.3% and 4.7% respectively. The proportion of workers employed in White Collar occupations is lower in the rural remainder at 57.9% compared to a GCSD high of 66.2%. No doubt this reflects the largely rural nature of the area together with its agriculture and manufacturing base of the area discussed in Section 3.3.

Figure 2-1 Study area

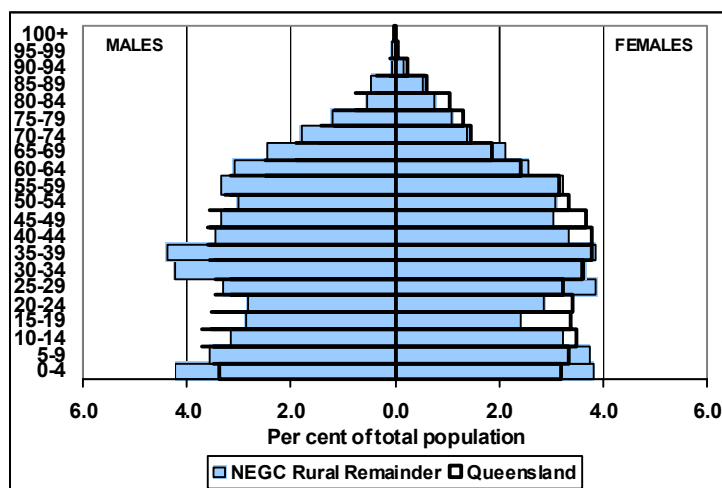




**Table 2-1 Summary of selected socio-economic characteristics, North East Gold Coast, 2006**

	Eagleby	Rural Remainder	NE Gold Coast	Gold Coast SD	Queensland
<b>Age (n=100%)</b>					
0-14	22.9	21.7	22.3	18.7	20.7
15-24	13.9	11.0	12.6	13.6	13.8
25-44	25.8	30.0	27.7	28.2	28.2
45-64	24.0	24.7	24.3	25.5	25.0
65+	13.5	12.7	13.1	14.1	12.4
<b>Employment (%)</b>					
In labour force	54.4	65.3	59.4	65.6	66.3
Unemployed	9.1	4.0	6.6	5.3	4.7
White collar occupations	45.5	57.9	52.0	66.2	64.9
Employed per household	1.0	1.3	1.1	1.3	1.3
<b>Household Income (%)</b>					
\$0-\$26,000	28.4	18.3	24.0	20.4	20.6
\$26,001-\$52,000	37.7	26.4	32.7	28.5	27.2
\$52,000 - \$104,000	29.5	38.7	33.5	36.1	35.6
\$104,000 +	4.4	16.6	9.8	15.0	16.6
Average (\$2007 values)	\$45,614	\$64,852	\$54,067	\$61,752	\$63,496
<b>Dwellings (%)</b>					
Detached/semi-detached	93.4	90.4	92.1	81.6	87.2
Flats/units	5.0	1.4	3.4	17.1	11.2
Other structure	1.7	8.2	4.5	1.3	1.5
Owned/purchasing	55.2	63.1	58.6	65.0	67.2
<b>Mobility (%)</b>					
No car	11.7	2.4	7.6	7.1	8.2
1 Car	47.1	34.5	41.6	38.5	37.8
2 or more cars	41.1	63.1	50.7	54.4	54.0
<b>Education (Aged 20+) (%)</b>					
Bachelors Degree	3.6	6.6	4.9	9.4	10.9
Grad Dip/Grad Cert	0.2	0.4	0.3	0.9	1.3
Postgraduate Degree	0.2	0.9	0.5	1.6	2.1
<b>Family Type (%)</b>					
Couples with Children	25.8	34.0	29.3	28.9	31.5
Couples without Children	24.1	34.6	28.6	29.3	28.5
Single Parent Household	19.2	9.5	15.0	12.0	11.6
Lone Person Household	25.5	18.0	22.3	23.1	22.8
Group/Other Household	5.4	3.9	4.7	6.7	5.7
<b>Population</b>					
Persons in Occpd. Pvte. Dwellings	8,381	6,680	15,061	446,130	3,611,777
Occupied Private Dwellings	3,290	2,506	5,796	176,957	1,391,632
Average Household Size	2.55	2.67	2.60	2.52	2.60

**Figure 2-2 Age-sex structure of NE Gold Coast Study Area compared to Queensland, 2006**



- The product of the above employment characteristics is that the Rural Remainder displays an average annual household income of \$64,800, which is \$1,300-\$3,100 higher than the two benchmark areas. It is therefore relatively affluent.
- There is a dominance of detached and semi-detached dwellings, which account for over 90% of dwelling stock in the Rural Remainder. Consequently there is a considerably smaller proportion of flats and units in the area at 1.4% compared to 17.1% for the GCSD average.
- The family and household characteristics for the Rural Remainder are similar to that of the other two benchmark areas. The most noticeable difference is that the study area has a larger proportion of Couple households (both with and without children) totalling 68.6% compared to 58.2% and 60% for GCSD and QLD respectively. This does not cause a significantly large difference in average household size between the three areas.

In summary the above analysis of demographic characteristics for the Rural Remainder of the North East Gold Coast study area reveals that, as a whole, it is generally more affluent than the two benchmark areas of Gold Coast Statistical Division and the Queensland State average. This is epitomised by the fact that it has lower unemployment levels and higher household incomes occupations. In addition, it has a more family oriented structure household structure resulting in a slightly larger average household size.

## 2.2 Population projections

Population projections for North East Gold Coast are complicated by the lack of concordance between the study area and administrative geography. As a consequence it is more suitable to discuss the local area in general rather the study area in particular.

The Planning Information and Forecasting Unit (PIFU), part of the Department of Infrastructure and Planning, have produced population projections at the Statistical Local Area (SLA) level for the Eagleby, Ormeau, Jacob's Well and Coomera region, though they

are according to 2001 Census geography. Although there is not direct concordance between 2001 and 2006 Census geographies within the region, they do closely approximate each other (Table 2.2 and Figure 2.3). As a consequence, the projections are used here to provide context rather than as specific forecasts for the study area.

It is evident that the majority of the population growth in the region is expected in the Coomera-Cedar Creek area which is projected to increase by over 73,000 persons over the 2006-2021 period at an average of 10.4% per annum. This growth is associated with the expansion of Coomera and Upper Coomera into major population centres and as such is to occur outside of the study area (Table 2.3).

The population of Gold Coast Balance, comprising the 2006 Census SLAs of Ormeau-Yatala and Jacobs Well-Alberton are also projected to show strong growth, though at a much lower level than Coomera-Cedar Creek. Over the 15 year period to 2021, population growth is expected to occur at an average of 4.2% per annum for a total increase of almost 13,500 persons. Population growth to date in the SLAs of Ormeau-Yatala and Jacobs Well-Alberton indicates that the large majority of this population growth is most likely in Ormeau and Yatala rather than Jacobs Well-Alberton and so again will be mainly occurring outside of the study area.

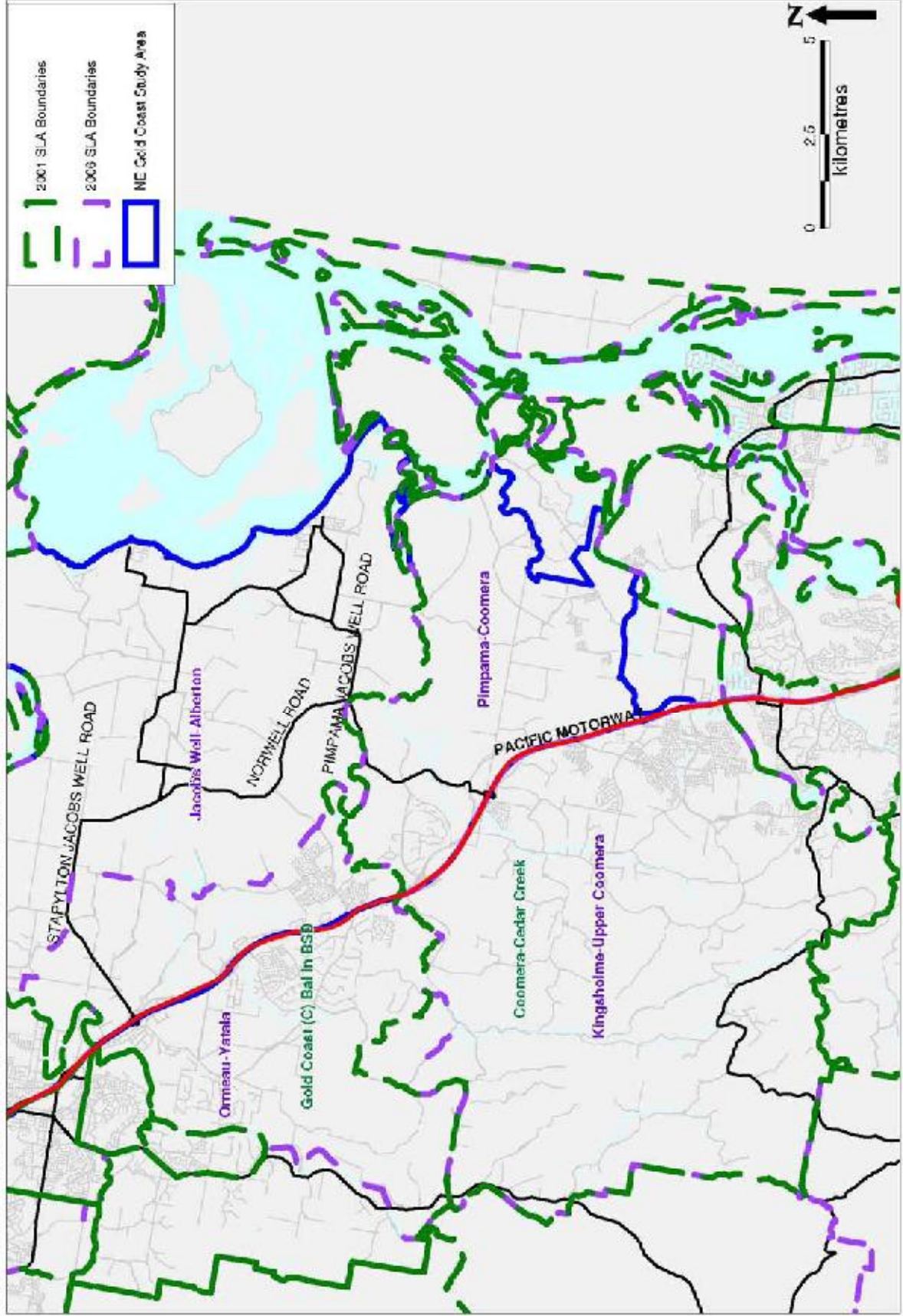
Eagleby, the only SLA wholly within the study area, is projected to show the least amount of population growth over the 15 year period from 2006 to 2021. Over the 5 years to 2006, the population of Eagleby grew by less than 900 persons and this low level of growth is expected to continue. Accordingly the population of Eagleby is projected to be 11,316 in 2021 representing an increase of almost 2,000 persons at an average of 1.3% per annum.

The product of these population projections indicates that whilst the region as a whole is expected to show significant population increases of almost 90,000 persons over the fifteen years to 2021, little of it is expected to occur within the boundary of the North East Gold Coast study area. Moreover, most of the growth is expected to the south at Coomera and also at Ormeau.

## 2.3 Working population characteristics

The 2006 Census provides counts of working populations at the SLA level, i.e. counts based on place of employment. Thus it is possible to identify the number of workers located by their SLA of work, disaggregated by industry type. In line with the geographical constraints identified earlier, only the SLAs of Jacobs Well-Alberton and Eagleby are considered. Although this underestimates the total number of workers in the study area, analysis of workers in Ormeau-Yatala reveals that it does not dramatically alter their distribution by industry type.

Figure 2.3: Concordance between 2001 Census and 2006 Census SLA Boundaries



**Table 2-2 2001 and 2006 Census geography concordance**

2001 Geography	2001	2002	2003	2004	2005	2006 Geography	2001	2002	2003	2004	2005	2006
						Kingsholme-Upper Coomera	7,650	8,708	9,349	10,261	13,047	15,562
						Pimpama-Coomera	3,598	3,968	4,167	4,426	5,153	5,798
<b>Coomera-Cedar Creek</b>	<b>11,263</b>	<b>12,354</b>	<b>13,762</b>	<b>15,049</b>	<b>18,660</b>	<b>Total</b>	<b>11,248</b>	<b>12,676</b>	<b>13,516</b>	<b>14,687</b>	<b>18,200</b>	<b>21,360</b>
<b>Eagleby</b>	<b>8,488</b>	<b>8,516</b>	<b>8,712</b>	<b>9,082</b>	<b>9,229</b>	<b>Eagleby</b>	<b>8,488</b>	<b>8,516</b>	<b>8,712</b>	<b>9,082</b>	<b>9,229</b>	<b>9,377</b>
						Jacobs Well-Alberton	2,557	2,642	2,772	2,923	3,035	3,132
						Ormeau-Yatala	6,679	7,382	8,516	9,457	10,459	11,410
<b>Gold Coast (C) Bal in</b>						<b>Total</b>	<b>9,236</b>	<b>10,024</b>	<b>11,288</b>	<b>12,380</b>	<b>13,494</b>	<b>14,542</b>
<b>BSD</b>	<b>10,741</b>	<b>11,499</b>	<b>12,746</b>	<b>13,802</b>	<b>14,796</b>							

Source: ABS ERP 2001-2005

**Table 2-3 Population projections for selected areas 2006-2021**

	2006	5 year Growth		2011	5 year Growth		2016	5 year Growth		2021	Growth 2006-21	
		#	% p.a.		#	% p.a.		#	% p.a.		#	% p.a.
<b>Eagleby</b>	9,377	268	2.7	10,715	14	0.1	10,784	106	1.0	11,316	1,939	1.3
<b>Gold Coast (C) Bal in</b>	15,820	1,024	5.8	20,940	877	3.9	25,324	817	3.0	29,411	13,591	4.2
<b>BSD</b>	21,392	6,309	19.9	52,937	3,825	6.4	72,062	4,538	5.6	94,750	73,358	10.4
<b>Coomera-Cedar Creek</b>												

In line with the industrial base and rural character of the Jacobs Well-Alberton area, evidenced by the smaller proportion of workers in white collar occupations (Table 2.1), the greatest proportion of workers (19.7%) are employed in agriculture forestry and fishing, with a further 19.4% employed in manufacturing (Table 2.4). These proportions are far greater than evidenced for the Gold Coast SD, for which the corresponding figures are 0.51% and 10.7% respectively.

It is interesting to note that even though Jacobs Well-Alberton is predominantly rural in character, people employed in the area work in a relatively wide range of industries with 78% of workers employed across seven broad industry types. In comparison, 76% of workers in the GCSD are employed in nine industries. It is evident therefore that despite its rural nature, the study area has a relatively wide economic base. The range of industries located within the study area is discussed in detail in the issues and options paper and briefly summarised in Section 3.1

**Table 2-4 Workers employed in the SLAs of Eagleby and Jacobs Well-Alberton, 2006**

	Eagleby		Jacobs Well-Alberton		Gold Coast SD	
	No.	%	No.	%	No.	%
Agriculture, forestry & fishing	7	0.8	169	19.7	934	0.5
Manufacturing	142	16.6	166	19.4	19,408	10.7
Construction	60	7.0	103	12.0	16,491	9.1
Retail trade	80	9.4	67	7.8	26,625	14.7
Education & training	147	17.2	64	7.5	13,261	7.3
Transport, postal & warehousing	33	3.9	56	6.5	5,788	3.2
Wholesale trade	18	2.1	46	5.4	7,422	4.1
Accommodation & food services	40	4.7	36	4.2	20,064	11.0
Electricity, gas, water & waste services	3	0.4	27	3.2	899	0.5
Rental, hiring & real estate services	9	1.1	25	2.9	6,593	3.6
Other	315	36.9	97	11.3	64,206	35.3
<b>Total</b>	<b>854</b>	<b>100.0</b>	<b>856</b>	<b>100.0</b>	<b>181,691</b>	<b>100.0</b>

Source: ABS 2006 Census

### 3. Socio-economic impacts

This section considers the demographic characteristics established in the previous section and investigates the likely socio-economic impacts of the suggested land uses within the North East Gold Coast study area. Consideration is given to the timing of development, potential future employment numbers as well as future social infrastructure.

#### 3.1 Summary of current land uses and economic activities

The Gold Coast North East study area is predominantly rural in character, with the main areas of urban development being at Eagleby and Ormeau, though limited development has also occurred at Jacobs Well and Steiglitz.

Currently the North East Gold Coast study area is serving two strategic land uses: (i) providing an area of agricultural production (mainly sugar cane production); and (ii) maintaining an inter-urban break between Brisbane and the Gold Coast. However, this does not reflect the full gamut of land uses identified in the *North East Gold Coast strategic land use, economic development and infrastructure study: issues and options paper*.

In addition to the urban development listed above, other land uses and economic activities that exist within the study area include: marine activities south of Cabbage Tree Point and south of Jacobs Well, aquaculture on the Logan River, the Rocky Point Mill, Distillery and Cogeneration plant, motorsport activities at Norwell and Pimpama, an aerodrome, and extractive industries located at Stapylton including the north east part of the Yatala Enterprise Area (YEA), west of Jacobs Well and at Eagleby.

#### 3.2 Summary of preferred location strategy

The body of the main report considered and advanced preferred sites for three industries (Section 4): extractive industry, marine industry, and sport and recreation activities. The preferred location strategy concerning these industries was as follows:

- **Marine Industry:** expansion of the existing Steiglitz Marine Industry Precinct.
- **Extractive Industry:** KRA 65 A1 and KRA 65 B were considered priority sites for sand extraction. Development of part of KRA 65 A2 was considered appropriate in the long term to ensure removal of the resource in conjunction with the expansion of the Steiglitz Marine Industry Precinct.
- **Sport and Recreation Activities:** two possible future water-based outdoor recreation facilities sites were identified: (i) at a past extraction site at Jacobs Well; (ii) at a current extraction site at the mouth of the Logan River. Locations for land-based motor sport activities were also investigated with the outcome being a broad investigation area in the vicinity of Stapylton landfill site and quarry identified for further detailed investigation.

#### 3.3 Socio-economic impacts

In order to estimate the socio-economic impacts of the above suggested site locations, consideration was given to likely employment yields and the time frame of development. The impacts are summarised in Table 3.1 below.

**Table 3-1 Estimated socio-economic impacts of suggest site locations**

Impact	Activity		
	Extractive Industry	Marine Industry	Motorsport & Outdoor Recreation
<b>Employment yield</b>	<50	200-400	<20
<b>Time frame</b>	Ongoing to 2031	~ 10 years	5-10 years
<b>Positive Impacts</b>	Resolution of GQAL/extraction industry land use conflict. Long term strategy to ensure continuing supply. Increased employment opportunities.	Increased employment in the area. Improved road infrastructure. Rehabilitation and reuse of extractive industry site. Strengthening of a business cluster	Rehabilitation and reuse of extractive industry sites. Increased range of recreational activities. Location of motorsport activities in a specified location. Small number of [mostly part time] employment opportunities.
<b>Negative Impacts</b>	Loss of GQAL. Few additional jobs directly created.	Increased traffic activity. Many jobs are likely to be highly specialised and so draw from outside local area. Loss of GQAL.	Difficult to access other than by private transport.

Inevitably such proposed changes in land use will affect current industry and land use activities, which mostly will be the loss [over time] of Good Quality Agricultural Land (GQAL). However, this needs to be put into context.

Based on suitability for growing sugarcane without irrigation (Table 5.4B, Issues and Options Paper) approximately 7,111 Ha of GQAL have been identified, which is disaggregated between 3,148 Ha of GQAL A and 3,963 Ha of GQAL B. The total amount of GQAL needed to satisfy the strategy, accounting for land requirements for extractive industries, marine precinct expansion and motorsport activities, is approximately 250 Ha (including an allowance of 50 Ha of GQAL for the motorsports precinct for which the site is not yet identified).

250 Ha represents about 3.5% of the existing supply of GQAL. The preferred strategy, therefore, is not expected to significantly negatively impact on GQAL, with the study area expected to retain much of its rural character. Furthermore, it should be noted that much of the development is to be sequenced (particularly the western part of the proposed Steiglitz marine precinct) so this impact will be staged over at least the next twenty years. Appendix C demonstrates that even if the loss of GQAL ultimately results in the closure of the Rocky Point Mill, growers who wished to remain in the sugarcane industry would have a viable option of transporting their cane to the Condong Mill in northern New South Wales.

### 3.3.1 Extractive industry

Extractive industries are typically large scale operations that cover large site areas, though directly employ few workers, and hence have low employment densities. For example, a large hard rock quarry, with blasting, would employ less than 20 full-time employees (based on research carried out in SEQ), though obviously a range of workers such as geologists



and truck drivers would also operate out of the site. Accordingly the direct full time worker employment yields from the two suggested sites, although a positive impact, is likely to be modest.

Positive “downstream” employment impacts are likely to be larger in scale, though are difficult to quantify, and are likely to occur in manufacturing of pre-cast concrete and other building materials. These businesses are generally located towards the Yatala Enterprise Area, and so whilst they are likely to have a positive effect on the local and regional economy, the main benefits will mostly be experienced in locations outside of the study area.

Table 3.2 and Table 3.3 of the *Site Selection and Infrastructure Study for the North East Gold Coast Area* report identified that there is need for approximately 130 Ha of resource land to satisfy demand for sand up to the year 2031. The two KRAs (65A1 and KRA 65B) have a combined land area of 241 Ha, which equates to almost double the supply required and therefore is more than sufficient to service demand until 2031. This is a positive situation as it helps ensure long term supply, and therefore employment, within this sector in the area. It also maintains the status quo with regard to preservation of the remaining GQAL in the area and maintaining the inter-urban break between Brisbane and the Gold Coast.

KRA 65A2 was also identified as a potential site for locating extraction industries, providing an additional 25Ha of supply. There is potential for negative impact of this site on expansion of the marine precinct at Steiglitz, however with suitable sequencing, as discussed in the body of this report, this can be successfully averted with many additional positive impacts offered. Positives that arise out of correct sequencing are utilisation of the sand resources as well as allowing subsequent development, and therefore rehabilitation, of the post-extraction site. Not only does sequencing resolve land use conflict between extractive and marine industries and GQAL, but it also serves to increase the economic productivity of the land.

Increased extractive industry activity could also potentially lead to an increased burden placed on infrastructure within the study area. Although both KRA 65A1 and KRA 65B are located near the Intra Regional Transport Corridor (IRTC), this road is not likely to be developed until after 2026. Until this time the existing designated haulage routes can be used. Sequencing can also be used to mitigate any potential negatives on the local road network through phasing in and phasing out extraction sites to maintain a constant, or at least limit any net increase in, volume of traffic.

Use of the existing haulage routes is unlikely to exert any negative impacts on Eagleby, as it is too far north and only minor, if any, negative impacts on Stapylton. With respect to Ormeau, haulage routes are well established and already used to transport sand. With correct sequencing it is unlikely that there will be a significant increase in these impacts.

### **3.3.2 Marine industry**

The preferred strategy of locating marine activities within the local Steiglitz area provides the opportunity to create a strong business cluster in the area. Key advantages of clustering include:

- localisation economies such as benefits from the concentration of the same or similar activities
- facilitation of industrial reorganisation from large, mass production firms to small, specialising firms which are likely to produce higher employment densities.

However clustering is not without some disadvantages, the most significant of which is an over-dependence upon a single industry.

The nearby Gold Coast Marine Industry Precinct at Coomera has developed into a major marine precinct over the past 10 years. The total site area is approximately 250 Ha, however much of this is constrained for buffer and environmental areas or flood management and infrastructure needs. Approximately 65 Ha have been developed which support some 95 companies and employ about 2,750 people, with an additional 60Ha remaining for future expansion<sup>1,2</sup>. Employment in this precinct could reach approximately 5,500 persons.

If the entire Steiglitz expansion were to occur in a similar fashion to that of Coomera, it is estimated that with a gross site area of 160 Ha (Stages A, B and D), approximately 3,500 employees could be accommodated. In comparison to the 856 employees identified in the 2006 Census as working in the Jacobs Well-Alberton area, the Steiglitz marine precinct has the potential to significantly and positively increase this figure. Total employment in the precinct, though, is highly dependent upon employment densities of marine businesses; higher employment densities would yield a greater number of employers and vice versa.

Although possible, this figure is not probable in the short term due to the nearby location Gold Coast Marine Industry Precinct at Coomera, which is more established and with expansion potential. It should also be noted that it took over a decade for the precinct at Coomera to reach its current employment levels. Accordingly it would seem likely that only a small proportion of the Steiglitz Marine Industry Precinct would be developed over the next decade.

Due to the highly specialised nature of the marine industry, many of the future employees in the precinct are likely to be sourced from locations outside of the North East Gold Coast Study area. However, there will also be employment opportunities for local residents as well.

Significant expansion of this site, though, will increase traffic within the local area. This presents both positive and negative impacts. Ultimately, full use of the Steiglitz site has been estimated to increase traffic by 11,736 trip ends per day (Section 5.2.2 of the main report), which is a negative impact of the proposed expansion. To cater for the increased traffic there is potential to upgrade to road network in the area, which in itself is a positive for the broad area.

### **3.3.3 Motorsport and outdoor recreation**

The rehabilitation of past extraction sites at Jacobs Well and the mouth of the Logan River for outdoor recreation purposes would allow the opportunity to develop higher order uses out of land that might otherwise remain under utilised or prohibitively expensive to develop for other purposes. In doing so, it also increases the range of recreational pursuits available within the local area.

It is likely that any recreational opportunities will be used by residents from within as well as beyond the study area and therefore are likely to be beneficial for and attractive to the growing communities at Ormeau, Yatala and Coomera especially, as well as Eagleby and Beenleigh. The outdoor recreation will assist in providing opportunities for “healthy, active

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<sup>1</sup> Gold Coast City Council (2007) Business Gold Coast: Marine Industry Fact Sheet

<sup>2</sup> Gold Coast City Council (2008) Marine Industry: analysis of long term land requirements 2009-2031

living”. Noise impacts on the local community from motorised water sports, though, would need to be further investigated.

Identifying a specialised site for motorsport activities should assist in establishing a long term location for the five motorsport clubs in the local area. The preferred location for these activities has been chosen to minimise potential impacts such as noise and increased traffic. Nevertheless these potential impacts will need to be carefully evaluated during the detailed investigation phase. Furthermore, rather than experiencing these issues at a number of locations, establishing a dedicated facility will localise them to a single, more suitable location and make it easier to provide appropriate buffering from incompatible land uses.. Establishing a dedicated motorsport facility will also greatly facilitate the reduction of illegal trial bike activities in the area.

Potential exists for a small amount of employment arising out increased outdoor recreation and motorsport activities. Primarily the opportunities are likely to be for part time, or possibly youth, employment. Nevertheless they still serve to increase the range of employment within the study area.

### **3.3.4 Social infrastructure**

Section 2.2 identified that projected population growth in the North East Gold Coast Study area is likely to be relatively small, especially in comparison to the projected growth in the wider area.

The *North East Gold Coast strategic land use, economic development and infrastructure study: issues and options paper* shows that the study area is already well provided with social infrastructure, with there being greater provision than required in all categories stated. The projected population growth is not likely to greatly alter this situation and so few, if any, negative impacts are expected.

Greater provision of social infrastructure will be required in the surrounding high growth areas and it is likely that some of this social infrastructure will also service the North East Gold Coast study area serving to further increase the already relatively high levels of social infrastructure provision. Thus although not directly related to the strategy, the study area is likely to remain well serviced in social infrastructure into the future.

## 4. Conclusions

This report was prepared as part of the Site Selection and Infrastructure Study for the North East Gold Coast Area on behalf of the Department of Infrastructure and Planning. It provides an analysis of the socio-economic impacts of the land uses and preferred sites identified in the body of this report.

The study area, noted for its predominantly rural character, also accommodates a range of other land uses and economic activities. The result of this is that the area has faced development pressures for many years. The proposed location strategy, therefore, seeks to ease these development pressures by identifying a long term industry site selection strategy for the area.

The preferred location strategy offers potential for many positive impacts on the North East Gold Coast study area, though possible negative impacts also need to be taken into account.

Overall, the largest negative impact is the loss of GQAL. However, it is estimated that the recommended strategy would alienate only 3.5% of the total GQAL available in the study area, and much of this impact would be deferred through the staged development of the Steiglitz marine precinct. This is not expected to jeopardise cane growing activities, and with 95% of GQAL still intact, the area will retain its predominantly rural character as intended in the SEQ Regional Plan 2006-2026.

Development of additional industry in the area is likely to positively impact on employment, providing a greater number of jobs across a wider range of opportunities. Employment opportunities are expected in the short term through the extractive industries and possibly outdoor recreation and motorsport facilities. With respect to the extractive industries it is likely that there will be additional downstream positive impacts which are larger in scale.

In the long term, expansion of the marine precinct will accommodate the greatest proportion of additional employees. Due to the specialised nature of the marine industry, many of these are likely to be sourced from outside of the study area. However, this does provide opportunities to attract people to the area for employment, thereby increasing population growth.

With expansion of industry it is likely that there will be some negative impacts on traffic. Whilst the traffic impacts from quarrying can be mitigated with suitable sequencing of development, negative impacts from expansion of the marine precinct at Steiglitz are expected to be more significant. Although such development could potentially result in infrastructure upgrades, and thus positive impacts, residents in the local vicinity to Steiglitz are still likely to be affected by the increased traffic flow.

Rehabilitation and reuse of past extraction sites at Jacobs Well and on the Logan River allows the opportunity to develop higher order uses out of land that might otherwise remain under utilised, creating positive impacts on the local area if developed correctly. Increased provision of outdoor recreation opportunities is a positive impact of this strategy that is likely to affect not only the resident community within the study area, but also the wider community in general. Furthermore the uses are predominantly low intensity and so also assist in retaining the rural character of the North East Gold Coast study area.

Limited population growth is projected within the study area, thus the currently high levels of social infrastructure are not expected to be greatly negatively affected. Rapid population growth in surrounding areas is likely to lead to an increased level of provision in these areas, which can also be accessed by the study area population helping to further enhance provision levels.

In summary, the preferred location strategy offers many potential positive impacts for the local area including, but not limited to: retention of the study areas rural character, economic and infrastructure development, increased employment opportunities and community use of rehabilitated past extraction sites. Although there are likely to be some negative impacts associated with these developments, such as loss of GQAL and some increase in traffic on selected routes, they are estimated to be of a lower magnitude and constrained to a small number of locations.



## **Appendix C**

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Feasibility assessment of  
transporting Rocky Point Cane to  
the Condong Mill in New South  
Wales

Prepared by Alliance Economics,  
September 2008

# 1. Introduction

The Issues and Options paper (Department of Infrastructure and Planning 2008) details both the historic context and potential outlook for the sugar cane industry in the Rocky Point area, located on the North East Gold Coast. One of the potential strategies noted was transporting cane to the Condong Mill on the Tweed River in northern NSW. This would necessitate transporting the cane about 85 km south along the Pacific Highway.

This appendix identifies the cost and logistical issues associated with this proposition.

# 2. Background

The Rocky Point Mill has crushed cane for local growers for over 100 years. The mill is owned and operated by the Heck family and is the only privately owned and operated sugar mill in Australia. Twenty years ago the mill had some 100 suppliers but this number has shrunk to less than 50 today. Despite assistance from Queensland Government (described in the Issues and Options Paper) a cloud of uncertainty still hangs over the future of the Rocky Point cane industry. Current industry intelligence agrees with the Issues and Options paper, which indicated there are probably only 20-30 growers who could still be described as 'serious' about staying in cane.

In addition to owning and operating the Rocky Point Mill, the Heck family is a major cane grower and supplier to the mill. Industry estimates indicate that the Heck family or their corporate structure is responsible for at least 15% of the total throughput.

The reality of sluggish sugar prices (declining from \$322 per tonne in 2005/06 to \$270 per tonne in 2007/08, Issues and Options paper, p.57) applies across the entire sugar industry and implies an ongoing need for productivity gains that act to reduce production costs. Notwithstanding the associated adjustment processes, there are a number of efficient growers in the Rocky Point area who are keen to stay active in the industry.

# 3. Existing situation

Based on the figures provided in the Issues and Options paper (p.56) the Rocky Point throughput has fallen from just under 400,000 tonnes in the early 1990s to around 300,000 tonnes more recently. The diversification strategies of the Rocky Point Mill have been documented in the Issues and Options Paper.

Most of the suppliers to the Rocky Point Mill are family partnerships with only a few family companies. The best of these grow and deliver in the order of 10,000 tonnes of cane per year.

Rocky Point Mill charges growers directly for transporting of their cane from 'farm to mill' (currently around \$3 per tonne). Direct charging for transport is a relatively unusual practice in the industry; transport costs are often pooled and shared among growers, along the lines explained below for the Condong mill. This is done to keep in place a 'large' supply area – needed to preserve the economics of operating the mill.

From the perspective of the local economy, the preferred option is for cane to be grown and processed at Rocky Point. However if local canegrowers were to lose the option of supplying to the Rocky Point Mill their choices would reduce to:

- hold or lease their land and do something else
- sell-out and leave the industry
- continue growing cane and transport to another mill.

Due to distance factors the only potentially viable option for those wishing to continue growing cane would be to supply the Condong mill near Murwillumbah in northern New South Wales.

## 4. Analysis of the Condong Mill option

The following information is based on discussions with Mr Bill Walker who handles corporate affairs for the (three) cooperative mills in the NSW northern rivers (Condong, Broadwater and Harwood).

Condong is one of the smaller mills in the industry with a throughput of about 600,000 tonnes. However, it is supported to some extent by being a member of the NSW cooperative comprising three mills. The Broadwater Mill does a million tonnes and this is generally regarded as the economic target for viable milling. Clearly the economics of Condong Mill would be improved by gaining access to supply from Rocky Point. If Rocky Point were to close, diverted supplies could be expected to lift throughput at the Condong Mill by up to 40% over the medium term.

From the perspective of Condong Mill, the additional throughput would make their operations more economic by reducing the average total costs of production (ie, fixed costs would be spread across more tonnes of throughput). The Condong Mill representative made the following points:

- the NSW sugar cooperative would be keen to take cane from the Rocky Point area due to the economies afforded by expanding throughput
- the distance involved is about 85 km but the associated transport costs are not seen as a barrier as some level of cross-subsidisation would apply to the actual transport costs
- the optimal tonnage for one harvester is about 100,000 tonnes so this is the minimum volume that should be targeted in the first instance
- the Condong Mill co-operative has large capacity bins that would suit green cane harvesting
- the trash could be used for co-generation at Condong
- due to cooperative ownership, Queensland growers might get a slightly better price for their cane regardless of whether any surcharge is applied to cover transport.

Condong's existing growers do not pay actual transport costs. In other words all transport costs are pooled and shared equally among growers, meaning those remote from the mill are effectively cross-subsidised by those close to the mill. It is possible that Rocky Point suppliers to Condong could be included in these arrangements; indeed this is likely if they become full members of the cooperative. Pooling in this event would have the effect of



raising average transport costs to all Condong growers but they might be prepared to accept this situation because they want to encourage and attract new suppliers.

While the final decision regarding any cost charged will be a matter for existing Condong suppliers to decide, and has not yet been made, this cost is unlikely to be the actual cost of running the cane trucks. The worst case scenario is that Rocky Point suppliers would have to make *some contribution* to their transport costs. But, the amount involved would be relatively small; possibly not much more than what they are already paying at Rocky Point<sup>1</sup>. The consultants estimate that the pooling arrangements likely to be offered by Condong would constrain any transport 'contribution' imposed on Rocky Point growers, limiting the contribution to \$5 per tonne or less.

Supplying cane to Condong Mill would not, by itself, make the Rocky Point growers significantly more economic in the immediate term. Farm gate prices would be much the same and the structural problems of fragmentation etc would still exist. Through time, however, some growers would adjust by expanding their operations and this would serve to lower their average costs of production and allow them to become specialist growers. Growers who cannot overcome the structural problems associated with small scale would still have to cross-subsidise their farming operations by working off-farm. It will be appreciated that when farms are amalgamated, the viability problems of both buyer and seller are eased simultaneously.

There are other significant advantages of supplying Condong Mill. Most importantly, Rocky Point growers could continue growing cane without the constant threat of losing their market. And as explained above, the transport costs are likely to be partially or fully pooled by the mill thereby spreading the burden (more equally) among all suppliers in exchange for a commitment to supply.

## 5. Conclusion

Based on the background investigation and analysis undertaken in support of this study, it is possible to conclude that transporting Rocky Point cane to Condong is a viable strategy in terms of transport economics and subsequently in terms of keeping commercial-scale agriculture on the North East Gold Coast.

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<sup>1</sup> Condong Mill management already have a feel for the sum that might be involved but do not wish to be held accountable for a figure that might later turn out to be unsustainable. The relevant fact is that any cost charged Rocky Point growers who elect to supply Condong would be cross subsidized and be acceptably low.