**ADW JOHNSON PTY LIMITED**
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economic analysis

working beyond expectations

# Economic Analysis Report

## Submission to

## Draft Raymond Terrace and Heatherbrae Strategy 2015-2031

CABP Group Pty Ltd

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# Executive Summary

This report challenges the view presented in the Draft Strategy that there is an adequate supply of employment (including industrial) land in the Port Stephens LGA and in the Heatherbrae area in particular. It argues that the basis of this conclusion is flawed and that there is in fact demand for industrial land that exceeds long term supply. Further, that current projections and assessments which suggest that supply will be adequate threaten the area realising its full potential. This report contends that Heatherbrae should be seen as a catalyst for growth not a constant in the LGA's future. The report argues for the rezoning of land in Heatherbrae for employment uses (large format retail and industrial) and provides the justification and motivation for Council to modify the Draft Strategy accordingly and to accept a planning proposal to achieve this rezoning.

This report argues that the conclusion in the Draft Strategy that there is an adequate supply of land zoned for employment uses in Heatherbrae is invalid for the following reasons:

- The methodology used to arrive at this conclusion is flawed in that is seeks to project existing patterns and trends and not considered the wider forces affecting demand and supply in the future. The methodology is conservative and fails to provide any aspirational vision for the area.

- The catchment and context of the assessment are too narrow. The analysis fails to recognise the reality is that the Heatherbrae industrial area attracts and services business from a much wider region and provides employment to an equally large catchment. The consideration of demand and supply in the wider Lower Hunter region would provide a very different conclusion.

- The assessment of demand provides no consideration of possible and known catalysts that might drive up demand such as: manufacturing businesses being pushed out of Sydney; the role of the airport on the region; the supply constraints on other sites; the emerging resurgence in manufacturing in the Hunter and; changes to the local and regional road network (including the Pacific Highway bypass) which reposition the area.

- There is a significant gap between the "on map" supply of zoned land and the market realities of "real" supply. Significant servicing, cost of development, land ownership and environmental constraints have and will limit real supply. Land with industrial zoning at Heatherbrae and Tomago is not interchangeable but have been considered so in the supply analysis. Further, the supply of land estimated from maps bears little truth with the market supply.

- The metrics used to determine supply and demand do not relate to the Hunter market place. The use of these metrics means an approximate 50% over estimate of supply and an equally inappropriately small estimate of demand based on real case studies of the region.

- The assessment of the future of the subject land has not been considered in the context of the alternative options and costs. This report provides a preliminary assessment of the opportunity costs and suggests that there is no genuine alternate use of the land that returns a value to the community or the owner.

# 1.0 Raymond Terrace Heatherbrae Strategy

Port Stephens Council is to be congratulated on recognising the need to plan the future of Raymond Terrace and Heatherbrae. The draft Strategy, now on exhibition, is the culmination of significant research and consultation. In many ways it deals with a wide range of issues confronting the area. These include:

- The need to support and plan for a strong and competitive economic future (Goal 1);
- The need for a range of housing choices and lifestyle options (Goal 2);
- The desire for quality open spaces and public domain (Goal 3); and
- The nurturing of a resilient and respectful community (Goal 4).

In planning to achieve these goals we believe that the supply of employment land, large format retail and industrial land specifically, are very important. Having a good supply, developing and using employment land in the Heatherbrae, and indeed in Port Stephens, will help to achieve all these goals.

We are concerned however, that the Draft Strategy under plays the importance of industrial land in the overall future of the LGA. At a strategic level, we believe to achieve these wider goals Council must help facilitate a strong supply of industrial land; ensure there is a wide suite of industrial land options; underpin a proactive and supply driven strategy for attracting investment and jobs; take a market approach and understanding that is more than an LGA perspective; use current data and metrics and; should be aspirational not content to repeat or project historical patterns.

# 2.0 Current Position Expressed in the Draft Strategy Document

While the Strategy recognises the need for industrial land supply it is much more strongly focused on retaining and strengthening the role of Raymond Terrace and reduce escape expenditure and building the large format retail role of Heatherbrae. We are not challenging these priorities.

There is evidence and argument presented in the Discussion Paper, the Community Settlement Strategy, and the related background reports by Hill PDA for a reconsideration of the industrial land supply situation. However, the momentum of these arguments and the questions they raise seem not to have be translated or expanded in the Draft Strategy document itself.

Further, some of the research which underpins the focus and actions identified in the Draft Strategy, principally as it relates to industrial land, could be challenged on a number of levels.

It would appear that the weight of data and argument presented in the Hill PDA report has caused Council to focus less on the need to increase the supply of industrial land in the area than we believe is advisable.

We would challenge this outcome, and in the context of delivering a comprehensive and robust strategy for Raymond Terrace and Heatherbrae, argue that the supply of industrial land be given renewed importance and consideration.

# 3.0 Our Proposition

We believe that additional land in Heatherbrae should be considered and investigated for industrial zoning.

That in the medium to longer term there will be demand for industrial land in Heatherbrae which will exceed the capability of existing zoned land to supply.

Further, that current projections and assessments which suggest that supply will be adequate based on existing zonings are incorrect and threaten the area realising its full potential.

# 4.0 The Arguments

It appears that the Draft Strategy reflects the view expressed in the Hill PDA report that there is no strategic basis to rezone additional land for industrial purposes within the Heatherbrae/Tomago corridor. We will counter this view, and in so doing demonstrate that beginning a process of unlocking an additional supply of industrial land is the right decision for Council and the community.

The arguments we will present are based on our concerns in regards to:

- The methodology used to arrive at this conclusion;
- The catchment and context of the assessment;
- The absence of considerations of possible and know catalysts and game changer drivers;
- The gap between zoned land and the market realities of "real" supply;
- The metrics used to determine supply and demand; and
- And the absence of a consideration of the opportunity cost of not rezoning.

## 4.1 THE METHODOLOGY

The Hill PDA report is comprehensive in a quantitative sense and it employs an established methodology. Essentially it looks at population and jobs data over time and projects the growth of both measures for a defined catchment.

The steps are as follows:

- Project population growth based on historic trends (high, medium and low scenarios);
- On this projection the likely demand for jobs is calculated within the same catchment for the three scenarios;
- Using historic metrics the floor space needed to support this number of jobs is calculated;
- Using another metric the gross land area needed to be zoned to generate that floor space is calculated;
- The existing area of zoned lands are measured from zoning maps; and
- The gap between projected demand and existing potential supply is then established to determine the short fall or excess supply for the projected time frame.

This methodology was used to determine what will be the need for Heatherbrae/Tomago to accommodate 1,729 new jobs by 2031.

Based on a range of metrics for different types of employment (one for 95m$^2$ metric in manufacturing and higher for other uses) this many jobs would generate the need for a total of 702,129m$^2$ of floor space. This is calculated to represent an increase in demand between 2011 to 2031 of 205,100m$^2$. Using a 50% floor space yield figure (floor space to site area) the study then determines a need for 42.2ha of land for employment generating uses. Of this 37.7ha would be non-retail employment land providing 184,603 m$^2$ of floor space.

This projection is then compared to the "estimated" land supply of 1,280 ha.

Using this methodology, the case is strong that there is adequate existing supply.

However, there are significant problems associated with this approach, as well as the metric used and the estimate of "true" supply.

This methodology is very specifically quantitative and trend based. It is perhaps deliberately scientific in the approach to give a measure of confidence and certainly. But it takes the metrics that are known (historical and existing patterns) and uses them without knowledge of place, the market, emerging trends, game changes, and catalytic drivers and so assumes a constant state moving forward. Even though is assumes a high growth scenario it assumes "no real change" within the catchment or beyond.

If this methodology was applied in 1985 to other localities to project the expected jobs and demand for industrial land that could be expected in 2015 they would most obviously have been wrong. There would not have foreseen or calculated or leveraged growth such as followed the upgrade and commercial expansion of the airport at Williamtown, the expansion of major industrial and state of the art manufacturing at Tomago, the diversification of the port and flow in impact and the rapid expansion in mine support services and manufacturing at Thornton. Similarly, a decade earlier this methodology would have projected growth in jobs and associated demand for land around BHP at Kooragang when the opposite has occurred. Major large format retail precincts such as Gateshead and East Maitland would not have been contemplated, nor the creation of an employment zone at Black Hill with access to the Hunter Expressway.

There are many established methodologies which relate to the demand for schools based on population growth, the demand for open space based on population growth, and the demand for retail floor space based on population growth. However, the metric based methodologies around industrial and employment generating uses are far less clear, reliable and able to be projected in this same way.

Our view is that any assessment of future demand for industrial land must be considered in a qualitative manner not as an arithmetic calculation and contextually void equation.

## 4.2 THE CATCHMENT AND CONTEXT

The catchment or study area which is used to develop industrial land demand projections in the Hill PDA report is identified as Raymond Terrace (12,275 Pop. 2011) and Heatherbrae (492 Pop. 2011).

We believe that it is inappropriate to determine the potential demand for industrial land based on this restricted catchment. The reality is that the Heatherbrae industrial area attracts and services business from a much wider region and provides employment to an equally large catchment. It is potentially an area of significant land supply to the wider LGA and Lower Hunter region. As an example the current Weathertex facility employs staff from Stroud in the north, Blacksmiths in the south and west to Maitland. [1]

We believe that demand for industrial land should be seen in a market or regional context. Within a 20 km radius of the Heatherbrae area are a number of alternate industrial precincts including Williamtown, Thornton, Kooragang, Hexham, Steel River, John Renshaw Drive and Black Hill. Each has similar and distinctive locational and site features and operate in the same market in terms of business attraction. Demand for land in Heatherbrae will be impacted by the fact that land at John Renshaw Drive is more costly per metre, that sites a very limited in Thornton, that large sites are more rare across the wider market, that other sites do not offer the same proximity to the airport and that some areas are more specialist and narrow market availability. Being part of a wider industrial land market we believe drive more demand than if the site were truly an isolated precinct.

Similarly, Heatherbrae will attract workers from this same regional area. While the population growth in Raymond Terrace and Heatherbrae is modest or stagnant this is not true for the wider catchment. With the LGA and with a 30 minute commute population growth has been strong in areas such as Medowie and Fern Bay. Similarly population growth in the adjoining Maitland LGA leads the State. Much of this growth has occurred and is programmed to occur on the eastern side of Maitland City Centre and within easy commute of Heatherbrae.

In determining the demand for industrial land it is the wider economic context that should also be considered. While employment in manufacturing across NSW as a whole has dropped by 2.6% 2006-2011, Port Stephens LGA has experienced jobs growth of 14.1% in manufacturing over this period (3,788: 2006 to 4,322: 2011). Regionally, the Hunter experienced a 2.2% growth in manufacturing jobs over the period. There is a scenario of growth in manufacturing for the region which viable and achievable and based on the region's competitive advantages (including adequate land supply) which should be aspired to and sought after.

Deloitte Access Economics[2] in a report for RDA Hunter predict that while the rest of Australia will lose jobs in the manufacturing sector and its relative importance will continue to decline that in the Lower Hunter growth will continue at 2.2% annually and represent 11.2% of the Region's industry composition between 2012 and 2036.

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[1] Pers comm facility manager.
[2] Prospects and challenges for the Hunter region *A strategic economic study*

The Tomago Heatherbrae industrial complex offers a strong platform for regional growth in manufacturing. It accommodates some 5,895 jobs of which 3,360 are in manufacturing (57%) and the area supports 26% of all jobs in Port Stephens LGA and 29% of all wages. It represents 46% of the LGA's economic output.[3] Heatherbrae should be seen as a catalyst for growth not a constant in the LGA's future.

This is particularly important in the context of increasing unemployment. Port Stephen unemployment has risen from 4.6% March 2011 to 8.9% March 2015.

The future of the Heatherbrae area and its ability to support a significant expansion of employment land should also be seen in the context of industrial land take up rates over recent years. The Lower Hunter Regional Strategy predicted demand for and take up of industrial land in the Lower Hunter at around 33ha pa (2006-2015). In reality take up has occurred on average at 48ha pa or around 50% greater than predicted.

In adjoining Maitland, industrial land take up is approximately 25 ha per year. There is less than 268 ha of vacant, developable industrial land in Maitland, mostly within the Rutherford Industrial Estate.[4] This represents only 10 years supply at current rates. On this basis Maitland Council believe they need to find an addition 5 years supply. This could well actually be found in Heatherbrae. [5] In Newcastle there is a predicted short fall in industrial land of 57ha by 2031 [6] and the city faces greater land use competition and constraints than Port Stephens.

Further, land identified in the LHRS as available for potential supply will not be achieved. For example, at Tomago of the 350ha identified for industrial use some 100ha will be lost due to environmental constraints. 255ha of the industrially zoned land at Hexham has been used by the Aurizon project. Land adjacent to the Port and Airport have been designated for uses directly related to that infrastructure.

EMPLOYMENT LAND SUPPLY

- Based on employment land zoning across the region, there are over 14,800ha of land that is zoned for employment purposes across the Hunter Region. This is made up of 8,432ha for the Lower Hunter and 6,368ha for the Upper Hunter.
- Of the total estimated supply of zoned employment land, less than half of it is capable of supporting standard industrial users. This is especially evident in Lake Macquarie, which includes Eraring Power Station, Mannering Lake Ash Dam, and coal mines; and Muswellbrook, which contains the Bayswater Power Station and surrounding buffer land.
- With the 7,400ha of land suitable for industrial use, approximately 2,700ha or 37% is vacant. This vacant land is quite highly concentrated in specific estates, with over half of the vacant industrial land within the three areas of the Tomago Industrial Area, the Hunter Economic Zone (HEZ) and Singleton Green Industrial Estate.

[3] Port Stephens Economic profile

[4] https://www.maitland.nsw.gov.au/UserFiles/File/PlanningDev/Maitland%20Urban%20Settlement%20Strategy%202012%20Feb%202015.pdf page 60

[5] Ibid page 61

[6] http://www.newcastle.nsw.gov.au/__data/assets/pdf_file/0011/227972/NELS_final_Mar2013_webver2.pdf page 114

- This indicates that on a purely quantitative perspective that there is an adequate supply of employment lands within the wider Hunter Region.
- However, not all of the current and proposed supply is seen as being suitable for servicing the demand which is expected to come mainly from the transport and storage, construction and mining industries. These businesses typically require large land parcels, and access to transport routes is of course a key requirement for transport and storage, and mining businesses.

Table 1: Comparative supply of industrial land supply in the Lower Hunter Catchment

| | Tomago | Heatherbrae | Thornton | HEZ | Kooragang | Rutherford | Mayfield | Cardiff | Williamtown |
|---|---|---|---|---|---|---|---|---|---|
| Access to the Port of Newcastle | 20 kms | 23 kms | 23 kms | 35 kms | 2 kms | 35 kms | 5 kms | 15 kms | 23 kms |
| Access to Newcastle Airport | 13 kms | 14 kms | 27 kms | 40 kms | 15 kms | 40 kms | 20 kms | 35 kms | <1 kms |
| Access to Sydney M1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | X |
| Access to national rail network | X | X | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | X |
| Access to supply of skilled labour | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | ✓ |
| Large flat sites | ✓ | ✓ | X | ✓ | ✓ | X | X | X | X |
| Well serviced (existing and augmented) | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | X |
| Isolation for residential areas | ✓ | ✓ | X | ✓ | ✓ | X | X | X | ✓ |
| Existing platform of large businesses | ✓ | ✓ | ✓ | X | X | X | ✓ | ✓ | ✓ |
| Suitable for heavy industrial uses | ✓ | X | X | ✓ | ✓ | X | ✓ | X | X |
| Light industrial urban services | X | ✓ | ✓ | ✓ | X | ✓ | X | ✓ | ✓ |
| Restriction as to use (i.e. port airport related) | X | X | X | X | ✓ | X | ✓ | X | ✓ |

Source: ADW Johnson 2015

Table 1 provides a comparative analysis of the various industrial land supply location in the Lower Hunter.

## 4.3 CATALYSTS AND GAME CHANGERS

In Section 4.1 of this report we argue that a methodology used which is based on projecting existing trends forward to determine future demand, is at best conservative and reactive. Then in Section 4.2 it has been argued that the Heatherbrae industrial area should not be considered in isolation but rather as part of an LGA and indeed the regional market and planning space.

These arguments are strengthened when consideration is given to "catalyst and games changer" influences which have and could occur during the planning horizon. This section identifies some of those.

Newcastle Civilian Airport has emerging as key economic driver for the region.

Table 2: Growth in economic indicators for Newcastle Airport 2015 to 2014

| | 2005 | | 2008 | | 2011 | | 2014 | |
|---|---|---|---|---|---|---|---|---|
| | $ million | Jobs | $ million | Jobs | $ million | Jobs | $ million | Jobs |
| Airport operation | $79.5 | 404 | $283 | 2,234 | $633 | 858 | $855.9 | 1,485 |
| Visitor spend / tourism | $124 | 1,580 | $150.5 | 894 | $253.8 | 3,079 | $304.6 | 1,755 |
| Construction (based on $17 million) | $19.2 | 174 | $32 | 150 | $73 | 186 | $33 | 106 |
| **TOTAL** | **$222.7** | **2,158** | **$465.5** | **3,278** | **$828** | **4,123** | **$1,193.5** | **3,346** |
| Total passengers | 757,145 | | 1,145,607 | | 1,189,040 | | 1,189,683 | |

Source: http://www.newcastleairport.com.au/corporate/about/economic-impact#.Vcwm_fbot9A

As Table 2 indicates across all economic measures the airport has grown in scale and influence since 2005. This growth and impact could take another quantum step up again with the $11.1M expansion of the airport now underway. This upgrade will take the airport's passenger capacity from 2 million to 5 million pa on completion. This will have significant flow on effects for the Hunter, Port Stephens and Heatherbrae. Increased employment will drive in migration and families looking for second jobs. Flow on benefits will impact on more general population growth. Demand for increased services and support around the airport will require an expansion of related industries and businesses. While some of these will be accommodated at Williamtown, the land suitable for industrial uses around the airport is limited by environmental and drainage constraints to about 80ha.

With targeted marketing and an expanded supply of land, Heatherbrae is poised to accommodate some of this additional demand.

The catalytic impact of the airport is also evident in terms of the expansion and flow on impacts of the RAAF operations. 2015 saw the commencement of an almost $1.5 billion project that will provide facilities for the aircraft at ten bases across the country. Of this, the RAAF Base

Williamtown facilities are expected to bring about $950 million worth of work into the Newcastle region.[7] This investment will accommodate the new Air Combat Capability Facilities. The new facilities will support the introduction, operation and deployment of the F-35A Lightning II – Joint Strike Fighter. This project has the potential to grow jobs, related investment, skills and business in the local area.

For decades the adage "build it and they will come" has worked in terms of the construction of roads. The impact of the $45 million upgrade to Nelson Bay Road between Newcastle and Tomaree will make areas within Port Stephens much more accessible and journey times shorter. This will open the area to in migration and new business. Already the LGA's population is growing above tend and projections. Port Stephens' population has grown from 60,488 in 2006 to 64,807 in 2011 and was estimated to be 69,728 in 2014. This represent growth 2006 to 2011 of 7.14% or 1.4% pa, and growth of 7.6% or 2.5% pa 2011 to 2014 [8] The population projections used to determine population growth and subsequent jobs growth and from there the demand for industrial land are based on average annual growth rate of 1.1% pa (50% of actual growth). [9]

Another potential road game changer is the Raymond Terrace By-Pass. In 2005 the then RTA estimated average annual daily traffic volumes on Raymond Terrace Road on the Heatherbrae stretch at 39,528. This count is expected to reach 131,769 by 2031. This will make this the single most used road in Port Stephens. [10] This will provide sites accessing this road with enormous exposure and access advantages.

Growth opportunities with in Port Stephens around transport are significant in their own right and have the potential to drive demand for industrial land and employment in Heatherbrae. Add to this the potential of planned new communities such as Kings Hill which will deliver 4,500 new dwellings and 12,000 residents upon completion which is less than 5 km north of Heatherbrae.

Looking just outside the LGA the Maitland Urban Settlement Strategy indicates that there are some 5,500 residential lots in Maitland eastern sector set to accommodate a population of 15,400 people within a 15 minute drive of Heatherbrae.

The principle of agglomeration, where businesses attract business, has proven to be a strong driver behind a number of the Lower Hunter and Central Coast industrial complexes. Where a lead business can be secured for an estate (like a major retail outlet in shopping complexes) other support and ancillary business tend to gravitate. Local examples include Sanitarim at Wyong, UGL Goninan at Broadmeadow, CSIRO Energy Centre Steel River, BAE and Newcastle Airport Limited at Williamtown. Already the Weathertex factory and Sandvik facility is the major industrial activity in the area. The new industrial estate has largely been occupied by services and light industry which gain some advantage from their proximity to Weathertex.

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[7] http://www.airforce.gov.au/News/1.5-billion-project-starts-at-RAAF-Base-Williamtown/?RAAF-2x0BaQIL+0s5O/mMC1rsVTiqmFbnLsu0

[8] http://www.communityprofile.com.au/portstephens/population/age

[9] Hill PDA page 35

[10] http://www.portstephens.nsw.gov.au/images/documents/portstephens/Planning%20documents/Strategies/portstephensplanningstrategyv2.pdf page 62

The data presented in Section 4.2 on the relative growth of manufacturing in the Hunter and Port Stephens relative the NSW economy, suggests that there are forces operating in the markets in Sydney which have and may well continue to drive growth in manufacturing in the Hunter. These include the pressure of residential growth in terms of pushing out industrial uses which are deemed to be incompatible with residential communities due to externalities such as noise, traffic, odour, waste. Or the increasing opportunity cost of converting brown field sites into higher density residential living complexes with higher returns on investment. The congestion is Sydney is causing port to factory delays and factory to retail costs that business cannot afford. The cost of living in parts of Sydney mean low and semi-skilled labour often required in some manufacturing establishments cannot be sourced in local markets. The potential for the Hunter to capitalise on the growing disadvantages of Sydney for manufacturing should not be underestimated.

## 4.4 ZONED LAND VERSUS SUPPLY AND MARKET REALITIES

The conclusion that there is an adequate supply of land for industrial uses in the Heatherbrae catchment we believe is incorrect not on demand estimates alone but on the supply calculations used. Section 4.2 of this report provided an analysis by the Hunter Development Corporation suggesting that of the land zoned for industrial uses in the Hunter, that less than 50% of that land was actually suitable for development. Further, that only 37% of that suitable land was vacant. This assessment very likely applies to the stock of land zoned industrial in Port Stephens and in Heatherbrae more specifically. It is known to Council that lands within the area zoned for industrial uses, have constraints associated with drainage, environment and servicing which render them undevelopable or unviable. These problems are even equally significant at Tomago.

In addition to the constraints identified above which impact on the ability of land to be delivered to the market and actually contribute to supply, are other market realities which have not been taken into the assessment of potential supply.

While the data, which helped to determine the "adequacy of supply" was collected across the Tomago Heatherbrae industrial area the two sites provide a very different industrial land offer to the market. The kind of industrial land proposed for Tomago is not interchangeable with smaller scale light industrial land in neighbouring Heatherbrae.

Land comparable to Heatherbrae is in relatively short supply. Tomago is not considered directly comparable, and it is understood land on the south side of Tomago Road, will be stylised for large lots and general industry. The lands remaining in the Domaine estate are likely to be exhausted over the next 3 to 5 years. This land is more similar to Heatherbrae than other Tomago lands, however the lack of sewer service remains a deterrent to some users.

It is our view the lower order general industrial and full range of light industrial and urban services uses of land in the industrial land hierarchy within the region is in the shortest supply. However, it has been these lands with the characteristics of Heatherbrae that have typified much of the recent growth. This is forecast to continue for the foreseeable future.

Additional land stocks of around 80 hectares are not an unnecessary oversupply in the broader context. The capability to feed land of this nature into the supply pipeline over the next 10 to 20 years in the absence of other immediately identifiable opportunity is important.

The structural shift away from growth in the mining sector to a more diversified economy reinforces the need to catalytic projects which are capital intensive and require large areas of land. Sites at Tomago are critical in this respect in their ability to attract industries which cannot afford large sites in Sydney but require good global access (airport and port) and a skilled workforce. Heatherbrae provides for smaller scale industrial business which generate value from agglomerating with similar scale businesses. There is an estimated 1,100 ha of land in Tomago and 150ha in Heatherbrae[11]. If these land areas are accepted (we would argue in the case of Heatherbrae they are of an order of magnitude far in excess of reality) the Heatherbrae location represents 12% of the total and should not be seen or considered in the same context as Tomago.

## 4.5 THE METRICS

Further to the argument on methodology in section 4.1 it is worth drawing attention to the metrics used to determine the level of demand and supply for industrial land. The Hill PDA work, as the basis for the conclusion that there is adequate supply, states that industrial land can be developed so that the floor space achieved is 50% of the land area.

Evidence in the Hunter suggests that this assumption or metric is not correct. Buildings and structures on industrial land more generally occupy 30% of the developable area, excluding roads and drainage or approximately 20% of the gross site area. The Tomago Cable Manufacturing project as an example provides almost 9,200 $m^2$ of industrial floor space on a site which has an area of 2.8 ha. This equates to development of 33% of the lot (not the wider site). WesTrac development is on a site with a gross area of 23 ha and has a building area is 45,178 $m^2$ which is 20% of the site.

If the metric for the built floor space achieved from gross land area, is adjusted for local realities, from 50% to 25% of site, this would change the demand supply balance by 50%. This variation affects the demand supply equation not only in Port Stephens but across the Hunter and would go some way to explaining the 50% greater than projected take up of industrial land in the Hunter over the last ten years.

We would similarly challenge the metric used to equate industrial floor space as a ratio to number of employees. The base research upon which the strategy is built assumes a ratio of 95 $m^2$ per employee for manufacturing uses. [12] Thus using the 50% site yield metric to achieve 95 $m^2$ of floor space would require a site area of 190 $m^2$. This would mean a site of 1 ha could support approximately 53 jobs. In contrast in the recent Hunter Development Corporation's research[13] it is

[11] Hill PDA page 93
[12] Hill PDA page 95
[13] www.hunterdevelopmentcorporation.com.au/documents/publications/Hunter%20Region%20Employment%20Lands%20web.pdf

estimated that such site in the Hunter support between 10 to 20 persons per ha. The HDC estimate is consistent with the research completed in Gladstone, QLD, which suggests that a comparable site is likely to support one job for every 150 to 200qm of floor space or 15 to 20 jobs per hectare [14]

Table 3 is an extract from the HDC report and provides an indicative employment to area metric for the types of industrial uses in the Hunter. [15]

[14] Gladstone Region Industrial Land Strategy (pp 24-25)

[15] http://www.hunterdevelopmentcorporation.com.au/documents/publications/Hunter%20Region%20Employment%20Lands%20web.pdf

Table 3 - Industrial Land Hierarchy – Hunter Region.

**Industrial Land Hierarchy – Hunter Region**

| Designation | Location | Characteristics | Indicative Employees per Hectare |
|---|---|---|---|
| Port | Kooragang Island, Newcastle Port | • Port related uses<br>• Large land holdings and lot size<br>• Regionally significant industry<br>• Potentially large infrastructure requirement | <10 persons |
| Heavy Industrial | Tomago, Carrington, Mayfield, Singleton | • Large land holding<br>• Catalyst industry and activity<br>• Potentially large infrastructure requirement | 5 to 15 persons |
| General Business | Hunter Employment Zone (HEZ), Tomago, Cardiff | • Small and large land holdings<br>• Some uses regionally significant<br>• Relatively inexpensive land<br>• Provides core industrial uses includes manufacturing | 10 to 20 persons |
| Light Industrial and Urban Services | Thornton, Cameron Park, Rutherford, Muswellbrook | • Small to medium size lots<br>• Proximity to labour, transport and related industry<br>• Sensitive to location of market<br>• Higher density of employment | 15 to 25 persons |
| Bulky Goods | Bennetts Green, Warners Bay, Kotara | • Small to medium sized lots<br>• Associated retail uses<br>• Road access and exposure<br>• Land is more expensive | >20 persons |
| Special Uses | Newcastle Airport, Power Stations | • Special purpose<br>• Regionally significant<br>• Infrastructure nexus<br>• Highly synergistic | Not applicable |

Source: HDC Employment Lands study page 24

*Labour Market Demand - Australian Benchmarks: Macroplan Australia* working for the NSW Growth Centres Commission (Oran Park/Turner Road Study, Growth Centres Commission, 2007) has provided an understanding of employment yields per hectare. This work shows blue collar jobs yield per hectare (occupied and total) in five capital cities based on: industrial land supply sourced from State Departments of Infrastructure and Savills research; employment by capital city sourced from ABS Labour Force Statistics 2004-5; blue collar share of employment sourced from 2001 Census of Population and Housing; a derived estimate blue collar jobs by capital city; and a derived estimate of blue collar jobs per occupied hectare and blue collar jobs per hectare (including vacant land).

The industrial land requirement ranges between 13 jobs/Ha to 33 jobs/Ha (occupied land). Higher employment yields are likely to be due to a number of factors including: mature market; industries with a high share of office jobs; integrated industry/business parks; and technology parks.

Based on the analysis of jobs in Port Stephens in this report, the current 17,772 jobs in the LGA can be broadly identified as having 31% of these jobs as blue collar. This gives a total of 5,509 blue collar jobs in the LGA. Based on the current level of zoned industrial land (total - 1024Ha) and with the estimate of occupied land at 58% (593Ha) this equates to a jobs/Ha rate of just under 10 (9.29) jobs/Ha. Moving forward there is a need for 10,154 jobs across the LGA. At 31% blue collar

this would suggest the need for a further 3,148 blue collar jobs in the LGA. At a job/Ha rate of 10 this suggests a need for a further 314.8Ha of industrial zoned land.

While employment densities are increasing in cities such as Sydney with a high share of office jobs, they may be as few as 10 jobs/Ha in south western Sydney (*Metropolitan Strategy – Employment Lands Study, 2006*). Nonetheless, the ratio of blue collar jobs to hectares of industrial land varies, with metropolitan Sydney currently targeting 40 jobs /Ha of industrial land.

If we accept that the unoccupied industrial land in the LGA is 431Ha, then there is, in gross terms, a sufficient supply of industrial zoned land in the LGA. It needs to be recognised that this assessment is broad and does not necessarily account for blue collar jobs that are located in areas other than industrial zoned land; changes in technology have led to increasing numbers of white collar jobs located in industrial zoned land, and established areas that may provide additional blue collar employment demand.

Recognising the need with the development of land to take account of environmental and other constraints (estimated at up to 49% of land in the North Raymond Terrace LAP) the available and developable industrial land within the LGA may be as little as 220Ha. This suggests a need to provide for an additional 100Ha of industrial land within the LGA. The rezoning of land should consider both the land available and any environmental constraints, to ensure that the land made available into the future is sufficient for realisation and not merely sufficient in total hectare terms.

Within Port Stephens the focus therefore needs to be on the development of areas of at least 100 hectares that are suitable for a large industrial user or for the development of a major general industrial estate, with buffers. Tomago and Heatherbrae are the two areas that can meet these requirements. [16]

## 4.6 OPPORTUNITY COST AND ALTERNATIVE USES

In determining the best use for land in a planning exercise such as this, it is relevant to consider the opportunity cost or the value of the opportunity forgone and to consider the implications of the alternate options.

Very simply, the lost opportunities of not rezoning the land from its current zoning to employment uses include the following:

- ✓ **Ongoing Jobs**: A 100 ha site[17], using the relevant metric proposed in this document (30% development and 10 to 15 per ha) could provide direct employment for 1,000 to 1,500 during the operating phase.

[16] http://www.businessportstephens.com.au/wp-content/uploads/2009/12/EDU_Strategy.pdf pages 105-6

[17] 100ha is used as an example in this analysis. The Planning Proposal process will more accurately analyse and assessment constraints and opportunities and propose an employment land footprint which may be more or less than the figure used for the purpose of this high level analysis.

- ✓ **Economic Flow on**: At an average wage of $45,000 this would a total incomes contribution to the local economy of between $45 m and $67.5m pa.

- ✓ **Subdivision construction Jobs**: The current estimated construction cost of the subdivision is $30 million which in itself is expected to generate 270 construction jobs for a 12 month period.

- ✓ **Construction Multipliers**: The total direct and flow on impact of almost $86 million.

- ✓ **Construction Value**: Using the 30% built form outcome and total construction cost including car parking and landscaping of the wider site of $3500m$^2$ the construction value on site could be in excess of $1.05 billion.

- ✓ **Direct building construction jobs**: At 9 direct jobs per $1m spend the development of 300,000m$^2$ of floor space could support 9,000 over the building life of the project.

A further assessment of these impacts at the Planning Proposal stage will help Council better understand the best value and use of the site for the community, and can be further refined once the footprint of employment lands is determined through that process.

By comparison the alternate options for the use of the land are limited. The simple assessment provided below, suggests there is no economic and socially advantageous alternative use for the site.

### Retain as pine plantation

- The plantation will at some point in time exceed its economic life and no longer provide a viable or useful supply of product. Currently the plantation is continuing as a way of providing and funding general and basic land maintenance of the area only (including weed management).
- The plantation is highly disturbed and modified and a large part of the site provides limited environmental benefit.
- The plantation is privately owned and not accessible to the community.

### Residential

- The externalities of the surrounding road network and industrial uses provide poor residential amenity.
- Significant residential release area of Kings Hill already approved.
- Demand for residential land is higher in more "lifestyle" locations in Port Stephens.

### Commercial

- A straight retail/commercial zone would compete with the centre of Raymond Terrace and be in conflict with the intent and objectives of the overall Draft Strategy.

- The area has potential for business services and large format retail. These uses are consistent with the overall Draft Strategy.

## Environmental

- As above the majority of the land (over 92%) is under pine plantation and heavily modified. Ground truthing and ecological investigations has revealed this despite regional plan mapping including the land in a green corridor.
- The extent of disturbance is such that if pine plantation land use ceased, the land would likely become overgrown and weed infested and would not naturally rehabilitate itself given the extent of degradation and the active rehabilitation and costs that would be required to assist that otherwise. Simple zoning of the land for conservation purposes (which would be strongly opposed) provides no incentive to the landowner to facilitate regeneration or management of the heavily disturbed privately owned land such that is were able to function as conservation lands.
- An environmental outcome on parts of the site is not discounted as part of an overall proposal for a balanced outcome and an ongoing economic use of other parts of the site.