

# *Shellharbour City Council*

September 2009

## **Attachment 2 Shellharbour LGA Employment Land Forecasts - Demand / Supply Analyses**

# **SHELLHARBOUR LOCAL GOVERNMENT AREA EMPLOYMENT LAND FORECASTS – DEMAND/SUPPLY ANALYSES**

## **INTRODUCTION**

This analyses addresses different pieces of work on employment land/jobs demand and supply in the Shellharbour Local Government Area context (referred to as Shellharbour from hereon).

This work has different demand/supply methodologies and comprises:

- Department of Planning employment land demand forecast estimates;
- retail/commercial floor space demand in the Shellharbour LGA Retail and Commercial Centres Study by Hill PDA in 2008;
- employment demand/supply data/analysis in the Shellharbour LGA Employment Lands Study by Hill PDA in 2009;
- employment land demand/supply data/analysis by Council's Planning Services Department.

The analyses makes conclusions and a recommendations on the adequacy of forecast future (2031) employment lands for workers living in Shellharbour in 2031, based on a preferred and conservative methodology.

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## **SUMMARY OF CONCLUSION AND RECOMMENDATIONS**

For the three categories of employment lands/jobs: industrial, business and special use: two different demand methodologies have been applied, with the result being Shellharbour Council's "20 minute drive to work" method (second) generating the greatest job demand.

The supply analyses conclusions are in terms of the "20 minute drive to work" method and indicate a surplus of job capacity for workers from Shellharbour in 2031. This surplus accounts for a zero unemployment scenario.

Given the relatively small supply capacity surplus in business zoned land, the Department of Planning should be consulted with the view to some type of monitoring arrangement being implemented for the uptake of business and related zoned land between and including Shellharbour to Wollongong Central business District.

In the preparation of its comprehensive city wide Local Environmental Plan/Development Control Plan(s), Council should ensure it does not reduce employment land job capacity.

## **THE DEPARTMENT OF PLANNING DEMAND ESTIMATES**

Work by the Department towards its South Coast Employment Lands Strategy 2005, indicates for Shellharbour, between 2001 and 2031, a need for:

- between 4.6 and 5 hectares additional business zone land;
- between 14 and 50 hectares additional industrial land;

- between 5.7 and 16.9 hectares of additional special use land.

These figures account for vacant zoned land, but not redevelopment capacity on developed zoned land.

Refer to supply analyses throughout.

### **What is Special Use Land?**

To maintain land for certain community facilities, land is prescriptively zoned to encourage uses such as churches, hospitals, car parks, schools, higher education, utilities provision, community centres, cemeteries, airports, railways etc.

Historically special use land (referred to throughout this paper) has minimal or no controlling numerical standards, although this is subject to review in Council's forthcoming draft comprehensive Local Environmental Plan which will use map overlays for floor space ratio and height.

### **THE SHELLHARBOUR LGA RETAIL AND COMMERCIAL CENTRES STUDY 2008, BY HILL PDA (adopted by Council on 12-8-08)**

The study inter alia forecasts additional retail floor space need for the LGA to 2031, based on forecast population growth and expenditure. This equals 109,000m<sup>2</sup>.

Based on a need for .7 to .8m<sup>2</sup> of additional commercial floor space needed for each additional 1m<sup>2</sup> of retail floor space in Shellharbour City Centre and .3 to .4m<sup>2</sup> commercial floor space needed for each additional 1m<sup>2</sup> of retail floor space in other centres, there is a need for an additional 41,500m<sup>2</sup> of commercial floor space for the LGA.

Total required retail and commercial floor space equals 150,500m<sup>2</sup>.

The study did not analyse whether this extra retail/commercial floor space could be accommodated in the LGA. This was done by Council's Planning Services Department and is addressed below.

### **Supply of Additional Required Retail/Commercial Floor Space by Council's Planning Services Department**

There are around 50 hectares of 3(a) Mixed Use Commercial zoned land in Shellharbour LGA. 3(a) land has a 1.5:1 floor space ratio. If all 3(a) land was to be developed according to the 1.5:1 FSR, it would equate to 750,000m<sup>2</sup> floor area. Over half (around 28 hectares) of the 3(a) land is in Shellharbour City Centre which is substantially undeveloped. The other 3(a) centres generally have substantial capacity to provide extra floor space.

There are 2.6 hectares of 3(d) Neighbourhood Business zoned land in the LGA. 3(d) land has a .75:1 FSR. If all 3(d) land was to be developed according to the .75:1 FSR, it would equate to 19,500m<sup>2</sup> floor area. 3(d) centres generally have substantial capacity to provide extra floor space.

Under LEP 2000 there are substantial areas of 2(e) and 2(f) Mixed Use Residential zoned land which allows commercial development, providing it promotes the commercial hierarchy of LEP 2000. It should however be noted that much of these mixed use lands will become residentially zoned under the forthcoming draft revised comprehensive Shellharbour LEP.

Therefore, there is ample capacity to provide the additional 150,500m<sup>2</sup> of commercial floor space for the LGA, identified in the Shellharbour Local Government Area Retail and Commercial Centres Study.

## EMPLOYMENT LAND DEMAND/SUPPLY – FIRST METHOD

### Demand (first method)

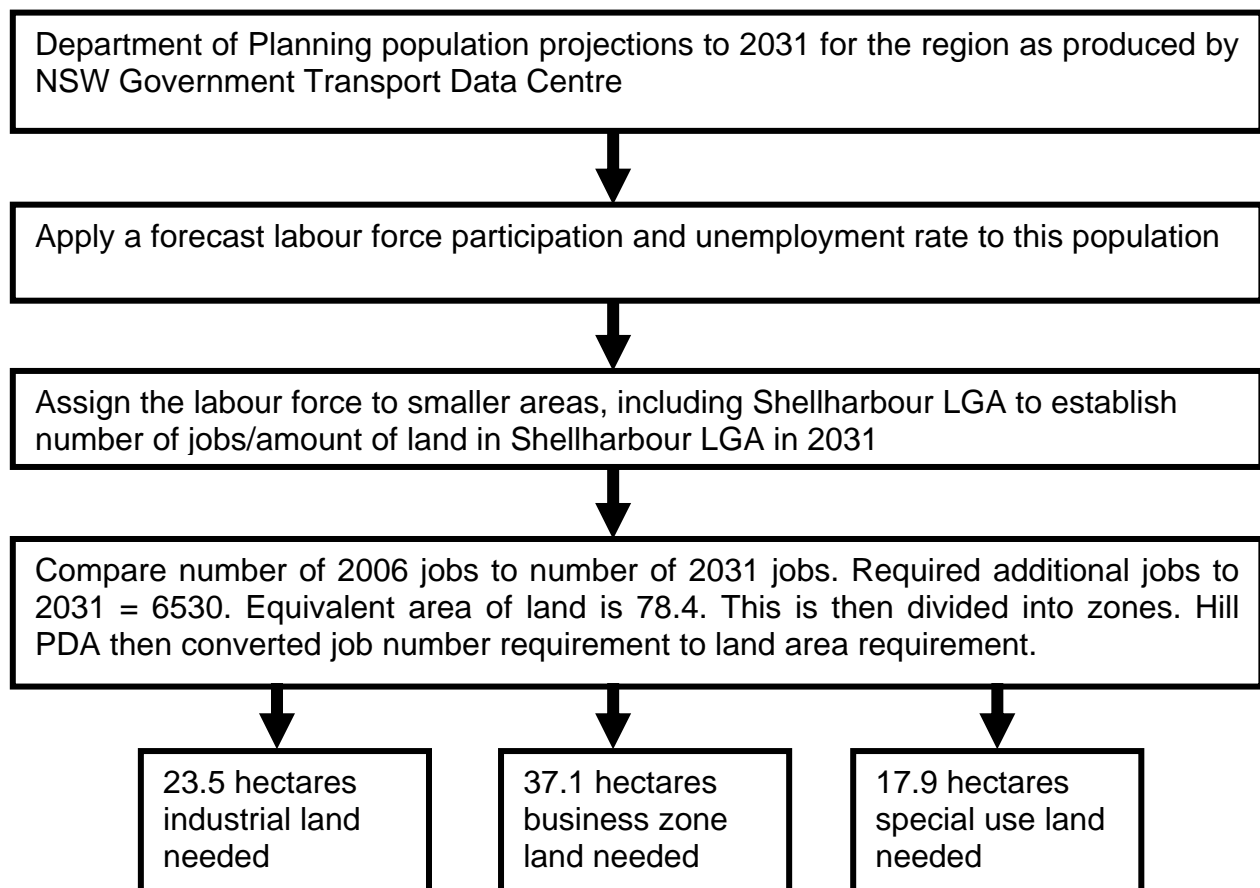
The Shellharbour LGA Employment Lands Study and the work carried out by Council's Planning Services Department uses two principal methodologies to derive demand.

The **first method for demand** as contained in the **Shellharbour LGA Employment Lands Study** uses Department of Planning population projections as the basis for calculating workforce projections for the region as produced by NSW Government Transport Data Centre (TDC). This is done by applying the projected labour force participation and unemployment rates to the projected population. The resulting projections of the workforce (at five-yearly intervals, corresponding to Census years) are used as control totals for subsequent forecasts of employment at lower geographical levels.

Once projections of total employment are estimated, total region employment is then disaggregated using three forecast review modules by TDC. This method is summarised in the flow chart below.

The second (preferred) method derives demand by estimating jobs required so that all potential working Shellharbour residents can access jobs within a 20 minute drive. The second method generates much higher job demand.

### JOB DEMAND - FIRST METHOD



The above table indicates Shellharbour will require a further:

- 23.5 hectares of industrial zoned land;
- 37.1 hectares of business zoned land;
- 17.9 hectares of special use zoned land.

### **Supply (first method)**

The Shellharbour LGA Employment Lands Study assesses supply for industrial, but not business and special use land.

Supply for business and special use land is estimated by Council's Planning Services Department.

The industrial supply analyses in this method consist of identifying vacant land (industrial) in Shellharbour LGA and for business and special use land, generally observing capacity on partly developed (business and special use) land in Shellharbour LGA.

The second (preferred method) consists of identifying vacant land (industrial) and more robust supply analyses of partly developed business and special use land, within the "20 minute drive" distance from Shellharbour.

### **Business Land (first method)**

The first method suggests that Shellharbour LGA will require a further 37.1 hectares of business zoned land.

Shellharbour City Centre is 28.4 hectares and largely undeveloped, excess capacity in 3(d) and 3(a) zones and areas of mixed use to be retained as mixed use under the forthcoming draft revised comprehensive Shellharbour LEP, there is good potential for the 37.1 additional hectare requirement to be met.

### **Special Use Land (first method)**

This method suggests that Shellharbour LGA will require a further 17.9 hectares of special use zoned land. There are 313 hectares of special use land in Shellharbour. Most of this is airport, educational and medical use. There are no floor space ratio controls for special use zones. Whilst no detailed analysis is undertaken as part of this method, examination of Council's GIS 2005 aerial photo layer suggests additional redevelopment capacity in the special use zones.

### **Industrial Land (first method)**

This method suggests that Shellharbour LGA will require a further 23.5 hectares of industrial land. To address supply required by the first demand method, the study indicates that Shellharbour currently has almost 30 hectares of vacant industrial land and given that a further 46 hectares is provided at the adjacent airport site (Illawarra Regional Business Park), there is no reason to zone further land.

## EMPLOYMENT LAND DEMAND/SUPPLY – SECOND METHOD

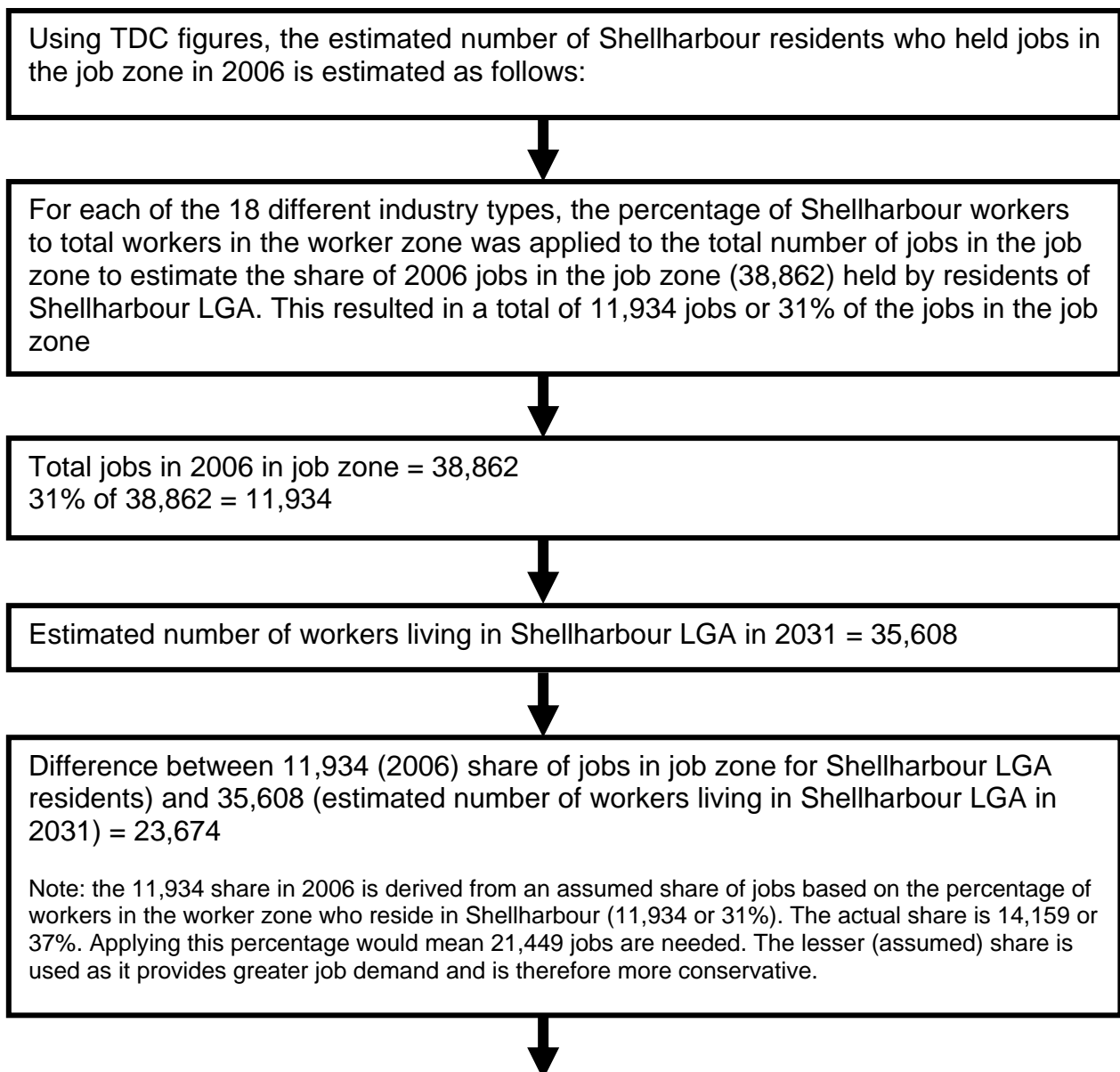
### Demand (second method)

The Shellharbour Council “20 minute to work (preferred and second) method” uses TDC figures and forecasts. It identifies a job zone within 20 minutes drive of Shellharbour LGA and seeks to facilitate job supply according to a **zero unemployment** scenario. **It assumes workers from Shellharbour LGA have and will continue to have a share of jobs in the job zone (Shellharbour LGA to Coniston), based on Shellharbour LGA’s current and future ratio of workers within a worker zone (Bulli to Shellharbour LGA).** Bulli is also within 20 minutes drive of the job zone, hence its inclusion in the worker zone.

This method is modelled by Hill PDA and detailed in the Employment Lands Study. It uses TDC forecasts to estimate the number of workers from Shellharbour LGA in 2031 and adds 10% for unemployment. This becomes the target job number to serve workers who live in Shellharbour in 2031, to bring zero unemployment.

The demand methodology is described in the following flow chart.

### JOB DEMAND (SECOND METHOD)



The 23,674 job shortfall is then divided into business, industrial and special use jobs/land area to derive the shortage of jobs for each zone category.

Business  
11,845 (106.1 ha)

Industrial  
6562 (125 ha)

Special Use  
4848 (82.5 ha)

Hill PDA converted job number requirement to land area requirement.

Results of the second demand method are responded to with 3 different supply methods.

Industry land  
/jobs supply in  
Shellharbour  
LGA  
Employment  
Lands Study.  
See A

Industrial land  
jobs supply  
(similar method  
as business and  
special use  
land).  
See B

Business  
land/jobs supply.  
See C.

Special use land  
supply.  
See D.

### Supply (second method)

Job capacity in the job zone through vacant and planned sites is tabled below.

Locality	Area (hectares)	Number of jobs
Vacant land in Shellharbour	30	1753
Illawarra Regional Business Park	46	2689
Vacant land in Unanderra	29	1695
Planned Kembla Grange	95	5552
Planned West Dapto	175	10229
Planned Tallawarra	130	7598
<b>TOTAL</b>	<b>505</b>	<b>29516</b>

### A. Industrial Land/Jobs Supply Second Method as in Shellharbour LGA Employment Lands Study

The estimated share of this additional job supply for residents of Shellharbour is estimated as follows.

### INDUSTRIAL JOB SUPPLY (SECOND METHOD)

The number of industrial zone workers living in the worker zone in 2031 is divided by the number of industrial zone workers living in the Shellharbour part of the worker zone in 2031. The resultant percentage of Shellharbour workers is 30%

Shellharbour workers are therefore expected to have 30% of the additional 29,516 jobs = 8,855



This is 2,300 more industrial land jobs than the 6,562 required by 2031

This supply method indicates Shellharbour workers can expect to have 8,855 of the 29,516 jobs (brought about by the additional jobs due to vacant land, future new industrial land in the job zone: a surplus of 2,300 jobs. For land area comparison sakes, 29,516 jobs equates to 505 hectares. 8,855 jobs (Shellharbour LGA share) equates to 152 hectares, compared to the 125 hectares required for workers from Shellharbour LGA.

### **B. Industrial Land/Jobs Supply Alternative Second Method**

This method uses the actual percentage of industrial jobs in the job zone that are occupied by residents of Shellharbour (34.6%) as the base for estimating Shellharbour's share of new industrial jobs, rather than using the percentage derived from Shellharbour's proportion of the number of workers in the 2031 worker zone (30%), as with method A above.

See flow chart below.

#### **INDUSTRIAL JOB SUPPLY - ALTERNATIVE SECOND METHOD**

In 2006 there were 17,562 jobs in the industrial parts of the job zone  
34.6% or 6,076 of these were occupied by workers from Shellharbour LGA



Shellharbour workers therefore expected to have 34.6% of the additional 29,516 jobs = 10,210



This is 3,648 more industrial land jobs than the 6,562 required by 2031

Note, for industrial land supply: neither the first, second or third method factor in redevelopment capacity in existing, developed industrial land. They rely on vacant and planned industrial land.

### **C Business Land /Jobs Supply Second Method**

A further 106 hectares of business zoned land or 11,845 business zone jobs in the job zone (Shellharbour to Coniston) for workers from Shellharbour LGA, to 2031, are needed.

This supply analysis method is similar to that used in the third industrial land/job supply. The difference is that it relies on existing business land (all industrial land job supply methods rely solely on vacant and planned industrial land).



To work out the additional job zone business/commercial job capacity to 2031 the following steps were taken:

- in 2006 there were 14,872 jobs in the business zone parts of the job zone;
- 39% of these were occupied by workers from the Shellharbour LGA;
- there are 129 hectares of business/commercial zoning in the job zone (excludes Shellharbour mixed use zones);
- based on an FSR of between .45:1 to .8:1, business/commercial zones provide 112 jobs per hectare;
- job capacity so far therefore equals 112 (jobs per hectare) X 129 (hectares) = 14,448;
- for business job capacity it is reasonable to consider the full floor space ratio within the job zone;
- job capacity can be doubled by assuming an FSR of between 1:1 and 1.5:1; bringing the job capacity to 28,896;
- to determine additional capacity the 2006, 14,872 jobs must be deducted, meaning the additional capacity equals 14,024;
- workers from Shellharbour LGA could expect to occupy 39% of these additional jobs (based on Shellharbour LGA's 2006 representation): this equals **5,462** (6,383 short of the **11,845** required by workers from Shellharbour).

Given the Wollongong Central Business District is a principal source of business jobs in the region, it too must be accounted for;

- in 2006 there were 18,844 business jobs in Wollongong CBD;
- 15% were occupied by workers from Shellharbour LGA;
- under Wollongong City Centre LEP 2007, there is:
  - 62 hectares of Commercial Core Zone – non residential FSR of 6:1 – if .45:1 to .8:1 provides 112 jobs per hectare, assume 6:1 provides 672 jobs per hectare: 62 X 672 = 41,664;
  - 40 hectares of Mixed Use – non residential FSR of 3.5:1 – if .45:1 to .8:1 provides 112 jobs per hectare, assume 3.5:1 provides 392 jobs per hectare: 40 X 392 = 15,680;
  - 29 hectares of Enterprise Corridor – non residential FSR of 3:1 – if .45:1 to .8:1 provides 112 jobs per hectare, assume 3:1 provides 336 jobs per hectare: 29 X 336 = 9744.
- total additional business zone job capacity in Wollongong CBD equals is 41,664 + 15,680 + 9,744 = 67,088 (deduct the 2006, 18,844 jobs) = 48,244;
- workers from Shellharbour LGA could expect to occupy 15 % of these additional jobs (based on Shellharbour LGA's 2006 representation): this equals **7044** (compared to the 6383 shortfall).

The above analyses demonstrate the 11,845 job demand is met by 5,462 (Shellharbour share from job zone – Shellharbour to Coniston) + 7,044 (Shellharbour share from Wollongong CBD) = 12,506 (a surplus of 661).

#### **D. Special Use Land/Jobs Supply Second Method**

A further 82.5 hectares of special use zoned land or 4,848 special use zone jobs in the job zone (Shellharbour to Coniston) for workers from Shellharbour LGA, to 2031, are needed.

As with business land, the supply analysis method is similar to that used in the third industrial land/job supply. The difference is that it relies on existing special use land. The third industrial land job supply method relied solely on vacant and planned industrial land.

To work out the job zone special use job capacity to 2031 the following steps were taken:

- in 2006 there were 5,883 jobs in the special use parts of the job zone;
- 39% of these were occupied by workers from the Shellharbour LGA;
- there are currently 841 hectares of special use zoning in the job zone (deduct 350 hectares for loss of special use land at Tallawarra site in forthcoming new Wollongong Comprehensive Local Environmental Plan. This leaves 491 hectares);
- based on an FSR of .6:1, special use zones provide 59 jobs per hectare;
- job capacity therefore equals 59 (jobs per hectare) X 491 (hectares) = 28,969;
- subtract the 5,883 jobs in the special use parts of the job zone as of 2006, to calculate additional capacity = 23,086;
- Shellharbour workers could expect to occupy 39% (based on Shellharbour LGA's 2006 representation) of the additional 23,086, i.e. 8990;

The above analyses demonstrate the 4,848 job demand is well met by 8990 jobs (Shellharbour share from job zone – Shellharbour to Coniston).

### **Note for B, C, D Supply Method**

The 2006 job zone numbers for industrial (17,562), business (14,872), special use (5,883) are broken down from the total of 38,862 (total 2006 job zone jobs, page 5). This is also used to establish overall employment demand in the second flow chart of this paper. The bracketed figures add up to 38,317, because they exclude agriculture, forestry, fishing and mining.

### **OVERALL WORKER ZONE DEMAND AND JOB ZONE SUPPLY TO 2031**

It is highly informative and useful to compare the 2031 forecast number of business, industrial and special use zone jobs in the job zone (where people work) to the 2031 forecast number of business, industrial and special use workers in the worker zone (where workers live). The following table does this using TDC forecasts.

	Business Zone	Industrial Zone	Special Use Zone	Total
Jobs	95,984	47,078	28,969	172,031
Workers	60,282	40,506	23,434	124,222

This demonstrates a surplus of job capacity in 2031, for and within 20 minutes drive of workers living between Shellharbour and Bulli.

In comparison in 2006, there were 94,803 workers in the worker zone and 38,862 jobs in the job zone, according to TDC figures

### **CONCLUSION**

Based on a preferred, sustainable and conservative methodology, there is more than enough job supply capacity for workers from Shellharbour in 2031. This involves a scenario of zero unemployment and no more than a 20 minute drive to work.

For the three categories of employment lands/jobs: industrial, business and special use: 2 different demand methodologies have been applied, with the result being Shellharbour Council's "20 minute drive to work" method (second) generating the greatest job demand.

The following supply analysis conclusions are in terms of the “20 minute drive to work” method.

The Shellharbour LGA Employment Lands Study deals with industrial land supply using the Shellharbour Council derived “20 minute drive” methodology and forecasts a surplus of 2300 industrial jobs/27 hectares industrial land to 2031, for workers from Shellharbour LGA.

The alternative industrial “20 minute drive” method forecasts a surplus of 3648 industrial jobs.

Shellharbour Council’s supply analysis of business land/jobs, extends the business jobs zone to include Wollongong CBD and indicates a surplus of around 660 business jobs for workers from Shellharbour LGA.

Shellharbour Council’s supply analysis of special use land/jobs forecasts a surplus of 4142 special use jobs for workers from Shellharbour LGA.

Comparison of the total 2031 worker zone workers and job zone jobs indicates a surplus of jobs in all 3 zones.

## **RECOMMENDATIONS**

In terms of facilitating job supply capacity via land use planning, there is no need rezone any land to business or industrial.

As an aside, the Shellharbour LGA Retail and Commercial Centres Study identifies a need for more retail and commercial floor space in Shellharbour LGA, but this need is identified through forecast expenditure modelling using variables of income and population growth.

Given the relatively small supply capacity surplus in business zoned land in the second (preferred method), the Department of Planning be consulted with the view to some type of monitoring arrangement being implemented for the uptake of business and related zoned land in the job zone - Shellharbour to Wollongong Central business District.

In the preparation of its comprehensive city wide Local Environmental Plan/Development Control Plan(s), Council ensure it does not reduce employment land job capacity.

## **CONSULTATION**

- Department of Planning;
- Wollongong City Council;
- Hill PDA.