

Hunter Land	Vacant but already subdivided, longer term service and freight and logistics precinct. Should be part of a more detailed structure planning exercise to ensure strategic opportunities are protected	INI	Long term – required by 2036+	0	0	18,571	0	0	242
Wollarah No.2 Coal Site	Stated for colliery, not likely to develop in short to medium term but opportunity should be preserved. Suitable for interim uses that do not preclude a future industrial use. Should be part of a more detailed structure planning exercise to ensure strategic opportunities are protected	INI	Very long – required by 2050+	0	0	531,276	0	0	6,910
Bushells Ridge - Remainder	Larger lots and proximity to major arterial road make it ideal to accommodate future growth in freight and logistics. Should be part of a more detailed structure planning exercise to ensure strategic opportunities are protected	INI	Long term – required by 2036+	44,217	226,737	11,042	411	2,175	106
<b>TOTAL</b>				<b>1,308,846</b>	<b>2,239,257</b>	<b>1,312,370</b>	<b>22,487</b>	<b>36,868</b>	<b>18,728</b>

TABLE 28. FUTURE ROLE FOR POTENTIAL INDUSTRIAL AREAS (NOT YET ZONED)

Selective new release in short to medium term	Proposed zone	Timing	Floorspace		Jobs			
			Current	2036	2036+ (remaining capacity)	Current	2036	2036+ (implied remaining capacity)
Craigie Avenue	86	Medium term (2025+) - P Location opposite hospital makes it a candidate to support a medical users cluster; needs to offer ancillary retail and services. No retail to be greater than 1000sqm.	0	11,301	0	0	141	0
NWSSP Wanneroo South West	87	Medium term – required by 2025+ Appropriate for modern industry and some business park uses. Should be 'master planned' and remain in council ownership to ensure high quality development, and to ensure it complements Wanneroo Town Centre. Restriction of pure office to 30% appropriate.	0	22,329	66,891	0	422	1,264
NWSSP Wanneroo North East	IN2	Medium term – required by 2025+ The Wanneroo and Precinct 7A release will need a service industry area. Of the potential industrial areas identified in the NWSSP this is likely to be the earliest to develop though alternative sites on the edge of the Town Centre or near the Wanneroo South West area (on sites not yet identified) are also possible candidates. Will serve as an expansion area for Charmhaven.	0	9,497	117,741	0	211	2,616
NWSSP Bushhills Ridge North East	IN2	Medium term - required by 2025+ Part of NWSSP area, with a future service industry role. Adjacent to Wyee residential and not far from rail station. Could be a more intense employment area.	0	37,402	0	0	623	0

Reconsider in medium to long term	Proposed zone	Timing	Floorspace			Jobs		
			Current	2036	2036+ (remaining capacity)	Current	2036	2036+ (implied remaining capacity)
Darlington South	Current investigation area	Long term - required by 2036+	0	0	22,710	0	0	295
NWSSP Hue Hue Road	Land required after 2036 subject to review.	Very long - required by 2050+	0	0	95,391	0	0	1,241
NWSSP Warmerale North West	Land required after 2036 subject to review.	Very long - required by 2050+	0	0	197,824	0	0	2,573
NWSSP Doyabon South West	Land required after 2025 subject to review.	Long term - required by 2036+	0	46,226	45,078	0	573	559
NWSSP Doyabon West	Land required after 2036 subject to review.	Very long - required by 2050+	0	0	81,611	0	0	1,061
NWSSP Doyabon East	Land required after 2036 subject to review.	Very long - required by 2050+	0	0	76,598	0	0	996
NWSSP Doyabon North East	Land required after 2025 subject to review.	Medium term - required by 2025+	0	20,360	0	0	255	0
NWSSP Lake Munmorah	Land required after 2036 subject to review.	Long term - required by 2036+	0	0	251,611	0	0	3,273
Bulanderry WDP	Land required after 2036 subject to review.	Very long - required by 2050+	0	0	207,677	0	0	2,701
Possible Area Jilliby West	Land required after 2036 subject to review.	Very long - required by 2050+	0	0	446,256	0	0	5,804
<b>TOTAL</b>			<b>26,861</b>	<b>335,480</b>	<b>1,995,414</b>	<b>493</b>	<b>4,690</b>	<b>27,744</b>

Notes: \* If Biodiversity Certification is not achieved, vegetated portions of the WEZ which contain threatened species habitat may not be cleared. This may affect development yields.



# 6 APPENDIX 1 – PRECINCT ANALYSIS

## 6.1 Introduction

This section of the report outlines the character, key assets and issues and future role of each existing zoned and potential industrial precinct.

- Bateau Bay Industrial Area
- Berkeley Vale Industrial Area
- Bushells Ridge
- Charmhaven Industrial Area
- Doyalson Industrial Area
- Fountaindale Industrial Area
- Gwandalan Industrial Area
- Long Jetty Industrial Area
- North Wyong Industrial Area
- Ourimbah Industrial Area
- Tuggerah Business Park
- Tuggerah Station Industrial
- Tuggerah Straight
- Tumbi Gardens Industrial
- Wyong Employment Zone – Warnervale Business Park
- Craigie Avenue site
- Hunter Land site
- Wallarah No.2 Coal site
- Wyong Employment Zone – Sparks Road North
- Wyong Employment Zone – Airport Land
- Wyong Employment Zone – North West
- Buttonderry Waste Disposal Facility
- Darkinjung
- Darkinjung South
- Possible Area Jiliby West
- Land identified in the NWSSP:
  - Hue Hue Road
  - Warnervale South West
  - Warnervale North West
  - Warnervale North East
  - Bushells Ridge North East
  - Doyalson South West
  - Doyalson West
  - Doyalson East
  - Doyalson North East

## 6.2 Total for Wyong LGA

Overall there is 564.2 hectares of utilised employment lands in the Wyong LGA. There is a total of 1,912 hectares of vacant industrial land in the Wyong LGA. Of this 520 hectares are within existing industrial areas and a further 1,392 is within potential industrial lands (the Bushells Ridge area has been considered as potential industrial land in the

table below). Those lands that have an overall constraints ranking of four and above have been considered as 'constrained' to determine the amount of 'constrained' and 'unconstrained' industrial land in the Wyong LGA. The ranking of four was chosen as it signified more than one significant constraint on a parcel of land indicating that this may affect the short and medium-term delivery timeframe of the land.

Therefore, the total amount of unconstrained industrial supply in the LGA is 1,423 hectares, with 391 hectares in existing industrial precincts and 1,032 hectares in potential industrial precincts (Table 29). Again, these constraint estimates are not definitive and only provide an indicator of the capability of a lot for development.

In assessing the overall supply of vacant industrial land in the Wyong LGA 'Bushells Ridge South', as defined by the NWSSP, has not been included as approximately the same portion land area is has been accounted for by the Darkinjung proposals. The Wallarah No.2 Coal proposal precinct has also been discounted from estimates of vacant land below as the site is proposed for a coal mine and hence will be unavailable for other industrial use in the near future. However, if the coal mine is approved there may be some opportunities for collocation of compatible employment uses, especially those which can leverage off the freight infrastructure, and, in the long term, the land may become available for employment uses after mining is complete. If the coal mine is not approved then the site may also become available for employment uses in the medium term.

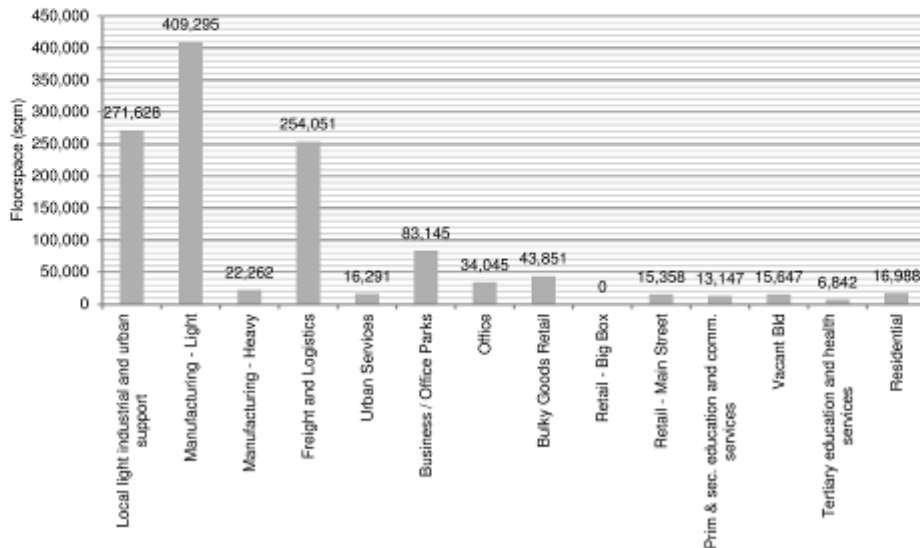
**TABLE 29. WYONG LGA – TOTAL AND UNCONSTRAINED SUPPLY**

Precinct	Vacant floorspace (sqm)	Vacant land (Ha)	Constrained (with a constraint score of -4 or below) (Ha)	Unconstrained (Ha)
<b>Existing precincts</b>				
Bateau Bay Industrial	0	0.48	0.00	0.48
Berkeley Vale Industrial	9,919	19.00	10.29	8.71
Charmhaven Industrial	18,505	0.79	0.00	0.79
Doyalson Industrial	712	4.42	0.00	4.42
Fountaindale Industrial	2,121	0.51	0.00	0.51
Gwandalan Industrial	1,819	0.99	0.00	0.99
Long Jetty Industrial Area	354	0.00	0.00	0.00
North Wyong Industrial	15,706	32.13	1.44	30.69
Ourimbah Industrial	2,505	4.41	0.00	4.41
Tuggerah Business Park	14,914	11.44	0.00	11.44
Tuggerah Station Industrial	6,512	11.84	0.14	11.70
Tuggerah Straight	15,087	4.43	0.51	3.92
Tumbi Gardens Industrial	1,626	0.07	0.00	0.07
Wyong Employment Zone	473	293.28	28.10	265.19
Bushells Ridge - remainder	0	136.45	88.76	47.69
<b>Subtotal</b>	<b>90,252</b>	<b>520</b>	<b>129</b>	<b>391</b>
<b>Potential precincts</b>				
Craigie Avenue	0	4.07	0.00	4.07
NWSSP Hue Hue Road	0	38.46	0.21	38.25
NWSSP Warnervale South West	0	32.43	0.27	32.15
NWSSP Warnervale North West	0	75.65	4.35	71.29
NWSSP Warnervale North East	0	50.58	0.06	50.52
Walarah No.2 Coal Site*	0	198.97	12.37	186.60
NWSSP Bushells Ridge North East*	0	15.25	0.00	15.25
NWSSP Doyalson South West	0	53.34	0.00	53.34
NWSSP Doyalson West	0	34.37	2.75	31.62
NWSSP Doyalson East	0	33.39	0.27	33.12
NWSSP Doyalson North East	0	35.62	0.00	35.62
Buttonderry WDF	0	149.44	37.17	112.27
Possible Area Jilliby West	0	215.91	31.91	183.99
Darkinjung*	0	271.94	240.97	30.97
NWSSP Darkinjung South	0	43.45	0.09	43.37
NWSSP Lake Munmorah	0	123.49	14.16	109.33
Hunter Land*	0	15.38	15.38	0.00
<b>Subtotal</b>	<b>0</b>	<b>1,392</b>	<b>360</b>	<b>1,032</b>
<b>Total</b>	<b>90,252</b>	<b>1,912</b>	<b>489</b>	<b>1,423</b>

Source: SGS Economics and Planning, 2012.

Overall, within the Wyong LGA, Light Manufacturing is the most dominant BLC land use with 34 percent of total floorspace, followed by Local Light industrial (23 percent) and Freight and Logistics (21 percent) (Figure 10). There is approximately 90,252 square metres of vacant floorspace in Wyong (1.3 percent).

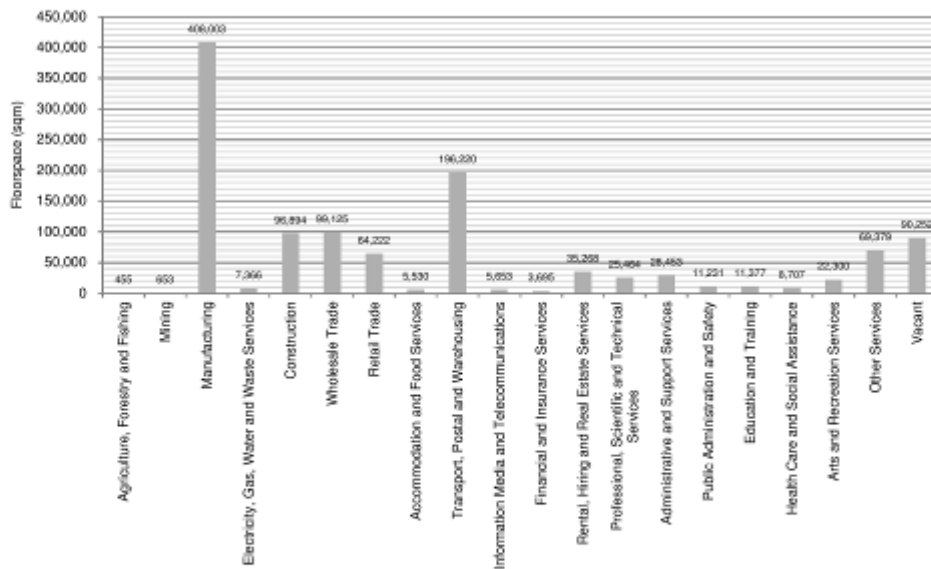
FIGURE 10. FLOORSPACE BY BLC



Source: SGS Economics and Planning, 2012

In terms of ANZSIC uses, the Manufacturing industry is the most dominant land use with 34 percent of total floorspace, followed by Transport, Postal and Warehousing (16 percent) and Construction and Wholesale Trade (both 8 percent) (Figure 11).

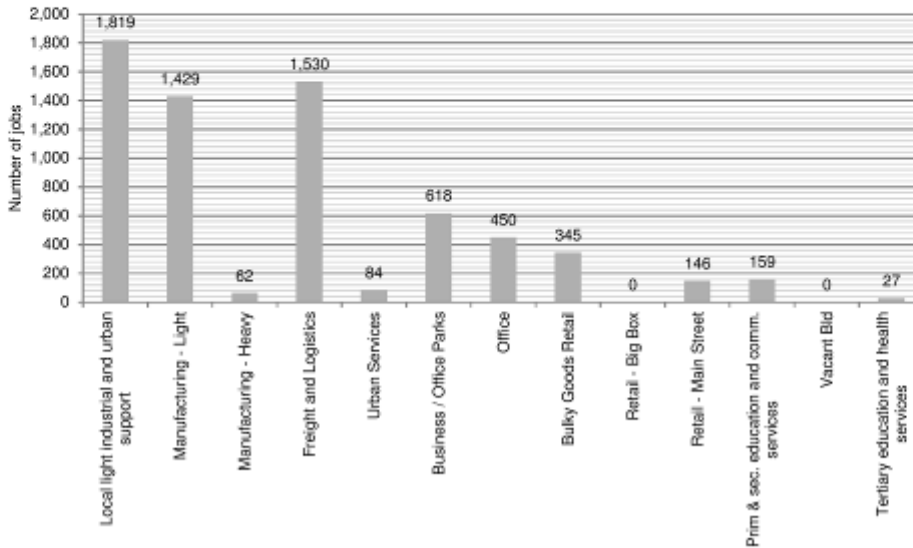
FIGURE 11. FLOORSPACE BY ANZSIC



Source: SGS Economics and Planning, 2012

Local Light industrial is the largest employer, with 27 percent of the total workforce followed by Freight and Logistics at 23 percent and Light Manufacturing at 21 percent (Figure 12). Jobs were recorded for vacant BLCs because some buildings were noted as vacant where the majority of uses within that building were vacant (i.e. three out of four strata businesses might have been vacant).

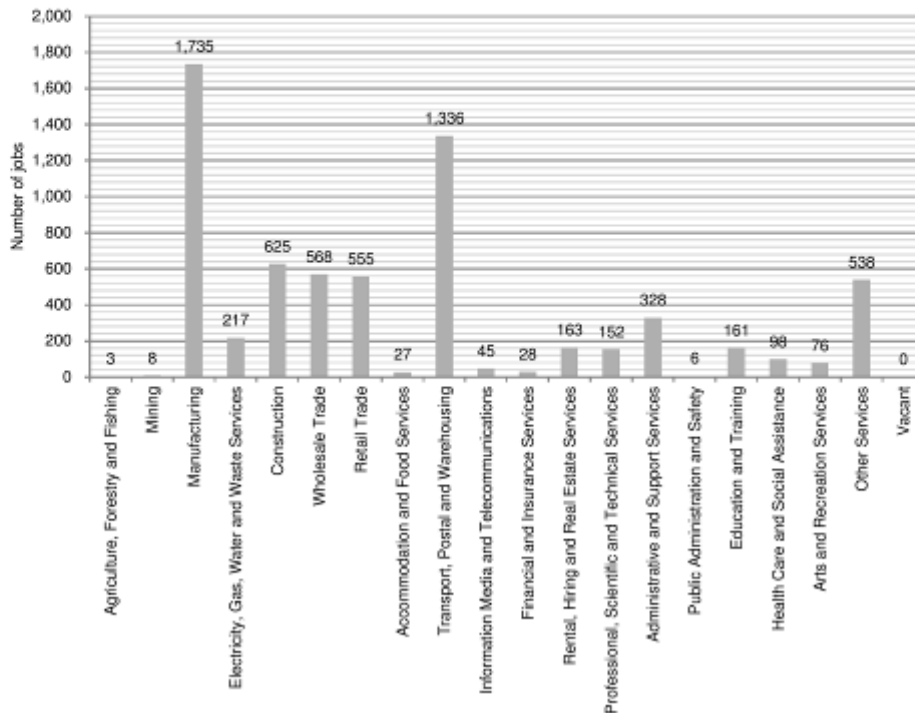
FIGURE 12. EMPLOYMENT BY BLC



Source: SGS Economics and Planning, 2012

The largest employing industries are, at a one-digit ANZSIC code, Manufacturing (26 percent), Transport, Postal and Warehousing (20 percent), Construction (9 percent) and Wholesale Trade (9 percent) (Figure 13).

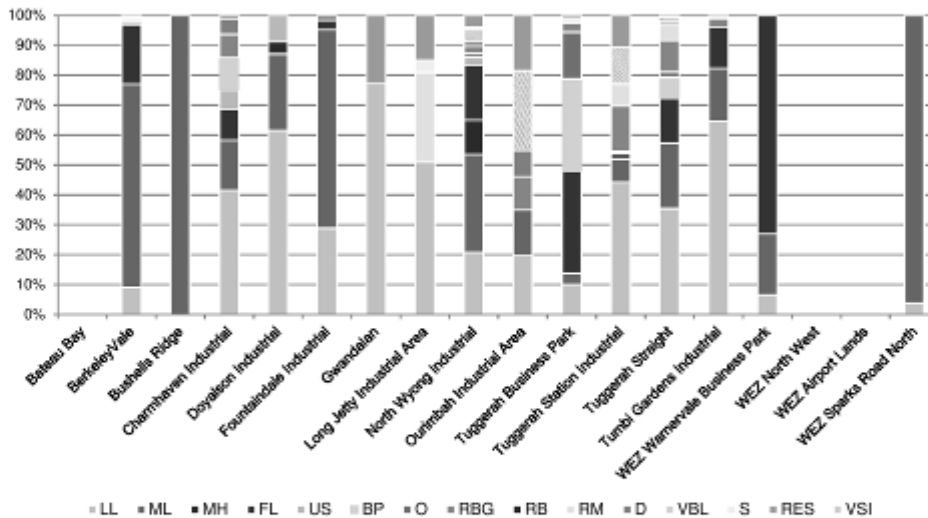
FIGURE 13. EMPLOYMENT BY 1-DIGIT ANZSIC CODE



Source: SGS Economics and Planning, 2012

The composition of BLCs by precinct can be seen below in Figure 14. Local Light industry, Light Manufacturing and Freight and Logistics are the most prevalent BLCs across all precincts.

FIGURE 14. BLC BY PRECINCT

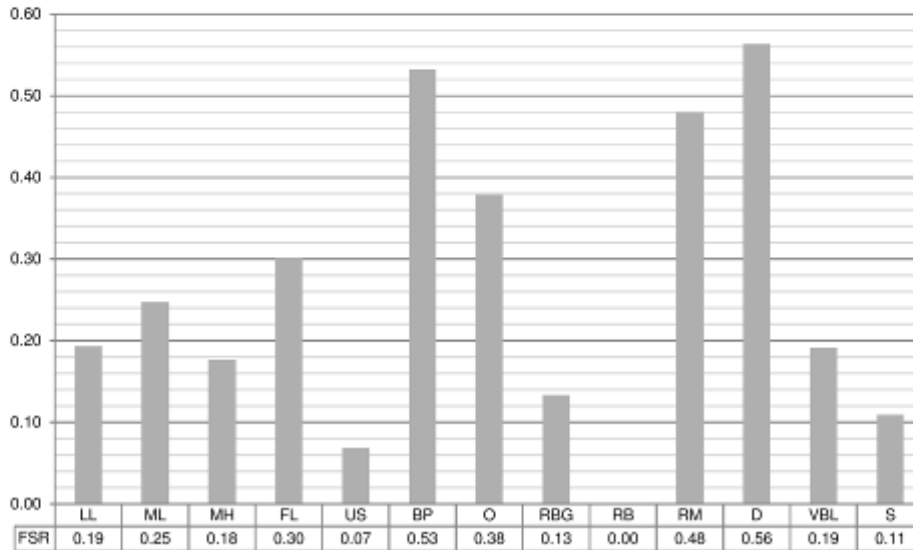


Source: SGS Economics and Planning, 2012



The average actual FSR in Wyong is 0.1:1 (Figure 15). Dispersed Uses and Business Parks displayed the highest actual FSRs for industrial uses at 0.56:1 and 0.53:1, respectively. Urban Services recorded the lowest FSR at 0.07:1, equating to site coverage of approximately seven percent. It should be noted that 0.8:1 is the FSR contained in DCP 75 that applies to all industrial land precincts.

**FIGURE 15. ACTUAL FSR BY BLC**



Source: SGS Economics and Planning, 2012

Table 30 depicts the actual FSRs by various precincts. Tuggerah Business Park and Fountaindale Industrial have the highest overall FSR of 0.4:1 followed by Tumby Gardens with an FSR of 0.3:1.

**TABLE 30. ACTUAL FLOOR SPACE RATIOS BY PRECINCT**

Precinct	FSR
Bateau Bay	0.0
Berkeley Vale	0.2
Bushells Ridge	0.0
Charmhaven Industrial	0.2
Doyalson Industrial	0.0
Fountaindale Industrial	0.4
Gwandalan	0.1
Long Jetty Industrial Area	0.2
North Wyong Industrial	0.1
Ourimbah Industrial Area	0.0
Tuggerah Business Park	0.4
Tuggerah Station Industrial	0.1
Tuggerah Straight	0.2
Tumby Gardens Industrial	0.3
Wyong Employment Zone	0.1
<b>Average</b>	<b>0.1</b>

Source: SGS Economics and Planning, 2012

Table 31 displays the total number of jobs by precinct. North Wyong Industrial is the largest employer with 2,091 employees followed by Wyong Employment Zone with 1,486 employees and Tuggerah Business Park precinct with 1,377 jobs.

**TABLE 31. EMPLOYMENT BY PRECINCT**

Precinct	Employment	% employment
Bateau Bay	-	0%
Berkeley Vale	557	7%
Bushells Ridge	104	1%
Charmhaven Industrial	614	8%
Doyalson Industrial	60	1%
Fountaindale Industrial	157	2%
Gwandalan	16	0%
Long Jetty Industrial Area	25	0%
North Wyong Industrial	2,091	26%
Ourimbah Industrial Area	60	1%
Tuggerah Business Park	1,377	17%
Tuggerah Station Industrial	137	2%
Tuggerah Straight	1,054	13%
Tumbi Gardens Industrial	192	2%
Wyong Employment Zone	1,486	20%
<b>Total</b>	<b>8,095</b>	<b>100%</b>

Source: SGS Economics and Planning, 2012

The audit recorded 8,095 jobs in the industrial areas in Wyong with an average job density of 1 job per 167 square metres of floorspace or 60 jobs per hectare. The Vales Point and Munmorah Power Stations were not audited for this study, although they were contacted with regards to employment numbers and they indicated that there are 280 full time and part time production workers including 30 apprentices and 81 full time and part time maintenance workers employed across both sites.

Table 32 shows the job density for each BLC. Offices have the highest amount of jobs per floorspace with 1 job per 76 square metres of floorspace. Dispersed uses had the highest number of jobs per hectare with 68 jobs per hectare. Heavy Manufacturing had the least amount of jobs per floorspace out of all of the industrial uses with 1 job per 359 square metres of floorspace. Special Uses and Urban Services recorded the lowest number of jobs per hectare with 4 jobs per hectare. The ostensible discrepancy between floorspace per jobs and jobs per hectare is a result of the different pattern of lot usage by each BLC. Those BLCs that have a high FSR will typically record a higher jobs per hectare ratio. For example, Freight and Logistics and Business Park have similar floorspace per job ratios at 166:1 and 135:1, respectively. However, their respective jobs per hectare ratio is comparatively more diverse at 18 and 47 jobs per hectare. By implication, this indicates that the BLC of Business Park would have a higher FSR than Freight and Logistics; which is evident from Figure 15, above, that this is the case.

Some of these job density numbers diverge from industry standards and this is likely due to the existence of outliers and the significant affect these can have on a relatively small data set. In particular the floorspace per job in the BLCs of Business Parks and Office are higher than would be anticipated, while that for the BLC of Freight and Logistics is lower than would be anticipated (this is driven down by the 600 jobs reported by the Woolworths distribution centre at its WEZ facility).

**TABLE 32. EMPLOYMENT DENSITY BY BLC**

BLC	Floorspace / Jobs (sqm)	Jobs / Area (Ha)
LL	151	12
ML	286	8
MH	359	5
FL	131	12
US	120	4
BP	135	40
O	78	47
RBG	122	6
RB	-	-
RM	74	42
D	64	84
VBL	-	-
S	197	6
VSI	0	0
<b>Average</b>	<b>156</b>	<b>25</b>

Source: SGS Economics and Planning, 2012

Table 33 exhibits the employment density by precinct. In terms of jobs per floorspace Berkeley Vale is the most employment dense out of all of the precincts followed by Fountaindale Industrial and Bushells Ridge.

**TABLE 33. EMPLOYMENT DENSITY BY PRECINCT**

Precinct	Floorspace / Jobs (sqm)	Jobs / Area (Ha)
Bateau Bay	0	0
Berkeley Vale	458	4
Bushells Ridge	425	0
Charmhaven Industrial	196	8
Doyalson Industrial	157	1.5
Fountaindale Industrial	426	9
Gwandalan	312	2
Long Jetty Industrial Area	178	12
North Wyong Industrial	129	8
Ourimbah Industrial Area	101	5
Tuggerah Business Park	131	28
Tuggerah Station Industrial	219	6
Tuggerah Straight	137	14
Wyong Employment Zone	117	6
<b>Average</b>	<b>223</b>	<b>8</b>

Source: SGS Economics and Planning, 2012

### 6.3 Existing precincts

#### **Bateau Bay Industrial**

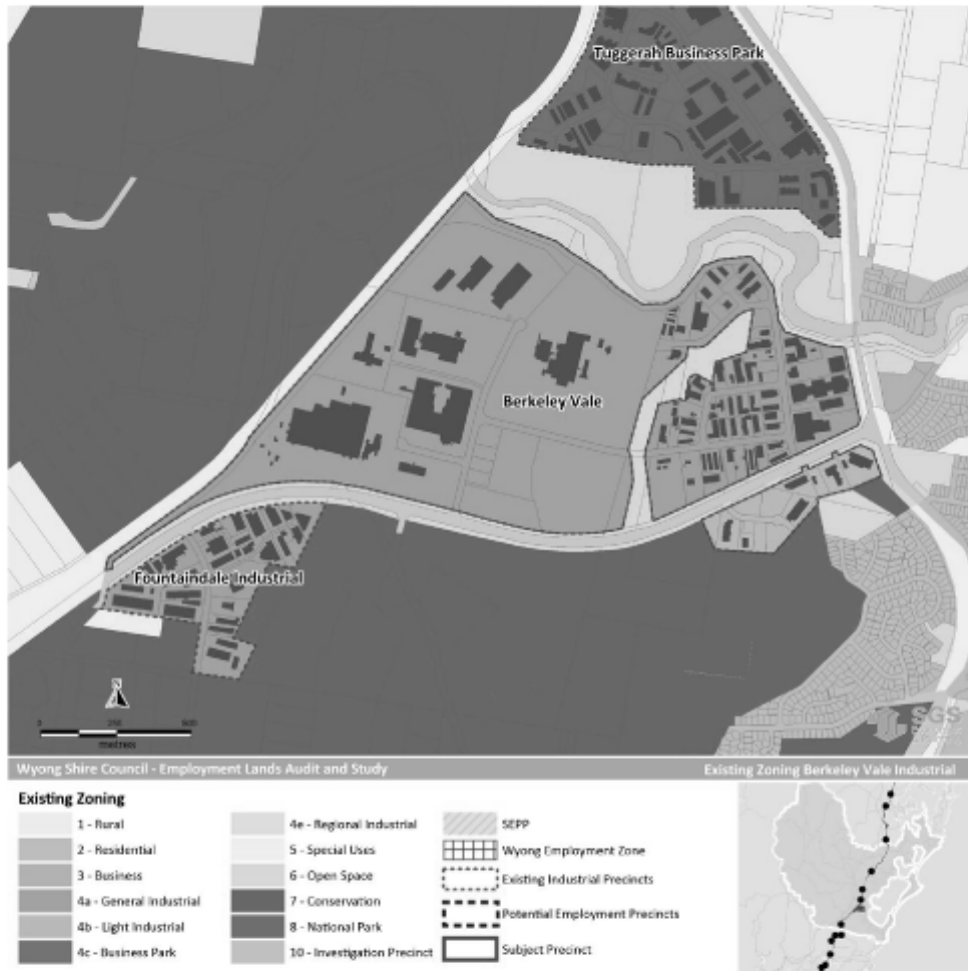
Bateau Bay is currently undeveloped with respect to industrial floorspace.

### Berkeley Vale Industrial

*Precinct character*

Berkeley Vale is zoned 4a General Industrial under the Wyong Environmental Plan 1991. See Figure 16.

**FIGURE 16. BERKELEY VALE ZONING MAP**



Source: SGS Economics and Planning, 2012

The Berkeley Vale Industrial Estate is located to the south of the Tuggerah Business Park, immediately beyond Ourimbah Creek, and north of Enterprise Drive. This area covers approximately 120 hectares, which have been subdivided into allotments ranging in size from 5,000 square metres up to 40 hectares.

A substantial proportion of the Berkeley Vale Industrial Estate has already been developed for large-scale manufacturing and warehousing activity. Light Manufacturing is the most dominant land use with 68 percent of total floorspace, followed by Freight and Logistics (20 percent) and Local Light industrial (9 percent). In particular there is a strong food processing presence, represented by Master Foods and Sanitarium Health Foods (900 employees). Other major tenants include Halley & Mellows Australasia, automotive tool manufacturers Crontec and hi-tech manufacturer TE Connectivity.

Berkeley Vale currently has 254,909 square metres of floorspace at an average actual FSR of 0.23:1. Berkeley Vale has 87,095 square metres of relatively unconstrained vacant land, which comprises 11 percent of total industrially zoned land area. There are 9,919 square metres of vacant floorspace in Berkeley Vale.

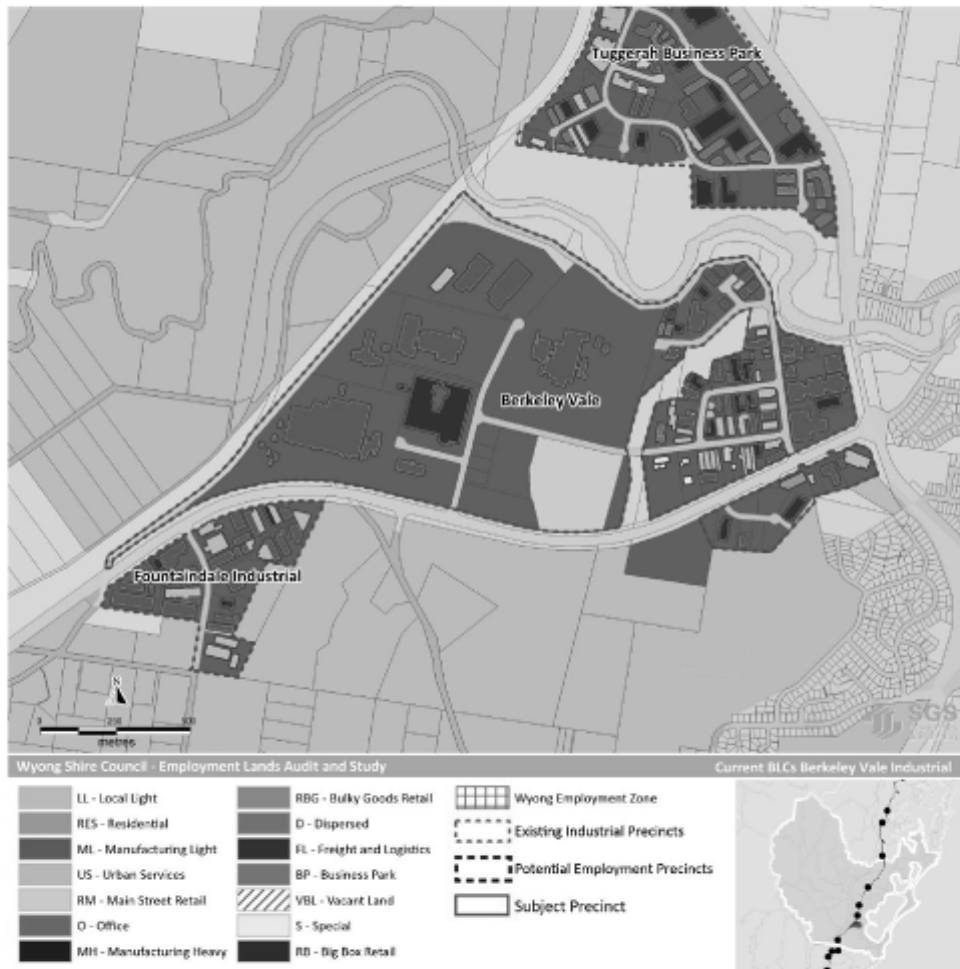
*Precinct audit*

Light Manufacturing is the most dominant land use with 68 percent of total floorspace, followed by Freight and Logistics (20 percent) and Local Light industrial (nine percent). There are 557 jobs in Berkeley Vale. Light Manufacturing is the largest employer, with 65 percent of the total workforce followed by Freight and Logistics at 11 percent. At a one-digit ANZSIC level, the largest employers are Manufacturing (61 percent), Rental, Hiring and Real Estate Services (12 percent) and Transport, Postal and Warehousing (11 percent).

It has an average job density of 1 job per 458 square metres of floorspace or five jobs per hectare.

The precinct has a low overall FSR of 0.23:1.

**FIGURE 17. BERKELEY VALE AUDIT FINDINGS**

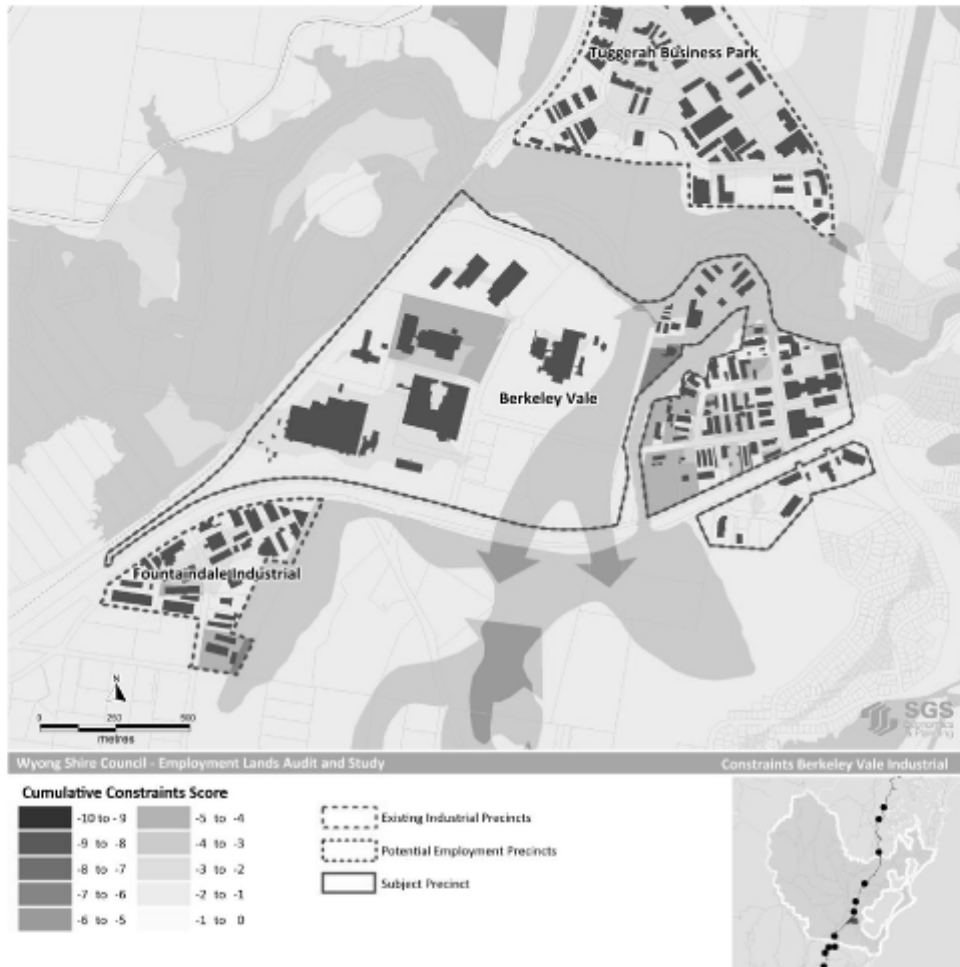


Source: SGS Economics and Planning, 2012

*Opportunities and constraints*

Based on our opportunities analysis Berkeley Vale is ranked 6<sup>th</sup> out of 34 existing and potential employment precincts with a constraints score of -2.3 indicating that it is relatively unconstrained compared to other lands in the shire (Figure 15). Based on our locational based BLC criteria, Freight and Logistics, Light Manufacturing and Urban Services industrial are the most suitable industries for Berkeley Vale.

FIGURE 18. BERKELEY VALE CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

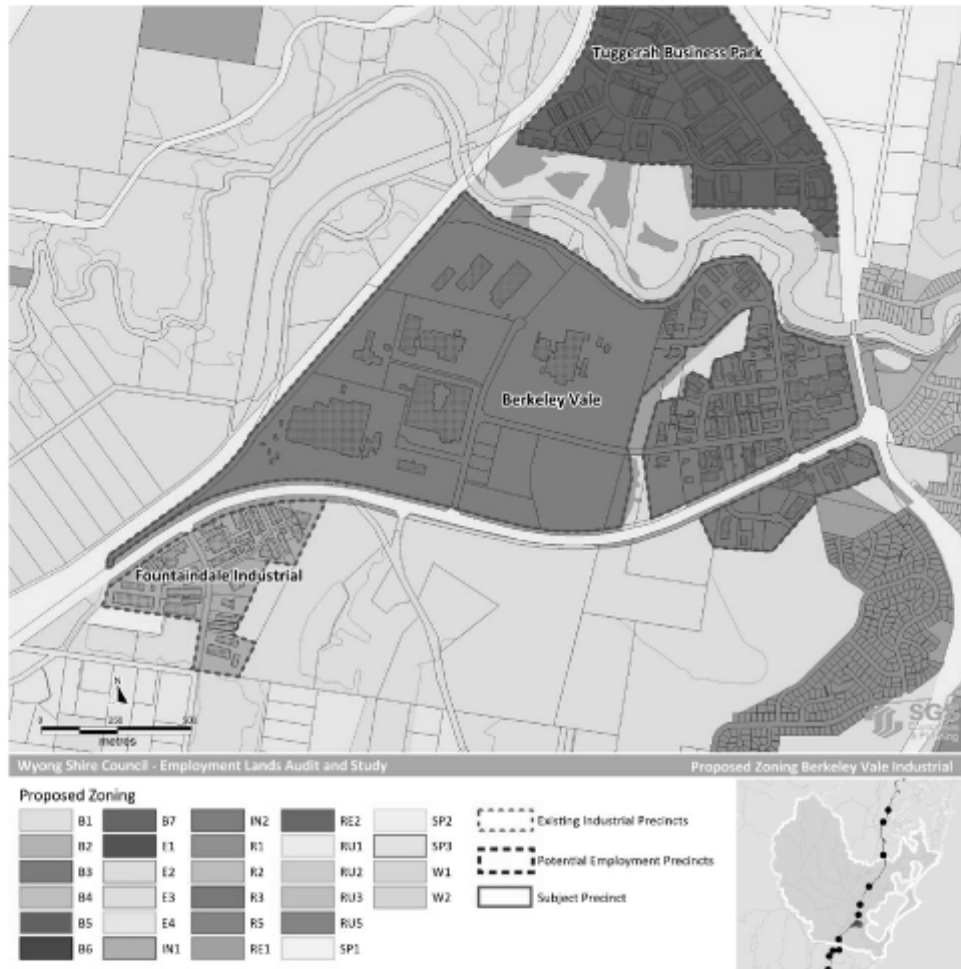
- The western area of the industrial precinct has poor road quality and a high truck parking/loading demand.
- A lack of local food and convenience retail for workers and precinct visitors is believed to limit the appeal of the estate to new tenants.

**Future role**

The current role of Berkeley Vale to be consolidated over time. There are additional opportunities for hi-tech and value-add manufacturing and strategic industry growth.

The precinct is proposed to be zoned IN1 with a small amount of IN2 south of Enterprise Drive.

FIGURE 19. BERKELEY VALE PROPOSED ZONING



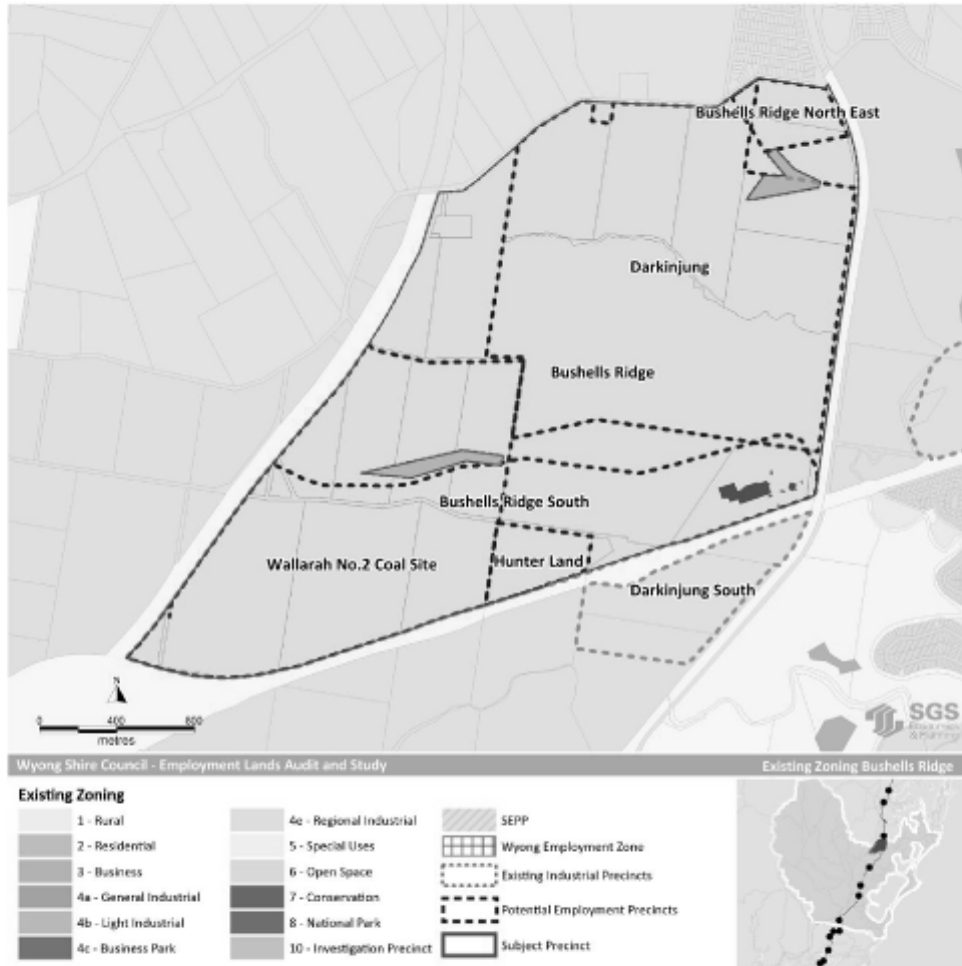
Source: SGS Economics and Planning, 2012

**Bushells Ridge<sup>42</sup>**

*Precinct character*

Bushells Ridge is zoned 4e Regional Industrial and Employment Development Zone under the Wyong Environmental Plan 1991 (Figure 20).

**FIGURE 20. BUSHHELLS RIDGE ZONING MAP**



Source: SGS Economics and Planning, 2012

Bushells Ridge exists mostly as vacant land, with the Boral Montoro quarry and tile factory being the only business currently operating in the precinct. The business is located in Bushells Ridge for proximity to the state significant clay resource contained in the precinct.

*Precinct audit*

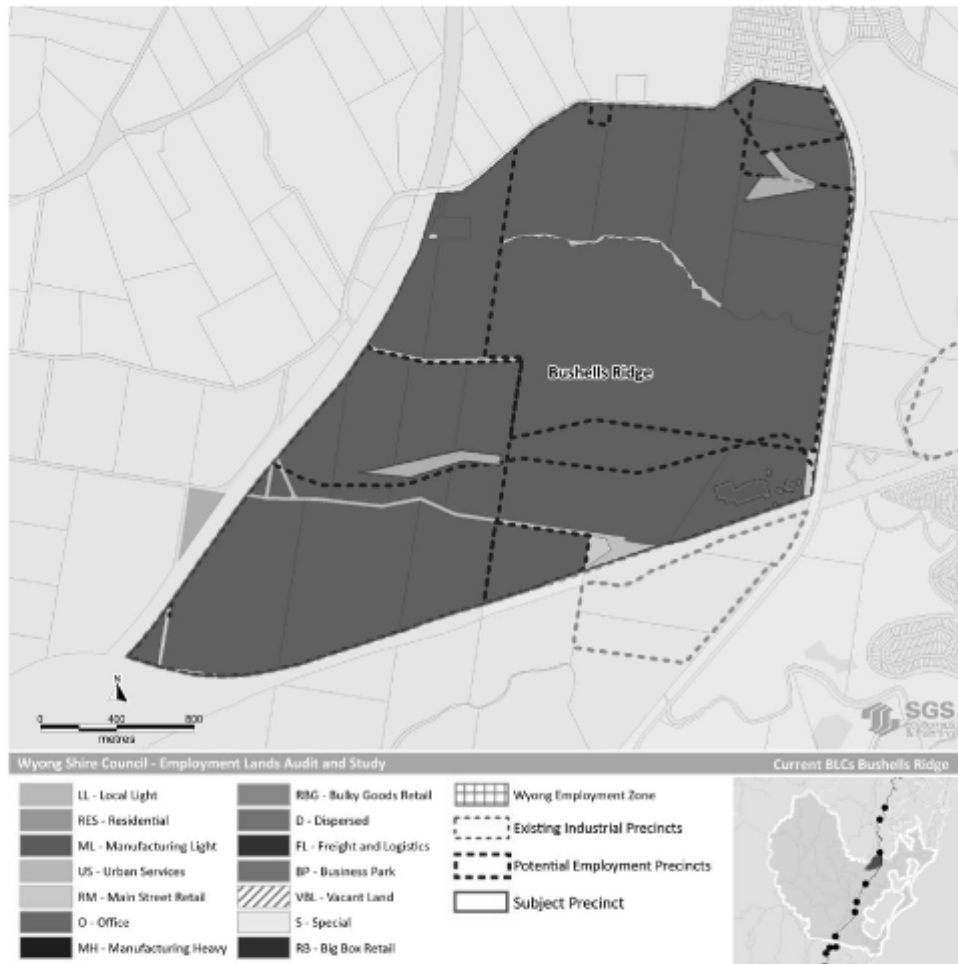
Bushells Ridge is mostly vacant with the Boral Montoro quarry and tile factory being the only business; hence Light Manufacturing 100 percent of total floorspace. There are 104 jobs currently in Bushells Ridge, all in Manufacturing (one-digit ANZSIC code) with an average job density of 1 job per 425 square metres of floorspace or 3 jobs per hectare.

<sup>42</sup> The existing Bushells Ridge precinct discussed here has been divided into smaller areas and included in the discussion of potential precincts at Section 6.4. These potential precincts are identified by the blue dashed lines.



The precinct has an overall FSR of 0.1:1.

FIGURE 21. BUSHHELLS RIDGE AUDIT FINDINGS

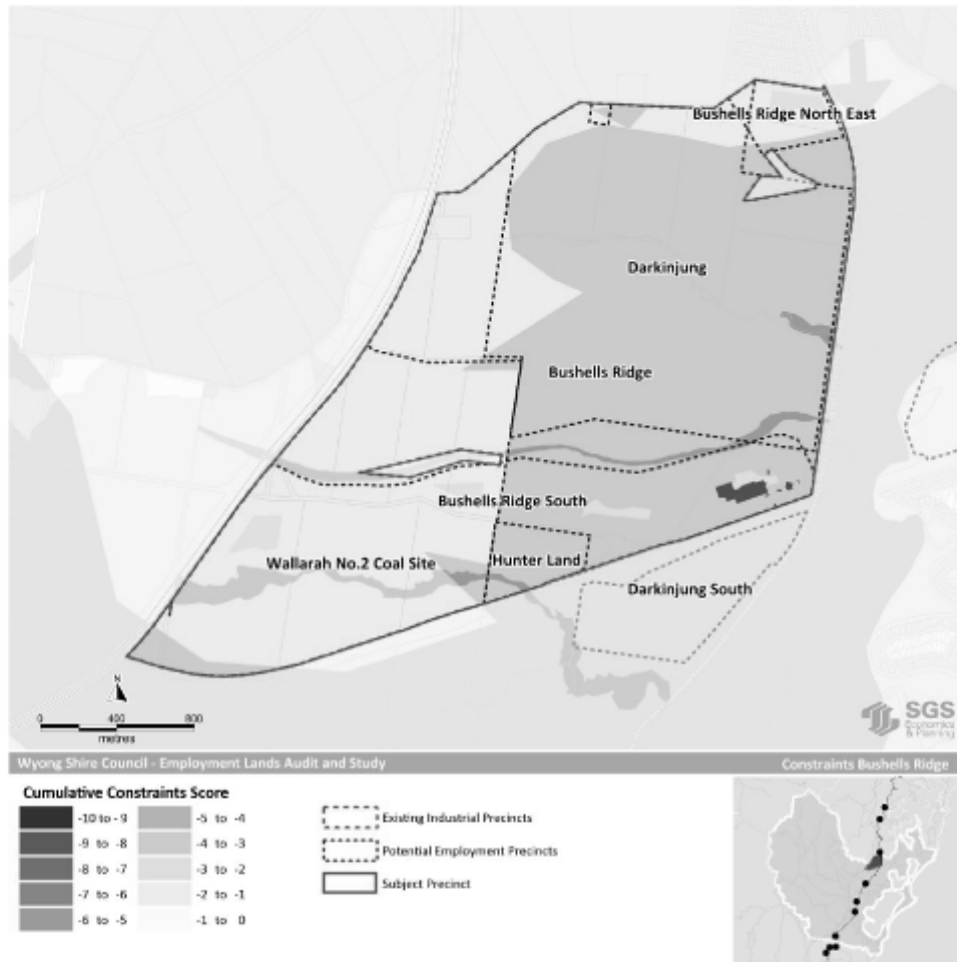


Source: SGS Economics and Planning, 2012

**Opportunities and constraints**

Parts of Bushells Ridge is identified in the North Wyong Structure Plan as a Strategic Site. This means the area is strategically located in relation to existing and proposed infrastructure but has ecological and/or resource constraints. More detailed local investigation is therefore required to determine their conservation and development potential.

FIGURE 22. BUSHHELLS RIDGE CONSTRAINTS



Source: SGS Economics and Planning, 2012

#### Key assets and issues

- Boral have a current exploration license that exists over Darkinjung LALC land and this could affect both the future pattern and staging of development.
- Site servicing is currently minimal and would not support industrial expansion without further development of infrastructure.
- The Development Servicing Plan proposes to service the area from the Charmhaven treatment plan. There could be opportunities to bring the delivery of the servicing plan forward with developer funding or joint servicing strategies between development areas.
- There are significant environmental constraints, including biodiversity, mine subsidence and bushfire risks, which require management.
- The Structure Plan also identifies that the extent of the clay resource and environmental issues need to be resolved in order to determine the amount of industrial land available
- The existing Tooheys Road intersection and interchange is a key piece of infrastructure and an asset for the area.

#### Future role

The Darkinjung LALC is the single largest land owner in the North Wyong Region and currently have a major Part 3A proposal for an industrial subdivision in the Bushells Ridge area. Investigations are currently being undertaken to address the Director-Generals Requirements. A large approximately 190 hectare subdivision to the north of

motorway link is the subject of a Part 3A proposal. A smaller 72 lot, approximately 40 hectare subdivision to the south of the Motorway link is also in the early planning stages.

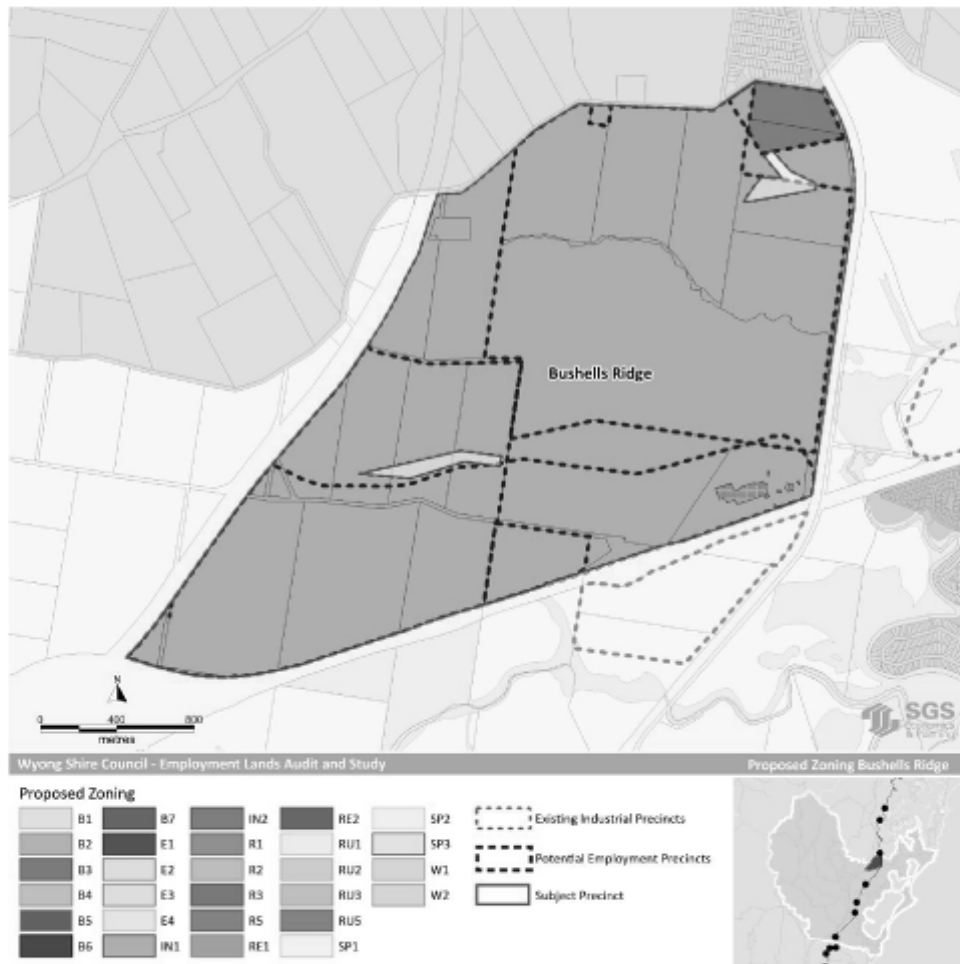
A parcel of land between Tooheys Road and the Motorway link owned by Hunter Land has been approved for industrial subdivision. There are 18 lots in total ranging from 4,000 square metres to 9,000 square metres. The site is 15 hectares in total of which 11 are Net Developable Hectares.

The Wallarah No. 2 colliery proposal is located to the west of the Darkinjung lands in Bushells Ridge. This site is unlikely to be developed for industrial purposes in the short to medium term, but opportunity should be preserved.

The North Wyong Shire Structure Plan and the Wyee Structure Plan identify land to the north of the Bushells Ridge North East precinct as a potential location for increased residential development. This may impact the employment opportunities in the area and increase demand for light industrial services in the northern parts of the precinct and therefore potentially impacting the precincts future role.

It is proposed to zone the majority of the precinct as IN1 with a small amount of IN2 in the north east.

FIGURE 23. BUSHHELLS RIDGE PROPOSED ZONING



## Charmhaven industrial

### Precinct character

Charmhaven is zoned 4b Light Industrial under the Wyong Environmental Plan 1991 (Figure 24).

FIGURE 24. CHARMHAVEN ZONING MAP



Source: SGS Economics and Planning, 2012

The Charmhaven industrial area is located approximately 12 kilometres to the north of Wyong centre, on the western side of the Pacific Highway. The functional character of the Charmhaven industrial area is dominated by a mix of small factory, warehouse and showroom/bulky goods retail activities. There is 120,540 square metres of floorspace at an FSR of 0.2:1. Local Light industrial is the most dominant land use with 46 percent of total floorspace, followed by Light Manufacturing (18 percent) and Business Park (12 percent).

The primary users of the precinct include local light industry and urban support buildings, warehouses and distribution centres, and several automotive repair businesses.

### Precinct audit

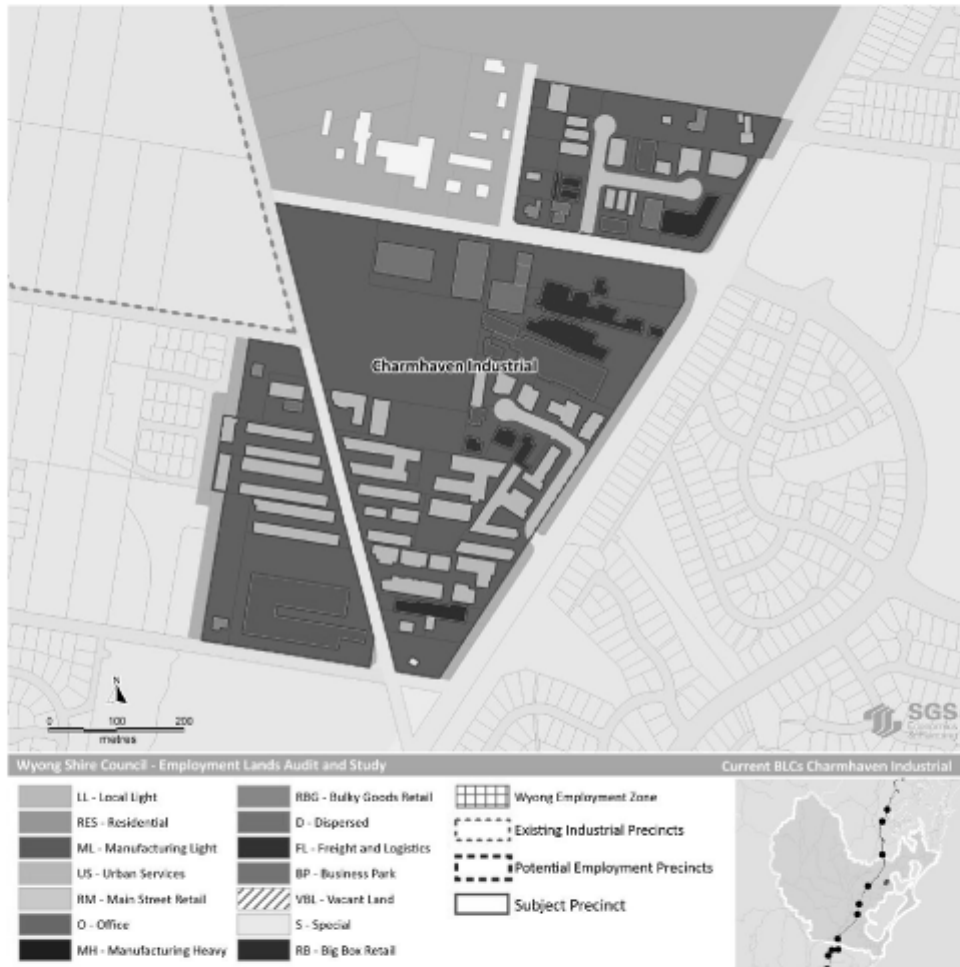
Local Light industrial is the most dominant land use with 46 percent of total floorspace, followed by Light Manufacturing (18 percent) and Business Park (12 percent). There are 614 jobs in Charmhaven with Local Light industrial being the largest employer, comprising 53 percent of the total workforce followed by Freight and Logistics

at 27 percent. At a one-digit ANZSIC level, the largest employers are Manufacturing (42 percent), Retail Trade (12 percent), Construction (11 percent) and Other Services (11 percent).

Charmhaven has approximately 0.8 hectares of vacant land (of which all is unconstrained). There is approximately 18,505 square metres of vacant floorspace in Charmhaven. It has an average job density of around 1 job per 207 square metres of floorspace or eight jobs per hectare.

The precinct has a low overall FSR of 0.2:1.

FIGURE 25. CHARMHAVEN AUDIT FINDINGS



Source: SGS Economics and Planning, 2012

**Opportunities and constraints**

Based on our opportunities analysis Charmhaven is ranked 12<sup>th</sup> out of 34 existing and potential employment precincts with a constraints score of -7.0 indicating that it is relatively unconstrained compared to other lands in the shire (Figure 26). Based on our locational based BLC criteria, Local Light industrial and Freight and Logistics are the most suitable industries for Charmhaven.

Subject to the resolution of biodiversity issues, there may also be additional employment potential in the area to the immediate north of Charmhaven, within the area identified by the Structure Plan as being a Strategic Site.

FIGURE 26. CHARMHAVEN CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

- There were no issues raised by businesses in the course of consultation around potential improvements to the Charmhaven estate. Close proximity to the retail facilities at Lake Haven Shopping Centre was seen as the most important asset in attracting and retaining staff, providing access to food and general retail.

**Future role**

In contrast with other larger estates on the Central Coast, which accommodate operations of large national and multi-national enterprises, much of the activity at Charmhaven is orientated towards servicing the needs of the local community. This local service focus needs to be preserved, given the potential for Charmhaven to play an important role in supporting future construction activity associated with future urban development of the Shire. The role of this precinct could be supported by industrial expansion at Warnervale North East.

The IN2 zone is proposed for this precinct.

FIGURE 27. CHARMHAVEN PROPOSED ZONING

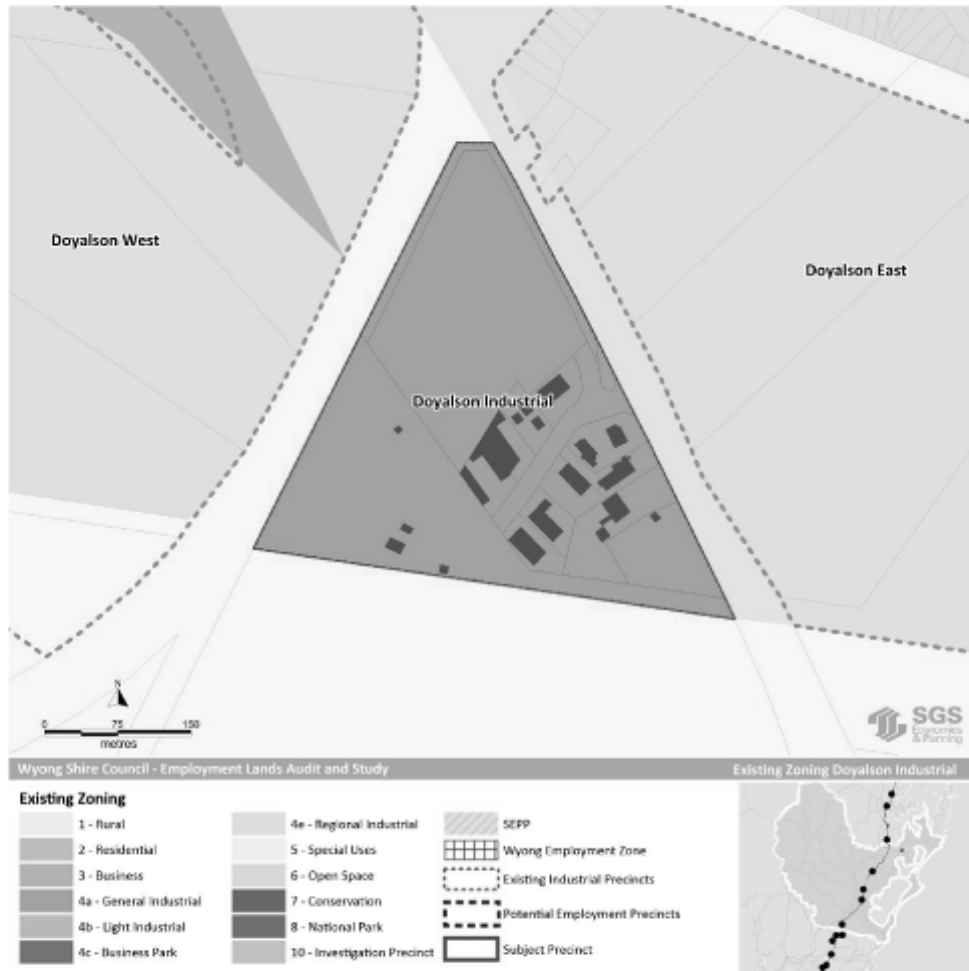


**Doyalson industrial**

*Precinct character*

Doyalson is zoned 4a General Industrial under the Wyong Environmental Plan 1991 (Figure 28).

**FIGURE 28. DOYALSON ZONING MAP**



Source: SGS Economics and Planning, 2012

The Doyalson site is constrained by the existence of a biodiversity corridor transecting the breadth of the site in an east-to-west pattern. Risks associated with bushfires also present an additional constraint to future use. Doyalson currently has 9,403 square metres of floorspace at an FSR of 0.1:1. Existing uses include Local Light industrial, which accounts for approximately two-thirds (62 percent) of total floorspace, followed by Light Manufacturing (26 percent). The precinct offers approximately 324,000 square metres of vacant land, with 712 square metres of vacant floorspace.

*Precinct audit*

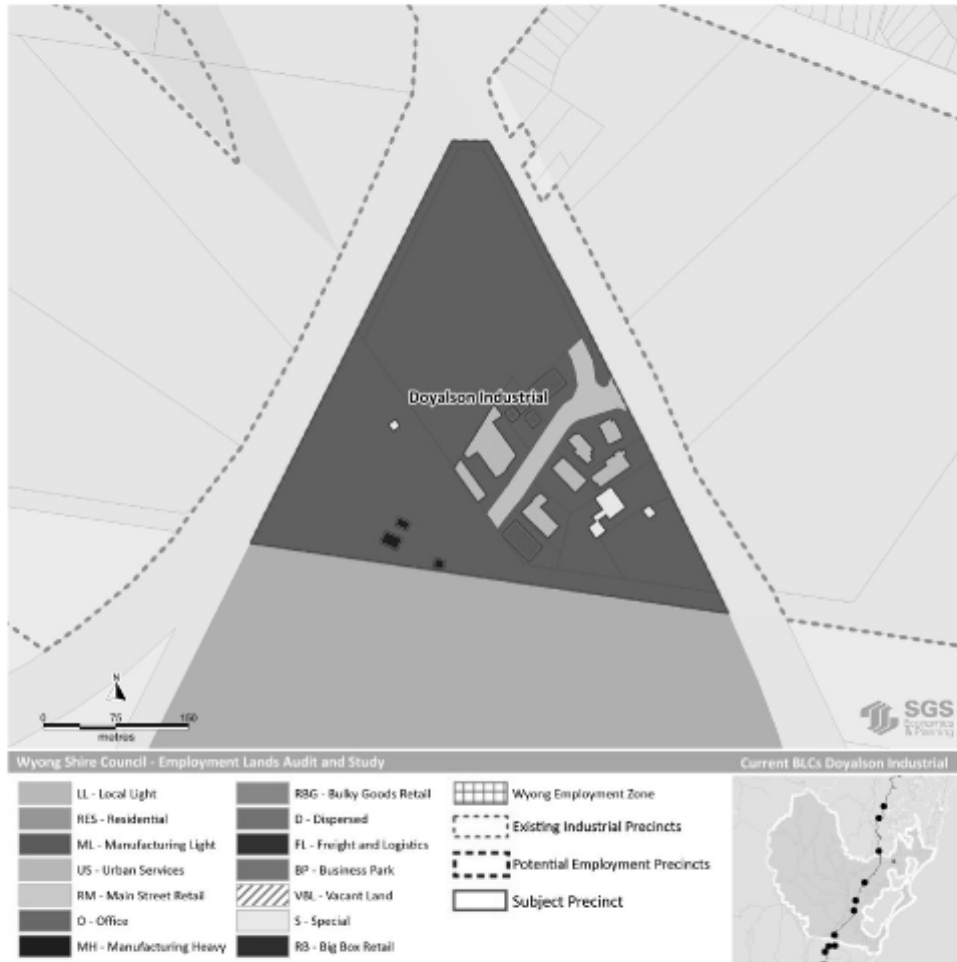
There are currently 9,403 square metres of floorspace at an FSR of 0.1:1. There are 60 jobs in Doyalson with Local Light industrial and Urban Services equally the largest employers with 47 percent of the total workforce. At a one-digit ANZSIC level, the largest employers are Manufacturing (55 percent), Other Services (33 percent) and Retail Trade (12 percent).



Doyalson has approximately 44,180 square metres of vacant land, which comprises 6 percent of total industrially zoned land area. There are no vacant buildings. It has an average job density of 1 job per 157 square metres of floorspace or 8 jobs per hectare.

The precinct has an overall FSR of 0.1:1.

FIGURE 29. DOYALSON AUDIT FINDINGS



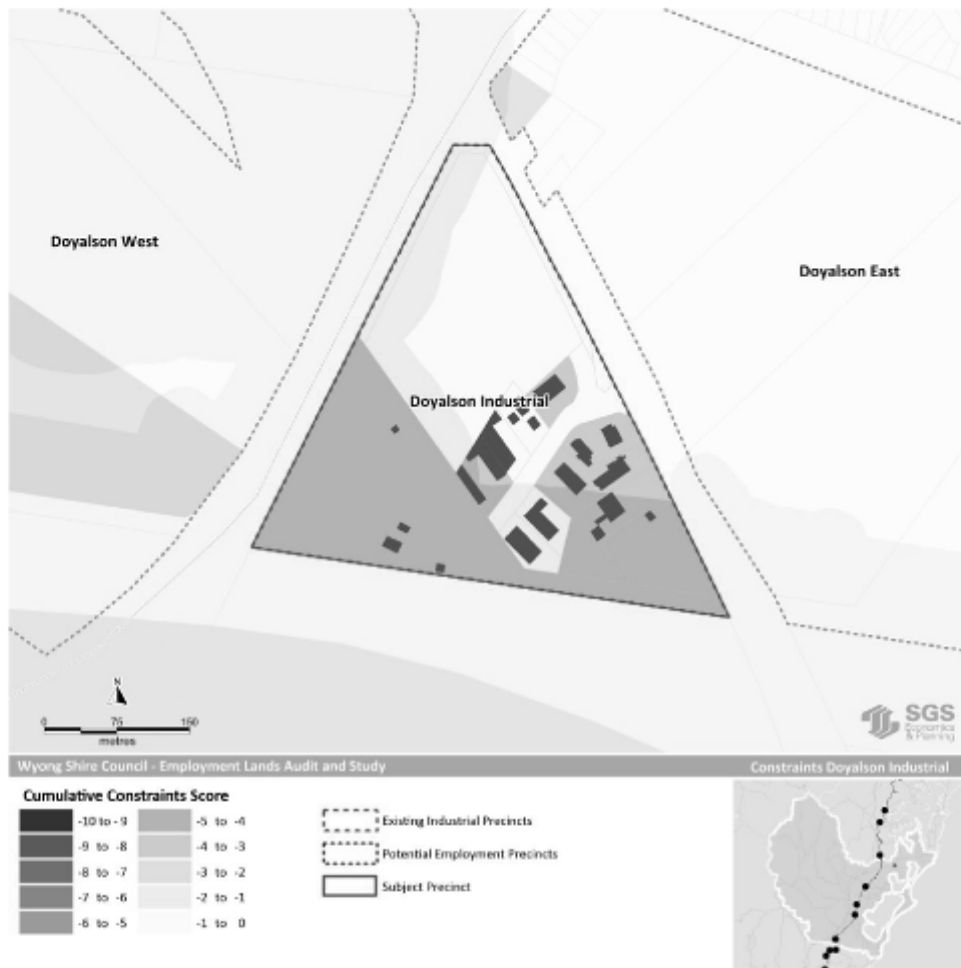
Source: SGS Economics and Planning, 2012

**Opportunities and constraints**

Based on our opportunities analysis Doyalson is ranked 14<sup>th</sup> out of 34 existing and potential employment precincts with a constraint score of -7.0 (Figure 30). Based on our locational based BLC criteria, Local Light industrial and Freight and Logistics are the most suitable industries for Doyalson.

There may also be potential for minor expansion to the south, subject to resolution of issues associated with the proposed east-west biodiversity corridor identified in the Structure Plan.

FIGURE 30. DOYALSON CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

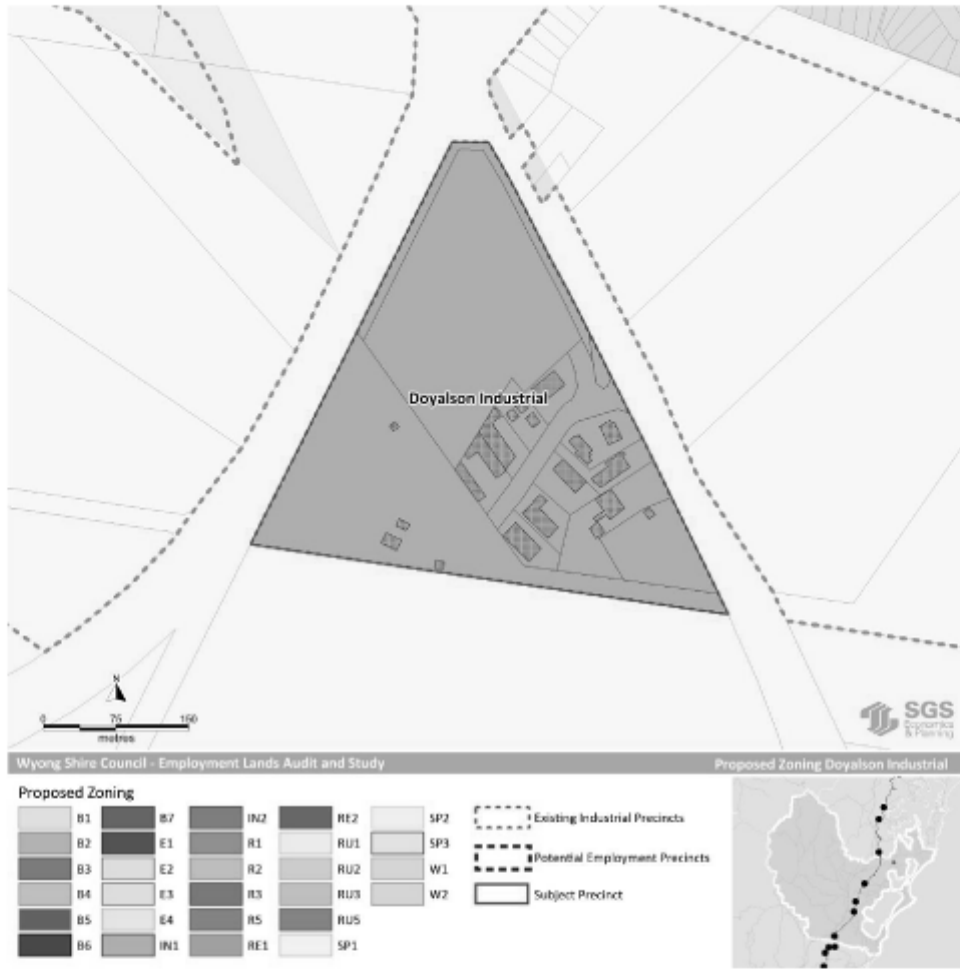
- Management of environmental impacts associated with development in areas near the biodiversity corridor; permissibility of development within the corridor also needs to be established. This is expected to reduce the volume of land available for future industrial development.

**Future role**

Local service role for established residential communities to continue.

It is proposed to zone the precinct as IN1.

FIGURE 31. DOYALSON INDUSTRIAL PROPOSED ZONING

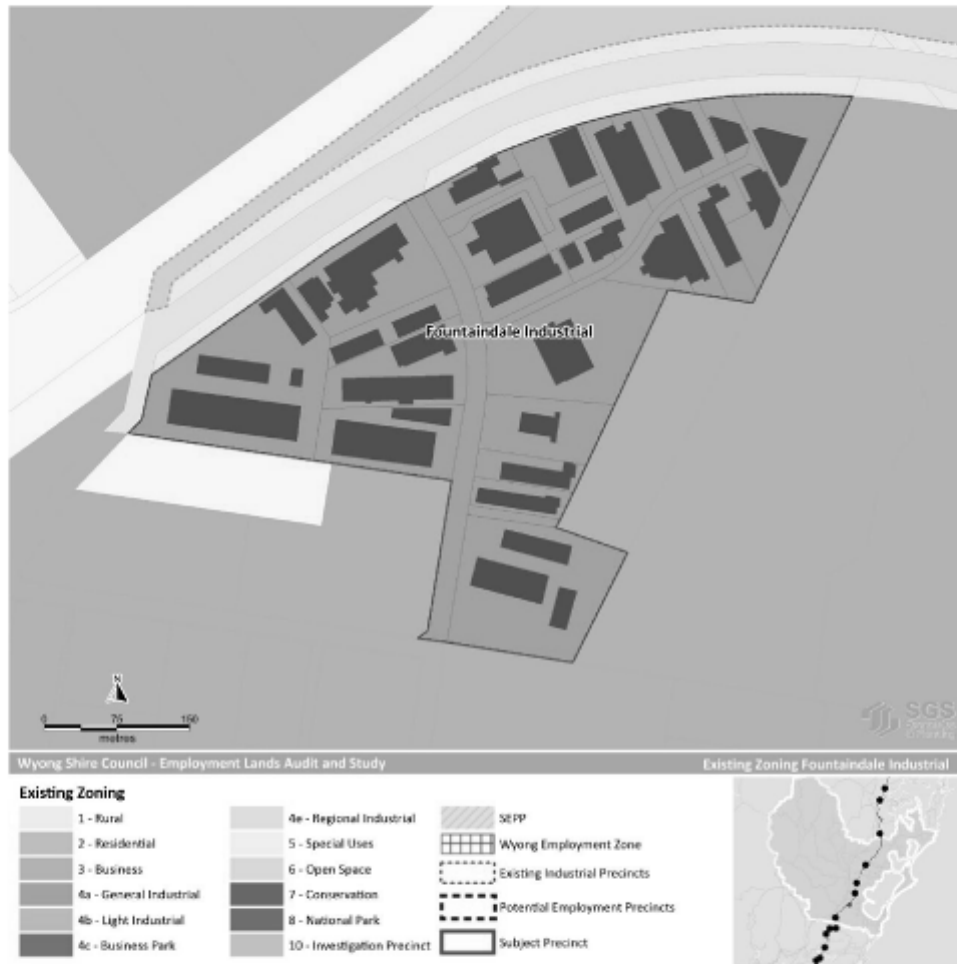


## Fountaindale Industrial

### Precinct character

Fountaindale is zoned 4a General Industrial under the Wyong Environmental Plan 1991 (Figure 32).

FIGURE 32. FOUNTAINDALE ZONING MAP



The Fountaindale industrial precinct is located favourably with relation to road networks, and is relatively isolated from residential development. The western area of the precinct contains mostly light manufacturing and industrial uses, while the eastern areas contain business-park type usages. Fountaindale currently has 66,856 square metres of floorspace at an FSR of 0.4:1. Light Manufacturing is the most dominant land use, accounting for two-thirds of total floorspace (66 percent), followed by Local Light industrial (29 percent). Fountaindale has approximately 5,100 square metres of vacant land (which comprises less than 1 percent of total industrially zoned land area), with 2,121 square metres of vacant floorspace. A comparative land assessment undertaken by SGS identified Somersby and Lisarow as potentially comparable to Fountaindale.

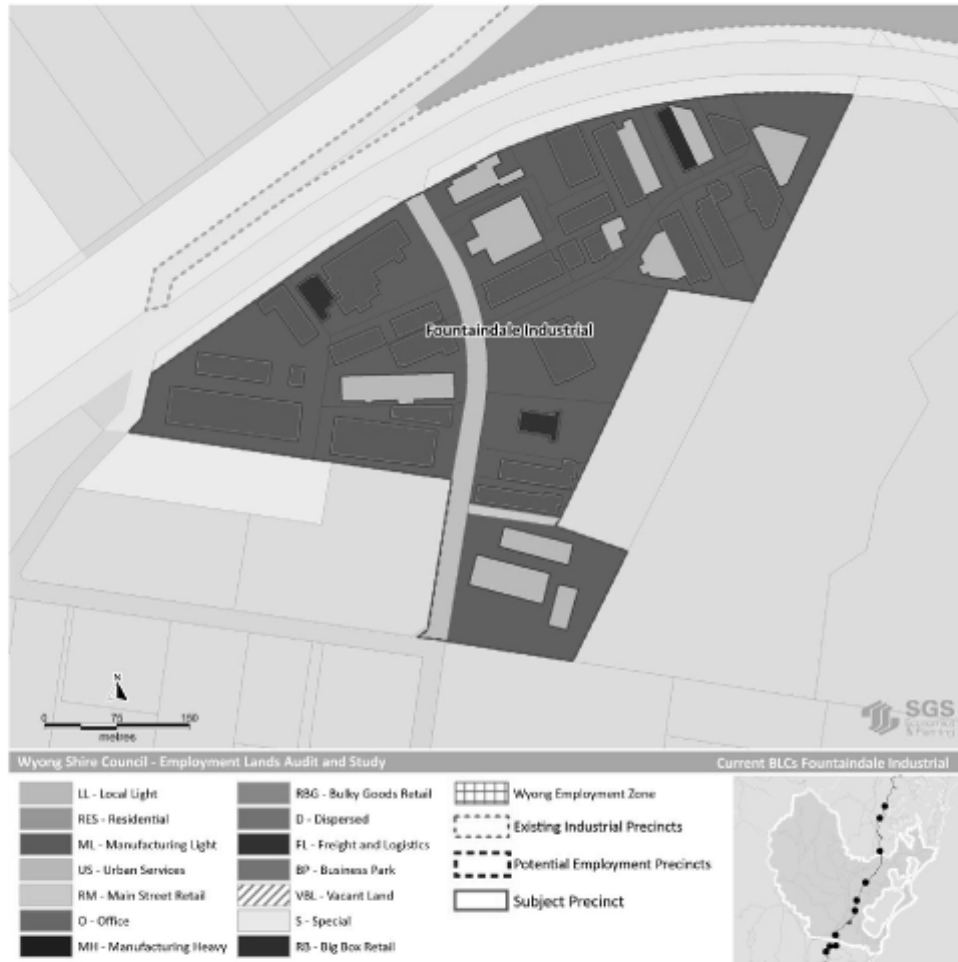
### Precinct audit

Light Manufacturing is the most dominant land use with 66 percent of total floorspace, followed by Local Light industrial with 29 percent of total floorspace. There are 157 jobs in Fountaindale with Local Light industrial being the largest employer, comprising 61 percent of the total workforce followed by Light Manufacturing at 33 percent. At a one-digit ANZSIC level, the largest employers are Manufacturing (63 percent) and Construction (24 percent).

It has an average job density of 1 job per 426 square metres of floorspace or 9 jobs per hectare.

The precinct has an overall FSR of 0.4:1.

FIGURE 33. FOUNTAINDALE AUDIT FINDINGS



*Opportunities and constraints*

Based on our opportunities analysis Fountaindale is ranked 5<sup>th</sup> out of 34 existing and potential employment precincts with a constraint score of -2.2 indicating that it is relatively unconstrained compared to other lands in the shire (Figure 34). Based on our locational based BLC criteria, Freight and Logistics and Light Manufacturing are the most suitable industries for Fountaindale.

Our figures show that the precinct will reach capacity in the short term. Therefore we have allocated excess demand elsewhere in the LGA. However, there could be potential to explore expanding the precinct to the south as it appears to be relatively unconstrained. This would require further investigation.

FIGURE 34. FOUNTAINDALE CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

- Traffic impacts relating to the residential area/school on the southern edge of the precinct may require attention if there is any in site expansion. Currently, access to the school is possible only through industrial areas.

**Future role**

Local service role for established residential communities to continue

The IN1 zone is proposed for this precinct.

FIGURE 35. FOUNTAINDALE PROPOSED ZONING



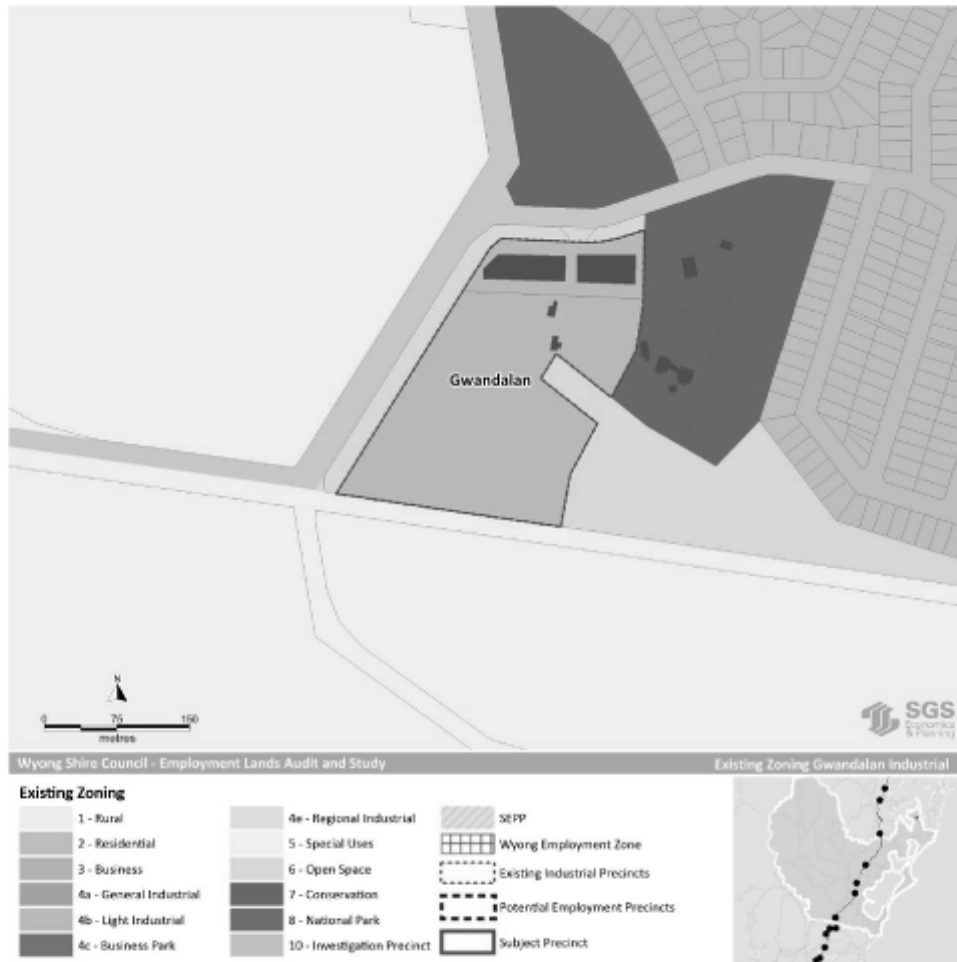
Source: SGS Economics and Planning, 2012

## Gwandalan Industrial

### Precinct character

Gwandalan is zoned 4b Light Industrial under the Wyong Environmental Plan 1991 (Figure 36).

FIGURE 36. GWANDALAN ZONING MAP



Source: SGS Economics and Planning, 2012

The Gwandalan industrial precinct is located in the far north of Wyong Shire in an urban fringe setting away from arterial roads. The precinct is affected by a number of environmental constraints, owing largely to its location on a peninsula within an area currently retaining strong bushland risk. Gwandalan currently has 4,995 square metres of floorspace at an FSR of 0.1:1. Local Light industrial is the predominant land use category in Gwandalan, with the remaining zoned industrial land comprising Residential. The precinct is relatively isolated and serves a local catchment, and hence has no strong competitor within Wyong or neighbouring LGAs.

### Precinct audit

Local Light industrial is the predominant BLC in Gwandalan, with the remaining zoned industrial land comprising Residential. There are 16 jobs in Gwandalan, all of which are within Local Light industrial. At a one-digit ANZSIC level the largest employers are Retail Trade (50 percent) and Other Services (50 percent).

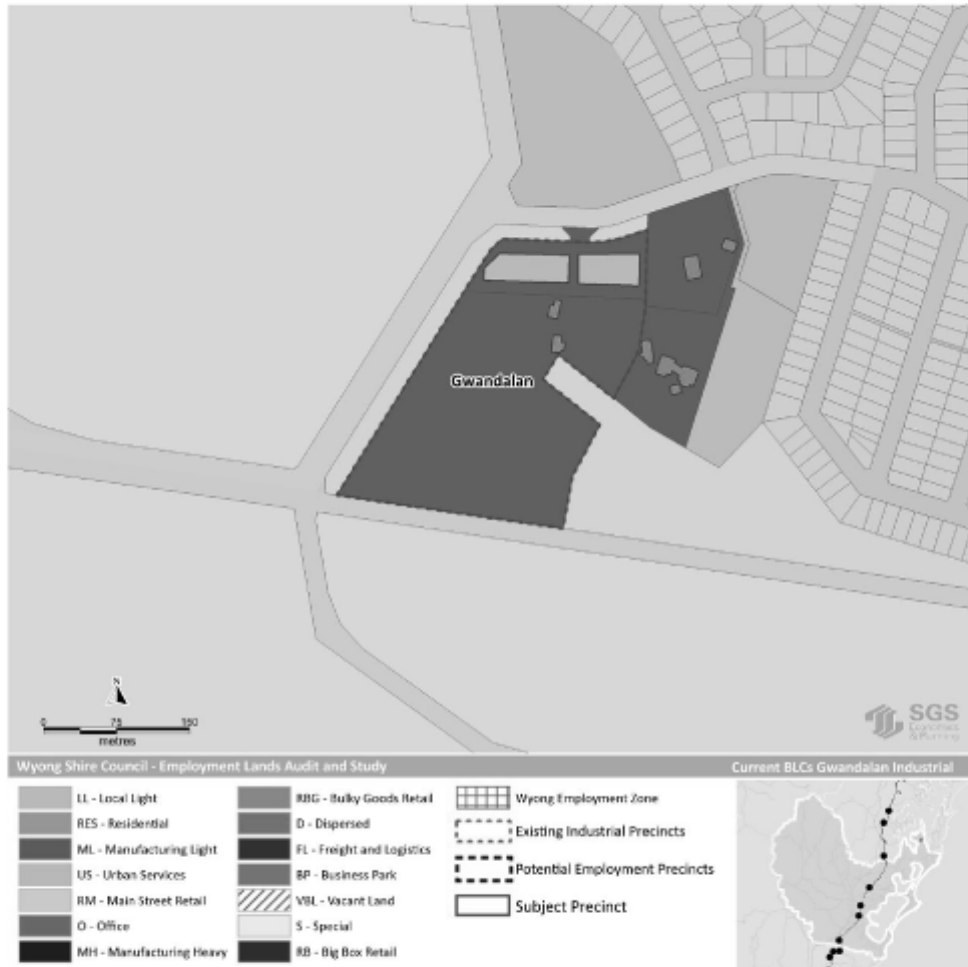
There is 9,943 square metres of vacant land in Gwandalan, with 1,819 square metres of vacant floorspace, representing 1.3 percent of total industrial land. Gwandalan has an average job density of around 1 job per 312



square metres of floorspace or 15 jobs per hectare. However, the lots that are occupied are very large with plenty of space for redevelopment.

The precinct has a low overall FSR of 0.1:1.

FIGURE 37. GWANDALAN AUDIT FINDINGS



Source: SGS Economics and Planning, 2012

**Opportunities and constraints**

Based on our opportunities analysis Gwandalan is ranked 4<sup>th</sup> out of 34 existing and potential employment precincts with a constraint score of -1.6 indicating that it is relatively unconstrained compared to other lands in the shire (Figure 38). Based on our locational based BLC criteria, Local Light industrial and Light Manufacturing and are the most suitable industries for Gwandalan., though all of this is possible to the rear of the current activities which are mainly service retail and providing a hub for the local residential population.

FIGURE 38. GWANDALAN CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

- Environmental constraints, including mine subsidence and bushfire risks.
- Distance from arterial roads and rail links, serving only a limited labour pool/catchment.

**Future role**

The Structure Plan identifies this site as being suitable for a future centre that will service the expanded residential population.

Don Fox Planning supports a new neighbourhood centre (1500msq) as part of the new residential release in the Gwandalan area.

A combination of B1 (to the street frontage) and IN2 (to the rear) zones are proposed for the precinct. The exact boundary for this split needs to be established following consideration of the parking and cartilage requirements of the proposed uses.

FIGURE 39. GWANDALAN PROPOSED ZONING

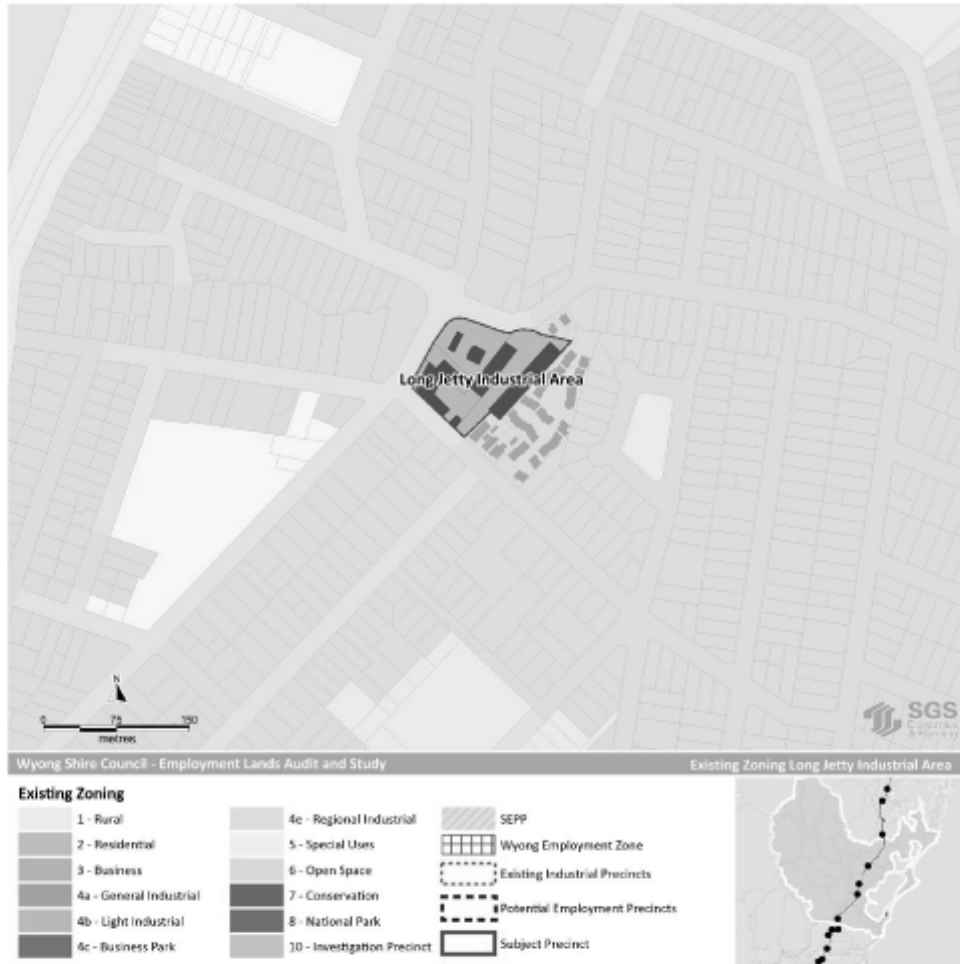


## Long Jetty Industrial Area

### Precinct character

Long Jetty Industrial is zoned 4b Light Industrial under the Wyong Environmental Plan 1991 (Figure 40).

FIGURE 40. LONG JETTY ZONING MAP



Source: SGS Economics and Planning, 2012

The Long Jetty Industrial precinct is located in an urban setting, immediately adjacent to the Central Coast Highway, accommodating light industrial, freight and logistics and light manufacturing uses. Long Jetty currently has 4,459 square metres of floorspace at an FSR of 0.2:1. Local Light is the most dominant land use category in the precinct, with 63 percent of total floorspace, with the remainder Mainstreet Retail (37 percent).

### Precinct audit

Local Light is the most dominant BLC in the industrial zone with 63 percent of total floorspace, followed by Mainstreet Retail (37 percent). There are 25 jobs in Long Jetty Industrial, with Mainstreet Retail being the largest employer comprising 56 percent of the total workforce followed by Local Light industrial at 44 percent. At a one-digit ANZSIC level, the largest employers are Construction (44 percent), Retail Trade (44 percent) and Arts and Recreation Services (12 percent).

Long Jetty Industrial has 354 square metres of vacant floorspace. It has an average job density of 1 job per 187 square metres of floorspace or 21 jobs per hectare.

The precinct has an overall FSR of 0.2:1.

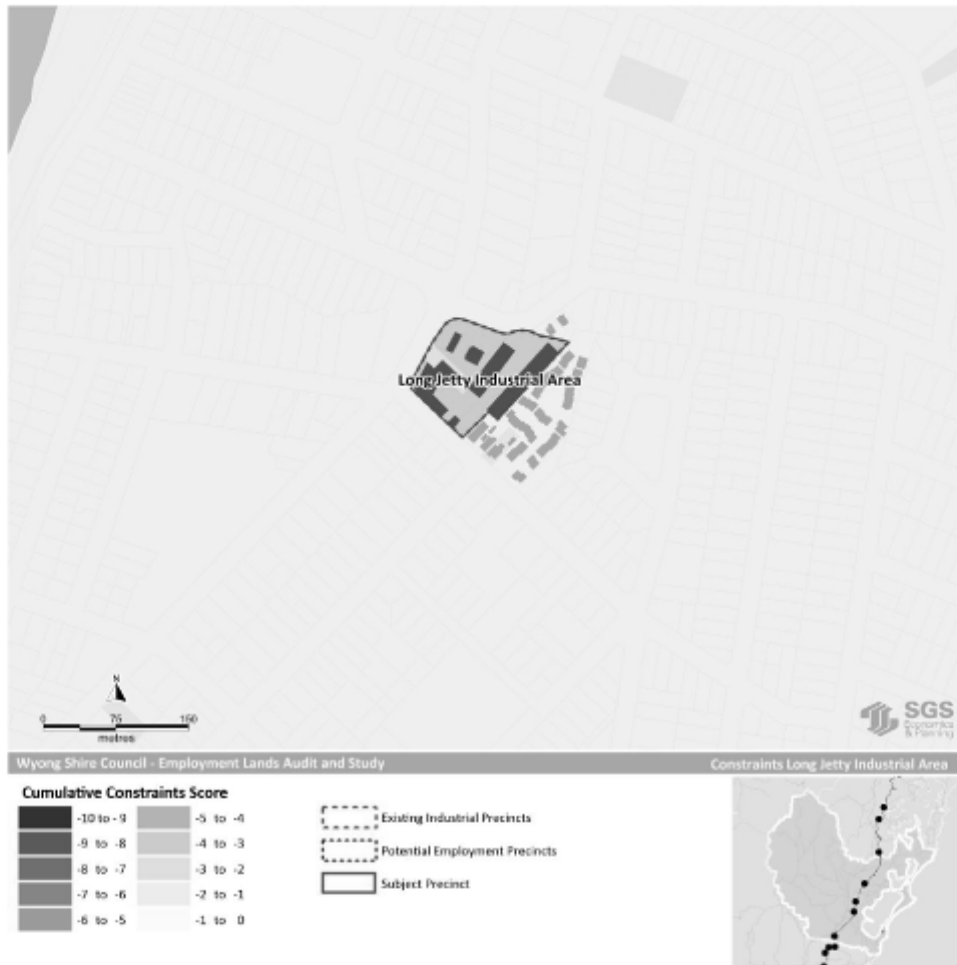
FIGURE 41. LONG JETTY AUDIT FINDINGS



*Opportunities and constraints*

Based on our opportunities analysis Long Jetty Industrial is ranked 3<sup>rd</sup> out of 34 existing and potential employment precincts with a constraint ranking of -1.0 (Figure 42). Based on our locational based BLC criteria, Local Light industrial and Freight and Logistics are the most suitable industries for Long Jetty Industrial.

FIGURE 42. LONG JETTY CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

– None recorded.

**Future role**

There is limited growth potential for the precinct as it is already built-up. The local service role for established residential communities to continue.

The IN2 zone is proposed for the precinct.

FIGURE 43. LONG JETTY PROPOSED ZONING

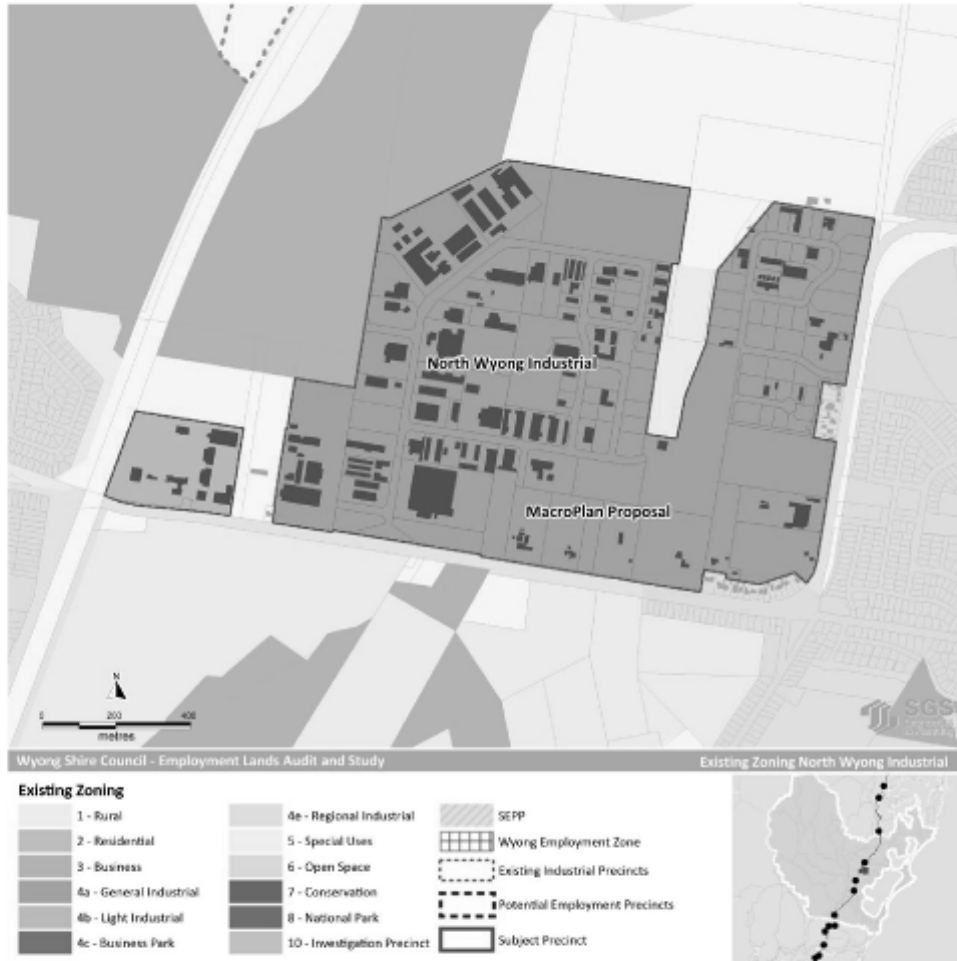


### North Wyong Industrial Area

*Precinct character*

North Wyong is zoned 4a General Industrial and partially 4b Light Industrial under the Wyong Environmental Plan 1991 (Figure 44).

**FIGURE 44. NORTH WYONG ZONING MAP**



Source: SGS Economics and Planning, 2012

The North Wyong Industrial Estate is located on the northern side of the Pacific Highway, approximately three kilometres to the north of the Wyong town centre. Comprised of multi-unit buildings accommodating warehouses/distribution and light manufacturing uses, the estate covers an area of approximately 150 hectares and is subdivided into allotments varying from one to 15 hectares, almost all of which have been developed.

North Wyong Industrial currently has 271,672 square metres of floorspace at an FSR of 0.2:1. Light Manufacturing is the most dominant land use with 32 percent of total floorspace, followed by Local Light industrial (23 percent) and Freight and Logistics (21 percent). Current occupants include a diverse range of industries, the most significant being Cheminova, Dulmison Australia and Heyden Frames and Trusses.



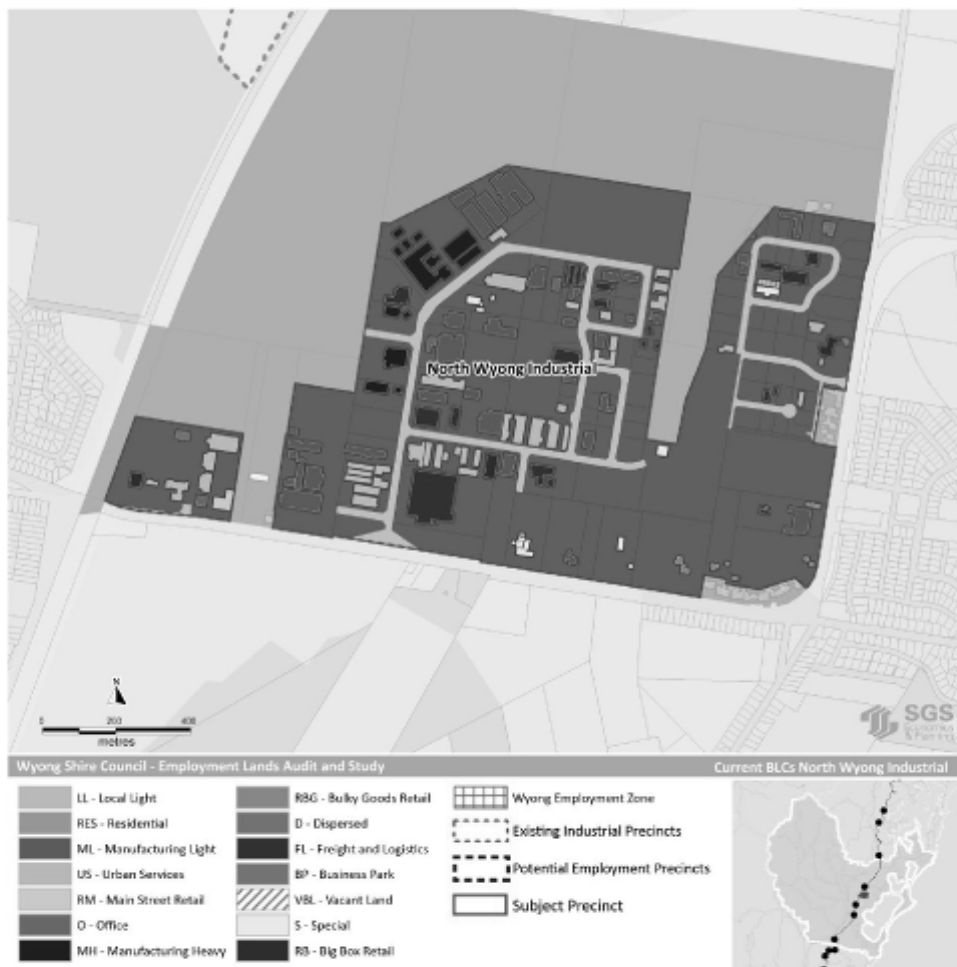
**Precinct audit**

Light Manufacturing is the most dominant land use with 32 percent of total floorspace, followed by Local Light industrial (21 percent) and Freight and Logistics (21 percent). There are 2,091 jobs in North Wyong with Freight and Logistics being the major employer comprising 39 percent of total jobs, followed by Light Manufacturing (21 percent) and Local Light industrial (19 percent). At a one-digit ANZSIC level, the largest employer is Manufacturing (48 percent).

North Wyong Industrial has 32 hectares of vacant land (1.5 hectares of which is unconstrained), which comprises 39.3 percent of total industrially zoned land area. There is 15,706 square metres of vacant floorspace which is equal to around seventeen percent of total floor space. It has an average job density of around 1 job per 130 square metres of floorspace or 21 jobs per hectare.

The precinct has a low overall FSR of 0.2:1.

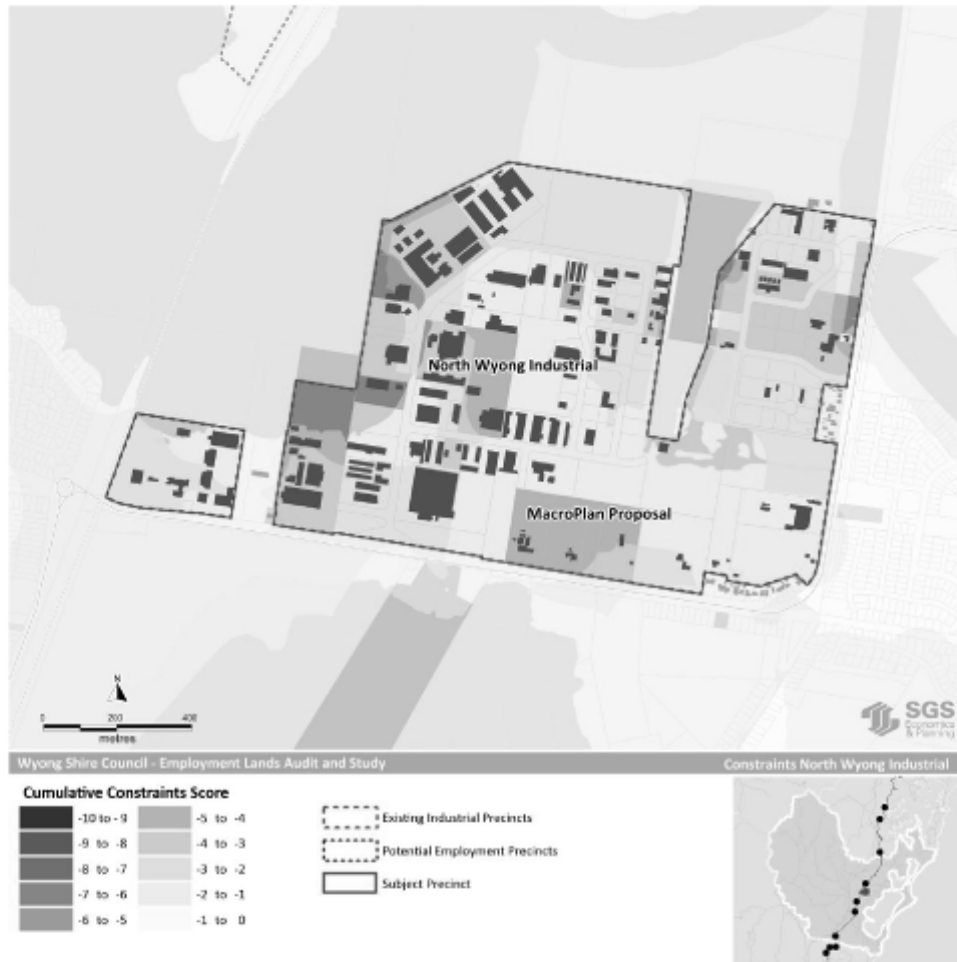
**FIGURE 45. NORTH WYONG AUDIT FINDINGS**



**Opportunities and constraints**

Based on our opportunities analysis North Wyong is ranked 9<sup>th</sup> out of 34 existing and potential employment precincts with a constraint ranking of -3.2 (Figure 46). Based on our locational based BLC criteria, Local Light Industrial and Light Manufacturing industrial are the most suitable industries for North Wyong.

FIGURE 46. NORTH WYONG CONSTRAINTS



Source: SGS Economics and Planning, 2012

#### Key assets and issues

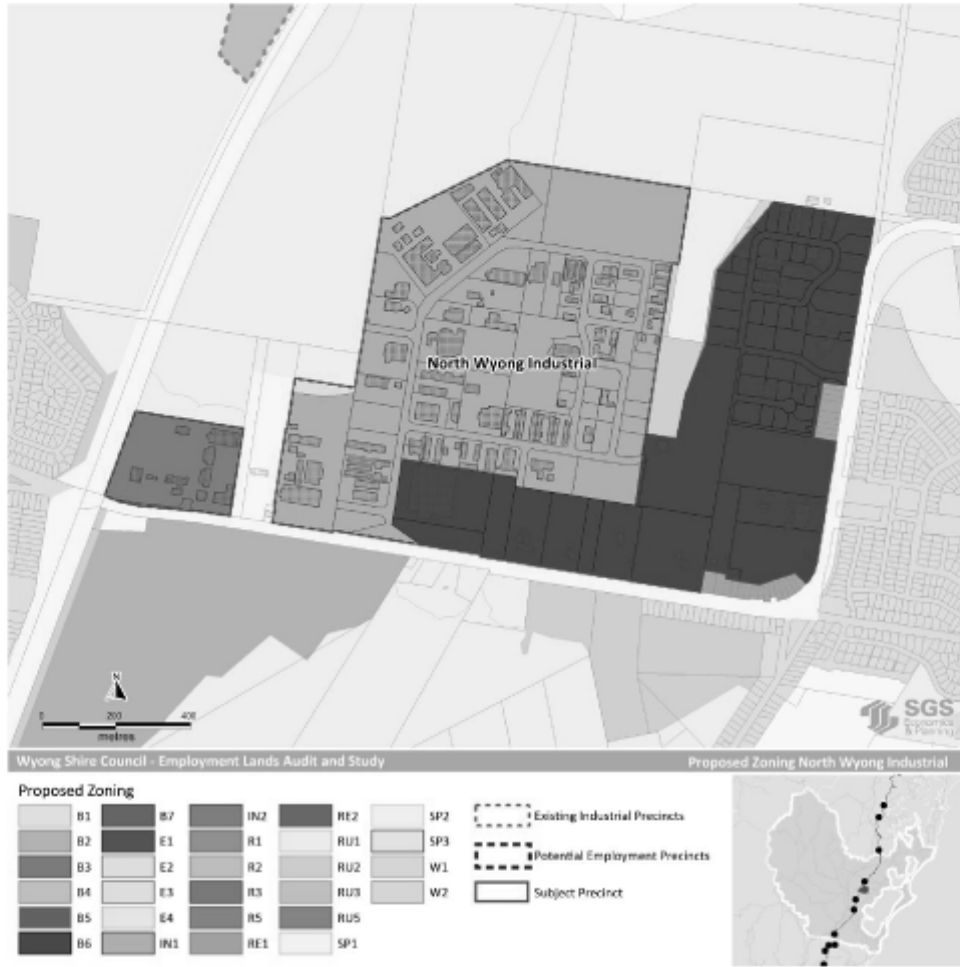
- Consultation with landholders identified the need for separation between industry and residential/retail uses, and the current single point of access off the Pacific Highway as primary issues of concern.
- Good bus services and close to Wyong town centre and Railway Station promote ease of access, with satisfactory retail services.
- Difficult to access from the Freeway. Depends on the link road. It then enjoys fast access to the expressway with minimal impact on residential.

#### Future role

Frontage to Pacific Highway could evolve and intensify and play more of a service and highway enterprise role (to be facilitated by ultimate provision of Link Road); otherwise grow as a major manufacturing and service industry hub to the edge of the Wyong-Tuggerah Major Centre. The area will have a limited retail role.

The IN1 and B6 zones are proposed for the precinct.

FIGURE 47. NORTH WYONG PROPOSED ZONING



Source: SGS Economics and Planning, 2012

## Ourimbah Industrial Area

### Precinct character

Ourimbah is zoned 4b Light Industrial under the Wyong Environmental Plan 1991 (Figure 48).

FIGURE 48. OURIMBAH ZONING MAP



The Ourimbah Industrial precinct is an urban site located on the Pacific Highway. The precinct incorporates light industrial, freight and logistics, light manufacturing and urban service uses.

Ourimbah currently has 6,060 square metres of floorspace at an FSR of 0.1:1.

### Precinct audit

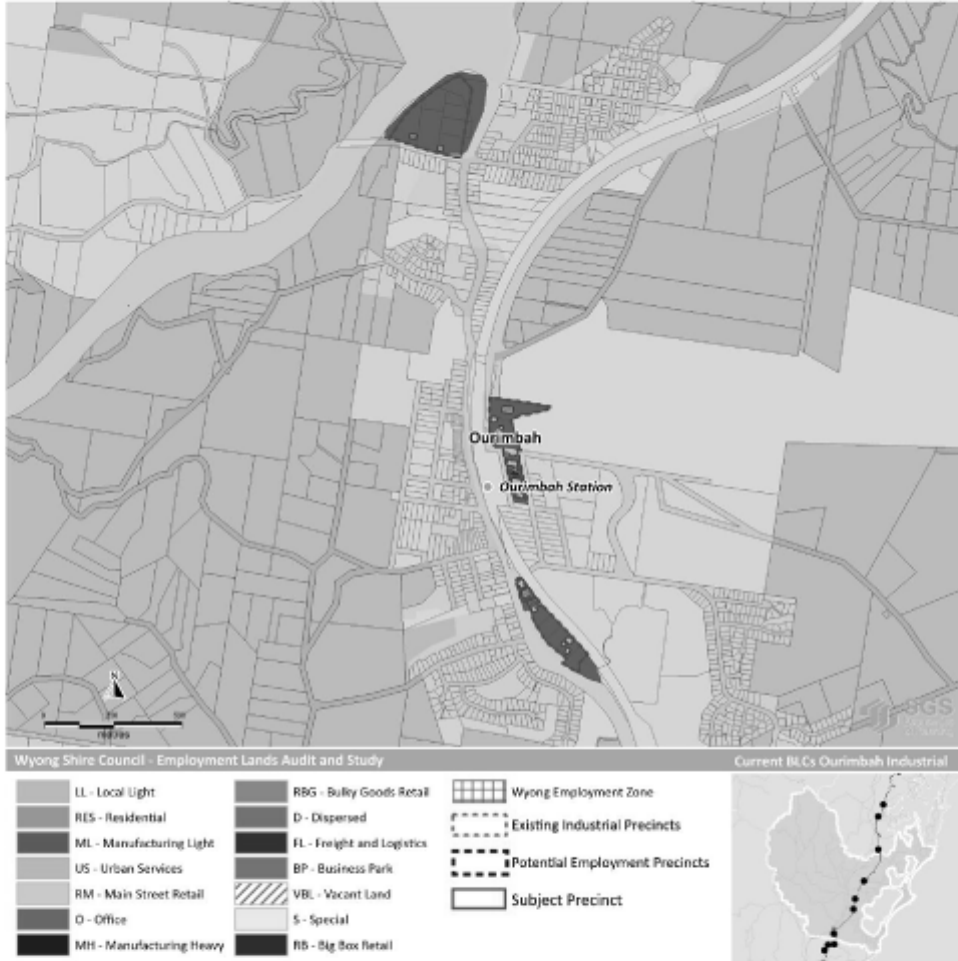
Local Light industrial (20 percent), Residential (18 percent) and Light Manufacturing (15 percent) are the largest BLCs in Ourimbah industrial area. There are 60 jobs in Ourimbah with Local Light industrial being the largest industrial employer with 75 percent of the total workforce. At a one-digit ANZSIC level, the largest employers are Other Services (88 percent) and Wholesale Trade (10 percent).

Ourimbah has approximately 44,102 square metres of vacant land, which comprises 6 percent of total industrially zoned land area. There are 2,505 square metres of vacant floorspace which equates to approximately 3 percent of

total floorspace. Ourimbah has an average job density of around 1 job per 101 square metres of floorspace or 20 jobs per hectare.

The precinct has a low overall FSR of 0.1:1.

FIGURE 49. OURIMBAH AUDIT FINDINGS

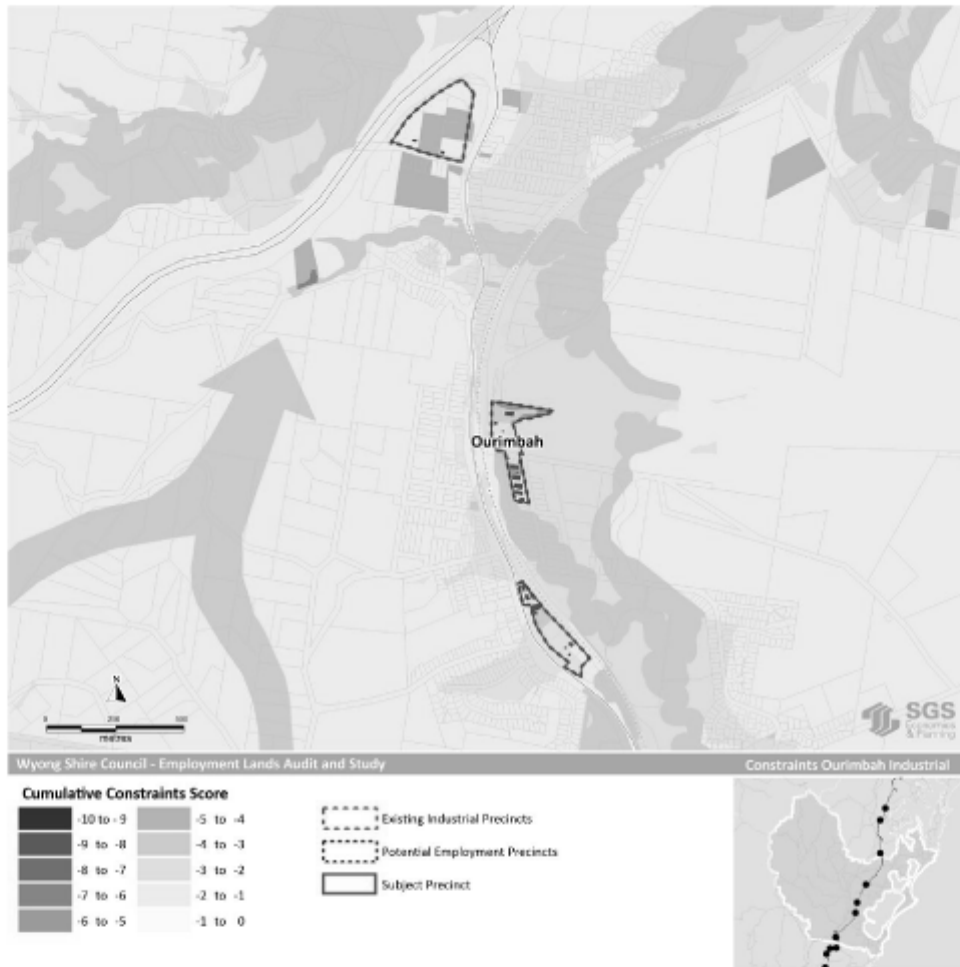


Source: SGS Economics and Planning, 2012

**Opportunities and constraints**

Based on our opportunities analysis Ourimbah is ranked 11<sup>th</sup> out of 34 existing and additional employment precincts with a constraint score of -6.6 (Figure 50). Based on our locational based BLC criteria, Local Light industrial and Freight and Logistics are the most suitable industries for Ourimbah.

FIGURE 50. OURIMBAH CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

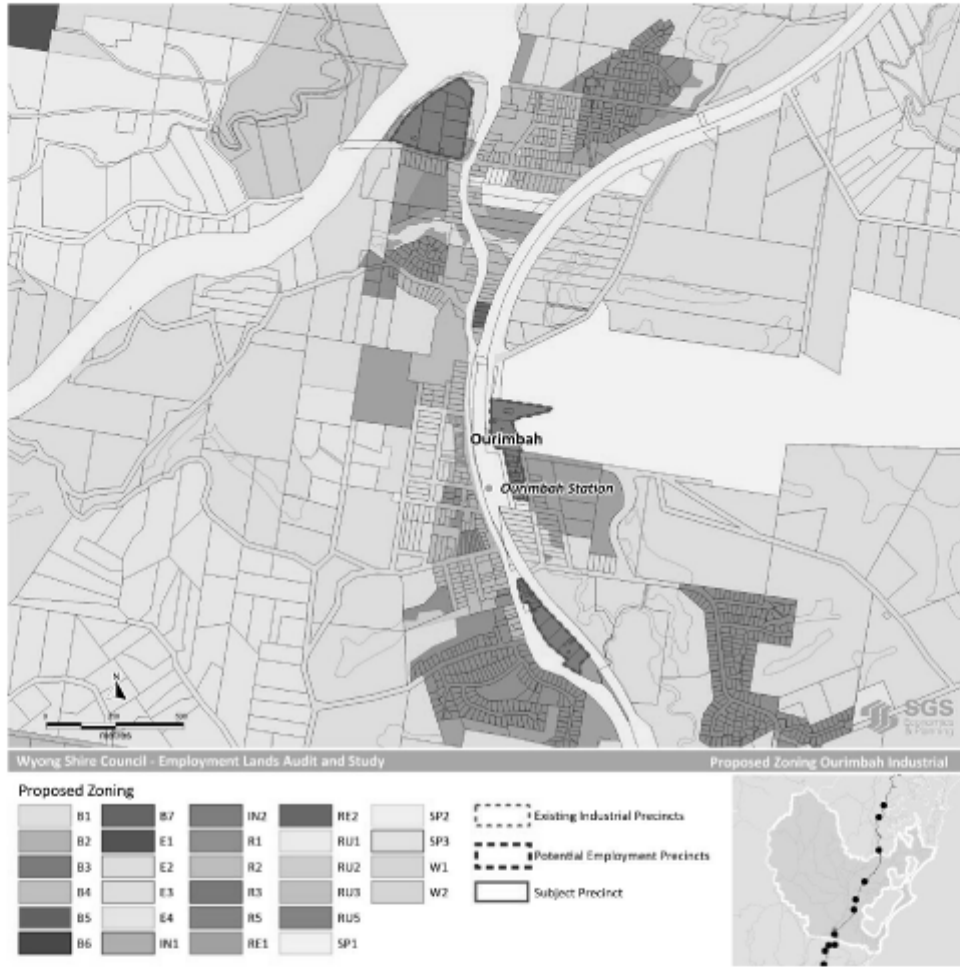
- Active, mixed-use businesses along the Pacific Highway are seen as a clear asset, enhancing the visibility of the precinct.

**Future role**

Currently contains a mix of business employment. Specific role to be clarified in relation to university, Ourimbah Town Centre and other employment activities subject to the Ourimbah Master Plan process

It is proposed to zone the precinct IN2.

FIGURE 51. OURIMBAH PROPOSED ZONING

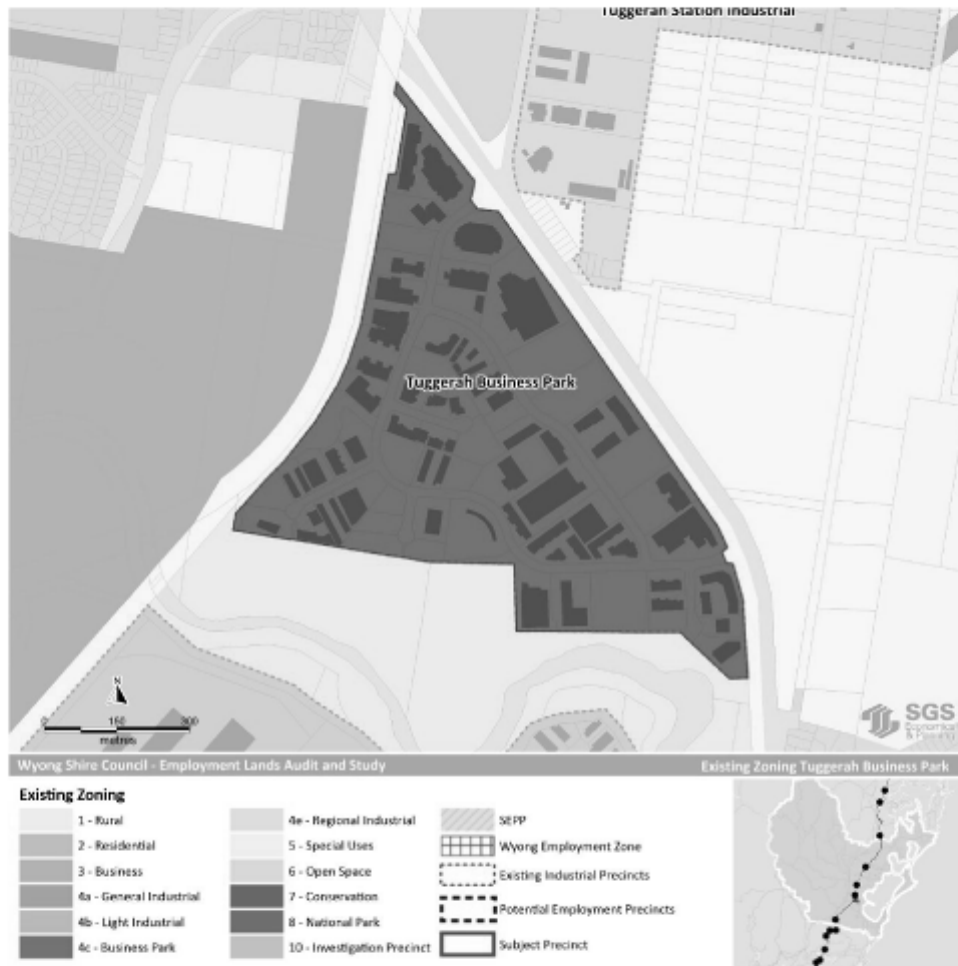


**Tuggerah Business Park**

*Precinct character*

Tuggerah Business Park is zoned 4c Business Park under the Wyong Environmental Plan 1991 (Figure 52).

**FIGURE 52. TUGGERAH BUSINESS PARK ZONING MAP**



The Tuggerah Business Park is located on the southern side of Wyong Road, less than one kilometre east of the Westfield Shoppingtown and southeast of the Tuggerah Supa Centa. It accommodates a mix of light industrial, offices and warehouses and approximately two-thirds of the total area has been developed. Major activities now include call centres for ING and the NSW Police.

Tuggerah Business Park currently has 181,024 square metres of floorspace at an FSR of 0.5:1. Freight and Logistics is the most dominant land use with 34 percent of total floorspace, followed by Business Park (31 percent) and Office (16 percent).

*Precinct audit*

Freight and Logistics is the most dominant land use with 34 percent of total floorspace, followed by Business Park (31 percent) and Office (16 percent). There are 1,377 jobs in Tuggerah Business Park with Business Park uses, at 33 percent being the largest employer, followed by Local Light Industrial with 30 percent of the total workforce and

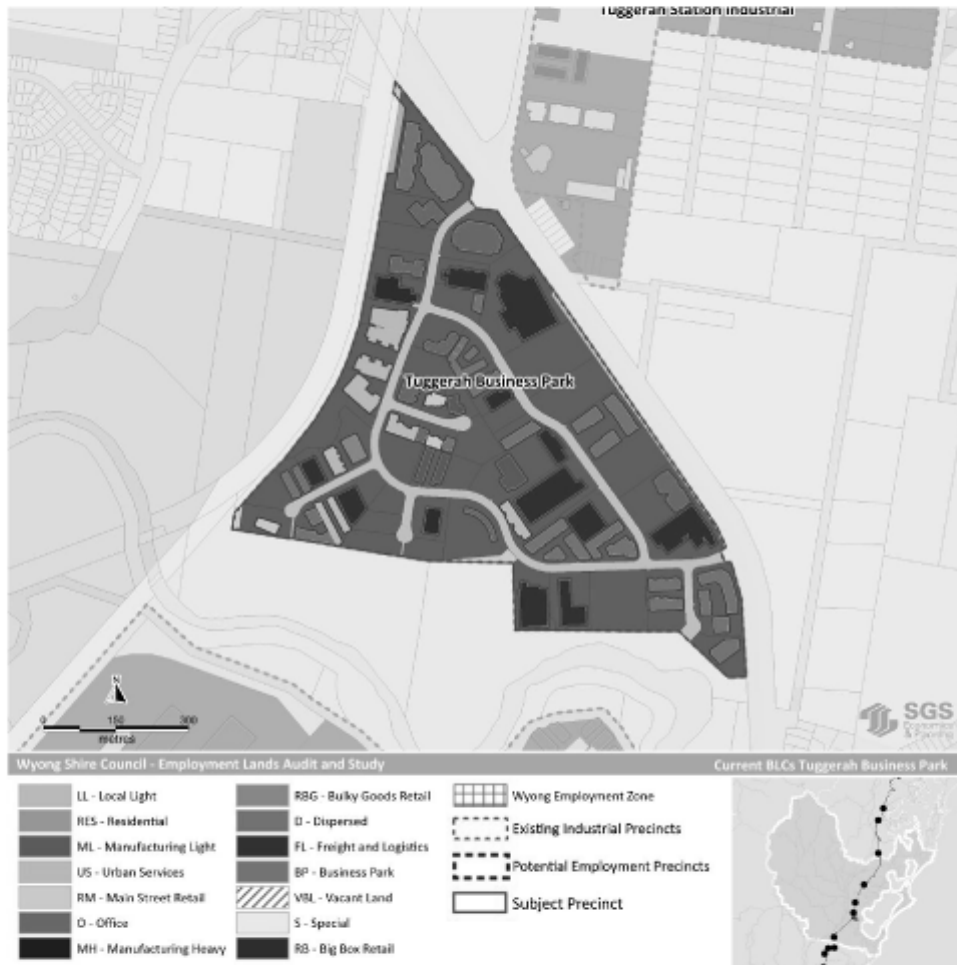


Office at 26 percent. At a one-digit ANZSIC level, the largest employers are Transport, Postal and Warehousing (29 percent), Administrative and Support Services (22 percent) and Wholesale Trade (18 percent).

Tuggerah Business Park has approximately 114,000 square metres of vacant land, which comprises 15 percent of total industrially zoned land area and 14,914 square metres of vacant floorspace. It has an average job density of 1 job per 131 square metres of floorspace or 37 jobs per hectare.

The precinct has an overall FSR of 0.5:1.

FIGURE 53. TUGGERAH BUSINESS PARK AUDIT FINDINGS

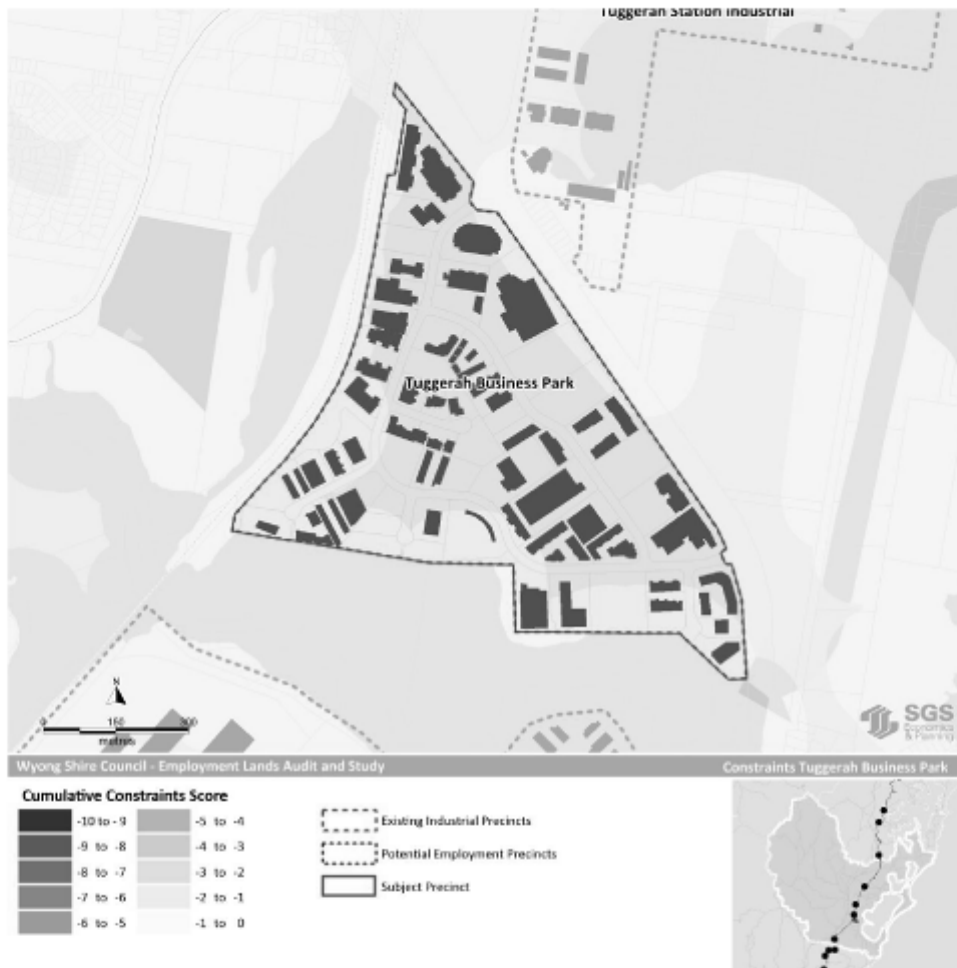


Source: SGS Economics and Planning, 2012

**Opportunities and constraints**

Based on our opportunities analysis Tuggerah Business Park is ranked 1<sup>st</sup> out of 34 existing and potential employment precincts with a constraint score of 0.7 indicating that it is unconstrained compared to other lands in the shire (Figure 54). Based on our locational based BLC criteria, Business/Office Park and Office are the most suitable industries for Tuggerah Business Park.

FIGURE 54. TUGGERAH BUSINESS PARK CONSTRAINTS



Source: SGS Economics and Planning, 2012

**Key assets and issues**

- Wide roads within business park allow for truck access, however access issues exist onto Wyong Road (roundabouts clog traffic and have major visibility issues; very difficult to leave the area during peak hour).
- Safety issues: trucks crossing onto the wrong side of the road (Teamster Close) given its narrow width.
- No pedestrian access to nearby rail facilities, exacerbating traffic impacts associated with the site and demand for land associated with car-parking.
- Close proximity to Supa Centre.
- High utilisation of on-street parking on Teamster Close and Reliance Drive.
- Empty lots are unmaintained and in poor condition.

**Future role**

Facilitate to evolve as part of a commercial and industry complex in Wyong-Tuggerah Major Centre, well connected to Sydney and nearby residential adjacent to the major arterial.

Propose to zone the precinct B7.