TABLE of CONTENTS

EXECUTIVE SUMMARY .................................................................................................................. 1

1. INTRODUCTION .......................................................................................................................... 5
   1.1 BACKGROUND .......................................................................................................................... 5
   1.2 LITERATURE REVIEW .......................................................................................................... 5
   1.3 ADDITIONAL DATA .............................................................................................................. 7

EXISTING LAND SUPPLY ............................................................................................................. 8
   2.1 TRADITIONAL INDUSTRIAL LAND ...................................................................................... 8
   2.2 RAINE AND HORNE DATA ................................................................................................ 10
   2.3 OTHER EMPLOYMENT LAND .......................................................................................... 12
      2.3.1 Defence Land .................................................................................................................. 12
      2.3.2 Penrith Lakes ................................................................................................................ 13
      2.3.3 ADI/ST Marys .................................................................................................................. 13
   2.4 COMMERCIAL/RETAIL LAND ......................................................................................... 14

3. FUTURE LAND REQUIREMENTS .......................................................................................... 15
   3.1 TRADITIONAL INDUSTRIAL LAND .................................................................................... 15
      3.1.1 Competitive Environment .............................................................................................. 16
      3.1.2 Decentralisation of Industrial Employment .................................................................... 16
      3.1.3 Transport Infrastructure ................................................................................................. 17
   3.2 INDUSTRIAL LAND TAKE-UP .......................................................................................... 17

4. OTHER BUSINESS LAND REQUIREMENTS ......................................................................... 19
   4.1 BUSINESS PARKS ............................................................................................................. 19
   4.2 COMMERCIAL FLOORSPACE ............................................................................................. 20
   4.3 BULKY GOODS .................................................................................................................. 20

5. WORKSHOP FINDINGS ............................................................................................................. 21
   5.1 INTRODUCTION .................................................................................................................. 21
   5.2 LAND SUPPLY .................................................................................................................... 21
      5.2.1 Industrial Land ............................................................................................................... 21
      5.2.2 Office Floorspace Needs ................................................................................................. 22
      5.2.3 Bulky Goods Demand ................................................................................................... 22
      5.2.4 Business Park ................................................................................................................ 22
      5.2.5 Retail Floorspace Requirements ................................................................................... 23
   5.3 LOCATIONAL REQUIREMENTS ....................................................................................... 23
   5.4 CONSTRAINTS ..................................................................................................................... 24

6. CONCLUSION ............................................................................................................................ 24
   6.1 OVERVIEW ......................................................................................................................... 24
   6.2 RECOMMENDATIONS ........................................................................................................ 24
LIST of TABLES

2.1 : ESTIMATED ZONED, VACANT and DEVELOPED INDUSTRIAL LAND – PENRITH, 1988-1996 (Hectares)

2.2 : ESTIMATED ZONED and AVAILABLE INDUSTRIAL LAND

2.3 : PENRITH LGA, 1999 (Hectares)

2.4 : STATUS of INDUSTRIAL LAND – PENRITH, 2002

2.4 : PENRITH CBD EXISTING, POSSIBLE and LIKELY FLOORSPACE

3.1 : ESTIMATED ANNUAL TAKE-UP of INDUSTRIAL LAND – PENRITH

3.1 : LGA, 1988-1999 (Hectares)
EXECUTIVE SUMMARY

Introduction Section 1

This Report has been prepared by Leyshon Consulting Pty Ltd for Penrith City Council (PCC). The Report forms Stage 2 of a study commissioned by PCC to consider employment land demand and supply issues within the City of Penrith.

The major objective of the study was to determine whether, in the light of forecasts of likely future demand, Penrith Local Government Area (LGA) has a sufficient volume and range of employment land to meet the expected needs of industries and organisations seeking to establish or expand in Penrith up to 2021.

Existing Land Supply Section 2

In June 1996, the Employment Lands Development Program (ELDP) estimated Penrith LGA contained 1,274 hectares of zoned industrial land. Of this, 507 hectares (40%) was estimated to be vacant in 1996. A study by Overmeyer in 1999 estimated Penrith contained 562.5 hectares of vacant industrial land or 44.5% of the total supply of zoned land. The overwhelming majority of vacant land was in Erskine Park (495 hectares).

In 2002, a survey undertaken by Raine and Horne estimated that the total supply of industrial land theoretically available for development in Penrith was 497.4 hectares. Of this, approximately 73.2 hectares was considered unlikely or incapable of being developed. Thus, in net terms, only 424.2 hectares was identified as capable of future development.

In terms of industrial land actually ‘on the market’ in 2002, the Raine and Horne data indicated this amounted to only 9% of total zoned industrial land in Penrith, or 113.8 hectares. The majority of this was unserviced, however.

Based on the Raine and Horne figures, Penrith appears to be facing a significant shortage of serviced industrial land available for purchase.

Penrith has potential for new employment land to be created. This could occur in four specific locations namely:

- North Penrith Defence site
- Penrith Lakes
- Penrith Lakes Environs
- ADI/St Marys.
In relation to land for commercial/retail-based employment uses, a study undertaken by Hill PDA in 1999 found that the Penrith CBD contained approximately 244,130 sq.m. of retail/commercial space. The Hill PDA report also highlighted the CBD’s significant capacity for redevelopment. They concluded that ultimately the CBD could accommodate up to 495,000 sq.m. of commercial/retail space.

**Future Land Requirements  Section 3**

The amount of zoned employment land in the corridor between Parramatta and Penrith is being expanded significantly. This could well have implications for the future rate of take-up of employment land in Penrith LGA.

The rate of take-up of employment land in Penrith in particular and Outer Western Sydney in general also will be influenced by the rate of so-called ‘de-industrialisation’ of inner and middle ring Sydney. Improvements to regional transport infrastructure similarly will also influence the future rate of industrial land take-up.

Assuming Penrith contained 424.2 hectares of industrial land capable of development in 2002, and that average annual take-up rates range between 22.76 hectares and 39.4 hectares, a forward supply of approximately 10.7 to 18.6 years’ worth of developable industrial land exists: that is, without recourse to additional zonings.

Based on these assumptions, Penrith’s industrial land supply would be completely exhausted either by 2020 (assuming a low annual take-up rate of 22.76 hectares) or by 2013 (assuming a take-up rate of 39.4 hectares per annum as observed by Raine and Horne in 2002).

If Council wishes to ensure an adequate supply of traditional industrial land up to 2021, it is advisable to commence the investigative and rezoning process as soon as possible.

**Other Business Land Requirements  Section 4**

The Penrith CBD has substantial latent capacity to accommodate additional commercial/retail development.

Penrith also appears to have an adequate supply of zoned traditional industrial land for the next decade (that is, until 2013). Special purpose business park land does appear to be under-provided, however.
Future demand for land for bulky goods retailing is expected to be satisfied by development outside the CBD. In the order of 10-12 hectares will need to be earmarked for future bulky goods retail uses.

**Workshop Findings  Section 5**

A workshop held in December 2003 as part of the study considered a range of issues associated with the future provision of employment land in Penrith. Matters discussed included the locational requirements of enterprises and constraints to the development of employment land.

The workshop concluded that the principal locational requirements of industrial and related enterprises were:

- road links
- locations which permit ‘24/7’ operations
- proximity to pools of semi-skilled/unskilled labour
- availability of flat, or only slightly undulating, land
- an internal road system within an estate.

The workshop discussed possible constraints to the development of new employment land in Penrith namely:

- the availability of trunk services
- accessibility to broadband services
- the existence of threatened species and/or areas subject to flooding or major bush fire risk. In relation to the need for a modern business park in Penrith, the workshop concluded that such a requirement may be premature right now.

**Conclusion  Section 6**

Based on the analysis presented in this Report, it is recommended that:

- Council should begin planning for an addition to Penrith’s stock of traditional industrial land by investigating potential locations and commencing the rezoning process as soon as possible
- Council should work closely with the Penrith Lakes Development Corporation and Lend Lease to fully explore opportunities for establishing a business park in Penrith
- as part of its CBD review process (to be undertaken during the second half of 2003), Council should concentrate special attention on ensuring planning controls encourage commercial/office space development and redevelopment within the Penrith CBD; and
- appropriate locations should be investigated by Council for the creation of additional bulky goods retail zones with these sites becoming available from 2006 onwards.
1. INTRODUCTION

1.1 Background

This Report has been prepared by Leyshon Consulting Pty Ltd for Penrith City Council (PCC). It forms the Stage 2 report of a study commissioned by PCC to consider employment land demand and supply issues within the City of Penrith. The Report follows on from our Stage 1 review of the likely demand for employment land prepared in 2002 and updated recently in 2003.

The major objective of this Report is to determine whether, in the light of forecasts of likely future demand, Penrith Local Government Area (LGA) has a sufficient volume and range of employment land to meet the expected needs of industries and organisations seeking to establish or expand in Penrith up to 2021. In particular, the study examines contemporary trends in employment land development in the Sydney Region and whether Penrith has the capacity to meet the specific employment land requirements of contemporary industrial, commercial and retail enterprises.

Since the late 1980s, the term ‘employment land’ generally has been substituted for what was previously known simply as ‘industrial land’. In the context of this study, however, it is obviously important to look beyond a simple analysis of the supply of land zoned for industry in the City of Penrith.

As identified in our Stage 1 Report, the extent of future workforce growth in Penrith is expected to underpin strong demand for a wide range of employment land and not just that which meets the locational needs of traditional industrial enterprises. In fact, future employment land demand will be from a broad range of industries which could locate in traditional commercial centres; in industrial areas; or in special purpose business parks. Accordingly, it is important to examine the likely future supply of employment land of all types in the City of Penrith.

1.2 Literature Review

This study is not the first to consider the supply of employment land in Penrith LGA. A number of studies have been undertaken previously which (to a greater or lesser degree) have examined the demand for, and supply of, employment land in Penrith LGA. The key studies of relevance are:

- Penrith Fringe Area Retail Study (1997)
Office, Retail and Tourism Accommodation Floorspace Forecasts 2005 and 2010 for Penrith Section 94 Plan (2000).

The 1997 Fringe Area Retail Study (Urban Spatial and Economic Consultants) focussed on likely floorspace demand within Penrith LGA for what is essentially bulky goods retailing. The recommendations provided in the report are unclear, however, as the precise time-frame to which the demand projections refer was not identified.

In summary, the 1997 report concluded that Penrith could require between 11,600 and 25,800 sq.m. of goods floorspace depending on whether Council adopted a so-called 'concentrated' or a 'dispersed' strategy. By 'concentrated' was meant that additional bulky goods floorspace development would occur within the boundaries of the CBD.

The dispersed strategy alternatively envisaged future bulky goods retail areas being developed outside the CBD.

The report’s conclusions have been overtaken by subsequent events, however. For instance, the combined floorspace of the Harvey Norman centre at Jamisontown (34,306 sq.m.–which opened in 2000) and the new Penrith Homemaker Centre on Mulgoa Road (25,500 sq.m.–opened in late 2002), exceeds the total demand forecast in the Fringe Area Retail Study.

In 1999 Overmeyer Industrial Property Brokers Pty Ltd (Overmeyer) prepared a Review of Employment Generating Land for PCC which examined in detail the supply of industrial land in Penrith and in other LGAs in Western Sydney in 1998-99. Overmeyer found that Penrith had some 1,263 hectares of zoned industrial land in 1999 of which 577.2 hectares was occupied and the balance (685.8 hectares) was vacant. Overmeyer also estimated that the annual take-up of industrial land in Penrith LGA in 1998-99 was 16.6 hectares.

To provide insight into what component of existing zoned land was actually available for development in 1999, the Overmeyer report compiled detailed statistics on the breakup of zoned industrial land by various classifications namely:

- ‘greenfield’ sites available for development
- industrial sites held by developers
- industrial sites occupied by various levels of government
- industrial sites occupied by non-industrial uses and the like.

In 2000, Hill PDA prepared a report for Council (Office, Retail and Tourist Accommodation Floorspace Forecast to 2005 and 2010 for Penrith CBD Section 94 Plan). The Hill PDA report provided estimates of likely demand between 2000-10 for office, retail and ‘tourist’ floorspace in the Penrith CBD. Hill PDA concluded
that the CBD was likely to require an additional +26,500 sq.m. of retail and +18,000 sq.m. of commercial floorspace in the decade to 2010. Hill PDA also highlighted the potential requirement for a 200-room hotel, possibly to be developed either in the CBD or perhaps in association with the Penrith Panthers complex.

1.3 Additional Data

We have also had regard to data which has been compiled on the supply of employment land in Penrith LGA by Mr Paul Kennedy of Raine and Horne Commercial in Penrith. Mr Kennedy’s data is not in the form of a public report as it is regarded as being commercially sensitive. A summary of the data, and its implications for this study is discussed in Section 2 of this Report.
EXISTING LAND SUPPLY

2.1 Traditional Industrial Land

Our review of previous reports and documentation reveal that quite a degree of variation exists in the estimates of zoned and vacant industrial land in Penrith LGA at any one time. During the mid-to-late 1990s, for example, the Employment Land Development Program (ELDP) prepared by the (then) Department of Urban Affairs and Planning (DUAP), provided data on industrial land supply in the Sydney Region. Data drawn from the ELDP with respect to Penrith LGA is provided in TABLE 2.1. In summary, the ELDP estimated that as at June 1996 Penrith had some 1,274 hectares of zoned industrial land with 507 hectares of this estimated to be vacant—that is, almost 40% of Penrith’s zoned industrial land was estimated as vacant in 1996. The ELDP also identified that of the total vacant, 306 hectares was located in Erskine Park.

<table>
<thead>
<tr>
<th>Year</th>
<th>Zoned</th>
<th>Vacant</th>
<th>Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>784.49</td>
<td>254.38</td>
<td>530.11</td>
</tr>
<tr>
<td>1990</td>
<td>772.79</td>
<td>194.75</td>
<td>578.04</td>
</tr>
<tr>
<td>1994</td>
<td>730.10</td>
<td>124.96</td>
<td>605.14</td>
</tr>
<tr>
<td>1996</td>
<td>1,274.00</td>
<td>507.00</td>
<td>767.00</td>
</tr>
</tbody>
</table>


The Overmeyer study provided detailed data on industrial land supply in Penrith LGA in 1999. As previously noted, Overmeyer found that Penrith had 1,263 hectares of zoned industrial land in 1999 which was dispersed throughout the LGA (TABLE 2.2 refers). The majority (495 hectares) was in the Erskine Park area. The other two major locations were Dunheved (244 hectares) and Penrith North (248 hectares).
TABLE 2.2
ESTIMATED ZONED and AVAILABLE INDUSTRIAL LAND PENRITH LGA, 1999 (Hectares)

<table>
<thead>
<tr>
<th>Locality</th>
<th>Area Zoned</th>
<th>Area Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunheved</td>
<td>244.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Emu Plains</td>
<td>125.0</td>
<td>25.4</td>
</tr>
<tr>
<td>Erskine Park</td>
<td>495.0</td>
<td>30.3</td>
</tr>
<tr>
<td>Jamisontown</td>
<td>75.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Kingswood</td>
<td>20.0</td>
<td>–</td>
</tr>
<tr>
<td>Penrith North</td>
<td>248.0</td>
<td>32.7</td>
</tr>
<tr>
<td>St Marys</td>
<td>2.0</td>
<td>–</td>
</tr>
<tr>
<td>St Marys North</td>
<td>54.0</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,263.0</strong></td>
<td><strong>97.8</strong></td>
</tr>
</tbody>
</table>


According to Overmeyer, in 1999 Penrith had 562.5 hectares of vacant industrial land—equivalent to close to half (44.5%) of the total supply of zoned land. The overwhelming majority of vacant land was in Erskine Park (495 hectares) where subdivision and development had not yet commenced. The only other two locations with significant quantities of vacant industrial land in 1999 were Emu Plains (25.4 hectares) and Penrith North (32.7 hectares).

In relation to the supply of industrial land at Erskine Park, we note that an earlier report prepared in 1996 by Hill PDA (Erskine Park Employment Area Study) estimated Erskine Park may only have 400 hectares of land capable of development out of a total zoned area of 495 hectares.

Since 1999, more detailed analysis of land capability at Erskine Park has found that a significant area (161 hectares) contains endangered ecological communities. Further areas (about 57.3 ha) at Erskine Park also are unable to be developed due to quarrying operations or because they need to be set aside for drainage corridors/areas. In practical terms, the estimated ‘developable’ area at Erskine Park is now only 276.7 hectares according to the Erskine Park Employment Area – Section 94 Contributions Plan 2002.

As no further land has been zoned for industry in Penrith LGA since 1999, the total supply of zoned land in Penrith is assumed to remain at some 1,263.0 hectares.
2.2 Raine and Horne Data

As indicated in Section 1.3 of this Report, a review has been made of data on industrial land supply in Penrith collated by Raine and Horne Commercial Penrith. In addition an interview was held with Mr Paul Kennedy of Raine and Horne Commercial Penrith who has been responsible for the collection of the data.

In broad terms the Raine and Horne data provides information on the following:

- consumption of industrial land since 1998
- availability of industrial land since 1998.

With respect to consumption of industrial land, Raine and Horne has documented industrial land sales transactions in Penrith since 1998. The total volume of transactions since 1998 measured by area has been as follows:

- 1998 ... 15.8 hectares
- 1999 ... 24.3
- 2000 ... 45.1
- 2001 ... 62.0
- 2002 ... 50.0
- 2003 ... 6.0 (year to September).

In relation to the year 2000 we note that the figures were substantially affected by two large land purchases in Dunheved by Freight Rail and Grain Corp respectively. With respect to 2001 and 2002, 38.3 hectares in Erskine Park was purchased by BGV Development in 2001 and 27.9 hectares in 2002 by Macquarie Goodman.

Council should note that the consumption figures above do not translate into land which is necessarily developed for industrial purposes. For example, sites acquired by BGV and Macquarie Goodman in Erskine Park have been purchased to facilitate future development. In our opinion, therefore, they still form part of Penrith's industrial land supply.

In relation to land which is available for development, Mr Kennedy has classified this into four categories, namely:

- on market serviced
- on market unserviced
- land banked active
- land banked passive
While the first two categories are relatively self-explanatory the second two require some clarification. ‘Land banked active’ means land held by the developers, investors or government agencies for a variety of purposes but which is capable of being developed at some future time. By contrast ‘land banked passive’ is a classification used to denote land which although zoned industrial, is unlikely to be developed as such for a variety of reasons but principally because of environmental, servicing or topographic constraints.

As at 2002 Raine and Horne estimated that the supply of land in these categories in Penrith was as follows:

- on market serviced … 15.1 hectares
- on market on serviced … 32.5
- land banked active … 99.9
- land banked passive … 73.2
- Total … 220.7

This data excluded Erskine Park, however. As noted above Erskine Park is now considered to contain a developable area estimated at some 276.7 hectares. Thus in 2002 the total supply of land in these categories was in fact 497.4 hectares. Of this, according to Raine and Horne, approximately 73.2 hectares was unlikely or incapable of being developed leaving a net figure capable of development of 424.2 hectares.

TABLE 2.3 summarises the estimated industrial land supply in Penrith in 2002 based on the Raine and Horne data. Slightly more than 43% of zoned land is currently occupied – that is some 547.3 hectares. In terms of land on the market, either serviced or unserviced, the Raine and Horne data indicates this comprises only about 9% of total zoned industrial land in Penrith, or a total of 113.8 hectares. The majority of this is unserviced.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Area (Ha.)</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied</td>
<td>547.3</td>
<td>43.3</td>
</tr>
<tr>
<td>On Market/Serviced</td>
<td>15.1</td>
<td>1.2</td>
</tr>
<tr>
<td>On Market/Unserviced</td>
<td>98.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Developable</td>
<td>310.4</td>
<td>24.6</td>
</tr>
<tr>
<td>Undevelopable</td>
<td>291.5</td>
<td>23.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,263.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

As also indicated in TABLE 2.3, around 23% of total zoned land (291.5 hectares) is incapable of development. Further, approximately a quarter of the zoned land in Penrith (310.4 hectares) is defined as being land banked and capable of being developed for industrial purposes.

If these figures are correct, then approximately 424.2 hectares remain available for development or some 33.6% of total zoned industrial land in Penrith in 2002.

Based on the Raine and Horne figures, Penrith appears to be facing a significant shortage of serviced industrial land available for purchase. A ready supply of such land is critical in terms of competing with other local government areas to attract industrial based employment.

2.3 Other Employment Land

Apart from the supply of land zoned for industry in Penrith, there is potential for new employment land to be created. This could occur in four specific locations namely:

- North Penrith Defence site
- Penrith Lakes
- Penrith Lakes Environs
- ADI/St Marys.

Each of these areas are discussed below.

2.3.1 Defence Land

The North Penrith Defence land is located immediately to the north of the Penrith CBD and Railway Station. The site is zoned for a mixed-use transit orientated development providing for a range of new land uses, including housing, employment, community and recreational activities.

Penrith Council has exhibited a draft Masterplan for the site, which is consistent with the mixed use land use approach adopted by the LEP and DCP. The Masterplan provides a range of employment uses (light industrial, service and commercial related activities), residential with home business, and small scale retail/commercial opportunities within the village core to service the new community. The proposal is sensitive to heritage issues on the site, such as the curtilage and vistas to Thornton Hall and Combewood, and incorporation of the remnant speedway within the road network.

It is Council’s opinion that the mixed land use approach across the site proposed, provides a balance of employment uses, housing types and open space opportunities, which recognises the transit focus of the site and its strategic location adjacent the Penrith City Centre.
Council does not support the location of substantial commercial office space on this site. It is Council’s opinion that the location of considerable office space accommodation on the North Penrith site would likely impact on the continued economic viability and vitality of Penrith’s existing CBD by relocating commercial jobs that would otherwise be destined to be located within the Penrith CBD. There is extensive capacity within the Penrith CBD, including sites within easy walking distance of the Penrith Railway Station, to accommodate the demand for future office space.

2.3.2 Penrith Lakes

Long-term planning for the Penrith Lakes development (located some five kms north of the Penrith CBD) has always envisaged a mixed-use outcome. It is premature, however, to pinpoint the types of employment uses which ultimately could locate at Penrith Lakes. We understand that Council presently has detailed research into this issue underway. The Penrith Lakes Development Corporation also intends to commission independent research which will examine the potential of the site for retail, commercial and related employment uses.

Notwithstanding the findings of this yet to be completed research, it is clear Penrith Lakes has potential for business park-style development particularly around the significant water bodies to be incorporated within the project.

2.3.3 ADI/ST Marys

In relation to the ADI lands at St Marys, we understand that the Minister for Infrastructure, Planning and Natural Resources recently approved a Regional Environmental Plan (REP; and related documents) which clears the way for its future development. We further understand that Sydney Regional Environmental Plan No. 30 provides for the development of the 1,538 hectare site with 850 hectares earmarked for a regional park and the balance of lands to be used for residential development, employment uses, regional open space and drainage. Previous planning studies undertaken of the development potential of the ADI land found it potentially could generate around 9,000 jobs of which 4,947 were estimated to be on-site.

We understand that in June 2003 the New South Wales government approved the release of 160 hectares in the so-called Eastern precinct and in the Dunheved North and Dunheved South precincts. Detailed planning has now begun for each precinct which will provide more information on the employment opportunities likely to be generated. In summary, it is difficult to be precise at this stage as to how much employment land ultimately could be incorporated on the ADI land at St Marys.
2.4 Commercial/Retail Land

This study’s Stage 1 report estimated that significant employment growth would occur in Penrith’s retail and commercial sectors over the period to 2021. While the CBD has been the historical focus of commercial and retail activity in Penrith LGA although significant components of retail and related employment are also found in St Marys, at Mulgoa Road (adjacent to the CBD), and in smaller neighbourhood centres throughout the LGA.

The 1999 Hill PDA study (referred to above) found that the Penrith CBD contained approximately 244,130 sq.m. of retail/commercial space. The Hill PDA report also highlighted the CBD’s significant capacity for redevelopment.

TABLE 2.4 summarises data taken from Hill PDA’s 1999 study with respect to existing commercial and retail floorspace in the CBD and the CBD’s estimated capacity for redevelopment. Based on the floorspace ratio (FSR) controls contained in the relevant Development Control Plan (DCP) which applies to the CBD, Hill PDA estimated that ultimately it could accommodate up to 495,000 sq.m. of commercial/retail space. Of this, 267,700 sq.m. would be commercial and approximately 227,300 sq.m. retail floorspace.

<table>
<thead>
<tr>
<th>Floorspace Type</th>
<th>Existing Floorspace (Sq.M.)</th>
<th>Possible Floorspace (Sq.M.)</th>
<th>Likely Floorspace (Sq.M.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>97,973</td>
<td>267,700</td>
<td>141,600</td>
</tr>
<tr>
<td>Retail</td>
<td>146,157</td>
<td>227,300</td>
<td>160,700</td>
</tr>
<tr>
<td>Total</td>
<td>244,130</td>
<td>495,000</td>
<td>302,300</td>
</tr>
</tbody>
</table>


Hill PDA concluded, however, that it was unrealistic to assume the CBD would develop to its maximum FSR provision. We agree with this view as it is rare for all individual land parcels within any centre to be developed to their maximum FSR capacity.

Hill PDA considered that a more realistic redevelopment scenario for the Penrith CBD would be up to 302,300 sq.m. of which 141,600 sq.m. would be commercial space and 160,700 sq.m. retail. In their report, Hill PDA does not explain the rationale underpinning this scenario. That said, their stated view was that significant latent capacity for redevelopment existed in the CBD, particularly for land located to the east of Station Street.
3. FUTURE LAND REQUIREMENTS

3.1 Traditional Industrial Land

In most Outer Sydney LGAs the development of what can be termed ‘traditional’ industrial land (that is, land zoned ‘Industrial’) almost invariably forms an integral part of any local economic development strategy. The main reason for this is that industrial land provides for the locational needs of a wide range of enterprises (and thus employment) including:

- manufacturing
- wholesaling
- transport and storage
- construction and related
- service industrial
- automotive
- service industries

Depending on the planning controls adopted by individual councils, industrial land also can be consumed by the bulky goods retail sector. In Penrith, for instance, it is the case that for certain industrial areas at Jamisontown and particularly land fronting Mulgoa Road, bulky goods retailing is a permitted use. In our Stage 1 report several projections of future workforce and job growth were made which broadly related to the potential future demand for traditional industrial land. In summary, we estimated that, based on these projections, Penrith could experience a take-up of approximately 217 hectares of traditional industrial land by 2011 with 478 hectares in total being taken-up by 2021. This equates to an average annual take-up rate of 22.76 hectares.

A number of uncertainties necessarily attach to any projections of future rates of traditional industrial land take-up. These include:

- the effect of competition from other employment areas in the surrounding region
- the future rate of ‘de-industrialisation’ of industrial sites in inner and middle ring Sydney
- the impact which regional transport initiatives could have on the future demand for industrial land.

The potential impact of each of these factors on the likely future demand for traditional industrial land in Penrith LGA is discussed below.
3.1.1 Competitive Environment

The corridor between Parramatta and Penrith is currently experiencing a significant expansion in the stock of zoned employment land. This could well have implications for the future rate of take-up of employment land in Penrith. In particular, lands covered by State Environmental Planning Policy (SEPP) No. 59 within the corridor include the following additions to regional industrial land stocks:

- Greystanes ... 200 hectares of mixed residential and industrial land
- Huntingwood East ... 64 hectares of industrial land
- ‘Wonderland’ Business Park ... 730 hectares of industrial land.

In future years, these areas will compete with land in Penrith for a share of the annual regional demand for industrial land. As these areas will enjoy close proximity to the Western Sydney Orbital they will enjoy a decided transport-related advantage over land in Penrith LGA.

3.1.2 Decentralisation of Industrial Employment

The rate of take-up of industrial land in Penrith in particular and Outer Western Sydney in general also will be influenced by the rate of so-called de-industrialisation of inner and middle ring Sydney. This process involves the shift of ‘core’ industrial activities (and therefore jobs) from inner and middle ring suburbs to outer Sydney.

Although the level of metropolitan-wide manufacturing employment rebounded somewhat between 1996-2001, it nonetheless continued to decline in Inner Sydney (Botany, South Sydney et cetera). Between 1996-2001, for example, actual manufacturing jobs in this area fell by -4,523 (about -10.9%). In contrast, strong to very strong growth in manufacturing jobs was recorded in Blacktown (about +23.8%) and Outer South-Western Sydney (+28.6%) and Outer Western Sydney (+9.6%) between 1996-2001.

We consider that the de-industrialisation phenomenon evident in Inner Sydney especially over the past decade is likely to accelerate in the future—particularly in the light of the encouragement accorded by many inner city and middle ring municipalities to the conversion of industrial sites to residential uses. This process has been especially apparent in South Sydney LGA (Green Square), in Botany LGA (Mascot and Botany), in Canada Bay (Rhodes, Mortlake and Abbotsford) and in Leichhardt (Balmain and Leichhardt).
3.1.3 Transport Infrastructure
The third significant influence on the rate of industrial land take-up will be improvements to regional transport infrastructure. Development of the Western Sydney Orbital is the pre-eminent example of an infrastructure project with the potential to elevate demand for employment land in both Penrith and Blacktown LGAs. In essence, completion of the Orbital link is likely to influence the locational decisions of a wide range of industrial and quasi-industrial organisations. For storage and distribution-based businesses (principally warehousing and manufacturing tending to occupy large site areas but with relatively low employment densities), and which rely on the arterial road network for their efficient operation, the merits of a location in Penrith or Blacktown will be substantially enhanced.

3.2 Industrial Land Take-Up

In addition to considering employment-based estimates of potential future industrial land requirements, it is also prudent to examine past evidence of the actual take-up of industrial land in Penrith LGA.

Estimates of the annual take-up of industrial land between 1988 and 1997 have been prepared by both DUAP and by Overmeyer (TABLE 3.1 refers). These have varied between a low of 2.00 hectares (year to June 1997) and a high of 55.84 hectares (year to June 1990).

It should be noted that there are important differences between the definition of ‘take-up’ as between the ELDP and Raine and Horne. The former ELDP defined take-up as the net change in the amount of developed industrial land. Hence if a site was sold but not yet developed it was not included as part of the take-up of land in a given area. By contrast, Raine and Horne base their estimates of take-up on the sale of vacant land irrespective of whether it is developed subsequently or not. The Raine and Horne data results in an average annual take-up of 39.4 hectares between 1998-2003.

Both methods of measuring take-up have their own merits. In terms of measuring the relative availability of industrial land in Penrith for purchase the Raine and Horne definition is preferred.
### TABLE 3.1
ESTIMATED ANNUAL TAKE-UP of INDUSTRIAL LAND – PENRITH LGA, 1988-1999 (Hectares)

<table>
<thead>
<tr>
<th>Year ...</th>
<th>ELDP/Overmeyer Annual Take-Up</th>
<th>Raine and Horne Annual Take-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>18.03</td>
<td>-</td>
</tr>
<tr>
<td>1990</td>
<td>55.84</td>
<td>-</td>
</tr>
<tr>
<td>1991</td>
<td>9.44</td>
<td>-</td>
</tr>
<tr>
<td>1994</td>
<td>10.36</td>
<td>-</td>
</tr>
<tr>
<td>1997</td>
<td>2.00</td>
<td>-</td>
</tr>
<tr>
<td>1998</td>
<td>-</td>
<td>15.8</td>
</tr>
<tr>
<td>1999&lt;sup&gt;1&lt;/sup&gt;</td>
<td>16.60</td>
<td>24.3</td>
</tr>
<tr>
<td>2000</td>
<td>-</td>
<td>45.1</td>
</tr>
<tr>
<td>2001</td>
<td>-</td>
<td>62.0</td>
</tr>
<tr>
<td>2002</td>
<td>-</td>
<td>50.0</td>
</tr>
</tbody>
</table>

Notes: 1. Overmeyer, 1999

As noted in Section 3.1 above, we have forecast an average annual take-up rate of industrial land in Penrith during the period to 2021 of 22.8 hectares based on employment growth projections for Penrith during this period. This is well below the average of 39.4 ha per annum in recent years as measured by Raine & Horne.

Assuming therefore that Penrith had some 424.2 hectares of industrial land capable of development in 2002 and that average annual take-up rates range between 22.76 hectares and 39.4 hectares, it would appear there is forward supply of approximately 10.7 to 18.6 years’ worth of developable industrial land: that is, without recourse to additional zonings. Based on these assumptions, then, Penrith’s industrial land supply would be completely exhausted either by 2020–assuming a low rate of take-up–or by 2013–assuming an average take-up rate as observed by Raine and Horne.

Planning for the future expansion of industrial land stocks will, of course, need to occur well prior to 2020. It would be totally inappropriate, for instance, that Council allowed the City’s stock of industrial land to become fully exhausted before planning and implementing new industrial land releases. In view of the considerable time-frame required to zone and service industrial land, action to increase supply may need to be initiated at least five to eight years before the land is actually required.
Further, if as a result of the factors discussed previously, average annual industrial land take-up in Penrith accelerates, the ‘window’ for ensuring a satisfactory forward supply of industrial land in Penrith may shrink. For instance, if Council wishes to ensure an adequate supply of traditional industrial land up to 2021 it is advisable to commence the investigative and rezoning process as soon as possible to ensure that new land becomes available in a timely manner. This would also allow for a potential escalation in the take-up rate which may occur in future years due to transport improvements.

4. OTHER BUSINESS LAND REQUIREMENTS

4.1 Business Parks

While Penrith appears to have an adequate supply of traditional industrial land for the next decade, special purpose business park land does appear to be under-provided.

A number of purpose-built business parks have been developed in the Sydney Region over the past decade. These usually involve campus-style, low-rise commercial buildings together with office/warehouse premises and some clean manufacturing. Despite government exaltations that the development of new employment land should be linked to the availability of public transport services, most business parks developed to date generally have been located away from traditional commercial centres and are not well been served by public transport. Pertinent examples include:

- North Ryde
- Macquarie Park
- Lane Cove River Park
- Australia Centre Homebush Bay
- Norwest Business Park

The Norwest Business Park is a prime example of the success which this style of development can enjoy in outer Sydney. Norwest comprises approximately 221 hectares of business park land which has been developed for a mix of commercial buildings, call centres, office/warehouses and a small component of light manufacturing uses.

Norwest’s developers claim that over 240,000 sq.m. of space has been constructed in the Park to date and that total employment is now in the order of 9,000 jobs. This latter claim seems to be a considerable over-estimate, however. Our analysis of 2001 Census Journey-to-Work (JTW) data indicates, for instance, that about 4,400 people were employed at Norwest in 2001.
Jobs at Norwest are distributed widely across a range of industries with the key industry sectors being:

- property and business services ... 987 jobs
- retailing ... 724
- construction ... 683
- wholesaling ... 557
- manufacturing ... 524.

The types of industries attracted to Norwest span data processing centres such as those of Cathay Pacific and the Commonwealth Bank through to the administrative headquarters of the retailer Woolworths. Norwest is thus a general business park. It differs in this respect from some other parks in Australia which have attempted to target so-called hi-tech scientific or information technology industries.

Whatever the true level of employment is at Norwest today, indisputably the Park’s growth has been impressive. Development of Norwest commenced in April 1992 and although the initial years were slow, by the late 1990s relatively rapid development was occurring. Build-out is expected around 2006-08 when the southern precincts fronting Old Windsor Road will be completed.

Clearly, with the Penrith Lakes and possibly the ADI St Marys projects, Penrith is well placed to realise a development similar in nature and scale to Norwest: both sites offer the prospect to create a large, state-of-the-art business park.

4.2 Commercial Floorspace

As discussed earlier in this Report, the Penrith CBD has substantial latent capacity to accommodate additional commercial/retail development. In view of the CBD’s capacity for redevelopment, therefore, there appears little need to rezone additional areas for commercial development.

4.3 Bulky Goods

Penrith has become a major regional centre as far as retailing in general and bulky goods retailing in particular are concerned. Within just the past two years, there has been significant redevelopment of property in Mulgoa Road which has significantly expanded the City’s range and scale of bulky goods retail facilities.

As a consequence of this flurry of activity, industrial land in Jamisontown (which permitted bulky goods retail uses) is now fully developed. Opportunities for the
redevelopment of existing property in Jamisontown are also limited. Although the demand for bulky goods retail facilities up to 2006 appears well catered for, over the longer term new residential development at ADI St Marys and Penrith Lakes will generate additional demand. Between 2006-15, for example, we estimate this could be in the order of +20,000-30,000 sq.m.. Assuming that this demand will be met by new development provided outside the CBD, then 10-12 hectares of land will need to be earmarked for future bulky goods retail uses.

5. WORKSHOP FINDINGS

5.1 Introduction

A workshop was held at Penrith City Council on the 10th December 2003 and was attended by numerous Council staff and representatives of Leyshon Consulting. The purpose of the workshop was to discuss a number of strategic planning issues as they relate to the following:

- future employment land supply in Penrith
- the locational requirements of industrial enterprises
- bulky goods retail land requirements
- constraints to the future development of employment land in Penrith.

The key findings of the workshop are summarised below.

5.2 Land Supply

5.2.1 Industrial Land

A presentation was made to the meeting by Leyshon Consulting regarding updated information on the existing industrial land supply in Penrith. Based on data compiled by Raine & Horne, it is estimated that Penrith currently has approximately 547.3 hectares of occupied industrial land with 424.2 hectares (including Erskine Park) which remains capable of development. These figures exclude an estimated 73.2 hectares classified by Raine and Horne as being unlikely to be developed for a range of reasons as discussed in Section 2.2 of this Report.

The workshop noted that additional tracts of employment land could become available at some future time in the following locations over and above the figures cited above:

- Dunheved ... 12 hectares
- Penrith Lakes ... 60 hectares
• Penrith Lakes Environ ... 17 hectares
• Werrington ... 8 hectares

5.2.2 Office Floor spac e Needs
In relation to future requirements for land for office-based employment, the workshop noted that the Penrith CBD (particularly its eastern end) had the capacity to meet any potential office floorspace demand resulting from forecast employment growth to 2021. This could be achieved by the redevelopment of existing properties.

It was also noted that capacity also existed for some lower intensity commercial uses to be incorporated within development proposed for the former army land on the northern side of Penrith railway station. Opportunities are also likely to exist for the incorporation of some office-based employment on land associated with Penrith Lakes or in the Werrington precinct.

5.2.3 Bulky Goods Demand
In relation to the requirement for additional bulky goods retailing it was generally agreed that no short-term need exists to rezone additional land for this activity. Recent bulky goods developments at the southern end of Mulgoa Road, for instance, had resulted in some vacancies within the Mulgoa Road bulky goods strip. This suggests that the most recent major bulky goods development undertaken adjacent to Harvey Norman in Mulgoa Road is likely to meet Penrith’s short-term bulky goods floorspace requirements at least until 2006.

The workshop discussed alternative locations within Penrith LGA for the future development of bulky goods retail uses. Locations canvassed included Castlereagh Road to the north of the Penrith CBD and Mamre Road to the north of the freeway. Both locations were considered to have the degree of exposure required to permit modern bulky goods retailing.

5.2.4 Business Park
The workshop considered the potential for development of a modern business park in Penrith but concluded that such a development was premature at present. The view was put that development of the ADI site effectively should ‘reposition’ Penrith as an employment location making it more attractive to the types of tenants usually attracted to a modern business park. Overall, it was concluded that a specific business park development would be more viable toward the end of the current decade than at present.

Leyshon Consulting representatives expressed the opinion that up to 200 hectares may be required to create a modern business park of the quality of Norwest.
It was agreed it may be difficult to identify a site for such an independent development in Penrith. Discussion ensued regarding the capacity of certain existing industrial precincts in Penrith, for example, Castlereagh Road, to be upgraded over time to meet the requirements of the types of tenants which might seek to locate in a modern business park. It was generally agreed that should some of the larger industrial sites in North Penrith become vacant they had some potential, particularly given their proximity to Penrith Lakes, to be redeveloped for quasi-business park purposes.

### 5.2.5 Retail Floorspace Requirements

In relation to traditional retail floorspace requirements, the workshop agreed that existing local, sub-regional and regional centres in Penrith had sufficient expansion capacity to cater for the majority of future retail floorspace needs. The only new retail centres which would be required in Penrith over the next decade would be within the ADI site at St Marys.

### 5.3 Locational Requirements

There was wide ranging discussion regarding the general locational requirements of enterprises which were primarily industrial in nature. Leyshon Consulting reported that, based on past research among such enterprises, the principal locational requirements of industrial/warehousing operations could be summarised as follows:

- **road links**—close proximity to the freeway and motorway system
- **locations which permit ’24/7’** operations
- **proximity to pools of semi-skilled/unskilled labour**
- **availability of flat or only slightly undulating land to ensure relatively low construction costs**
- **an internal road system** within an estate which permits B-double access to all properties.

On balance, proximity to the arterial road system is a somewhat more important locational factor for most industrial enterprises than the other factors noted above.

The locational requirements of enterprises which might establish in a modern business park are different to those noted above. Potential tenants of business parks are more likely to be attracted to parks which offer complementary residential, retail and recreational facilities and those parks which offer relatively high scenic amenity.
5.4 Constraints

The workshop discussed possible constraints as far as developing new employment land in Penrith is concerned. It was generally agreed the principal constraints involved the following:

- the availability of trunk services (power, water, sewerage)
- accessibility to broadband services is now a general industry requirement but is essential for those organisations involved in logistics and certain manufacturing establishments which rely on interaction with remotely located design centres
- the existence of threatened species or those areas subject to flooding or major bush fire risk.

6. CONCLUSION

6.1 Overview

To sustain jobs growth momentum, Penrith must maintain an adequate supply of all types of employment land. This will involve ensuring an adequate supply of traditional industrial land; that the planning regime as it affects the Penrith CBD encourages further commercial development/redevelopment; and ensuring provision is made to meet medium to longer-term demand for bulky goods retailing.

6.2 Recommendations

Based on the analysis presented in this Report, we recommend that:

- Council should begin planning for an addition to Penrith’s stock of traditional industrial land by investigating potential locations and commencing the rezoning process as soon as possible;

- Council should work closely with the Penrith Lakes Development Corporation and Lend Lease to fully explore opportunities for establishing a business park in Penrith. The aim would be to give companies and organisations seeking this particular type of location/accommodation the chance to establish in Western Sydney; after 2006 most land at Norwest will have been taken up and thus demand for this type of accommodation could soon go unmet, all other things being equal;
• as part of its CBD review process (to be undertaken during the second half of 2003), Council should concentrate special attention on ensuring planning controls encourage commercial/office space development and redevelopment within the Penrith CBD; and

• appropriate locations should be investigated by Council for the creation of additional bulky goods retail zones such that such sites become available from 2006 onwards.